



Thesis

Academic skills provision, student transition, and mobile app innovation:  
Developing a framework for support in higher education.

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This thesis is submitted in partial fulfilment of the requirements for the degree of Doctor of Philosophy. This thesis was completed as part of the Doctoral Programme in eResearch and Technology Enhanced Learning. Department of Educational Research, Lancaster University, UK.

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*Declaration*

This thesis results entirely from my own work and has not been offered previously for any other degree or diploma. I declare the word-length of this thesis to be 48,921 words, conforming to the permitted maximum.

**RTootell**

## **Abstract**

**Context:** Academic skills provision in UK higher education offers students an extra layer of support in their studies outside of classroom teaching and learning. This support can assist students develop skills in areas such as academic writing, critical evaluation and research, among many others. The aims of this study were to explore which kinds of difficulties and anxieties impede students' academic skills development, to investigate the processes involved in skills support, and to design a support framework which could assist staff as they help students transition into more confident, independent learners. Mobile app innovation was incorporated for additional learning provision running parallel to the support sessions.

**Methodology:** Participatory Action Research was carried out over two cycles in 2021, with 17 home and overseas participants, who were deemed 'co-creators' of new knowledge. Data collection included an entry and exit survey, contemporaneous logs of support sessions, interviews, and analytics from participants' mobile app usage. An educational smartphone app was developed for this study which contained academic resources such as how-to videos, referencing examples, and wellbeing features.

**Findings:** Findings indicate that targeted, personalised academic skills support *outside* of classroom teaching is a beneficial and appreciated provision for those students who seek out support and whom might be struggling. Many participants expressed feelings of high anxiety before accessing support, for differing reasons. These were replaced over the course of individualised support sessions with elevated levels of academic awareness and performance. Transitions into more confident learners were observed in a majority of the participants, who predominantly agreed that the support was complemented by the mobile academic resources available to them.

**Contribution to knowledge:** This thesis contributes to knowledge by connecting key concepts in the design of a new Academic Skills Transition Framework. These concepts draw on and develop Yeager and Walton's (2011) work on social psychological interventions, which enable a more targeted, personalised approach to academic skills provision. This approach was shown to facilitate in the participants a stronger sense of belonging to the academic environment, boosted affect and levels of self-affirmation, and meliorated responses to the academic challenges facing them in their studies. Additional support via smartphone app features could be further developed to assist students in terms of mobility and learning independence.

**Keywords:** *academic skills support, student anxiety, social psychological interventions, participatory action research, transition, app innovation*

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## List of Abbreviations

.apk	Android Package Kit
AR	Action Research
BAB™	Best App Builder™ (Sri Lanka)
EAP	English for Academic Purposes
HE	Higher Education
MKO	More Knowledgeable Other
MMKO	Mobile More Knowledgeable Other
NHS	National Health Service
PAR	Participatory Action Research
RQ	Research Question
UDID	Unique Device Identity
VLE	Virtual Learning Environment

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## Chapter One - Introduction

### Background

Educational research, according to Mertens (2005), has been described as an endeavour to 'understand, describe, predict or control an educational or psychological phenomenon, or to empower individuals in such contexts' (p. 2). This thesis has undertaken to do exactly this, where the emphasis has been on understanding and empowering learners in higher education who may be struggling. Many students arrive at university in the UK having experienced academic environments and cultures which are different to those they now need to navigate. This can apply as much to home students as it can to overseas students, where the academic jump from 6th form to university can be challenging - perhaps more so, the jump from one academic culture to another. Students may feel disorientated, homesick, and emotionally confused when they arrive, in addition to the academic challenges that will greet them. In order to help them integrate and assimilate successfully, universities often incorporate additional support provision outside of classroom teaching. This can include health and wellbeing support services, accommodation guidance, academic English support (such as English for Academic Purposes for international students) and academic skills support. Because newly-arrived students - both home and overseas students - may not be sufficiently prepared for the various challenges that await them, they are often encouraged - and sometimes required - to undertake additional support courses on arrival (Abrams and Jernigan, 1984). This is where academic skills support has become an interesting and relevant part of overall student support provision. This thesis aims to shed more light on this area of the learning experience, and make recommendations on systems of support to aid students and support staff, specifically concerning issues around academic skills development.

## Origins of this study

In my role as Academic Skills Officer, a number of experiences and observations struck me about the students who were seeking out academic skills support. Students were presenting with high levels of anxiety, and seemed more disorientated and stressed than was reflected in the institution's everyday student body. I was intrigued by the number of students who were turning up in anxious states, some in tears, students who had come to me for *academic* assistance. Universities have responsibility and a duty of care to support all who enter, perhaps especially those who take on the challenge but then genuinely need guidance and support more than others. These are the students this paper is concerned with - some of whom became participants in this study. It became my intention to look more deeply into and to develop a better understanding of the experiences of this particular cohort of students. I was also interested in the makeup of the *transition* that this cohort of students undergo, from disorientated students at the beginning, to more comfortable, more confident, more *independent* learners afterwards. I considered this to be a valuable area of educational research.

## Learning development in higher education

Learning development in higher education at the institution level concerns the combined services and resources which are designed to help students develop the academic skills and competencies they need to succeed in their studies. Hilsdon (2011, p. 14) has defined learning development as, 'a complex set of multi-disciplinary and cross-disciplinary academic roles and functions, involving teaching, tutoring, research, and the design and production of learning materials, as well as involvement in staff development, policy-making and other consultative activities.' These complexities can be exacerbated when issues such as cultural diversity, and the difficulties that specific groups experience, are also taken into account. This can involve a number of challenges for an institution, such as understanding and supporting the cultural and

educational backgrounds of the cohort of students, identifying students' needs, effective delivery of modular content, and effective support systems across the institution which offer emotional as well as academic support. Other challenges include the financial wellbeing of the institution, operating with limited resources, ensuring effective assessment processes, and investing in resources and systems that are sustainable over the long term.

From the student perspective, further challenges arise. Student engagement is an ongoing issue (Kuh *et al.*, 2007) across many institutions. This includes and affects attendance levels, assignment and course submissions, and dropout and progression rates. Cultural diversity across the cohort can also present additional concerns such as students' awareness of the academic conventions in the UK, their expectations of the course and the university experience, and the differences in teaching methods and pedagogies on the UK institution compared to what they have been accustomed to. Other challenges may involve accessibility of resources and materials, accommodation issues, as well as the issues mentioned earlier concerning isolation, home sickness and cultural disorientation. Boud and Molloy (2013) recommended, in connection with these issues, the adoption of culturally responsive pedagogy, with up-to-date awareness of the diversity of students' backgrounds when supporting them in any particular institution. Examples of cross-disciplinary academic roles and functions pertaining to this research include academic teaching staff, lecturers, and others in student support roles, including academic and study skills support staff.

### Academic skills provision as a component of learning development

Academic skills provision is one such important aspect of student support provision in many UK universities, and can go by different names: academic skills support, academic tutoring, learning (development) support, study skills support, and so on. The support team is frequently situated in the library, though they can be stand-alone teams or departments as well. Academic skills

provision entails support for students at all levels, from level four foundation courses up to and beyond doctoral programmes. Academic skills support covers a range of skills work, from assistance with academic writing style and writing conventions (although no writing is done for the student), criticality and critical evaluation skills, building well-supported arguments or lines of reasoning, research skills, using sources appropriately, referencing skills, and so on. A critical evaluation of the debates around support issues concerning these areas can be found below, and also in the Review of Literature chapter.

The support is generally carried out in the form of individual support sessions or group workshops (generic or in-class), which, during the pandemic (the period in which this research was conducted) were carried out on online sharing platforms such as MS Teams™, Zoom™ and Blackboard Collaborate™. Some students may need only a small number of support sessions to enable them to catch up and carry on with their studies. Others have significantly higher needs and may require more intensive support.

### Affect, and identifying categories of students who may struggle at university

Emotional and evaluative aspects of students' experiences are referred to using the term 'affect'. Affect involves exploring how many different feelings and behaviours can influence how students interact with their surroundings. The Free Dictionary defines it as: *'afekt, noun, Psychology, emotion or desire as influencing behaviour. Late 18th century (in philosophy, in the sense 'an emotional, unreflective response'): coined in German from Latin affectus, 'disposition', from afficere, 'to influence'*. This is the focus of much research in the fields of education, psychology and sociology, amongst others. It includes studying expressions of emotions and moods, and how cognitive processes and decision-making can be affected. In learning development, studying affect can be important to understanding how emotional states can disturb or enhance learning, memory, social interactions and other behaviours. Research over

the years has revealed that there are a number of groups who may struggle at university, and that these groups may need additional support services to be in place.

In no particular order, groups who may need additional support can include overseas students who are used to a different set of academic rules and conventions, students with disabilities or mental health problems (Roberts and Truman, 2018), students from 'low-participation' or low income communities, who may face financial barriers to accessing higher education (Gorard *et al.*, 2012), refugees, LGBTQ+ and Roma or Traveller communities who may face discrimination and other barriers, such as visa or financial constraints (McCormack and Anderson, 2010; Smart, 2019; Huddleston *et al.*, 2016), students with caring responsibilities and single parents (Hussein, 2014), and other groups, such as students from rural areas, and students who have learning disabilities such as dyslexia, dysgraphia, ADHD or ADD. In addition to the above, mature students who have been away from education for some time may also struggle due to low self-confidence, or the intrusion of imposter syndrome. The participants in this study reflect some of these groups and areas. For academic support staff, the needs of the students do need to be ascertained at the point of contact; issues of affect are explored, and those concerning any of the groups above can be referred on to other specific support teams.

### Milieu for this study - Regent's University London

The research for this thesis was undertaken at Regent's University London, where I have been employed since April 2018 as Academic Skills Officer. The Academic Skills Team is housed within the library provision. At the time of writing up the thesis in 2022, the following facts and figures concerning Regent's University London were available from the previous year:



In 2020/21, there were around 2,500 students studying at Regent's over the course of the year. Student full-time equivalent was 1718.

- 1300 Undergraduate degree-seeking
- 300 Postgraduate degree-seeking (Taught + Research)
- 17 incoming study abroad (UG + PG)
- 101 Postgraduate Foundation + Other (includes internal PGHE, PG Foundation, and non-degree seeking PG certificates)

The ratio was 58% female, 42% male, with 132 unique nationalities across the student body.

Percentage of students from different parts of the world: 24% UK, 29% EU/EEA, 48% Rest of World.

**Subjects areas:**

- Art History
- Business
- Drama
- Fashion Design and Marketing
- Film and Media
- History
- Interior Design
- International Relations and Politics
- Learning English
- Psychology
- Psychotherapy and Counselling

*(Source: Regent's University London, 2021)*

Table 1: Facts and figures, Regent's University London (2021)

The academic skills team work across all the subject areas, and the support provision provided by the team is not embedded into course modules but is external and complementary to them. The work is extremely rewarding; close working relationships are developed with students due to the supportive nature of the roles. We can meet with the students as often as they may need, as occasionally more intensive input is required. Observations concerning student support are often discussed confidentially by the team, and can be seen as the initial inception of this thesis.

The origins of this study will now be outlined in more detail, and will include the roles and responsibilities of the academic skills team and the academic skills provision offered to students.

A number of socio-economic issues can play a role in how university students perform in higher education. These include learning-related financial fees and outgoings, such as tuition fees, accommodation costs, travel costs, learning materials, and living expenses. Difficulties in these areas can significantly impact students' performances and wellbeing, and can cause unease and anxiety (Elton-Chalcroft *et al.*, 2016). Students from lower socio-economic backgrounds may be more vulnerable to these financial concerns. These students may also have extra difficulties and therefore become disadvantaged by the problems of accessing resources such as textbooks, technology, laptops, and also academic support services (Thomas, 2017). Students from less-advantageous socio-economic backgrounds may feel socially isolated and excluded (Archer and Hutchings, 2013), which can create mental health problems and negatively affect wellbeing. Students from less well-off families may need to undertake part-time work in order to make ends meet, and this can also negatively affect performance due to stress, tiredness, attendance and engagement issues (Wickes *et al.*, 2015c). It must be assumed, given confidentiality constraints, that Regent's University London is comprised of some students from the majority of the above groups, and that the students are representative of most, if not all, socio-economic areas of society. Regent's University London was acquired by Galileo Global Education in 2020 and is a private university.

### Issues concerning student anxiety and stress

The challenges that present themselves to students are not confined to periods of study in the run up to examinations or assignment deadlines; difficulties can be experienced when the students arrive in the UK at the very start of their courses. This may be particularly true for overseas students, and can involve stress and anxiety around such issues as initial integration,

culture shock, homesickness, and dealing with new learning conditions. If these go unattended or unaddressed for too long, the consequences for the students can include 'increased anxiety, low marks, upset, and disengagement from the studies' (Levine, 2008, pp. 62-63).

It is important that students are aware of the various types of support that are available to them, and these are often highlighted during student inductions, at the beginning of each new year or semester. But inductions can be rather intensive, with significant amounts of information being given out concerning IT issues, setting up emails and official IDs, timetabling information and student welfare provision. To counteract this, support teams are often invited into classes at the start of term, to introduce themselves and to ensure that all support on offer to the students, including academic skills support, are visible and therefore accessible to those who may need it. These practical difficulties or confusions - of not being aware that support exists - can exacerbate the anxieties that students may at some time experience.

### Participatory Action Research (PAR) as methodology

Participatory Action Research (PAR) was chosen as the most suitable methodology for this study. PAR has been described by Schneider (2012) as a process in which 'ordinary community members generate new knowledge' concerning issues they care about, where personal and social change is promoted (p. 153). The community in this instance is that of Regent's University London. PAR is concerned with 'developing practical knowing in the pursuit of worthwhile human purposes' (Reason and Bradbury, 2001, p. 1) and is carried out through cycles of planning, action, and reflection. Kemmis and McTaggart (1988), in their work 'The Action Research Planner', prepared much of the ground for *educational* action research studies, describing the action research approach as 'a guide for teachers and administrators interested in improvement and change' (p. 5). The change that this study is concerned with is that which occurs for the participants, who have joined the research because they were students struggling

in their studies. They were seeking positive change, to be able to reflect on how best to proceed, and how to develop the skills needed to succeed. Many of the practical steps Kemmis and McTaggart advise have been adopted in this thesis, which also draws on Vygotsky's concept of learning as a social process in which 'social interaction plays a fundamental role in the development of cognition' (Vygotsky, 1978, p. 57).

This thesis further exploits Vygotsky's idea that learning is a 'social endeavour, facilitated and developed through social interactions and conversations between people and cultural tools' (Vygotsky, cited in Mcleod, 2008, n.p.). Within the context of academic skills provision, the conceptual makeup of this thesis can be described as an amalgamation of three ideas: Vygotsky's (1978) theory of learning and development through social interactions, Schneider's (2012) interpretation and utilisation of PAR as a *guiding philosophy* in qualitative research, and Yeager and Walton's (2011) work on the significance of social psychological interventions to re-engage students in their studies using a targeted, personalised approach - to help develop students' sense of belonging, and thereby improving student engagement and achievement.

This perspective, on the effects of social interventions on students' development, can act 'as a guide to what to pay attention to, what difficulties to expect, and how to approach problems' (Wenger, 2009, n.p.). The main tenets of PAR as a research methodology are that there is an emphasis on learning *from* the community, from the participants, that their experiences have value, and that they themselves are valued. They act as 'change agents,' and the agenda is influenced directly by *their* concerns (Rogers and Palmer-Erbs, 1994, pp. 3-12). The participants in this study were encouraged to share their academic and emotional experiences, and how they felt more widely about their studies. This would allow me to better understand the difficulties they were facing in order to help them to *bring about change*. In this way, the community itself - the learning environment of Regent's University London - might be changed to the benefit of

everyone in this community, as described above by Schneider (2012, p. 153), where community members 'generate new knowledge' about the situations and circumstances which are affecting them, and whereby personal and social change is advanced. This is why PAR was chosen as a suitable and promising methodology for this study. More detailed explications on rationale, methods, the participants, and the benefits and significance of PAR, can be found in the Methodology and Discussion chapters.

### Transitioning and change knowledge in higher education

Many transitions take place across all levels of learning and development. This includes transitions from primary school to secondary school, sixth from colleges, and universities. Additionally, studies have been carried out on different types of transitions that can occur, such as emotional, academic, and cultural transitions. If students are to succeed in the challenges that they face at university, then it would seem logical that some kind of transformation must take place. As those challenges increase in difficulty, in parallel to the higher levels of study, from foundation courses to degrees to masters, for example, so too must the skills involved to address those new and greater challenges evolve. Other facets of change may become part of that transformation, for instance, self-confidence, growth, self-efficacy, independence. But how to measure such transformations? Various models and frameworks concerning transition were consulted for this study, and these are explored in more detail in the Review of Literature chapter. Transition models can provide a framework for successfully managing change (Brisson-Banks, 2010), and provide a sequence of successive phases for resolving disruptive life experiences (Janusz and Walkiewicz, 2018). Musamali (2018) investigated a number of transition models which could be adapted and used in education and also concluded that transitions need to be carefully managed. Nicholson and West's (1988) transition model stood out in my estimation for its detailed, four-part analysis of the different aspects of change that occur in the

process of transitioning, and this model was chosen as a basis to develop a new framework, one that is more closely adapted to the transitions that may be experienced by *struggling students* in higher education. I became keen to develop such a framework which could support those students, and guide those who were delivering the support. I endeavoured to include those aspects of change which could delineate students' academic skills development, and, importantly, to take into consideration students' anxieties, confidence levels, and most pressing academic goals in the process.

### Mobility, app innovation, and the design of the support app

The emergence of mobility as an innovation, as Fullan (2013) suggests - as a key component of what he terms Stratosphere, the necessary convergence of pedagogy, technology and change knowledge - will be presented as an important element of the transition that may take place for students. At the same time, for this study, students can access educational tools via a specially-designed smartphone app to help them continue to learn and develop when away from campus. The concepts of mobility and innovation will be presented as part of the overarching line of reasoning underpinning the rationale for this study. Over the last several decades, the pedagogical trend away from traditional, educator-led classroom teaching towards more student-centred approaches (Sharples, 2006) has made progress concerning the inclusion of technological innovation and student independence. Mobile learning (aka as m-learning) resources, including an expanding range of educational features on mobile devices and apps, have further supported the emergence of mobile learning. Defined by O'Malley *et al.* (2003) as learning that happens 'when the learner is not at a fixed, predetermined location', and learning that happens 'when the learner takes advantage of the learning opportunities offered by mobile technologies' (n.p.), mobile learning had been hailed as a new learning *paradigm* (Mahamad, Ibrahim and Taib, 2010). This thesis, however, argues that mobile learning is not the same as *mobility*. Mellow (2005) noted that mobile learning was a powerful method for engaging

learners *on their own terms*, and Ally (2009) recognised that it is the mobile learner who controls what, when and where (and perhaps more aptly here, *how*) students prefer to learn. It is this idea, the *on their own terms* idea, which lies at the heart of the concept of mobility. When Traxler (2009a) observed that mobile learning incorporated key notions such as spontaneity, interactivity, informality, and ownership of learning, he was actually describing the emerging concept of *mobility*.

The characteristics of mobility stated above have come to take prevalence over those earlier ideas of mobile learning which centred more around devices. Saker and Frith (2018) have argued that research in the field of mobile communication studies has moved away from the earlier perspective of how mobile devices can distract learners and educators - an early and predominant reaction to mobile phones within education, specifically in a classroom setting - to considering how the experience of innovative learning spaces can be facilitated and *enhanced* by smartphone applications, educational features and resources. Fullan (2013) had pre-empted these ideas when he suggested that students were more engaged in the digital world *outside* their classrooms than inside them (p. 40). He also maintained, without contradiction, that mobile devices were underutilised in teaching and learning. This thesis draws on Fullan's ideas and approach to further explore how mobile app innovation can aid the learner outside of the classroom, and indeed, outside of campus. I decided, therefore, to incorporate app innovation to add a further layer of support for the participants in this study to run in parallel with the support sessions, drawing on Kearney *et al.*'s (2012) mobile learning framework, and incorporating three features of m-learning: authenticity, collaboration, and personalisation. This framework is shown below:

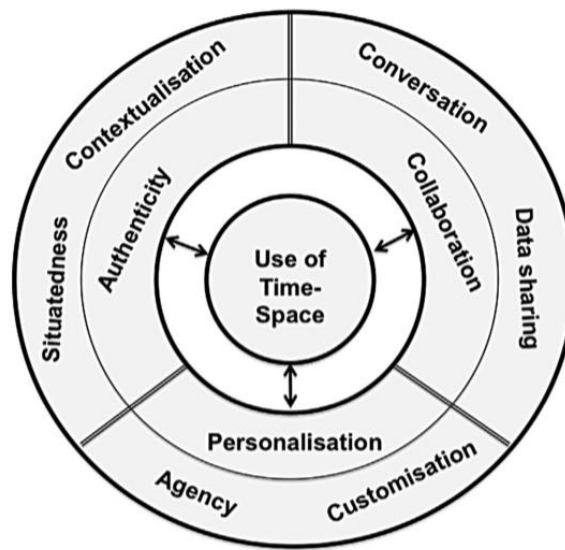


Figure 1: Kearney *et al.*'s (2012) mobile learning framework

I was keen to explore what kinds of educational app features and functionalities participants would find interesting or useful in their studies as independent learners (again, *outside* of the classroom or campus). This idea, as Kearney *et al.*'s (2012) mobile learning framework does, connects to Vygotsky's notion of the More Knowledgeable Other (MKO) (Vygotsky, 1978), that is, as a tool which refers to someone or *something* that has a better understanding than the learner, and can be used as a guide or referent in the learning process. The app, with its mobile resources and targeted academic skills features, would seem to fit Vygotsky's theme of an accessible 'guiding other' favourably here. As a learning tool, the app might aptly be coined a '*mobile* more knowledgeable other', or MMKO. The app and its academic support features and functionalities are explored further in the Methodology and Findings chapters.

### Covid-19 disruption: the switch to online teaching and support

In March 2020, the UK government had ordered a nationwide lockdown due to the spread of the COVID-19 virus. Universities, as well as most schools, shops and businesses, were required



to close. Tuition switched at late notice to online provision. This also applied to academic skills support, which switched to using online platforms such as Teams™, Skype™ and Zoom™, as well as Regent's University's VLE Blackboard Ultra Collaborate. These platforms allowed for group sessions and incorporated break-out groups. Academic skills support was carried out via whichever platforms were available to or preferred by the students, such as the popular Zoom and Skype™ platforms. Later, Microsoft Teams™ became more popular as its functionality was expanded by Regent's University.

My research for this thesis began in January 2021. As in-person teaching gradually returned to campus from around September 2021, data collection was carried out online; Cycle One took place in May-July 2021, with Cycle Two in Oct-Dec 2021 (also carried out for the most part online, even though there had been a return in part to campus by that time). Professional services, such as the academic skills team were advised to continue to work from home, possibly, or in part, because the enforced switch to online support had seen a sharp increase in students seeking out academic support from the team. This in itself is an interesting phenomenon, and one that hints at the furtherance of research into how issues concerning student mobility and learning independence might increase communication between support teams and students seeking assistance (from distance). These and related issues are also explored in more detail in the Discussion chapter.

### Rationale for this study

In my work as Academic Skills Officer I have witnessed a number of interesting transformations of stressed and disorientated students into more confident learners. I have seen students attain grades they had thought at one time too difficult for them to achieve. I noticed that, parallel to, or perhaps pre-existing, or in some way connected to the academic difficulties they were experiencing, high levels of stress and anxiety were present in the students. I was curious as to

what would happen to the students' academic understanding and performance if their anxieties were able to be recognised and addressed *as part of academic skills development*. In my research, I came across the work of Walton and Cohen (2007), Yeager and Walton (2011), and Yeager, Walton and Cohen (2013), on social psychological interventions, and how they had produced results that showed improved academic achievements in students. This work did not have any subject-specific content, but rather centred on students' beliefs and feelings, about themselves and their surroundings, how they valued themselves and others, and to what degree they felt a sense of belonging in their academic milieu (Walton, and Cohen, 2007). I wondered if this was a possible 'way in' for students to re-engage with the academic challenges they encounter from an academic skills development angle, an entry point for those whose academic development was perhaps being impeded by self-doubt or anxiety.

The research did not set out to solve the issue of anxiety in students in and of itself, but rather, to explore further in what ways anxiety might be affecting students' academic development, and by so doing, gain a better understanding of the *developmental* issues students face at university. I wondered too whether a new model or framework could be developed which might bring together these ideas and be of assistance to support staff. That is, a framework which took into account the students' needs and anxieties; one that followed them as they undertook the challenges of their courses and assignments; one that also reflected their needs in terms of mobility - when they were outside of the classroom and away from campus. A new transition framework is therefore advocated here, one that has not been found in the literature, but one that would incorporate the checking and addressing of anxieties that may be interfering with a students' academic *development*. As mentioned above, Yeager and Walton (2011) established that such issues can be (and have been) addressed using social psychological interventions. These are explored further in the Methodology and Discussion chapters. The new framework would contain academic support sessions as a centrepiece of development, support that can be

understood using language that both support staff and students themselves can access and comprehend, and include technical advice based on the students' needs, whilst over time build confidence and self-efficacy in those students. To these ends, the following aims were set out, and will be addressed directly by the research questions which follow:

- to investigate in which ways academic skills support can be beneficial to students' academic development
- to explore in what ways the anxiety that students may be experiencing interferes with their academic development
- to explore how mobility and mobile app innovation can add further support to existent academic skills support provision
- to design a mobile *app* which can be accessed by participants to aid further skills development and learning when away from campus
- to investigate how students transition into more confident, independent learners through academic skills support
- to design a new academic skills transition *framework*, which might assist academic skills support staff and others in carrying out more targeted, effective academic skills support

## Research questions

Having stated the aims of the study, the following research questions were formulated, and cover four areas of enquiry, formulated to guide and inform the research:

### Overarching Research Question

Which aspects of academic support provision help facilitate a successful transition of university students into more confident, independent learners?

### RQ1 Concerning the challenges

What kinds of academic challenges do students face at university?

Sub-questions:

- 1 What are the challenges involved in accessing academic support via mobile devices?

## 2 How are these challenges experienced by the students?

### RQ2 Concerning anxiety

In what ways do students' anxieties interfere with or affect their academic development?

Sub-questions:

- 1 What kinds of anxieties do students experience at different stages of development?
- 2 To what degree might academic support address these anxieties?

### RQ3 Concerning the transition

How do students transition into more confident, independent learners with regard to academic skills development?

Sub-questions:

- 1 What kind of transition takes place in terms of academic development, and also in terms of wellbeing?
- 2 In what ways might a transition model assist support staff in facilitating students' development?

### RQ4 Concerning mobility and app innovation

In what ways might app innovation further assist the transition into more confident, independent learners?

Sub-questions:

- 1 How do students experience academic support via mobile devices?
- 2 To what extent - and with which kinds of functionality or features - might mobile app innovation assist in this development?

## Organisation of the thesis

This thesis consists of six chapters plus the References and Appendices chapters, and are laid out as follows: Chapter One - the *Introduction* - sets out the principal themes of the thesis, which comprise academic skills support, issues around student anxiety, mobile app innovation, and how students transition into more confident, independent learners. It provides information on the milieu for the study, Regent's University London, the participants involved, how the rationale was formulated, and the design and ideas behind the building of the app. It also describes the

chosen methodology, Participatory Action Research, the aims of the research, and finally, lists the research questions. Chapter Two - the *Review of Literature* - critically evaluates and contextualises the published literature on these areas of enquiry, underscores relevant contextual issues, and explores how themes such as student anxieties correlate with how students develop, progress and transition. Chapter Three - the *Methodology* - gives a broad outline of the overall research design. This chapter recounts how data were collected via entry and exit surveys, contemporaneous logs of support sessions, semi-structured interviews, and analytics retrieved from the app. Chapter Four - the *Findings* - consists of two parts. Part One presents issues concerning student anxiety from the perspective of the participants. It then reports how participants felt before the support began, how they felt after the support sessions had been completed. Part Two centres on findings concerning the app, and how its academic support features were experienced by the participants. Chapter Five - the *Discussion* - explores, examines and evaluates in greater detail the findings in relation to impact, theory, and where they sit within the literature. The new academic skills support framework is then presented. Chapter Six - *Personal Reflections* - briefly summarises the key issues that have been discussed, and includes what I found challenging and captivating in the process of conducting this research. Finally, these are followed by the References and Appendices chapters.

## Chapter Two - Review of Literature

### Introduction

A review of relevant literature was conducted to identify, evaluate and synthesise data and findings from published papers and research studies that explore academic skills provision in higher education. Issues concerning the difficulties, anxieties and stresses that students face in their studies, and how students may - with support - transition into more confident and independent learners are explored in detail. How students' confidence and self-efficacy are involved in assessments of the effectiveness of academic skills support are also investigated in this the review. The socio-economic status of higher educational institutions in the UK has been contextually included. Other areas which were deemed relevant to this study include how mobility and app innovation have been considered in higher education learning practices, together with the degree to which they might add extra layers of digital support to the academic support offered to students outside of classroom teaching. A brief outline of transition models has been added. The final section of the review is a summary of the key themes which emerged from the above areas of enquiry.

### Learning development in higher education

Higher education institutions in the UK need to navigate many issues in order to carry out their responsibilities effectively and stay relevant in a quickly changing environment. The enforced switch to online teaching due to the coronavirus pandemic is an apt example of this need to be able to adapt quickly. But there are many other areas where attentiveness to change and subsequent decision-making need to be on track - including, and indeed centring on, the wellbeing and academic needs of the students themselves. Yeomans *et al.* (2018) have argued that one of the main challenges for higher education institutions concerning successful or effective learning development involves identifying the specific needs of their students. In a

wide-ranging review of the challenges that face institutions in the UK, Sarker, Davis and Tiropanis (2010) listed no fewer than twenty key areas that need to be addressed, ranging from curriculum design, widening participation, quality of teaching and learning, to staffing, funding, and processes of management (pp. 2-6). A number of these are directly relevant to the focus of interest of this thesis, namely, learning, teaching and associated support issues, critical thinking and argumentation (p. 2), construction of personal and group knowledge (p. 3), and issues concerning plagiarism and its prevention (p. 4). Limited resources can make these challenges more difficult (Laing and Gould, 2017), and this is also directly connected to how accessibility for all students continues to be a key challenge. For example, it is important for institutions to ensure access to assistive technology for students with hearing or sight impairments, and accessibility of spaces to those with mobility issues (Hopkinson *et al.*, 2018).

In addition to identifying students' needs, ensuring effective *delivery* of services, such as course content and support provision, including academic skills support are essential (Rensburg *et al.*, 2016). This can also involve maintaining adequate staff numbers, depending on the size of the overall student cohort, and effective timetabling. One further key area of discussion concerning learning development in higher education is that of sustainability, and developing longer-term strategies to ensure that key industry objectives are met. Continuous improvement and sustainable resources can be an increasingly difficult ask given financial constraints and the quickly changing nature of higher educational student bodies and environments (Ryan *et al.*, 2016). Recently, these have included covid restrictions, Brexit (post-2016), and falling numbers of European students enrolling. Government figures state that 'applications from EU students fell by 40% in 2021. The number of EU students starting full-time undergraduate courses fell by 65% between 2020 and 2022 to its lowest level since 1994' (Bolton, 2023). The Coronavirus disruption (2020-present) has disrupted students' learning experiences, as reported as early as July 2020 in the House of Commons Petitions Committee, which stated:

'...the Covid-19 outbreak has hugely disrupted the education of university students. A significant number of students have told us they are not receiving the standard of education that they had expected, feel they are entitled to, or which offers true value for money in light of the amount they are paying in tuition fees. Many students have experienced difficulties accessing the online content that has been made available, particularly those from disadvantaged backgrounds, and courses where students need to use university facilities have been particularly affected. We have heard from many students who feel that the way in which courses are currently being delivered does not represent value for money for the tuition fees they pay. Students have also faced a number of practical challenges as a result of the outbreak, including in many cases loss of income and difficulties with accommodation' (HCPC, 2020, p. 19).

Academic skills provision has been shown to add an extra layer of technical support to students in higher education. Academic skills support services have been at the centre of numerous research studies to ascertain connections between support accessed by students predominantly outside of classroom teaching (or workplace environments) and achievement or performance levels in exams and assignments (Bailey *et al.*, 2007; Wernersbach *et al.*, 2014; Hill, Tinker and Catterall, 2010; Mansfield, 2020; etc). Successful completion of assignments, coursework and assessments cannot be undertaken, for example, without sufficient levels of critical thinking, questioning and evaluating information, stances and arguments. These are skills that many students feel challenged by. What does critical evaluation look like on the page? What goes into an argument that is academically clearly expressed and constructed? These, and associated issues, are dealt with directly via academic skills support provision.



## Debates concerning academic skills provision in higher education

A number of issues can adversely affect academic skills support. For instance, finding time in busy student schedules for support sessions and workshops to take place can be difficult (Thompson and Bake, 2019). Communication and language barriers can hinder the interpretation of information and effective interactions between staff and students (Smith and Brown, 2018). Staff and students may have differing expectations about the purpose of support sessions, which can lead to misunderstandings and frustration (Johnson and Peters, 2015). Garcia and Martinez (2017) have argued that with a sizeable overseas contingent of students, cultural awareness and sensitivity need to be optimally utilised for teaching and support, and that insufficient levels of these can impede effective communication, and all-important staff-student rapport. Other issues concerning the effective implementation of support include adequate staff training and professional development (Anderson and Jackson, 2016), and ensuring that confidentiality concerning personal information of the students is maintained effectively across teams (Williams and Davis, 2018). Harmer (1998) pointed out that the skill of writing was an essential skill not just in its own right (p. 70), but in terms of knowledge reinforcement, language development, and learning styles themselves.

Tahira and Haider (2019) found that students are often confused about what is expected from them when it came to academic writing. Various approaches have been developed to assist students to develop their understanding of academic writing. These include approaches such as the efficacy-focused approach (which targets individual students' knowledge, skills, and related affect or capacities), the personal approach (which supports individual creativity in writing), the social processes approach (which involves a focus on collaborative writing with peer support (Mckenna and Kyser, 2022; Murray and Thow, 2014), the content-based approach (where the

focus is on specific subject-based content to help develop writing), and the eclectic (process) writing approach (Onozawa, 2010), amongst others.

Two of the more prominent approaches, however, which are commonly adopted across higher education are the process approach and the product approach. In the product approach, the focus is on the end result of the learning process. The process approach, however, as the name implies, stresses more the methods and techniques, the different aspects of what students go through when they put together a piece of writing (Nunan, 1991). Brown (2001) states that in the product approach, much focus is placed on models or examples, on which students would attempt to base their work. Elbow (1973), on the other hand, argued that writing should be thought of as an organic, developmental process, not as a way to 'transmit a message', but more a method to *develop* a message. Kroll (1990, p. 96) agreed, and argued that the process approach was preferable because it 'provided a way to think about writing in terms of what the writer *does* (planning, structuring, revising) instead of merely what the final product *presents*'.

French (2018) has written extensively on the relationship between academic writing and student anxieties. She has argued that academic writing practices are one of the main means by which institutions define and police themselves, citing Lea and Street (1998) and Lillis and Turner (2001) amongst others. Students' academic writing, she maintains, constitutes the main way in which students across all subjects show what they can do. It is also the primary way in which they are assessed. For these reasons, she argues, students have a lot invested into the quality and outcomes of their academic writing. And even though this often leads to high levels of anxiety, students are unlikely to seek help and often struggle alone (Haggis, 2006; Northgate, 2008). French argues that academic writing creates anxiety for students *exactly because* it is a 'necessary, ever present 'thing'' (French, 2017; Bennett, 2010).

Another area of debate within academic skills support concerns students' understanding and application of criticality and critical evaluation. There have long been active discussions on how best to foster and develop these skills, and which approaches may be the most effective. Ennis (2011), for example, talks about the differences between problem-based learning, inquiry-based learning and the use of various assessment tools to measure students' critical thinking abilities. Further debates concern the application of discipline-specific approaches (Facione, 2015), that is, whether there is a need to take into account the unique theories and methods specific to different subjects. Discussions on evaluating sources, detecting biases, and fostering critical digital literacies are also key aspects of such discussions (Lanning and Mallek, 2017).

Perhaps antecedent to these areas of enquiry is the issue of an agreed definition of critical thinking, as it is a much disputed term (Benesch, 1999; Brookfield, 2005; Mulnix, 2012; Burbules and Berk, 2013; Felix, 2016). Some academics emphasise the cognitive aspects and processes involved in critical evaluation, such as analysis and inference, whereas others focus more on concepts such as attitudes and metacognition (Facione, 2015; Ennis, 2011), that is, the distinctions between learning and knowing, and motivations to learn. Facione (2007) has described critical thinking as 'purposeful judgment, which results in interpretation, analysis, evaluation, and inference, as well as explanation of the evidential, conceptual, methodological, criteriological, or contextual considerations upon which that judgment is based.' On the other hand, Felix (2016) argues that such definitions are decontextualised and depoliticised. She maintains that criticality should be centred on students becoming *critical beings* who develop a greater awareness of social structures, and of the inequalities that can be found within those structures. Drawing on Freire's critical pedagogy, which sought to highlight patterns of inequality within oppressive societal structures, Felix (2016) defines criticality as 'the questioning of the structures and tacit assumptions of socio-political contexts, while creating an

awareness of self and how one's own actions maintain or counter these assumptions in order to imagine alternatives ... in which inequity might be minimized,' (p. 42).

Another issue concerns the extent to which critical thinking skills can be transferred across contexts and domains. Some scholars argue, as may also be the case with the development of academic writing skills (see above), that critical thinking skills are generalizable, and applicable across disciplines, while others contend that critical thinking is highly domain-specific and context-dependent (Barnett and Ceci, 2002). These kinds of differences have led to disagreements over the most effective methods to teach critical thinking, including issues around the balance of teacher input versus independent study and student autonomy (Abrami *et al.*, 2008). In addition to this, there is also debate around to what degree critical thinking is culturally universal, or shaped by specific cultural values and norms. Indeed, Ennis (2011) has argued for a need for more culturally-sensitive approaches to critical thinking across higher education institutions, given the diversity and backgrounds of the international student cohort.

Research skills, and the ability to be able to carry out research, have long been an integral part of student studies in many disciplines and subject areas. However, there is disagreement over what the term *research* constitutes across subjects. The problems that students face in university research courses are diverse. Gal *et al.* (1997) found that the most problematic research courses in the fields of social science, psychology and education, tend to be quantitative methods and statistics courses. For others, in psychotherapy and sociology, for example, qualitative research methods are most often employed. Disciplinary interpretations of research and research activity can also vary (Yorke, 2005). What may constitute research in literary studies can be different to how students study and explore the sciences (Behling, 2010; Hunter, Laursen and Seymour, 2006). In the sciences, research may take the form of experimentation, under strict practical and ethical controls, whereas in other subjects it may be

just a case of examining desk-based literature. Students' own conceptions of research have been investigated, and Meyer *et al.* (2005) found that students had various misconceptions of what research was, stating that some students felt that research only becomes 'true' if or when it is published. Murtonen *et al.* (2008) have argued that the increasing complexity of society and working life may necessitate a more practical understanding by students of scientific results and research-based communication, suggesting that there may be a scarcity of this in education. Onwuegbuzie (1997) found that students who showed the highest levels of anxiety when carrying out research, often viewed statistics as irrelevant to their future careers. Healey and Jenkins (2009, p. 3) argued that all undergraduate students should develop skills through research and inquiry, and the Council of Undergraduate Research published a statement declaring that undergraduate research was 'the pedagogy for the 21st century', highlighting a need for inquiry-based models (Walkinton, 2015). This also connects to the school of thought which holds that skills which focus on *how* knowledge is created, and then directed towards the advancement of society, 'are central to university graduates' (Murtonen *et al.*, 2008).

On an institutional level, various other issues concerning research skills need to be navigated. These include being able to address the diverse academic, cultural and linguistic backgrounds of the student cohort (Marginson, 2012). Previous educational experiences and conventions may differ from those being taught. These may negatively affect students' readiness to tackle the more advanced research skills (Yorke, 2001). Limited resources, such as access to research databases, space for laboratories, and having sufficient specialized equipment for large classes, can impact the practical elements of teaching and developing research skills (Boud, 2015). Hodge *et al.* (2018) warn of the challenges of developing effective methods for *measuring* research skills capabilities, and also of assessing teaching methods and outcomes. Finally, Healy and Jenkins (2009) suggest that it is important for academics to be able to keep up to date with

ever-changing research methods and to ensure they remain in line with pedagogical theory, including successful integration into the curriculum.

Reading is one of the most important academic aptitudes for students. Many researchers have highlighted the importance of reading in an academic context. Palani (2012, p. 91) states that 'effective reading is the most important avenue to effective learning,' and that academic success is dependent upon successful reading. Scott and Saaiman (2016) suggest that literacy is much more than just being able to read or write, that it involves being able to make sense of a text. Lewin (2005) has stated that the ability to read complex material is one of the major predictors of success in HE. Hermida (2009) argued that there is a mutual relationship between a student's academic reading skills and academic success, and Aina (2013) argues that a distinct correlation exists between students' level of proficiency in reading, and academic performance.

The difference between surface reading and deep reading has become a key area of debate. Distinct from the terms skim and scan reading, and reading for detail, according to Biggs (1998, p. 57), studies show that most university students not only take a surface approach to reading, but that they do with *learning* too. A surface approach to reading entails an unquestioning acceptance of the information in a text, where students may consider this information in isolation. This is directly connected to critical evaluation skills (see above). Bowden and Marton (2000, p. 49) have argued that surface reading leads to *superficial* retention of material, i.e. for examinations, and does not promote wider, long-term understanding. On the other hand, a deep approach is an approach where the reader uses higher-order cognitive skills such as the ability to synthesise and analyse, negotiating variances in meaning, and perhaps constructing new understandings. The question arises then - how best to develop a deep approach to reading in students?

Despite the importance of skills such as reading, Bean (1996) believes that lecturers seldom actually teach them. He suggests that academics may presuppose that students have already acquired these skills, which may not be the case given the diverse backgrounds of the cohort. Reading for detail is aligned with deep reading, and this is an important part of the reading process. However, there are different types of reading skills which are employed for different reasons. Skimming and scanning are used to locate key or relevant phrases or terminologies quickly, or to acquire a quick or general understanding of a text. These surface-type reading skills have multiple benefits, connected to time management and efficiency in collecting information. But this does not proscribe the necessity of deep reading. When only one of these skills is employed, important aspects of the total reading experience may be missing. As Biggs (1998) has suggested, it is important that students have a clear understanding as to why all the many different skills of reading are needed, and how to use them in a timely and effective way.

Many studies have investigated the effectiveness of switching to, or implementing, online teaching, although that is not the focus of this particular study. Wernersbach *et al.* (2014) observed that the effectiveness of academic support services such as 'individual counselling, tutoring, or attendance on study skills courses' with a focus on study skills workshops' had not been sufficiently examined (p. 14). They suggest that although self-efficacy had been shown to be an effective predictor of academic performance, more detailed investigations needed to be made in the areas of 'academic writing, reading techniques, critical evaluation awareness, effective note taking, resource access (such as libraries and information literacies), time management and study techniques' (2014, p. 15). Wilson and Linville (1985) suggest there are a number of reasons why academic support is recognised as an important area of internal exploration for academic institutions, and that its absence may be directly connected to falling levels of student engagement and higher drop-out rates.

The question of whether or not to embed academic skills support into course modules is one of the main debates within institutions, and the literature reveals that there are varying takes on this. Although Baume (2017) has suggested that a coordinated approach could be effective, it is questionable how much time and support lecturers would be able to give *individually* to students, inside or outside of the classroom. Numerous research studies have been conducted on the effects on students of accessing academic support *outside* of the teaching that happens in the classroom. Mansfield (2020) explored academic skills workshops, and concluded that attendance of such workshops often resulted in increased confidence and performance of students. Hill, Tinker and Catterall (2010) discussed in some detail the evolution of academic skills provision, suggesting that an integrated, flexible and student-centred approach can be beneficial. Data suggests that the student experience is enhanced, anxieties are reduced, and performance levels are raised when such support is available to students across departments. Support for international students had been, for a long time, part of English for Academic Purposes courses, developed to help overseas students prepare for, for example, masters degrees, who would otherwise have found the academic level very challenging. Such courses, often named Pre-sessionals, offer skills development as well as advanced English and academic English training.

Hitch *et al.* (2012) contemplated - from a widening participation standpoint - an unusual but innovative, resource-based approach to student development and success, combining three resource domains (intrapersonal resources, skills resources, environmental resources) with different points of connection to students, and using more practical methods which included pedagogical design, mapping, and matching, and only then learning support (pp. 32-35). In a rather complicated end model, the key takeaways from the concept are that academic skills support is best embedded in courses, and that 'developing a unique set of resources that each student can ... take with them after graduating ' would be beneficial (p. 38). This also aligns with



those studies which advocate for the building of self-efficacy in students which can then be taken with them post-university (e.g., Carmon *et al.*, 2008; Fast *et al.*, 2010). The issue of whether or not to embed academic skills support seems to be not just about where the support takes place, but whether such support should exist *outside* of the classroom at all (see Wingate, 2012). This is curious, as research has all but confirmed that wherever students access *additional* study skills support, the results are positive. Various studies have highlighted the impacts that complementary support can have on students' general health, mental health and confidence. In their study of academic support services for medical students in Minnesota, Wernersbach *et al.* (2014) concluded that students who had enrolled on (extra-curricular) study skills courses had shown levels of improvement higher than those students who had not attended such courses. In some cases, they found, students who started their study skills courses with low levels of self-efficacy had even surpassed those who had exhibited high level of performance at the start of the study. Confidence and self-efficacy are explored further a little later in this chapter. Kimmins and Stagg (2009) looked at the effects of building confidence in students through study skills support at the tertiary level in Australia, and found that development of students' academic skills was integral to success and developing confidence. Many students, they observed, needed to develop their academic skills base, and when they did, it led to higher levels of confidence and self-efficacy. Abrams and Jernigan (1984) had previously looked into this relationship and found that the highest increases in academic performance occurred in those students who had attended the most support sessions on reading and study skills, and also in those who had the highest number of meetings with their academic tutors. This would suggest that progress can be maximised by constant contact with support staff throughout the course of studies, as opposed to a kind of 'crisis-management' approach on the part of the students whereby they may make contact and seek support just before an assignment deadline.

Numerous strategies concerning student achievement have been tried and tested and researched, covering a range of areas such as academic attainment, literacy skills, student health, confidence and self-efficacy, and many others. The impact of study strategies with at-risk students was the subject of a paper by Polansky, Horan and Hanish (1993), where time management, goal setting, learning styles, and, interestingly, 'making time for relaxation' were highlighted. Findings in this study revealed that the entirety of those students who attended all sessions were able to progress, where progression rather than high levels of attainment was the focus, whereas only a third of those who did not attend all the support sessions progressed (pp. 491-492). They concluded that study skills support appeared to be 'an effective way to improve the retention of students who are at risk of dropping out' (p. 492). Bailey *et al.* (2007) also assessed the impact of study skills programmes on students identified as needing support, this time on a group of pre-registration nursing students. The students required additional support with information literacy and study skills. This study also found that all students who attended at least one workshop improved their academic grade in their next assignment, and that confidence levels, information literacy and referencing skills also improved (p. 1).

Further evidence of the effectiveness of support outside of classroom teaching can be found in Braunstein, Lesser and Pescatrice (2008), who researched performance rates in online programmes. In a three-year study involving at-risk, first year students, findings showed that the 'at-risk' students who attended support sessions on study skills, personal, academic and financial support workshops, managed to achieve the same grades as those deemed not at-risk, but who had not attended those sessions. These results were described by the researchers as 'levelling the playing field' for disadvantaged students (pp. 36-40). In a similar vein, the extent to which students are prepared or under-prepared for the courses they are about to take was explored by Abrams and Jernigan (1984), who identified a group of incoming students as being academically underprepared, who were strongly encouraged to take part in support programs

as soon as they arrived on campus. These students were required to 'participate in study strategies instruction with the option of attending scheduled workshops or receiving individual help at the support centre' (p. 3). The researchers found that the greatest contributing factors to academic success were identified as the number of hours spent in reading and study skills areas, and the number of meetings the students had with the tutor.

A number of studies looked exclusively at online support, often connecting such support to the resources being offered via mobile and e-learning resources. Nolan and Jamieson (2021) discussed the switch to online support (after the COVID pandemic affected teaching in the UK) using Brookfield's Critical Reflection Model (2017) as a means to collect students' experiences and reflections. They suggest - echoing Yeager and Walton's (2011) study - that creating a sense of belonging may be key to student development and effective student-lecturer communication (p. 5). Similarly, Cohn (2021) investigated the building of online toolkits for academic skills provision and adds some interesting ideas concerning technical support in this area. Toolkits could be designed (and delivered with video support) he suggests, with help from librarians and technology designers within the institution to build technical support in such academic skills areas as reading, researching, and note-taking (pp. 192-197).

Returning to the subject of 'to embed or not to embed?', many papers address directly the tricky subject of academic literacy and academic skills support embedded within courses or modules. Tricky, because this issue seems to place academics in two firmly opposing corners. There also appears to be some confusion as to what it is that is being embedded, and then, what to call it? This stems possibly from a lack of clarity over many decades as to what *academic literacy* actually refers to. For example, McWilliams and Allen (2014) describe the concept of academic literacy as 'far from straight-forward' and cite Lea's (1984) position that academic literacies - or multiliteracies - should focus on practice. What Lea meant was that students first learn to

participate, and only later make meaning within an academic context. McWilliams and Allen (2014) concluded that academic literacy support would benefit all students if it were embedded into a course itself, as opposed to being an optional choice of the student outside of the classroom. This position is contrary to many other studies which highlight the effectiveness of 'outside' academic support. McWilliams and Allen's suggestion that study skills support would be better embedded in courses was previously advocated by Wingate (2006), who wished to 'do away with' study skills as a separate entity entirely. Wingate proposed, in a (perhaps misleading?) article entitled 'Doing away with study skills', that '... learning how to study effectively at university cannot be separated from subject content...' (p. 457) and that '... academic skills development should be incorporated into the courses themselves and carried out as part of classroom (or online) teaching' (p. 467). This position can be questioned. And indeed, many of the studies cited here directly contradict this stance, including the present study (see Findings and Discussion chapters). McWilliams and Allen (2014) suggest that developing students' academic literacies from an institution-wide perspective, i.e., across all departments working together, might be one way forward (pp. 13-14). However, the model that they end up with (p. 9) appears to be rather complex. Strauss (2013) had earlier taken a similar position suggesting that there needs to be institutional support for embedding literacy within courses (pp. 5-8), and cites Leach, Zepke and Haworth (2010) and Pocock (2010). Strauss agrees that the term literacy needs to be better understood, as it can mean different things to different people, or can have different nuances in meaning. Howard (2012), interestingly, discussed the opposite idea, that of embedding information literacy into academic skills, which may suggest that for her, literacy is different from academic skills in some way. Finally, Strauss (2013) maintained that academic development was seen, in research in New Zealand and Australia at least, too often as 'a quick fix', implying that adding on extra support within a lesson was not going to succeed in helping students who needed skills development to overcome the more fundamental academic difficulties they were facing (p. 7).

There may a number of reasons why such support is being increased across academic institutions, and not solely to develop the students' capabilities. These include issues surrounding student retention (Hamann *et al.*, 2020; Tight, 2019), and financial returns for institutions, and so on. However, data suggests that the student experience is enhanced, anxieties are reduced, and performance levels raised when such additional support is available to students across departments. It is interesting to note that some institutions seem not to have any such provision, and instead refer students to various online resources where academic support can be found as websites, video sites and so on. Those institutions will not be singled out here, however, the position of this paper is that this is an omission which could negatively affect the overall effectiveness of an institution's ability to educate, as well as to support the wellbeing of students. But the trend is to incorporate more of such provision.

One of the more significant impacts of support on students' development concerned students' wellbeing and levels of anxiety. For example, Vitasari *et al.* (2010) have claimed that 'anxiety is one of the major predictors of academic performance' (p. 490). Their qualitative study of engineering students directly observed the relationship between study anxiety and students' academic performances, revealing a significant correlation between high levels of stress in students and low academic performance, though this correlation concerned test anxiety specifically. However, there are many forms and causes of anxiety for students, and these are elaborated further in the following section.

### Anxiety, self-efficacy and academic development

In June of this year (2022), an article on the BBC website - just one of many - revealed that university students were 'five times more lonely than the average UK resident' (Jeffreys and Clarke, 2022). The article connected students' academic performance with their states of mind,

highlighting one student who, due to an apparent lack of support from his university even when he reached out for help, suffered severe anxiety and ended up dropping out of that particular university completely. One of the many topical issues touched upon in the article was the large size of the institution and the limited wellbeing support offered. After dropping out and taking time to recover, the student enrolled in a smaller, 'more friendly' university, and was, at the time of publication of the article, on track to graduate successfully. This story is one of a number of similar stories published recently concerning the wellbeing of students, with suicides also being reported. The student said of the support being offered at the new university, '...it felt like a comfort blanket, an arm around my shoulder if I needed it... knowing it was there was so helpful...' (Jeffreys and Clarke, 2022). This theme of 'knowing that support is there when needed' is reflected in the Findings chapter of this study. Anxiety for students, unfortunately, is a real phenomenon (Vitasari *et al.*, 2010), one that deserves further and continuing investigation. It is explored in more detail now with respect to the focus and aims of this thesis.

Anxiety has been variously defined over the decades by both educators and psychologists as 'one of the psychophysiology difficulties' (Callahan, 2001), as 'a subjective feeling of tension, apprehension, nervousness, and worry associated with arousal of the nervous system' (Spielberger, 1983), and as one of a wide variety of emotional and behaviour disorders (Rachel and Chidsey, 2005). It can involve a range of symptoms, from feeling nervous before a class, to experiencing panic attacks, going blank during an exam or presentation, feeling disorientated or helpless, being confused about assignments, or experiencing a lack of interest. Physiological effects can include perspiration, nervousness, panic, uneven breathing, a racing heartbeat, or an upset stomach (Ruffin, 2007). Health and social services practitioners will, however, also affirm that anxiety is a 'normal' and necessary protective reaction of the body to perceived danger. Healthy levels of anxiety are what enable, for instance, people to jump away from a suddenly oncoming bicycle. It is an ancestral aspect of the human condition developed when

humans were hunter-gatherers, often faced with challenging or dangerous confrontations with wild animals. Hence the instinct to fight, flight or freeze. When the body misperceives danger, that is, when the body reacts to a situation such as a trip to the supermarket, *as if* real danger were present, this is a sign that a person's natural, healthy, protective defence mechanisms are not functioning as they should. At university, the challenges that students must face can trigger reactions in their bodies and minds as if real danger were present.

The term 'stress' was originally credited to Selye in the 1930s. Selye investigated stress and stress responses (e.g., 1936, 1950, 1956), and based his triphasic model on his own definition of stress, that is, 'the non-specific response of the body to any demand for change' (1936, n.p.). The focus of the model was the individual's response to any event or demand that challenges it (Selye, 1936). The term *change* will come up again in connection to pedagogy and technology (see Fullan, 2013), and the links between stress responses, student achievement, and therefore successful transitions, may be an interesting area for further research in education. Kasl (1978) argued that there are difficulties in defining the variables involved in the stress process (p. 10), and this may also be relevant for students at the university level. In a study of engineering students, Vitasari *et al.* (2010) suggested that there was 'significant correlation of high-level anxiety and low academic performance' (p. 490). They agreed that the relationship between anxiety and student performance is considered to be a real one, and confirmed the conclusions of McCraty (2007), that study anxiety is a major *predictor* of academic performance. McCraty (2007) associated study anxiety with a theory called Catastrophe Theory, which was concerned with abrupt change, or, an abrupt, discontinuous transition, that students may experience, often alluded to by trainers in professional sports. Vitasari *et al.* (2010) represented the relationship between anxiety and academic performance in the following diagram:

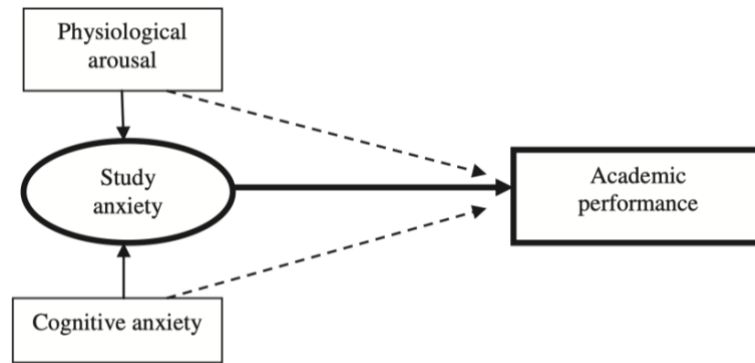


Figure 2: Relationship between anxiety and academic performance (Vitasari *et al.*, 2010, p. 492)

The findings of Vitasari *et al.* support previous research by Sena *et al.* (2007) and Luigi *et al.* (2007) in their assertion that a high level of anxiety can result in lower academic performance, and that further research into this subject was recommended. In a fascinating piece by Levine (2008), the many and various faces of anxiety are explored, which she suggests, 'may explain student feelings of helplessness following failure'. She cites Cole *et al.* (1999), who suggest that anxiety can lead to students 'terminating further attempts at the task' (pp. 62-63). Levine suggests that within the academic environment, the student's 'response to failure' will have significant repercussions for their subsequent *aptitude* to learn (Levine, 2008, p. 63). The theme of self-motivation, and how students can shut down their engagement after having experienced an academic shock, such as a low mark or a failed paper, is explored further in the Discussion chapter. This also connects to Vygotsky's (1978) ideas on self-actuation, and Yeager, Walton and Cohen's (2013) observations concerning how social psychological interventions can stimulate students' self-recycled responses to subsequent academic challenges. Levine (2008) also drew on the work of Foucault (1971) with reference to Foucault's 'Struggle', and his seminal *archaeology of knowledge* (1971), in order to investigate the possible causes and consequences of *test* anxiety experienced by students. Since the Covid-19-enforced changes to educational processes, it may be worth looking again at any alterations that may have occurred regarding testing and test anxiety, if tests have been replaced by coursework for practical purposes, for



instance, or whether tests are being conducted online, using tools such as Wiseflow™ (e.g., Brunel University, 2022). Wiseflow™ is software which students access online, which can be used for examination purposes. It shuts down all applications running on the student's computer, allowing only the test software to run. Students type in their answers, and at the end of the process, the software closes and the student no longer has access to it. These issues connect pertinently to those such as mobility and learner independence, which are explored further below.

Howard (2020) noted that some students 'perceive they cannot overcome academic pressures, and these pressures can elicit a threat response in which anxiety is experienced,' (p. 4). This may occur when a student does not fully believe in their academic abilities, and can be exacerbated when the student does not have an effective strategy to cope emotionally with such pressures (Howard, 2020). This echoes a study by Dobson (2012) which employed Attribution Theory to focus on learning goals and performance goals, and found that self-efficacy and self-concept were significant factors concerning academic anxiety. Dobson also found that 'students with high levels of self-efficacy and self-concept tend to have lower levels of academic anxiety' (p. 27). Dobson's findings concurred with Bensoussan's (2012) in that educators can help reduce students' study stress by 'helping them develop assessment preparation skills, and by boosting their confidence' (2012, p. 28). Howard (2020) further suggests that if students felt that their mental health struggles would be taken more seriously, many more students might come forward seeking support. She concludes that anxiety often results from a disparity between what the students perceive they can personally achieve, expectations of the challenge of assessments, and poor coping mechanisms. This, she believes, can leave the student feeling unprepared for the academic challenges they will subsequently face (Howard, 2020, p. 40).

Supporting students in developing better *coping* strategies and self-regulation (Ader and Erkin, 2010) has been considered as one of a number of ways to reduce high levels of anxiety in students, in an attempt to increase academic performance. In a paper exploring the effects of stress on distance learners, Ajmal and Ahmad (2019) observed an array of reasons that caused learners to be stressed; some of those - though many more were listed - include, a lack of time allowed for students to prepare their assignments, poor quality texts and books, a deficiency in communication with tutors, poor feedback from tutors, and a lack of interaction with class peers (p. 75). In a cross-sectional qualitative study at the University of Bedfordshire, Adeoye-Agboola and Evans (2015) investigated the relationship between anxiety and the academic performance of international postgraduate students, finding that cultural differences, language barriers, discrimination, and differences between their old and new educational environments contributed to high levels of anxiety which affected their academic performance (p. 336). They also highlight examination or test anxiety and future career misgivings as contributing factors, although they do acknowledge that there may be other reasons in addition to these that can also lead to study anxiety (p. 337). Cultural disorientation may be one of many issues facing international students, as the academic environment from where they come may be quite different to that of universities in the UK. Mclean and Ransom (2005) argued that for students to be successful, they needed to be able to navigate two new cultures, the international culture relating to the new lifestyle and language, and the new academic culture. How to navigate these effectively may involve many different behavioural and cultural processes.

A list of more general issues surrounding student anxiety had been composed by Freeman (2012). Students then were asked what made them 'reasonably or very stressed' and the following results were compiled - with the top four only listed here: exams and assessments (90%), managing time and deadlines (83%), considering career prospects (75%), having enough money to get by on (68%). Students may, furthermore, be experiencing stress and confusion

when they undergo transformational experiences, aside from the academic challenges or the new educational culture shocks awaiting them. For example, Erikson's (1966) theory of psychosocial development, comprising eight stages in which a person is confronted by a variety of challenges, places students arriving at university within stages five and six. These correspond to issues such as identity vs. role confusion (stage five), and intimacy vs. isolation (stage six). Likewise, while students are coming to terms with the new academic challenges through assignments and projects, they may also be experiencing difficult transitions of identity, social interaction, and changing personal values and attitudes (Brook and Willoughby, 2015).

The significance of the terminologies being used in many of these studies, it might reasonably be noted, resonate directly with the focus areas of this thesis. Relationships between student anxiety and self-belief, between academic understanding and achievement, between coping mechanisms, challenges, transitioning, and identity and personal values can all be discerned in, or connected to, the combined works of Yeager, Walton and Cohen (2007, 2011, 2013), which draw many of these areas together. It may be beneficial for institutions to delve more closely into these more specific areas concerning students' experiences, with a view to developing a clearer understanding *from the perspective of the students themselves*, of how the students feel about themselves, about how they feel about the academic environment in which they find themselves, and about the final academic outcomes they are hoping for. Indeed, the transition framework advocated in this thesis has endeavoured to draw many of these aspects of the student experience together for those very reasons (see Discussion chapter).

Finally, on anxiety, Gilmour (2021) has written about adopting a pedagogy of kindness, that is, that it can be extremely beneficial for students experiencing anxiety for support staff and academic staff to show compassion, trust and an awareness of wellbeing issues (p. 2). She has published on other areas of interest with a general wellbeing slant, for example on privacy and

wellbeing, on the use of webcams during the covid period of enforced online learning, and argues as an example of trust that it is a mistake for educators to insist on webcam videos being turned on during online classes: '... we as educators should be aware of when our actions may be requesting modes of participation that may ultimately cause distress' (Gilmour, 2021, p. 3). Students, she argues, may be joining classes from their personal environment, even from their beds, due to heating issues, and '... to insist on webcam use may pressure students to reveal ... the context in which they live – and having to do so may cause anxiety, embarrassment or even fears of bullying', (p. 2). In other areas of educational support, she appeals for a more compassionate approach, citing Denial (2020), who stated, '... let us... apply compassion in every situation we can, and not to default to suspicion or anger' (Denial, 2020, p. 217). The themes of wellbeing, anxiety, and further details of Yeager and Walton's (2011) work on social psychological interventions to enable a targeted engagement and increased achievement levels in students - a key feature of the new support framework - are highlighted in the Discussion chapter. Yeager and Walton's (2011) ideas are outlined briefly now.

#### Social psychological interventions - a personalised approach to skills interventions

The approaches to student anxiety that Gilmour (2021) highlights in her work could be seen to be present in the work of Yeager and Walton (2011) and Yeager, Walton and Cohen (2013). Yeager and Walton found that using socio-psychological strategies to activate specific behaviours in students increased achievement levels (2011, p. 276). These are essentially personalised interventions, and may have their origins in the work of Vygotsky and his Social Theory of Learning (1978). Vygotsky held that learning, and learning development, happens through social interactions, rather than via cognitive application, and are 'facilitated and developed through social interactions' (cited in Kearney *et al.*, 2012, p. 1).

In Yeager and Walton's (2011) paper, emphasis was placed on students developing an awareness of their own value and potential by discussing and therefore exploring further their personal, subjective beliefs and feelings about themselves, their studies, the learning environment around them, and how they interact with staff and peers. Issues concerning self-affirmation and a sense of belonging were also highlighted (Yeager and Walton, 2011, pp. 279-280). Dweck (2006) observed that there are students who believe that intelligence is 'fixed' and cannot be developed, which can demotivate struggling students. Instead, Yeager, Walton and Cohen (2013) have shown through experiments with students that this is not the case, and that if students were able to reassess their own intelligence, for example, as something that can actually be improved, increased, or developed, that these ideas can have a positive effect on students' motivation, and consequently their levels of achievement (p. 63). These experiments were only one part of a series of interventions looking into students' beliefs about their own development that were carried out by Walton and Cohen (2007), Yeager and Walton (2011) and others, that can be seen to re-engage students in their studies without any connection to specific subject content.

Relationships and social bonds are also key, they argue. In addition, Winstead *et al.* (1995) had previously argued that the quality of relationships between students and their peers, and students and staff, is an important element in maintaining student engagement and satisfaction. This had also been touched upon in the publications of Aronson, Fried and Good (2002), and Blackwell, Trzesniewski and Dweck (2007). Vygotsky (1978), Walton and Cohen (2007), Yeager and Walton (2011), and Kearney *et al.* (2012) all pointed to the importance of relating students' academic development to more individual issues such as *belonging*, and a sense of *self*, specifically through the implementation of skills strategies focusing on personalised or social interactions and interventions. Much has been written on student engagement, such as Argyle and Lu (1989), who also placed importance on 'a sense of belonging to a cohesive group', which,

they maintained, resulted in lower rates of absenteeism, and increased engagement and achievement. Student engagement *per se*, which has been a rather large area of investigation over many decades, was not the identifiable focus of this thesis however, even though there are overlapping areas. A sense of belonging on the part of the student can be considered a key part of development, and this must be nurtured via support, encouragement. Students need to feel that they have value and are valued within the environment in which they are learning, again this can happen across the whole institution. The key facets of social psychological interventions are best summed up by Yeager and Walton (2011) themselves:

Recent randomized experiments have found that seemingly ‘small’ social-psychological interventions in education—that is, brief exercises that target students’ thoughts, feelings, and beliefs in and about school—can lead to large gains in student achievement and sharply reduce achievement gaps even months and years later. These interventions do not teach students academic content but instead target students’ psychology, such as their beliefs that they have the potential to improve their intelligence or that they belong and are valued in school (Yeager and Walton, 2011, p. 267).

### The emergence of mobility in the context of independent learning

Although the notion of mobility is inextricably linked to mobile devices and smartphones, it has been shown to be much more. Mellow (2005) argued that that mobile learning (m-learning) was a means to enhance the broader learning experience, and not just a method of delivery of distance learning. Significantly, Mellow defined mobile learning as a powerful way to engage learners on their own terms. This showed much foresight, and was in line with a decades-long pedagogical trend away from the more traditional, educator-led, classroom teaching models, something that Sharples (2006) had been highlighting for many years. Significant progress in the field of technological innovation has led to a situation where a very high percentage of students

are in possession of a smartphone, at least in the west. Making use of these developments in the context of learning seems to be more than just a logical sequence or development. The complex role that mobility may play in helping students become more independent learners, where app innovation may also be considered a key area for further research as an additional tool for learning and therefore academic skills development, is now explored further.

Keegan (2002) described the sequence of steps from distance learning, to electronic learning, to mobile learning as a *societal* evolution. Mahamad, Ibrahim and Taib (2010) went further, describing mobile learning as a new learning *paradigm*. Initially, m-learning was defined from a device-centric perspective, but this evolved over time. The initial response from educators within classroom teaching was not positive. Mobile devices were seen as a distraction to learning. Doward (2015) believes that the rise of mobile devices and other gadgets in terms of their being taken up by higher education happened between 2001 and 2012. He cites some interesting data on the extent to which - and the speed at which - these devices were *banned* by HE institutions. He writes that in 2001 there were very few concerns about mobile devices being brought into the classroom, so few that not a single institution had banned them. By 2007, half of all institutions had banned their use. By 2012, this figure had risen to 98%. However, as devices became more and more popular and affordable, and as the applications and software on those devices became more educationally-aware and student-centred, those initial responses began to change. Indeed, Saker and Frith (2018) suggest that most research has now moved away from focusing on how mobile devices can distract educators (or students), both inside and outside of the classroom, to a position in which teaching and learning itself can be enhanced, or facilitated, by participatory smartphone applications. As Fullan (2013) states, researchers, developers and educators are more interested now in how smartphone features might be used as a further tool for learning. Facer *et al.* (2004) had noted that the challenge was how to maximise utility and innovation of mobile devices to aid learning, including how to

enable and enhance engagement as an integral element of independent learning. Facer *et al.* (2004) saw that it made no sense to omit technology from the learning process when students were using such technology in their everyday lives, a point that Fullan (2007, 2013) too has consistently argued. The term mobility now incorporates key notions such as spontaneity, interactivity, informality, and, perhaps most significantly in terms of independence on the part of students, *ownership of learning* (Traxler, 2009a). Many higher education institutions have now implemented mobile learning strategies to embrace and incorporate these new ideas, therefore adding more flexibility to the learning that takes place (Ally and Prieto-Blázquez, 2014).

#### Mobile app innovation as a tool for support

The ongoing development of educational technologies has meant that uses of a *single* technology by a learner or teacher are now much rarer; it is often the case that learners and teachers have a wide range of technologies at their disposal. This 'ecology of technologies' (as Davies (2018) puts it, has been a focus of much educational research. For example, Luckin (2010) explored how educational environments can be developed from a learner-centred perspective, instead of from an institutional or business perspective, while Davies (2018) adopted an 'ecosystem and change' stance. The 'ecology of technologies' that are now accessible (see, for example, Passey, 2018) means that the focus of *use* can be much wider than just learning. Given this, the implications of the widening technological environment in which scholarship and learning are taking place can be further explored in terms of *learning innovation*.

Fullan (2013) believed that the digital world of the student existed largely *outside* of classrooms (p. 40). He also observed that the 'gross underutilisation' of mobile devices in education was a greater problem than people realised (p. 41). Mobile devices, and especially smartphones, have



caused much debate around their usage *in* the classroom. However, the present thesis is concerned predominantly with the use of smartphones *outside* of the classroom, in keeping with the ideals of mobility as stated earlier. Fullan (2007, 2013) has repeatedly pointed out that technology is best seen as one of the 'co-racers' with learning, and asks educators to consider how best to integrate technology *and* innovation with learning. This is where app innovation in terms of independent learning possibilities and opportunities enters the remit of the present study.

Mobile apps have been utilised in different ways at the university level to encourage and promote mobile learning. In one of many similar studies, Kohnke, Zou and Zhang (2020) used a specially-designed mobile app to investigate how students retained academic vocabulary. Language learning is one of the faster growth areas of apps which can be downloaded directly onto mobile devices, often for free. However, learners' relationships with technology may be complex. Reid and Pechenkina (2016) suggest that this may be due in part to issues such as device complexity, brand identity (of devices), and the differing ranges of technical skills of students. This, according to Park, Nam and Cha (2012), is in addition to students' changing attitudes towards mobile learning tools. App prototypes have been employed in some studies to explore further students' experiences and aptitudes to learning (e.g., Kuhnel, Seiler and Honal, 2018; Bilal and Ibriz, 2020; Stevenson and Hedberg, 2017). It would be interesting to compile data on how many of the apps on students' mobile devices are designed for learning purposes (including games apps), and why the students chose those particular apps.

The mental health of young people has been of concern to educators for many years. Stundan *et al.* (2020) looked into help-seeking behaviours of young people using online digital tools, and found that such tools can be beneficial for support staff to make contact with young people

who are experiencing mental health issues, as opposed to more formal or official avenues of support (pp. 2-4). It might therefore be beneficial and timely for apps designed for university-level students to include or incorporate wellbeing features, with direct access to mental and general health support too. A typological review in Australia, of 177 apps used in Australian universities found that the majority of apps were used for study *management* and navigation, rather than direct health support; others involved high usage of augmented or virtual reality tools or software (Pechenkina, 2017, p. 134). Importantly, Pechenkina (2017) also reveals that key areas for concern - and therefore further research - pertaining to the use of mobile devices and their features and applications concern student safety, student support and personal privacy (p. 134).

### Pedagogy, technology and change knowledge

It may be fruitful here to bring in Fullan's (2013) interesting work *Stratosphere*, which combined the worlds of pedagogy, technology and change knowledge, connecting them directly to the management of effective *change*. Fullan states that pedagogy, technology and change knowledge 'have needed each other for over 40 years, without knowing it', suggesting that pedagogy can be taken to represent 'learning differently', and that technology 'is vast in quantity' but 'aimless in quality' (p. 1). He recommends that the convenience and mobility of smartphone apps may be one such way to allow technology to 'join the fray in a more purposeful way', and in so doing, could make the change that is needed 'easier and more enjoyable' (p. 3). Having more control over the *change* that happens can be seen to be highly relevant to the notion of transition that students often need to undergo in order to develop into more independent learners. In order to facilitate a successful transition into more confident, engaged learners, the transition has to be *managed* (Musamali, 2018, pp. 245-246), and Fullan agreed, stating that 'integrating the three things (pedagogy, technology and change knowledge) is

fundamentally liberating' for students (2013, p. 4), and something that can 'establish *conditions* for continuous improvement' (p. 5, my italics).

Fullan (2013) believes we may be asking the wrong questions about technology, suggesting that educators should not be asking about what the technology can do, but rather, asking the students (p. 11) *what technology does for them*. This may be one important step - certainly as far as this study is concerned - towards the use of app innovation in academic skills support. In other words, it's not the app, but the student. Fullan cites an article in Review of Educational Research by Yeager and Walton (2011) (Fullan, 2013, p. 18) who found that effective learning and improved student achievement happens when students' subjective experiences are targeted, stating that 'engagement *via meaning* is the key' (p. 18), and that a sense of belonging and values are important aspects of this: 'Interventions ... target students' psychology, such as their beliefs that they have the potential to improve their intelligence or that they belong and are valued in school' (Yeager and Walton, 2011, p. 267).

This may account for why academic skills support appears, as many papers have agreed, to work so effectively. As students bring in to the support their own individual - often difficult - academic and emotional (and therefore subjective) experiences of their classes or assignments, or past study histories, perhaps by addressing those issues together (the support staff with the students) meaning-creation for the students may take place. Fullan (2013) concurs. This connects also to the issues mentioned earlier of addressing students' anxieties and study stresses. Fullan cites a case where students attended workshops on the subject of brains being muscles, and that if they are exercised like other muscles, they can grow, and become stronger. What happened is that those who attended this particular workshop did better than those who attended workshops on specific study skills (p. 18). This suggests that the workshops on study skills may not have *connected* (as effectively) to the students' subjective experiences of learning,

and therefore may not have created *meaning* for them, but that the brains workshops *did* in some way. Fullan makes this more explicit when he states that interventions 'require on the part of educators an understanding of the theoretical or *psychological* experiences at play, and the contextual or background experiences of the students' (p. 19, my italics). A brief summary of transition models will now follow, none of which were specifically designed with academic skills development in mind; nor do they include the use of educational app innovation.

### Transitions that students experience, and transition models in higher education

Transitions from schools to sixth form colleges to university have been described as significant events in a person's life. These transitions involve sometimes difficult changes in academic and social aspects of a student's life. Some students find the new surroundings disorientating and difficult to adapt to (Kuh *et al.*, 2007). The increase in parents' and teachers' expectations of them can be challenging (Tinto, 1993). Students are expected to learn to think and learn independently, and to become more autonomous. Other challenges include being thrust into a different cultural environment with a greater diversity of peers (Hurtado *et al.*, 1999). On top of these, young people are experiencing significant changes to their physiology and emotional states, which may need external interventions and support to help navigation.

When traversing from college to university, these transitions can be much more challenging. Not only is there quite a jump up in academic rigour, the assessment processes can be strict and arduous (Pascarella and Terezini, 2005). There is a greater emphasis on critical evaluation. For students who are arriving from different cultures and educational environments, this can be extremely challenging and stressful. There will be social changes, a need to work and live independently and autonomously, and if social networks and support groups are not in place, this can lead to highly uncomfortable circumstances, whilst endeavouring to keep up with the requirements of the studies themselves. Issues such as mental wellbeing become very

important. Identities can be confused, and relationships confusing. Such are the challenges of these transitions, educational institutions need to have support provisions in place, and involve emotional and wellbeing support, social support, as well as academic support. A number of studies have explored these areas, and although De Clercq *et al.* (2018) argue that there have been only a limited number of models developed directly to trace or evaluate how students transition at university, those that do exist have been designed to reflect such transitions in order to better understand the experiences of students.

Kralik, Visentin, and Van Loon (2006) determined, in a wide-ranging review, that the notion of transition was a concept more common in health-focused research than in education-focused research. One of the key findings in the present literature search was that given that 'transitions can provide a framework in which experiences of coping with change can be described and addressed' (Musamali, 2018, p. 245), that *unmanaged* transitions can make successful adaptation for students more difficult. Such models that were highlighted in Musamali's (2018) paper were adaptations of Bridges' (2003) model, and Nicholson and West's (1988) model (even though Nicholson and West's was concerned exclusively with career transitions), and models which are based on various theories, such as self-determination theory (Deci and Ryan, 2000). Zittoun (2009) did suggest that a qualitative design to investigate academic transition could be developed which took into account the complexity of various adjustments that may take place for students over periods of time. This design could include students' own evaluation of their experiences and progress. Musamali's (2018) review evaluated Bridges' (2003) model, and Bussolari and Goddell's (2009) model as follows:

Bridges' (2003) model focused on life transitions and presented a sequential linear framework that did not address the chaotic and unpredictable nature of the transition process. While Bussolari and Goddell's (2009) model addressed the chaotic and

unpredictable nature of transitions, but did not provide a clear structure or systematic process of navigating through the unstructured and chaotic nature of a transition process (Musamali, 2018, p. 246).

Nicholson published four papers on transition, developing his ideas with West. His transition models are concerned exclusively with career transitions, rather than students' transitions. However, Nicholson and West's design incorporated easy to follow, cohesive sections, which can be applied also to the student context, with some changes in terminology and focus. According to Nicholson and West (1988), 'successful achievement of a transition will be determined by four successive stages: preparation, encounter, adjustment and stabilization, each of them characterized by specific tasks and pitfalls' (p. 4). Purnell (2002, p. 3), after reviewing Nicholson and West's (1988) model, concluded that the cycle appeared to be an 'excellent framework for (an) exploration of student experience'.

## Summary

Academic skills provision can aid students who feel they may require additional support concerning various skills needed to successfully complete their courses and assignments. Such skills can include developing an academic writing style, the ability to read academic texts effectively, critical evaluation skills, developing logical lines of reasoning, research skills, amongst others (Bailey *et al.*, 2007; Wernersbach *et al.*, 2014). According to Hamann *et al.* (2020), there is a body of literature which informs that the student experience is enriched, anxieties are alleviated in part, and academic achievement is increased, when such support is available to students outside of classroom learning.

Anxiety is a real phenomenon for students (Vitasari *et al.*, 2010), as is the relationship between such anxiety and student performance (p. 490). Furthermore, anxiety is one of a number of key indicators and predictors of academic performance (McCraty, 2007). Struggles with academic

performance levels can be worsened if an effective strategy to cope emotionally with the pressures of study are not in place and well managed (Howard, 2020). Therefore, support which can assist in these areas needs to incorporate effective coping strategies (Ader and Erkin, 2010). Bensoussan (2012) also observed that support staff and teachers can assist in the reduction of student anxieties by 'helping them develop assessment preparation skills, and by boosting their confidence' (p. 28).

One way to connect struggling students to their studies and thereby increase their confidence levels was discovered by Yeager and Walton (2011), who explored the use of socio-psychological strategies to activate and boost learners' self-regard, and their sense of belonging to their educational institution, by applying targeted, personalised interventions (p. 276). These social psychological applications echo the work carried out by Vygotsky in his Social Learning Theory (1978), which maintains that learning is a social endeavour, and that learning is developed via social interactions (cited in Kearney *et al.*, 2012, p. 1). To continue progress, and in order for students to take on challenges successfully, transitions into more able and confident learners need to be managed (Musamali, 2018). Specifically, 'transitions can provide a framework in which experiences of coping with change can be described and addressed' and that unmanaged transitions can impede successful transformations (Musamali, 2018, p. 245).

To help enable the development of students towards becoming independent learners, mobility and technological innovation can be incorporated. As Fullan (2013) states, combining and connecting 'pedagogy, technology and change knowledge can aid the management of effective change' (p. 18). Finally, app innovation can be implemented as a further layer of support to enable and develop mobility and independent learning when the student is off campus. The research design and methodology for this study will now be presented.

## Chapter Three - Methodology

### Introduction

A number of design strategies and methodologies were initially considered during the early preparatory stages of this research. I was interested in exploring more deeply my work as Academic Skills Officer, and how students transition into more confident, independent learners. I wondered what non-academic elements of support needed to be in place before academic development took place. Grounded Theory was initially considered, as one of the key aims of this thesis was to develop a new framework for support, drawing on, and grounded in data from surveys, interviews, support logs and app usage analytics (Strauss and Corbin, 1998). Phenomenography was also considered as a suitable approach, having completed an earlier assignment using this approach, by interviewing a number of participants on the challenges of implementing mobile learning strategies across an institution. However, it was after reading Schneider's (2012) approach to, and use of, Participatory Action Research (PAR) as an underlying *philosophy* that centred on the concept of *change*, and the value given to the experiences of participants, that I choose PAR. Schneider (2012) states that 'each PAR project must find its own way to achieve the goal of finding solutions... for the people involved in that particular project' (p. 153). After double-checking the mechanics of action research, by consulting Kemmis and McTaggart (1988), it became clear to me that a two-cycle system of participatory action research, and the underlying philosophy associated with observing and assessing change and reflection, would be fitting and fruitful. The cyclical and reflective nature of PAR would allow the retesting and consolidation of certain ideas, such as adaptations to the app, and would also enable me to investigate more thoroughly the subject of transition. The nature and effects of different forms of anxiety that students were experiencing became increasingly of interest to me, and these appeared to need some manner of addressing before the more detailed academic



support could take place. And so Participatory Action Research was considered the best fit for this research and is explained in more detail below.

### Ontological and epistemological stance

The ontology (nature of reality) and epistemology (nature of knowledge) guiding this study - and subsequently any new knowledge generated therein - will now be elucidated. My educational role as Academic Skills Officer, and all that that may encompass in terms of support, can be regarded as a social act, where participants (university students) can be knowledge-developers as well as learners (Carr and Kemmis, 1986). In other words, the participants, through the change that occurs, can become more self-aware in the process of interactions with the support (and via app innovation) by relating their experiences to the process of transitioning into more independent learners. Through such interactions, they can co-develop - grow - with their peers. They will themselves be able to forge changes which will better assist themselves and others by advising the initial designer (myself) of what works better for them, and by sharing their experiences with their peers and others. In so doing, they may enable future change that affects the whole (localised) community in academically and emotionally beneficial ways. The ontology - the nature of reality within the context and milieu of this study, that is, the setting of Regent's University London - involves a localised community; it is context-bound, situated and relational. Reality is shaped by academic values, knowledge is socially constructed, and there is little clear dynamical separation between investigator and participants. Outcomes are therefore essentially subjective: each student or participant will experience, respond, perform, and *inform change* differently. The epistemological position of this study is that knowledge 'is an interpretation, continually situated within a living tradition (of study), and that this world can best be understood from the point of view of the individuals (participants) directly involved. Those individuals are situated within a specific 'horizon' of understanding. Knowledge gained, developed and shared, therefore, can be described as uncertain, *evolving*, contextual and value-

laden,' (Participatory Research, 2013, n.p., my italics). Such values are explored and evaluated in detail throughout this qualitative study.

### Research design

After recruiting 14 participants (more details of this below), who had expressed a need for additional support, an initial survey would ascertain how the participants felt before support started. There would then be a period of six or so weeks of support sessions. These would be followed by semi-structured interviews, followed by an exit survey. Some of the participants took part in both cycles of support, though each participant would be interviewed only once. Running parallel to the support sessions, the participants would have access to the app, a specially designed app which contained academic support features complementing the support sessions themselves. These features included how-to videos, referencing examples, and other academic resources such as informative documents. The app also included wellbeing features such as assistance with anxiety, a needs and contact page where participants could contact the co-researcher (myself), make requests and add comments, among others. A graphic, generalised representation of the overall PAR design idea is presented in Figure 3 below.

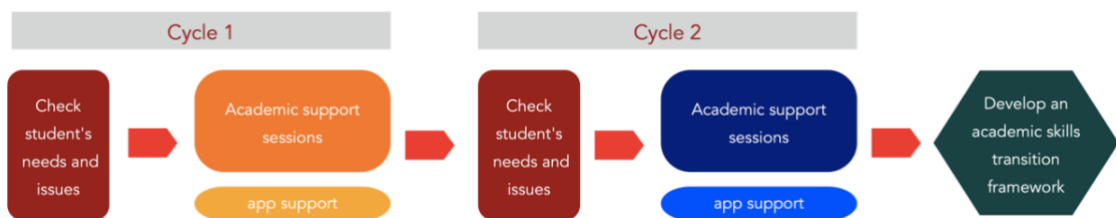


Figure 3: Initial PAR design

Having decided upon participatory action research being a 'good fit' for my study, I began to look further into the nature of this methodology, and realised that not only would the cyclical design benefit my research ideas, it became apparent that the underlying philosophy was in keeping with the notions of participatory engagement that I had in mind. Before the cycles begin, the app was created which would offer further support alongside the academic skills support sessions. The initial survey would also be completed. Between the two cycles, interviews would take place, one per participant even if they took part in both cycles, and adaptations to the app and to the support would be made following input by the participants. At the end of the second cycle, further interviews would take place for those participants who had not yet been interviewed. The exit survey would be filled in too by all the participants, asking how they felt *after* the support had finished.

The research design began with the idea that students who undertake academic skills support often have difficulties in the early stages of the support. I became curious as to what might be present for the students at that stage of their studies. The various skills themselves I had been teaching or guiding students on for many years, namely, academic writing style, criticality, referencing and citing sources correctly, argumentation and lines of reasoning, critical reading skills, presentation skills, organising ideas, the structure of essays and dissertations, and so on. I realised that there was another starting point, and that seemed to be connected to the anxiety - indeed different types of anxiety - that many students seemed to be experiencing prior to starting support, and also during the various stages of the support. Then, having undergone a series of support sessions, over days, weeks or months, a transformation appeared to occur, and the students were often able to reduce the number of support sessions and do more for themselves.

I have also been interested in adding the technology enhanced learning part to the design as I am interested in how mobile app innovation can add further support to students out of the classroom and off campus. An app was created with functionalities which might aid the learning process, aligning with the trend seen across education for increased mobility and mobile learning potentialities. Therefore, a fourth element was added to the mix, placed in parallel to the support sessions. The process, from meeting the participants (here named students) to the end product of developing a framework for those supporting students in their academic skills development which may result in a successfully managed transition - a generalised objective without or before at this stage details of the PAR cycles - came, therefore, to look like this (see below):



Figure 4: Full research design

## Participatory Action Research (PAR) as guiding philosophy

Schneider (2012) suggested, as noted earlier, that PAR is more a philosophy than an approach, stating that 'PAR is a philosophy of engagement in the research process, rather than a research method' (2012, p. 153), adding that it 'brings into focus the personal transformation experienced by the people who participate,' (p. 154). The operative word amongst all this, though, one that stands out clearly in the body of PAR literature, is the term 'change'. As Lewin (1946) - one of the first to deploy change towards progress in such areas as social housing, employment and societal integration - put it, '...the best way to understand something is to try to change it' (p. 4). The terminology concerning those who participate in such studies has changed over time as the methodology was employed across wider areas of enquiry. Initially, and for a long time, the researcher and the participants were deemed 'co-researchers', highlighting the collaborative nature of this form of research. However, the terms used to define the participants has constantly been updated to include terms such as collaborators (Kemmis and McTaggart, 2005), community experts (Greenwood and Levin, 2007), co-designers (Cargo and Mercer, 2008), participant-learners, and, more recently, co-creators (Suarez-Balcazar, 2020).

The term co-creators, I felt, was more strongly reflective of the belief that community members can contribute significantly to the *creation of knowledge*, which went beyond traditional researcher-participant dynamics. As Suarez-Balcazar has argued, 'stakeholders must be meaningfully involved as co-creators of knowledge... (Community psychologists) have the opportunity to make significant contributions to addressing disparities when community residents' knowledge is valued and recognized' (2020, p. 1). This study has therefore adopted the term co-creators for the participants, who are at the centre of the creation of new

knowledge, in this case concerning academic skills development and the localised learning environment, within which positive *change* can be implemented. Baum, MacDougal and Smith (2006) expressed it in the following fashion and encapsulate well the different aspects of PAR, such as change, reflection and social relationships:

PAR seeks to understand and improve the world by changing it. At its heart is collective, self-reflective inquiry that researchers and participants undertake, so they can understand and improve upon the practices in which they participate and the situations in which they find themselves. The reflective process is directly linked to action, influenced by understanding of history, culture, and local context and embedded in social relationships. The process of PAR should be empowering and lead to people having increased control over their lives (Baum, MacDougall and Smith, 2006, p. 7).

Such change, reflection and social relationships do not need physically change the surroundings, or, more grandly, the system, but can just as well occur internally, through social interactions and reflection. This, indeed, is the area of enquiry that Vygotsky (1978) and Yeager and Walton (2011) were concerned with, and I feel these synthesise well here. The 'Action' element of PAR (see below) can be an internal action, as well as an external one. This project therefore constitutes PAR in that the participants as co-creators of knowledge contribute their experiences and perspectives of learning, describing in detail the academic difficulties they are facing, and the emotional challenges that accompanied them. Future support (for future students) will be able to reflect these changes and act on the newly created knowledge, in order to engage with these students more effectively .

Over the past several decades, PAR has undergone significant developments and adaptations, influenced by changes in the evolving understanding of research ethics and social justice. PAR has adapted to include mixed methods approaches, combining qualitative and quantitative

techniques to produce more up-to-date insights. It has also seen a shift towards developing more varieties of partnerships between researchers and community members (Cargo and Mercer, 2008). Collaborations have adopted new terminologies to reflect these changes. For example, community members as participants have been variously described as co-researchers, collaborators, co-designers and co-creators of new knowledge. PAR has also integrated with arts-based methods, engaging in more creative ways of involving communities. Advances in digital technologies have allowed for more technologically-advanced forms of participation and data collection, leading to the emergence of what has been termed 'digital PAR' (Luttrell *et al.*, 2019). Discussions about consent, power dynamics, and cultural sensitivity have been complicated further by social media developments (and intrusions) and the ease of mass sharing of information (Restoule *et al.*, 2013). Authentic co-enquiry requires that meaningful connections between conceptual demands - in the case of this study, of the participants' academic responsibilities - and real-world outcomes, in terms of successfully completed assignments, are realised to the benefit of participants as community members. Myself, also as co-creator, encouraged the participants to reflect on and share their experiences, noting and clarifying in collaboration with them options and solutions as the study progressed.

McCauley (2017) described PAR research as 'an umbrella, under which there is a shared core philosophy of inclusivity' (p. 1). It is therefore appropriate, I believe, to describe this approach as a suitable and beneficial guiding philosophy. The methodology relies on an action-reflection cycle to achieve learning outcomes and is particularly suited to health and education and 'could be an incentive to encourage more academic engagement with practice' (McGrath and O'Tool, 2012, p. 1). The following diagram shows the cyclical nature of participatory action research which does not need to be restricted to two cycles, but only two were employed in the current study. This diagram is based on Crane and Richardson (2000), although there are many others



who have adopted a similar design. A fully detailed, 2-cycle diagram of PAR used in this study is presented below.

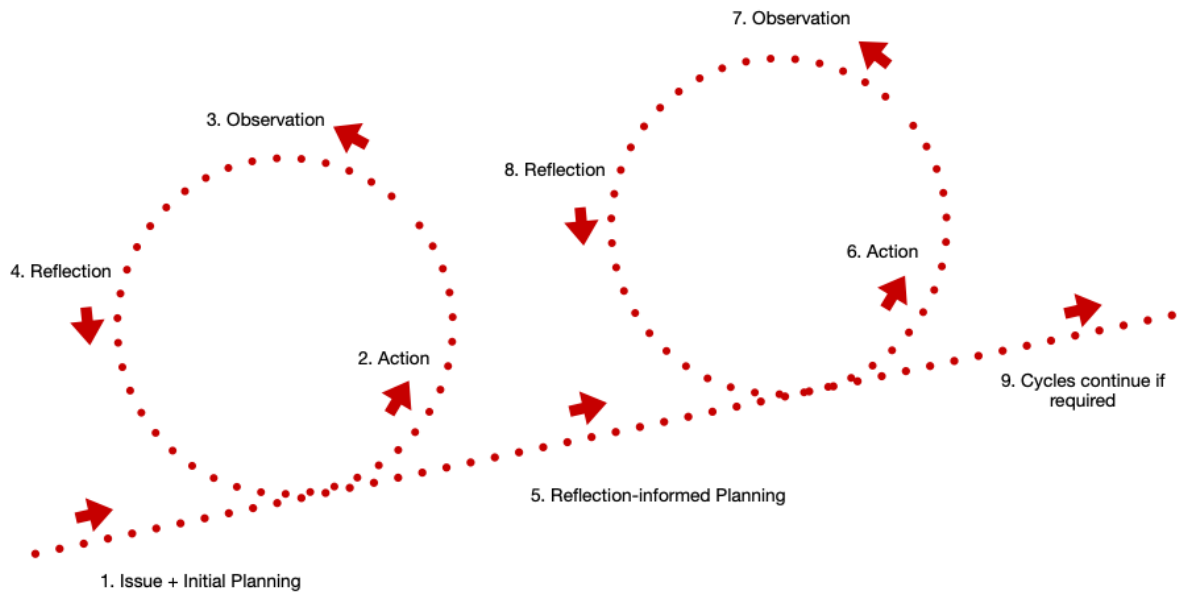


Figure 5. Participatory Action Research cycles, adapted from Crane and Richardson (2000).

The nine initial elements contained in the two cycles, associated here with the present study, are described as follows:

- 1. Issue and initial planning** - The key issues to be investigated are made clear and initial planning for the process is carried out.
- 2. Action** - Cycle One - this involves multiple actions including sending out and receiving the initial survey, setting up and carrying out support sessions, which will last approximately six weeks.
- 3. Observation** - contemporaneous logs of the support sessions are kept, including observations of how the participants are getting on. Interviews are carried out.
- 4. Reflection** - the participants and the researcher reflect on the process, and on the participants' progress over the course of the support sessions.

**5. Reflection-informed planning** - this in-between part takes requests and comments from the participants to make improvements and adaptations to the process, and the app and its features, and also to future support, where necessary and appropriate.

**6. Action** - Cycle Two - involves sending out and receiving the initial survey for any new participants, and setting up and carrying out support sessions, which will again last approximately six weeks.

**7. Observation** - contemporaneous logs of the support sessions are kept of the second cycle support sessions, whilst observations of how the participants are getting on are also recorded. Interviews for those who have not yet been interviewed are carried out. The exit survey is completed by all participants who have taken part in both cycles.

**8. Reflection** - the participants and myself reflect on the process, and on the participants' progress over the course of the support sessions.

**9. Write up / further cycles** - cycles may continue if more research is required. In the present study, all data were analysed, and critically evaluated. A new framework of support was designed based on the data.

The complete design of the two cycles is shown in Figure 6 below:

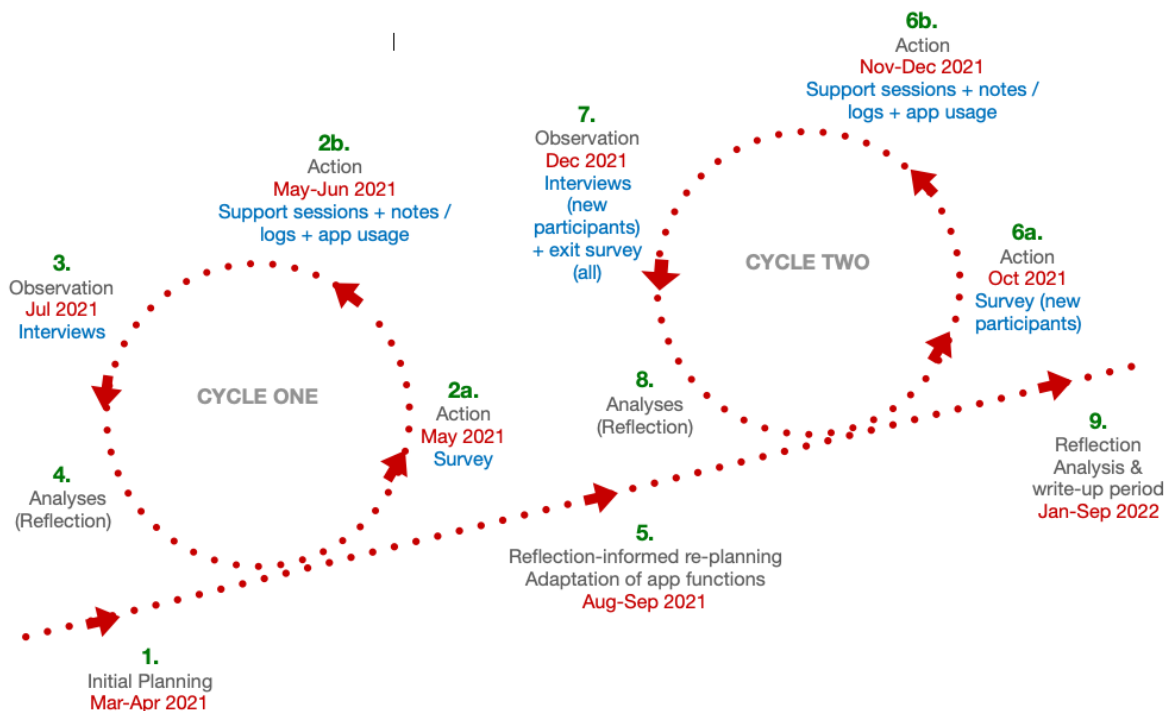


Figure 6: Complete PAR Cycles One and Two, Mar 2021 - Dec 2022

As Schneider (2012) has suggested, PAR can reasonably and justifiably be used as a *guiding philosophy* for research, *without* a rigid set of rules. The change that occurs, for instance, can be taken as part of a much longer process of development, and need not be restricted to a fixed set of regulations. This would allow for further development at later stages, further explorations based on previous data, outside of the initial research area itself, as change and sharing change with others need not necessarily be tied to the limits of time and space of a research project. The potential for participants (students, say), to take what they have experienced, and go on to establish a mentoring programme, for example, for *other* students in their institution, outside of any current study, itself could be meaningful and beneficial. Such pliability would fit with the idea of localised, societal development and support, where fluidity and prolongation is possible, practicable, and not restricted in time.

There are, however, challenges to PAR to be considered too. These are outlined briefly here with my responses to them. In wider participatory research, it may be that if the community is involved, there may be a general apathy towards research and change. It can take time to establish and build up rapport. There are also issues of trust and power dynamics to be addressed (PR, 2013). In the present study, these issues were adequately met, possibly due to the pressing needs of the participants themselves, who were actively seeking out support in their studies and had deadlines to meet. Issues such as apathy and trust did not arise in this instance at this particular time.

The participants, as co-creators of new knowledge, were chosen from a group of students at the university who had either already previously accessed academic skills support, or had recently asked for support. Those who were interested in taking part in the research were given a copy

of the Information Sheet (Appendix A), and asked to sign the Consent Form (Appendix B). For the first PAR cycle, 14 participants (13 female, 1 male) agreed to take part in this study. Details of the nature of the study were explained to the participants before they gave their written consent to take part. Three more participants joined the second cycle. In total, then, 17 participants took part, 13 of whom were interviewed. Below is a table showing the anonymised names and allocated numbers of the participants:

Participant number	Anonymised name	Participant number	Anonymised name
P1	Isabel	P10	Ebonie
P2	Leanne	P11	Sandra
P3	Amelia	P12	Caitlin
P4	Rebecca	P13	Ziva
P5	Stephen	P14	Karen
P6	Sandy	P15	Shannon
P7	Georgette	P16	Tanya
P8	Maya	P17	Sammije
P9	Nadia		

Table 2: Anonymised list of participants

The participants were aged between 18 and 70 and were studying a variety of subjects at differing levels. For reasons of confidentiality, all details of the participants have been omitted. Mature students are defined (UCAS) as being students of 21 years old and older. For the purposes of the study, it was deemed non-essential to state which courses or at which levels the students were studying, nor to state how old they were individually, as by giving such details this might have made them identifiable. The rationale here is that whatever a student needs in terms of academic support and assistance in their studies, this is all that was automatically

relevant to this study, regardless of subject or level. The *experiences* of the participants remained, therefore, the key component of the study. All data collected from the participants was kept securely, on a password-protected laptop. The participants could opt out of the study at any time without explanation. Although three of the participants did not continue the support after one or two sessions, they did not formally opt out but rather no longer kept in contact. It was assumed that support from that point on was no longer required.

### Social composition and socio-economic backgrounds of the participants

In discussing the composition and socio-economic backgrounds of the participants, it is important to maintain confidentiality and privacy, whilst at the same time describing any pertinent details. The cohort of participants was generally representative of the whole student body, and diverse in age, ethnicity and social backgrounds (Brown, 2018). Ages ranged from 18 to 70. 16 were female and one was male. 11 participants were mature students (that is, aged 21 or over) - and six of these were overseas students. There were 13 overseas students in total (for whom English is not their first language), with four students from the UK and Eire. Although none of the participants were - to my knowledge - from a widening participation scheme, there was a broad and balanced range of social backgrounds. Individual demographic information, as well as any identifiers were removed to prevent any inadvertent disclosure of confidential or private information. Ethical guidelines from both Lancaster University and Regent's University London were strictly followed at all times.

### Conducting the support sessions (in accordance with PAR ethical guidelines)

It has been argued that educational institutions should (and perhaps must) maintain and advance strong ethical environments, ones that promote ethical behaviours and decision-making, despite containing many different beliefs, ideologies, values and expectations (Dalton and Radtke, 2013). These environments must be checked and evaluated to ensure that all

groups and cultures within them are accommodated and respected. Any lack of clarity concerning the rules and regulations of ethical behaviours and principles can lead to an 'erosion' of that ethical environment (Haydon, 2006). Codes of ethics for educators are therefore an important aspect of the obligations educational institutions have towards their students and staff. These can be presented as general guidelines, and also as specific actions and behaviours. For example, the professional educator is obliged to treat students with respect and dignity, in ways that ensure the health, safety and wellbeing of the students (Rogers, 1957). Other appropriate ethical behaviours involve communicating and interacting with students in a respectful manner which is culturally sensitive, being transparent and appropriate, and showing an awareness of, and respect for, the students' age, gender, culture and socio-economic background, and so on. The academic support sessions carried out with the participants of this study followed all such codes and behaviours. That is, they involved respecting the participants' privacy, age, gender, and so on, and ensuring that any information imparted by them - written or spoken - remained confidential.

The support sessions in this study followed these guidelines carefully, and even though many of them were held online, the same codes and principles applied. These principles also align with those of participatory action research. Common aspects of the two include respect for the lived experiences, values and judgements of the students and participants, the notion of empowerment, where educational support can empower learners by giving them agency in their learning process. This can foster a sense of accountability and ownership, and can increase motivation to engage with the process. The sessions are designed and timetabled collaboratively, with participants sharing their experiences, preferences, needs and goals. This collaborative approach can empower participants to take an active role in shaping the structure of their own development. PAR involves cycles of action and reflection, and this was encouraged during the support sessions, where action might involve a student applying new

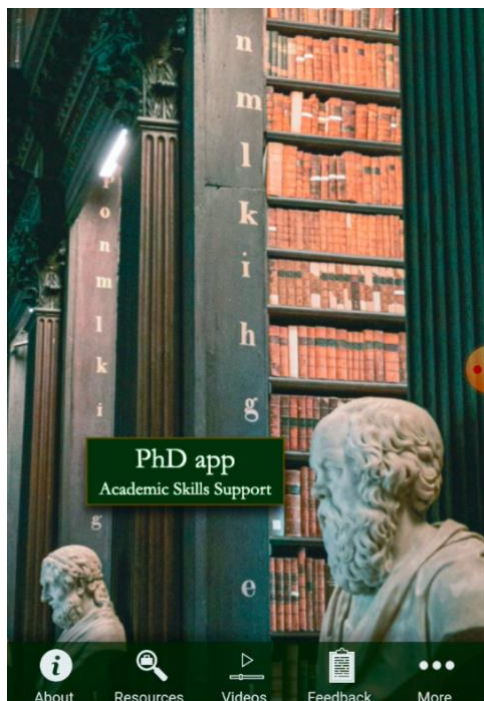
advice from the staff member, reworking aspects of an assignment, and then reflecting on ways in which they have developed certain ideas or skills during the process.

In addition to these alignments, PAR values community members' knowledge and experiences. Educational support sessions can also create a space for participants to share their insights and thoughts. They also involve respecting inclusivity and diversity, which are also important elements of PAR. In essence, educational support sessions can align with the principles of participatory action research by fostering collaboration, empowerment, contextualised learning, and an equitable approach to learning. The issues of trust and respect are key for both how the support sessions were conducted, and are a significant element of how to treat community members in participatory action research. Gilmour's pedagogy of kindness (2021) maintains that compassion, trust and an awareness of participants' wellbeing are beneficial to those who, and especially in the case of this study, were exhibiting signs of anxiety and stress. For her, compassion could be taken as one of the keys which might open the door to an effective and open relationship between co-creators of knowledge. This compassion is centred on the principles of respect, non-judgemental attentiveness, and being open to see the world from another's perspective. This, indeed, as a further example of the processes involved in pedagogy of kindness (Gilmour, 2021), can be regarded as the *modus operandi* of the support sessions in this study.

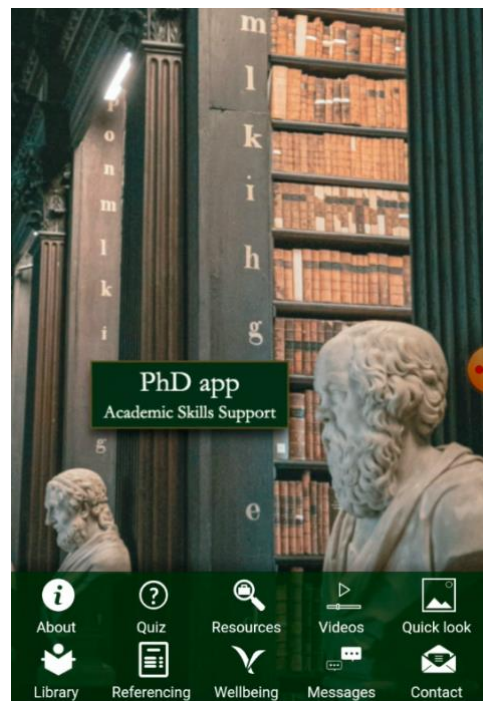
### Mobile app preparation

In order to explore how mobile app innovation might assist in the development of students' academic capabilities, I decided to design and build an app which would have various functions and features associated with learning at the university level. I became an app developer on both Google Play™ and the Apple App Store™ in order to be able to download the app onto the smartphones of the participants, whether an Android device or an iPhone. I then signed up to

BAB App Builder™ in Sri Lanka which allows the user to build, test and publish apps. As PAR involves two cycles for this research, I would have the opportunity to have the participants test out the features and give their responses and suggestions (which, in the language of PAR is referred to applying interventions (Schneider, 2012)). Features in the design of the app included an Introductory page, explaining the details of the study, a Quiz with 20 questions (without answers, see Appendix F), some pages with different resources and videos (where the answers to the Quiz were to be found), links to the university library pages and university academic skills site, referencing examples in APA and Harvard (as the university only uses these), a selection of wellbeing resources and links to MIND, the NHS and Student Minds, where participants can access help for anxiety, a Blog page, and a Contact page. Participants taking part in the first cycle would give me their feedback and comments and requests so that the app could be updated and improved for the second cycle, in keeping with the application of interventions from the participants. Based on those suggestions, I would be able to adapt the app functionality and have the participants test it once again.



Cycle One



Cycle Two



Figure 7: Screenshots of the Cycle One app and the redesigned Cycle Two app

### Nicholson and West's (1988) Transition Cycle (as basis for new model)

Schneider (2012) suggests that PAR 'brings into focus the personal transformations experienced by people who participate' (p. 154), and this connects with my ideas on the creation of a new support framework. Through my work at the university, I became interested in changes that I had observed in students - the transition that individual students had undergone after having received academic skills support. It occurred to me that a framework which monitored, reflected upon, and assessed such a transition, might be of real practical and perhaps policy interest. After looking at a number of frameworks, initially connected to developments in self-efficacy and transition (e.g., Bridge's Transition Model (2011); Schlossberg *et al.*'s ideas (1995); Nicholson and West's Transition Cycles (1984, 1988, 1989, 1990)), it was Nicholson and West's (1988) model which stood out and seemed to be the better fit, even though this model was actually designed with career transitions in mind. This was because the four elements of the model presented in a way that I could identify as key elements of those *transitions* I had observed in the students whom I had supported. According to Grant and Osanloo (2014, cited in Passey, 2019, p. 6), 'there are distinctions between different forms of underpinnings, based on choices of models, conceptual frameworks, theoretical frameworks, or theories'. A *model*, Passey states,

'... is concerned with summarising findings in a visual way. It might then be used as a model for exploring practice or further research, but it should be recognised that its specific context and summarisation of factors or features might not be exhaustive. A framework, on the other hand, tends to be more flexible and descriptive, as it usually identifies factors or criteria that have influence on a particular field (whereas a model might not do this in such a detailed way). Such a framework ... may be used as a starting point, since it can offer a thematic view for creating research instruments or methods,' (Passey, 2019, p. 7).

It seemed to me, then, that what I was proposing was not a model but a *framework*, based on Nicholson and West's (1988) model, which could be adapted to the context of student transitions in higher education. Nicholson and West's (1988) model (Figure 8., below) would therefore become the basis for a new framework which might assist students and academic support staff.

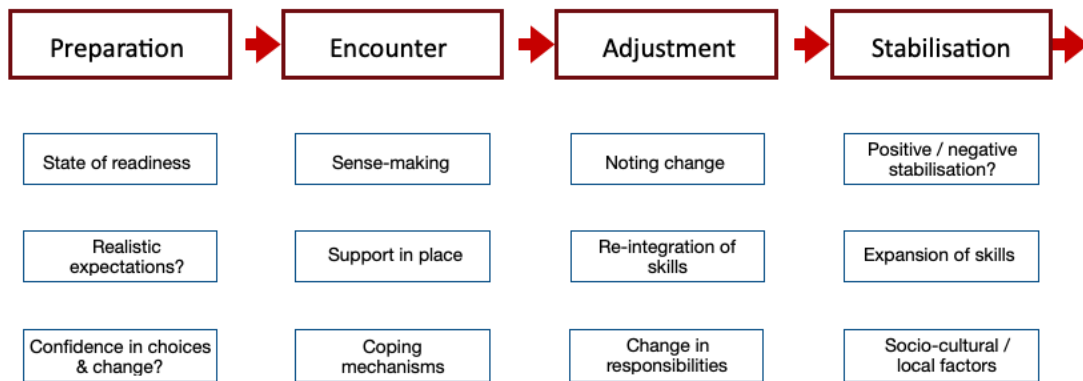


Figure 8: Nicholson and West's (1988) Transition model

Even though Nicholson and West's (1988) model was concerned with career progression and transition, it can be seen quite quickly that a number of the elements could be adapted and applied to that of students in an educational setting. Some of these items of terminology could easily be swapped for more relevant ones. Preparation investigates how psychologically prepared participants may be before key challenges are undertaken. Encounter is described by Nicholson and West as a period of 'reality shock', but where making sense of the new reality is 'paramount'. The Adjustment stage monitors how participants adjust to their new reality, how they integrate new skills and abilities. Finally, the Stabilisation stage is where any fine-tuning may need to happen, that there can be both positive and negative stabilisation as participants may not yet feel ready to take on the challenges that are yet to materialise. My plan, or *modus operandi*, was therefore to *simplify* and *exemplify* Nicholson and West's model. Such a framework, here adopting the name Academic Skills Transition Framework, would include terminology more aligned to the challenges and learning processes within higher education -

challenges, both academic and emotional, that students must face, one that also included examples of interventions and support techniques within the model itself, rather than in hidden, book-length explications, which would be more accessible to students who might themselves identify with the different elements as they transition, as well as to the support staff overseeing the support to that aim.

### Data collection

Data were collected slightly differently for each cycle. According to Watling *et al.* (2017), data collection needs to be carefully planned (p. 129). Some decisions on data collection were made as the research progressed based on how many data were arising, and whether or not a repeat of a particular collection was deemed necessary in the second cycle. For example, it was decided that group forums would not be necessary. This is elaborated further below. Each participant was interviewed once, even though some of them took part in both cycles. Data collection is now elaborated further concerning each cycle individually.

### Cycle One

The first cycle of support took place over May and June 2021, and as stated above, involved 14 students. Firstly, participants filled out a short, online, qualitative survey using Microsoft Forms (Appendix C). This included questions on how the students felt before the support sessions began, what kinds of skills they felt they needed to work on, and so on. The next set of data collection involved a series of academic support sessions over a period of 6 weeks. These online forms were kept secure on a password-protected, encrypted laptop. Contemporaneous notes or logs (Kemmis and MacTaggart, 1988) were made (Appendix D) as these progressed, including notes on what the participants asked for in terms of guidance and assistance in each session,

how they were progressing from session to session, commentary on aspects of the support and the responses to the support by the participant, and generally any other interesting aspects that arose. These hand-written logs were kept securely in locked draws at all times. Alongside the support sessions, a third set of data were collected which involved the participants downloading a specially created app for their mobile phones. This app was designed only for use in this study (Appendix E). The app contained various functions and features that might add a further level of support for the participants in their studies. Only the participants had access to the app. More details on this below. The app builder itself (BAB™, Sri Lanka) held all analytics on the usage of the app, for example how many participants accessed which functions, how many times, for how long, and so on. Only myself and the BAB™ administrators had access to these data analytics.

In addition to the above, semi-structured interviews (see Appendix H) were carried out after the support sessions were brought to a close for the purposes of the study (even though in many cases, academic support did not stop for the participants). The questions were open-ended, so as not to be prescriptive (Foley and Timonen, 2015, p. 1201), and were carried out online via Zoom™. The interviews were recorded and then transcribed, using the app Live Transcribe. The recordings were kept secure on a password-protected, encrypted laptop. These recordings would then be replayed and coded, line by line (Strauss and Corbin, 1998, p. 68), from which themes, and later categories would emerge.

Thematic analysis was employed to explore and analyse these in-depth (see Data Analysis, below). Finally, an online Microsoft Forms™ exit survey (Appendix I) would later be filled out by all participants who had taken part in the two cycles, after the second cycle had completed, which endeavoured to summarise the experience of the support by the participants. The responses to the online survey were kept securely on the password-protected, encrypted

laptop. This survey enquired of the participants how they felt after the support sessions had been completed (for this study), and what they thought might be helpful to future students. The first cycle, therefore, involved four sets of data collection, which was deemed sufficient for this cycle. A series of group forums, involving 4-5 students in each forum, was deemed unnecessary due to the amount of data collected up to this point. Additionally, getting the students together in person for a forum during the COVID-19 period would not have been easy, as the participants were mostly back at home and in different time zones. As relating to PAR processes, adaptations to the first cycle were carried out based on participants' comments and suggestions, involving improvements and tweaks to the support sessions (see Discussion). Furthermore, the app functions and features were also updated based on recommendations by the participants, in keeping with PAR philosophy.

## Cycle Two

The second cycle of support took place over October and November 2021. Three new participants were chosen and gave their consent to join the study, taking the total number of participants to 17. Three of the original 14 participants no longer requested support, although none of them asked to be removed from the study. Due to the amount of data collected from the first cycle, no further interviews of the original participants was deemed necessary. After Cycle Two, the three new participants were interviewed. These three new participants filled out the online Microsoft Forms™ survey. All precautions were taken, as in Cycle One, as to keeping data - meaning the initial survey responses, the contemporaneous logs from the support sessions, the recorded interviews and transcriptions, and the exit survey - secure on the password-protected, encrypted laptop, or in locked drawers.

A small number of participants who had taken part in Cycle One, continued to access academic support during Cycle Two. Contemporaneous logs were recorded of each session (see above).

The app was updated, in accordance to the PAR model between cycles. Suggestions from the participants on how to improve or change any aspect of the first cycle were incorporated into the second cycle. This included a revamp of the app (see Findings chapter, and also Appendix E). After the support sessions were completed, the three new participants were interviewed on their experiences of the support. Those who had already been interviewed (in Cycle One) were not required to interview again. This was due in part to sufficient data having been collected, and in part because the feelings and opinions of the participants had also been noted throughout the contemporaneous logs during the support sessions. Any additional thoughts they might want to contribute could also be noted in the exit survey, which participants filled out at the very end of the second cycle.

After all participants (who were willing to be interviewed) from both cycles had been interviewed once, they were finally asked to fill out the exit survey (Appendix I) asking them to summarise their experiences and offer suggestions for support for future students. Once analysed, the full set of data would be used to construct a new academic skills transition framework, which, it is hoped, might help support staff as well as students to better understand the mechanics of evaluating the various aspects of support. Data collection was deemed complete only after all surveys, interviews and logs had been typed up and checked. The participants were initially identified in the following manner for reasons of confidentiality (Participant 1 = P1, Participant 2 = P2, and so on). Later, it was considered more suitable (from my perspective) in a qualitative study to use names (anonymised first names) for the participants, so as to give more authentic voice to their experiences, in the manner of real people undergoing real life challenges, experiences and changes. Therefore, the final representation of the participants became Participant 1 = Isabel (P1), Participant 2 = Leanne (P2), and so on (see Table 3).

## Data Analysis

Data analysis began as soon as the first responses (to the initial survey) were received, and continued with the contemporaneous logs of the support sessions, the interviews, and the exit surveys, until these were completed and returned (Roy-Davis, Wadey and Evans, 2017, p. 39). The initial surveys, the interviews, the contemporaneous logs of the support sessions and the exit surveys were transcribed and analysed as qualitative data sets using thematic analysis and line-by-line open coding (Strauss and Corbin, 1998, p. 105). From this data, threads and themes were identified, and later grouped and synthesized in order to analyse common ground (Grix, 2004, see Appendix G). Terms that became codes included those referring to emotions, such as 'anxious', 'worried', others referring to academic skills, such as 'writing' or 'reading', and were then grouped into categories, such as 'types of support', 'feelings at different stages', 'app functions', and so on. Codes refer to any key words, responses, or emerging ideas from the data sets (Scerri, Jenkins and Lovell, 2017, p. 85). Thematic analysis is employed to utilise codes and categories to identify experiences, meaning, and reality for participants, and is considered suitable for contextualised understanding. The objective, according to Charmaz (2014), is to 'sort, synthesise and organise' large sets of data and 'reassemble them in new ways,' (p. 147). As Braun and Clarke (2006, p. 7) argue, thematic analysis is a suitable and appropriate method in its own right. Data from these data sets were highlighted using coloured pens when using paper, or using the highlighter colours in Word when on-screen, and then further analysed via open coding to identify themes and patterns relating to the participants' experiences of academic skills support and the use of the app.

Contemporaneous logs (Kemmis and McTaggart, 1988, p. 101) are a type of written record-keeping, in the case of this study, written in real time, allowing the researcher to keep a record of potential (subsequent) links between codes, categories and emerging ideas (see Appendix D),

to enable a comparison of themes (Strauss and Corbin, 1998, p. 217). These data would later inform, and be merged into the new transition framework, based on Nicholson and West's (1988) model.

### Ethical considerations

Ethics forms for both Lancaster University and Regent's University London were completed before the study began. Participants were provided with substantive information about the research (in the form of a detailed participant information sheet (Appendix A)) and were required to consent to the research by signing a consent form based on that information, which they did (Appendix B). Appropriate processes were put in place to protect data and to ensure anonymity throughout the study, as per ethics regulations. Interviews were conducted discreetly on Zoom™. In addition to discussing domestic arrangements for the (confidential) support sessions, participants were assured of their anonymity at all times, and how any data relating to the surveys, their interviews and their support sessions would be safely and securely managed. None of the participants asked to have their data removed from the study.

### Legitimation and trustworthiness

In qualitative research, the quality of the work undertaken is often described not in terms of validity, as quantitative research is, but rather in terms of credibility, transferability, dependability, confirmability and authenticity (Guba and Lincoln, 1994). Qualitative researchers need to be accountable for their data collection, analysis and interpretive methodologies, and the truth value of their findings needs to be assessed with vigour (Onwuegbuzie, 2012). These concepts of credibility and authenticity can be assessed with a series of questions, such as 'does the information in this study, and its interpretation, ring true?', 'can the data presented be said to be true for the participants?', 'could this data be true for representative-others too?', 'is the data, its observation and analysis consistent?', 'have the biases of the researcher (myself) been



taken into account?', and 'how believable and trustworthy are the findings?' In other words, can this research be accepted as credible and therefore *legitimate*?

The answers to these questions concerning the present study are affirmative: the information from participants was given in confidence, and is presented throughout in direct, verbatim quotations, thereby capturing their 'tone and feelings faithfully' (Barrow, 2019); the unintentional biases of the researcher - to present a positive picture of support, for example - can be said to be 'neutralised' by such verbatim representations; the findings and conclusions are presented as credible, believable representations of the experiences and feelings of the participants, which can be verified or checked via the recordings and verbatim transcriptions.

#### Limitations and biases

I endeavoured to act consistently and systematically with the participants and methods during the support sessions and subsequent interviews (Noble and Smith, 2017). For example, interviews were conducted using a semi-structured framework, with precise, contemporaneous record-keeping, which included logs from support sessions, recordings, interview notes, transcripts and microanalysis - repeating an identical methodology for each participant. Interviews were recorded directly onto multiple devices simultaneously and transcribed verbatim.

Personal biases have been identified in places, for example, I was known to a number of the participants prior to the support sessions commencing, therefore it is possible that this familiarity may have affected aspects of the study such as digressing on occasion from the focus during interviews; on the other hand, this familiarity might also be taken as a strength, allowing the participants to relax and feel comfortable enough to open up during the interviews and support sessions.

The findings of this study will now be presented in two parts, firstly, in Part One, those findings concerning the anxieties experienced by the participants, and the academic skills development that ensued, and secondly, in Part Two, how the participants experienced the app and its academic support features.

## Chapter Four - Findings (1) - academic skills support

### Introduction

It is important to note that although many of the *eventual* findings that revealed themselves via the interviews and support session comments concerning the experiences of the participants were positive to a high degree, the overall process involved for all of them was somewhat torrid. The majority of the participants were struggling and upset at the point of seeking out support. But just as an undernourished child will likely respond well to being offered and given nourishment, so the participants responded, over time, to the input of personalised support. The struggle for the participants was real, but so too was the work and effort that was put in to overcoming the challenges they were facing.

The section on anxiety in this findings chapter supports and explicates the experiences of the participants from states of upset and disorientation, to more positive positions. Not all of the participants continued with the support, and the final outcomes of two others who did continue the support remain unclear to me, one who was accused of plagiarism and may have dropped out, and another who did not disclose the outcome of her submissions at any later stage. The responses to the personalised support itself were positive in the main, for those who persevered under difficult circumstances, and submitted their work according to the deadlines set by their departments. A balance has nevertheless been attempted in this section between the overwhelmingly positive *emotional* responses of the participants to the support they received, and the other more difficult practical and *academic* issues that arose for them, and in many cases still exist for them as they progress through their various courses and higher academic levels, for a variety of reasons.

### Cycle One

A total of 14 participants started the first cycle of the two-cycle Participatory Action Research which ran from 17 May to 23 July, 2021. These were labelled P1-P14 respectively, and were given an anonymised name. Below is a table recapping the anonymised names and participant numbers:

Participant number	Anonymised name	Participant number	Anonymised name
P1	Isabel	P10	Ebonie
P2	Leanne	P11	Sandra
P3	Amelia	P12	Caitlin
P4	Rebecca	P13	Ziva
P5	Stephen	P14	Karen
P6	Sandy	P15	Shannon
P7	Georgette	P16	Tanya
P8	Maya	P17	Sammije
P9	Nadia		

Table 3: Anonymised list of participants (P1-P14) in Cycle One

(N.B. P15, P16 and P17 took part in Cycle Two, together with P3, P10 and P13 from Cycle One)

Three of the participants had very few support sessions - Sandra (P11), 2 sessions, Leanne (P2), and Karen (P14,) 1 session each - and these essentially dropped out early on. These three participants did not interview, and therefore there is little data concerning them in this Findings chapter. Of the other 11 participants of Cycle One, a total of 61 support sessions were held. The data were collected and analysed before the commencement of the second cycle.

## Cycle Two

The second PAR cycle began on 18 October and was completed on 10 December, 2021. The second cycle comprised six participants, three of whom continued on from the first cycle (Amelia (P3), Ebonie (P10), Ziva (P13)), and three new participants, labelled P15, P16, and P17, and given anonymised names, Shannon, Tanya and Sammije respectively. Sammije (P17) accessed support but did not interview. A total of 34 support sessions took place during Cycle Two. Therefore, a total of 17 participants took part over two cycles of support, of which 13 were interviewed, three dropped out in cycle one and one accessed support in cycle two but did not interview. A total of 95 support sessions took place overall, each one lasting between 30-60 minutes.

The research questions were developed as the study aims and design became clearer, focusing on finding out how the students felt *before* the support sessions started, what types of support they needed and received, and why, how the participants subsequently felt *after* the support sessions were completed, and in which ways the app added further support to the learning. In many cases, the support continued on for a number of participants after the study had finished. As described in the Methodology chapter, the data collection comprised five sets:

- a) initial surveys,
- b) contemporaneous logs (notes and comments on the support sessions),
- c) 13 interviews,
- d) analytics from the app usage, and
- e) exit surveys.

The findings are set out thematically; the data from initial and exit surveys, the interviews, and the contemporaneous logs are summarised and synthesised to give a more fulsome picture of the participants' experiences, feelings and thoughts throughout the study. These data have also been consulted and analysed for possible evidence of effectiveness of the academic skills

support sessions and how the participants transitioned. Finally, data from app analytics are analysed and summarised, that is, which functions or features of the app were used by the participants, and which were found to be useful. The participants' actual words are quoted verbatim, together with the line numbers taken from the transcriptions of their interviews (see Appendix G). For example, (Stephen (P5), 67) refers to *Participant 5*, and *line 67* of the transcription of his interview. Where the participant speaking is already clear, just the transcription number is given. Verbatim quotations are used to confirm and support the findings that are presented throughout. After setting out the findings under key themes, a brief summary of findings will complete the section and introduce the Discussion chapter which follows. The following table is a summary of the above data.

Participants:	Cycle One	Cycle Two
Total number of participants	14 P1-P14	6 (incl. 3 from Cycle One) P3, P10, P13, P15, P16, P17
Participants who dropped out	3	0
Total number of support sessions	61	34
Interviews	11	2

Table 4: Summary of participant data from Cycles One and Two

#### How participants felt *before* support

Many of the participants expressed relief that additional academic support was available to them outside of classroom teaching. They revealed many different reasons for initially seeking out assistance from the Academic Skills Team. Some of these sentiments can be seen to overlap from participant to participant, resonating with each other, even though it appeared that the participants were not known to each other and were studying different subjects. One common

element was that the participants were experiencing high levels of anxiety. In some cases, participants had not initially been aware that academic skills support existed for them outside of classroom lessons and lectures. Those participants who were not previously aware of this support were surprised and relieved that such support was available.

### Emotional status

It is not unusual for students to turn up to their first support meeting in an upset state, or in tears. As mentioned, some of the participants had experienced an unexpectedly poor mark, or a fail, perhaps for the first time. Amelia (P3) had experienced something of a triple-whammy of unpleasant surprises. She had failed her essay, she had received a similarity percentage of 70% or more, and she had been accused of academic malpractice. She was upset and her anxiety levels very high. The country she had arrived from allows students to regurgitate what their lecturers deliver to them in their classes, and this is what she had done in the UK, thinking it was standardised practice. Sandy (P6) had been very upset because her research ethics forms had been rejected multiple times, and she had not been able to fully understand how to address this. Her upset was one of exasperation. Some of the participants were upset more with themselves than with anyone or anything else. A more delicate issue to deal with, both for them and for me as their support officer, was that six participants were experiencing difficulties in the academic relationships with their lecturers. Some went so far as to say they felt they were 'never going to pass' because 'they don't like me' or 'it doesn't matter what I do, they are going to fail me'. Their upset seemed more personality-based, and required a different set of skills and balancing strategies on my part - an opportunity to apply social-psychological interactions such as paying attention to their individual situations, listening attentively, assessing how much they felt they belonged, with some confidence-building advice, in order to navigate these apparently choppy waters, to try to 'put the sails right'. This issue is explored in more detail below, and in the Discussion chapter.

Many of the participants said they were experiencing anxiety, or used similar terms and synonyms. For example, seven out of the 13 participants interviewed used the word 'anxious', '... I was stressed and anxious...' (Amelia (P3), 67). Others affirmed that they felt stressed on being asked specifically by the interviewer. Participants used synonyms such as 'worried' when discussing their studies. They used this when saying how they felt when they were not going forward and getting on with things, '... before... asking for help... I would have ... accumulated stress... and then procrastinating and not working... then that would make me like worrying more about the assignment...' (Maya (P8), 171-175). A number of participants also used the term 'overwhelmed' to describe how they felt at the beginning of their courses, before they sought support, '...I felt I was learning the ABC from the beginning again... I was very unmotivated, overwhelmed, sad, I was almost depressed...' (Amelia (P3), 68-70). Georgette (P7) used the term 'completely lost' over and over (31-32, 61, 91, 98, 102), and several participants made reference to a sense of struggle. Some used the term 'floundering' to describe how they experienced their studies at the beginning of the courses, 'I wasn't sure what I was doing... I was floundering...' (Ebonie (P10), 31-32, 67). Along with this sense of struggle, Ebonie (P10) repeatedly referred to the beginnings of the course as a matter of 'sink or swim' and of not being aware that outside support existed, '... there was nothing about where to get support, where to get anything. It was a matter of sink or swim,' (91-92, 491-492), and Shannon (P15) seemed ready to quit, not because of bad marks or high anxiety, but rather from a sense of a lack of perceived value of the course she was taking, '... before the support I was demotivated. Disheartened. I felt like quitting... I was like... I might as well just quit this now and go to a different school...' (100-101, 181-182).

Some participants made direct reference to feelings of insecurity. Amelia (P3), Nadia (P9), Ebonie (P10) and Ziva (P13) used the term 'imposter syndrome' specifically. Nadia believed that



this was connected to not having attained a degree previously, all the others in the class were 'believed' by her to have degrees, 'I'm probably the only person on the course who hasn't got a degree (ahead of the course)' (Nadia (P9), 159-161), '... does that play in the with the imposter syndrome?' (Interviewer, P9, 167-168), 'Oh massively, massively,' (Nadia (P9), 170). Imposter syndrome is defined in the Oxford online dictionary as '*noun [mass noun] the persistent inability to believe that one's success is deserved or has been legitimately achieved as a result of one's own efforts or skills: people suffering from impostor syndrome may be at increased risk of anxiety*' (Oxford online dictionary, 2022). Some participants felt as if they were the only students in the class not fully understanding the teaching content, or not to be following the lessons or courses, and that others students were probably not experiencing this themselves, 'I felt that everybody else was getting it and I wasn't... I felt I was just the only one...' (Ebonie (P10), 67-68, 80). A range of other difficult feelings were felt by the participants before they contacted academic support team, such as feeling alone or isolated (Rebecca (P4), 58).

And although, in the main, it appeared that those feelings of being alone were in some way addressed by the support 'being there' for them, different kinds of 'being alone' were expressed. Ziva (P13), for example, explained, '... I was alone... I was really struggling... until a few weeks ago... I don't think I've completely come out of it ... but it's more of a different kind of struggle now...' (239-241). Amelia (P3) said she had felt 'defeated', as if she had lost a battle on realising the difficulties of the academic challenges in the early stages of the course. The initial difficulties of the courses seemed too much for other participants too, before support was accessed or sought, '...it was the worst... I felt defeated... I felt like a failure...' (60-68). Stephen (P5) was also dealing with issues of unsureness for a number of reasons. He had not been in education for some time, like other participants, and made mention of a possible - though not necessarily actual - imposter syndrome, 'I felt a little out of my depth. I felt a little bit of imposter syndrome possibly' (133-135). Although he seemed to communicate clearly and well, he was not himself

sure of this, and wished to develop more clarity in his work and studies, '... I was wanting to learn more ... to be able to communicate most effectively to maximise my marks' (41-45).

Participants expressed other emotions too, such as being afraid of what was ahead of them, a fear of how they would look to their peers, 'I was very scared... I didn't want to embarrass myself...' (Maya (P8), 118-121). Others expressed fear in terms of the challenges of the assignments they had now to take on and complete, observing that they felt nervous as a result of being away from education for some time, and having to readjust to being a student again, '...coming on to the course was probably the most nerve-wracking wait for me... it's that fear of the unknown...' (Nadia (P9), 200-203). Many participants said they felt stressed at the beginnings of their courses, and that there were a number of reasons for this. It also appears to be the case that these stress levels affected other areas of the participants' studies, such as their relationships with their lecturers, how they experienced their lectures, and sometimes how they felt about themselves and their own capabilities. Nadia (P9) also had reservations about the quality of contact she had with her lecturers, 'I think I probably find it intimidating ... trying to discuss theory with him [lecturer]...' (58-60).

### Academic relationships

Issues concerning how students were getting on with their lecturers came up at multiple occasions during the support sessions and the interviews. There may naturally be overlaps in who delivers what kind of support to the students across an institution. For instance, both the librarians and the academic skills team go into classes to give workshops to the students on research or referencing skills, or writing skills, which are most likely also covered in class by the lecturers. However, the participants sometimes seemed unclear as to what kind of support the lecturers were meant to deliver. Georgette (P7), amongst other participants, expressed frustration on this point, '... I think I was completely lost because the teachers were not offering

any support whatsoever... minimal information... we had to have our (assignment topic) accepted by the teacher. But that was it, after that there was nothing...' (91-96). She was further perplexed because she herself had been a university lecturer, and felt that general support in addition to more specific academic support was in question, '... because I was teaching at a university as well. And I find it wrong to let the student completely alone when they arrive... and the first year where you need support. You don't even know it, what is what, who is who, what is expected... So, I was completely lost... how do I write it? Who is going to help me?' (148-153, 102-103). She related that she was 'stunned' to find that there was support via the academic skills team (119-120).

Stephen (P5) was unsure whether to ask his lecturer for help, as this may highlight weakness in his abilities, something a number of participants also reflected on, '... that would probably reflect poorly on me' (70). Rebecca (P4) said she sought out academic skills assistance because there had been issues with the lecturer over a lack of clarity in the classroom, that other students were also afraid to ask for clarification, '... because if I ask further... I'll be seen as being difficult, or a troublemaker... I feel it will impact my marks. ... I learned the hard way...' (103-106).

It was not only relationships with lecturers that were sometimes intense, the courses and the atmosphere within the classroom were experienced as difficult on occasion, '... I personally struggled... this is going to sound ridiculous ... just the high level of seriousness about the whole thing... having these very intense blocks of sessions... it can be quite heavy... quite oppressive...' (Nadia (P9), 502-516, 547, 559-560). Nadia (P9) went on, '... my tutor isn't at all with this... my tutors change throughout the terms... the tutor isn't responsive to emails or has shown zero enthusiasm about my requests for meetings... I find it intimidating to discuss theory with them...' (48-60). Stephen (P5) went on to make a distinction between what the lecturers were there to do, and what the academic support team were there to do, '...the actual knowledge of how to

write an essay, I kind of feel that's not my tutor's area, that's the impression I have... and my feeling was... because the academic skills department is in place... go to the appropriate... you know, take the appropriate questions to the appropriate department,' (90-94, 105-109).

A number of participants mentioned that nobody had told them that academic skills support outside of lectures was available to them; Ebonie (P10) stated, '... there wasn't any... from the beginning... you would imagine on the induction day that you would have been told that such support was available. It wasn't. They just went through the modules for the course we were on, there was nothing about where to get support...' (Ebonie (P10), 85-91). For Shannon (P15), the issue was not the support during the assignment process but the feedback received afterwards by her lecturers, expressing concerns over a lack of detailed feedback on her assignments. This is what led her, she said, towards academic skills support, '... I felt like lecturers didn't want to give you any information ... they would give you the grade ... I had to go to academic support for them to tell me...' (130-141). The above findings are summarised below:

Participant number	Anonymised name	Difficulties experienced by the participants prior to support
P1	Isabel	Felt lost due to being unaware what was being asked of her in her thesis proposal; difficulties with academic language; difficulties with subheading title conventions
P2	Leanne	Had completed her degree but wanted to better understand criticality for the future and to be more confident
P3	Amelia	Failed first assignment, high similarity %, accused of possible malpractice, non-UK student, upset, 'stressed and anxious', unmotivated, overwhelmed, imposter syndrome
P4	Rebecca	Feeling alone, isolated, problems with lecturers, afraid to ask for clarification in class
P5	Stephen	Academic break, imposter syndrome, 'out of my depth' but afraid to ask for help (in case it went against him)
P6	Sandy	Research ethics forms rejected, pressure of time to complete her proposal, very anxious
P7	Georgette	Completely lost, lecturers not offering (individual) support, felt left alone by the lecturers on arrival
P8	Maya	Stress and worry from procrastination, not attending to assignments in a timely way, afraid of embarrassing herself

P9	Nadia	Problematic relationship with lecturer and lectures, imposter syndrome, away from education for some time, anxious, lecturers not replying to emails, stressed
P10	Ebonie	'Floundering' in her studies, struggling without support, unaware that extra support existed, imposter syndrome
P11	Sandra	Unsure about UK conventions; lack of confidence generally; difficulties understanding the assignment tasks
P12	Caitlin	Issues with time management, spending too long on reading; disorganised; feeling isolated and a bit unsupported
P13	Ziva	Imposter syndrome, feeling alone in her studies, struggling, ADHD issues with concentration
P14	Karen	Difficulties with assignments generally, discontinued support
P15	Shannon	Despite high marks, feeling unvalued, unhappy with lack of detail of feedback on assignments, wanted more, demotivated
P16	Tanya	Arrived with significant personal problems; felt lost and unsafe in London; difficulties with lecturers; not sure what was being asked of her in assignments; unsure of UK academic conventions
P17	Sammije	Generally confident; not happy with marks; was asked to add critical evaluation to her assignment and was unsure about this; needed to work on essay cohesion and give a presentation;

Table 5: Overview of the difficulties the participants were experiencing *before* support began

## Summary

Many of the participants who sought out academic skills support presented with different types of difficulties and different levels of need. Most of them felt that extra support was needed to help them complete their assignments. Some felt lost and isolated, both in the classroom and outside, often having recently arrived in the UK alone. Others felt overwhelmed and disorientated academically. For many, the UK conventions concerning writing style, plagiarism, and presentation of assignments were new to them. Some of the participants were mature students who had been out of education for some time and admitted to feelings of imposter syndrome, although these feelings became less strong over time. As will be seen in the following sections and summaries, as the support sessions continued, many of the participants felt that their workload was becoming a little more manageable; initial feelings of anxiety and upset began to be replaced with higher levels of confidence, and a clearer understanding of what was being asked of them by their lecturers.

## How participants felt *after* support

This section focuses on the responses of the participants to the support *after* they had requested it and accessed it. The degree to which it is possible to talk about how effective the academic skills support had been for the participants is elaborated in the Discussion chapter. Effectiveness is defined here as, '*effectiveness* /ɪ'fektɪvənəs/ noun [mass noun] the degree to which something is successful in producing a desired result; success:' (Oxford Online Dictionary, 2022). This thesis will discuss how the participants felt after the support had taken place, how they may have changed, and to what extent any changes in how they felt merit the label 'effective' or 'successful'.

To this end, this section of the findings lays out in which ways the participants' individual goals have been met or not in their own words, via the interviews and the contemporaneous logs noted by the co-researcher. How the participants felt about perceived success at various stages of the support is included here, in addition to some of the final marks or results that the participants gained in their assignments which could also be viewed as success or not by them. Some of these final grades or marks had not yet been released at the time of completion of this paper. There was a significant number of positive remarks and gratitude concerning how the participants felt about the support they received. Many aspects of the support are covered, and concern developments in skills, levels of anxiety, changes in marks for essays and assignments that was happening prior to support, or else expressions of development and in connection to their studies.

## Personalised support

The individual nature of support can make a difference to how the student responds to challenges (Yeager and Walton, 2011) and this was reflected in the responses from the participants to the support sessions they had. Several participants mentioned that they enjoyed and benefitted from the personalised nature of individual support. Isabel (P1) felt that before the support started, she had been learning from books and workshops but not in any personalised way. What she felt she needed was more of a personalised approach, something that was 'tailored to her project', (89-94). This included developing the structure, thinking more creatively about the names of her thesis chapters, whether to use straight-forward or more descriptive terms, as her intention was for the subheadings to be 'more than dry and academic', (54-58), and then to develop each of the chapters of the proposal to match the word-count needed (44-54). Isabel (P1) added, '... I feel first of all supported, which is good, I also feel I can discuss... almost brainstorm during figuring out the plan for my research with you, you know it's also very individual support, personalised support...' (102-108). This was echoed by Maya (P8), '... with the sessions that I had with you, they were very personalised... the skills are general skills, academic skills... but the assignment is very specific to you, that's what I mean...' (405-414). Many participants expressed gratitude. Georgette (P7) had been away from education for a long time and had never written an essay in English before, '... I was grateful that I had had support, because I don't think... I don't know where I would have landed without it...' (132-134). Ziva (P13) also found the support personally 'helpful' (38) and said that it had, '... propelled me to meet my deadlines...' (74-79).

Rebecca (P4) added that she may not even have been aware that she needed support, but that once it had started, she couldn't imagine not having it '... I really see now the need for it actually, because when I didn't have it, I didn't really know that I needed it... but now that I've had it I

think I will want to keep having it now because it's just... I don't know how anyone really carries on without it, and if they do they probably don't, you know, it's probably a struggle,' (81-91).

## Anxiety

Many of the participants talked of high levels of anxiety before seeking out support. Did this change in any way during or after the support? The findings suggest that for many participants, anxiety levels were reduced to more manageable levels, and that this had knock-on effects in their work. Rebecca (P4) felt that she benefitted most from the emotional support,'... the support she benefitted from most was more emotional than academic... and yeah, on the emotional level, which for me is massive because it has an overall impact on how I work...' (29, 47-49). Some participants felt calmer, with a greater sense of control. Sandra (P11) for example, said the support was, '... extremely calming... and so that definitely was extremely ensuring for me... you were very assuring. You were extremely gentle and really nice and you were very helpful... kind of guiding me through it...' (59-67, 73-76). Tanya (P16) endured a tough beginning to her studies but managed to turn things around. In her case, there was a long period after the initial support in which she did not seek out further support, and suggests this may be because she was then more able to work independently, '... basically it was a big support for me ... [afterwards] I felt more in control... maybe that's why we haven't seen each other for a while... because I thought that maybe I can do it by myself... in the end I was really satisfied and happy... I didn't fail. I passed...' (101, 178-181, 195, 210-211). Stephen (P5) said he felt liberated from certain anxieties after the support, which focused on how to write onto the page without trying to be 'academic'. As many participants experienced, it can be stressful trying to write 'perfect' academic sentences straight off. By 'just writing anything' at first, but then going back to it later, to polish it bit by bit, '... that really freed me up, that kind of liberated me from the anxiety of going 'how do I write academically?'... I then went into my essay thinking 'just write, just write how you feel, write what you want to say...' (193-197).



Support had an impact on the participants' relationships. Amelia (P3) thinks this may have been connected to issues around confidence. She noted, '...I feel way better now... I know that I have academic support to support me... there's just this confidence that comes when you know you can always get help... I'm more confident, even though I'm still critical about my (unclear) criticality,' (77-82, 112-113, 197-198). Ziva (P13) felt she had regained an element of control over her work, '... I feel more in control and calmer, and more able to do my work...' (104-106). She returned to her earlier theme of accountability '... in terms of my development... I think I've become a more accountable, responsible student; I'm using my time more efficiently...' (208-211). Ziva (P13) talked often about the struggle she was experiencing, '... now it's a more different kind of struggle. I see the road ahead and I just have to keep walking, as opposed to being down on the floor and not really knowing...' (243-247).

Participants referred to feeling comforted by the presence of support. Rebecca (P4) spoke of moving away from feeling isolated, to having someone there who can help her reflect on her thoughts, '... I felt quite isolated... but then I knew I was talking to you so I was just looking forward to... yeah... just to have like someone kind of like, you know, sound it back to me or, like, give me their thoughts so that it can move further than what it is in my mind right now...' (58, 73-76). She explained the ways in which the support had been beneficial using psychotherapeutic terminology, '... I feel a bit more contained... I found the support helped me step back from it, regroup myself... come back stronger... I feel a bit more assured about what I'm doing here...' (306-314). Stephen (P5) expressed an increased understanding of academic conventions, 'I just know I now can reflect on what the process... I know what an academic essay is... I know how to approach the research... I don't feel like an imposter any more...' (211-223); and Nadia (P9) said that the academic support had given 'a huge amount of

encouragement' (83-84). These elevated levels of self-confidence are relayed in more detail now.

### Self-confidence and self-efficacy

Many of the participants spoke of gaining in confidence. Maya (P8) said she experienced a difference in her confidence levels, '... I'd say I'm more confident within... what I know, what I need help with, and I know what I could handle...' (156-158). She mentioned the fact that the sessions were confidential was helpful (205-206). On being asked whether she felt she had developed as a result of the support, she replied, '... I'd say... now I have like a more holistic approach to an assignment or any element... like bringing that criticality element... now I'm trying to infuse it in everything...' (360-364). Maya (P8) also spoke also of transitioning, but from her earlier studies, '... I would say I felt the transition from high school to university... it's like there's things that you're not really taught at school, or maybe where I came from... I tried to do as much as I could without asking for help... I'm responsible for that...' (377-389). Sandra (P11) felt that the support was beneficial both academically and emotionally for her work on her dissertation, and spoke about feeling better afterwards '... so when you realise that everything is going to be okay, it's way easier than you think... this is step a, this is step b, this is step c... you're definitely going to feel a bit better...' (171-176). She also spoke about confidence, '... I feel like it's definitely made me more confident student... [I'm] not alone...' (358-370). This was true for Ebonie (P10) too, '... my confidence in my ability to write these assignments has increased. because now that I'm more aware of how to do things, and the way to do them... it also sort of gives you confidence as well knowing that there's somebody there that you can turn to when you've got a question to ask, where you need more support...' (360-371).

For Georgette (P7), who had never written an essay in English, the issue was not her personal confidence, but a lacking in academic confidence, '... as a person I am quite confident, but what

I was not confident about was the task... I did not need support for how I feel... I think perhaps younger students did... for me it was very academic...' (365-375). Again, the theme of confidence came up when talking about writing, '... I think it gave me a lot of confidence... Yes, I can write in that way in English...' (444-445). On being asked how she feels she has developed as a result of the support, she responded more in terms of self-efficacy, '... I was not sure that I could... it made me think "okay, actually I can do it with support... if I find what I need within the course, I can do it..."' (342-343, 347-351).

A sense of personal progress having been accomplished came up often, Nadia(P9), for example, '... I feel... you know... you've given me a lot of confidence... I've progressed... the way that I've used my essays has been from my own self-development...' (174-179), and this touches again on the connections between confidence and self-efficacy, '... so this time around, coming to see you, I do have a bit more of that higher level of confidence, but I'm also always confident in the fact that I can still come to you and add value to my continuing development...' (229-234). This is also reflected by Stephen (P5), who mentioned how much more confident he was after receiving support '... and so again... the confidence to know... the difference is massive... I'm doing a master's ... and I believe I have as much right to be there as the other people, which I wasn't convinced of before...' (221-227).

### Marks and feedback

Other indications of the effectiveness of the support were evident in areas such as marks and associated feedback. Nadia (P9), despite feelings of imposter syndrome and a lack of confidence, achieved a distinction. She touched on the difficulties in looking back and seeing where she came from due to progress being made '... coming on to the Foundation course... was the most nerve-wracking for me because... it's the fear of the unknown, of not knowing what to expect... But I don't know... perhaps I have a distorted view of it now because I progressed so much...' (200-

205). She concludes by referring back to her needs '... my needs have absolutely been met by coming to see you...' (252-253). Isabel (P1) said that the collaboration with support staff had helped direct her focus in her doctoral research, '... because I have to balance a lot of things, the PhD is not the only thing I am doing in my life... saves a lot of time. ... Also, it is less frustrating ... because when you brainstorm on your own it goes all different ways. I think they're just more focused...' (172-178). Amelia (P3), who had failed a paper and had been accused of unintentional plagiarism, went on to complete her master's dissertation and also achieved a distinction. She talked about those students who had not heard that academic skills support is offered to students. '... it's just so unfortunate... I mean, I heard that some people don't even know about the academic support... that's so weird... let more people know... because that way people can know more about the support...' (213-218). After completing the support, Maya (P8) felt an improvement across many areas, '...I know what to do now... I know how to look for better resources, like skills, skill wise, and time management. All these things,' (76-79).

Not all the participants' difficulties were the same. Shannon (P15) had a different set of needs to many of the others, although she too was in a state of upset, the reason was that she was looking to increase her grades from 2-1 levels to a first. She succeeded, with her marks going up from 65% to 85%, '... once I received the academic support I could see the differences in their grades basically...' (67-68). She was sceptical at first whether or not to stay on at university, '... I saw a difference in my assignments basically... so I needed... what's the word? like a proof to show whether it was worth it or not...' (154-157). She also touched on the subject of confidence, '... then I felt confident... more confident than before... I'd say I was like... on a scale of 1 to 10 I felt like a 2... and then when I had the academic support it went up to 7, because I met the criterias of what the teachers were asking, but the feedback that I wanted to see was 'your structure is good, your grammar is good, the referencing...', so that's when I was like 'yes!...'.

(194-199). She continued, '... when I saw you guys, when I approached you guys, you saw my potential. That's why my confidence went up,' (218-220).

### Participants' academic development

The academic needs of the participants and the types of support that were carried out overlapped in many ways, and so these have been synthesised here, and are presented in the same section. The participants' academic needs and reasons for seeking support were varied and distinct. The interviewer had the impression that had the interviews lasted for hours rather than say 30 minutes, that no saturation point in data might be reached. Each participant had very distinct backgrounds and experiences, hopes and expectations, and abilities. Their responses to the surveys, the interview questions, as well as during the actual support sessions, were individual and personal. Because all meetings between the academic support staff and students are confidential, students often feel freer to be honest about their feelings and attitudes, their expectations and experiences. One of the overriding impressions I experienced with the participants is that starting a new life at university, joining classes, undertaking new challenges and unexpected assignments were all significant events in the participants' lives. The responses yielded as much emotion as they did academic evaluation. The academic needs of the participants on taking up academic support sessions are expanded upon here. The findings reveal that there is as much emotion involved for the participants as there are technical developments. These have again been grouped into themes.

### Asking for help

Many of the participants, as mentioned above, expressed relief that additional academic support was available to them outside of the classroom teaching. But students do still need to take an extra step and reach out for support themselves. This can be a sometime uneasy thing to do. Maya (P8), for instance, echoed other participants when she mentioned that it was good

and necessary to ask for additional help, '... sometimes we don't... students not necessarily find this help within their lecturers or tutors... but I found you and you made me feel very comfortable... but it made me realise that it's okay to ask for help or when you're feeling stuck... and I've learned things out of asking I wouldn't have learned...' (28-34, 147-151). For Ziva (P13), one of the reasons she sought out support was that she felt she needed a little extra pressure, a 'healthy' pressure, to try to become more accountable (to somebody) for the work she was doing. She suffered from inattentive-type ADHD but didn't take medication for it, she had adapted to the condition using 'behavioural techniques' (33-35). Ziva(P13) expanded on the idea of accountability, '... it's just that extra little bit of extra information, accountability and reporting to somebody about doing work, and knowing that I have to send something, or check in with somebody about something... it puts that healthy pressure on me... which has been great...' (38-45).

### Dealing with emotion first

Participants talked of having to deal with their emotions, in addition to asking for specific academic support. Some had suggested that at some point in the process, they had decided that the support was primarily emotional for them. Rebecca (P4) initially stated that she needed help with a process report. This is a type of reflective report in psychotherapy in which the student psychotherapist self-analyses their performance over a series of practice sessions. Reflections on decisions made and thought-processes experienced, are carried out in order to develop a stronger understanding of, for example, best practices, whilst in the process, learning how to deal with events that may arise in future therapeutic sessions. Rebecca also asked for assistance with a literature review, and an additional essay assignment. However, what she mostly benefitted from, she felt, was essentially emotional support. For her, the support she received happened just at the right time (52), '...for me it was more emotional... I really see now the need for it actually, because when I didn't have it, I didn't really know that I needed it' (81-83). She

also admitted that she had been feeling 'isolated' (58), distracted by external events, and couldn't focus (49-51).

A number of participants were deemed mature students, partly because they were some years' older than many of the students at university who arrive immediately after completing their A levels at 6th form colleges, and partly because they had been away from the education system for many years (Isabel (P1), Stephen (P5), Georgette (P7), Nadia (P9), Ebonie (P10), and Caitlin (P12)). To add to their discomfort, some of these participants did not just consider themselves mature students (by age), but had never experienced the UK education system, as they had only studied a long time before in their own countries. This seemed to impact their confidence, and exacerbated fears or insecurities, as highlighted in the previous section on anxiety.

### Assignment briefs and deadlines

As a background context, the ethos of the academic skills team was that we did not want to be seen as crisis management support, that is, we did not want only to support students who had failed, or who were in imminent danger of failing, but to meet them as early as possible and build up their academic skills early, and for them not to wait until just before a deadline to seek out help. Some of the participants had done just that, that is, they had waited too long, become anxious, and then overwhelmed. By the time they had sought out help, passing an assignment would already be a challenge due to the amount of work to be done, and the lack of time left in which to do it. Ebonie (P10) had failed an assignment and needed to resubmit it before she could continue with her course. She sought academic support specifically for help with an essay, she needed to structure it more appropriately, write more in an academic style, and cite sources correctly (23-26). She had previously completed a degree in a different subject in a different country, and found that the course was very different to what she had previously experienced, 'I wasn't sure what I was doing... Specifically, I didn't have a structure to my essays, and I hadn't

linked theory in correctly either... not only the structure but also I hadn't enough reflection in there... there was a lot of things wrong with it,' (31-32, 46-54). Her needs regarding structure, how to link to theory, and reflection became the focus of the support sessions. Sandra (P11), on the other hand, sought academic skills support for help with gathering and presenting information when formulating ethics forms connected to her masters' dissertation, '... my teacher was asking me for certain information, to get from a text book or couple of textbooks. And I was finding it a bit difficult to do, so that's when I came and asked for your help', (40-44). She was now under severe time pressure, having used up a lot of time on multiple submissions of the ethics forms, leaving her insufficient time to carry out and complete the actual dissertation (45-50). She had applied for extenuating circumstances but had not received this. This is what led her to the academic skills support (52-53). The above findings, concerning how the participants felt *after* the support, together with their academic responses to it, are summarised below:

Participant number	Anonymised name	Responses and reactions during and after support - emotionally and academically
P1	Isabel	Felt supported; felt that the personalised approach was 'tailored to her project', previously learning only from books
P2	Leanne	Just one support session; no further data; not interviewed
P3	Amelia	Improved confidence which positively affected relationships with peers and academics; 'knowing support is there when you need it really helps'; achieved a distinction
P4	Rebecca	Was feeling isolated, said she was not even aware she needed support, now she could not imagine not having it; wants to keep having it; feared she would struggle without it; benefitted most from emotional support, 'helped me step back and regroup'
P5	Stephen	Felt 'liberated from certain anxieties' regarding academic writing; said he can now better reflect on the process; does not feel like an imposter so much; difference in confidence 'is massive'
P6	Sandy	Discontinued support; no further data; not interviewed
P7	Georgette	Grateful for the support; had never written in English, not lacking in confidence but in academic ability; confidence in written English increased via support; 'now I feel I can actually do it'
P8	Maya	Liked the personalised approach; felt that her assignment was very specific to her; grateful; improved confidence; felt the transition from high school to university, needed to ask for extra help; 'I know what to do now...skills wise'



P9	Nadia	Felt encouraged by support; feels a sense of self-development and progression; achieved a distinction; 'my needs have been met by the support';
P10	Ebonie	Happy with the personalised support; confidence in being able to write assignments increased; 'knowing someone is there to help is helpful in itself'; aware that there is still more work to be done
P11	Sandra	Felt calmer during and after support; felt 'guided' through the work; was able to work a little more independently after support; support was beneficial emotionally as well as academically; more confident
P12	Caitlin	Felt relieved that she had learned how to speed up reading; happy that she had more understanding of structure and marking criteria; liked the personalised support
P13	Ziva	Was struggling, found the support 'personally helpful', helped her 'meet her deadlines'; felt she had regained an element of control over her work; calmer; says she has become a 'more accountable, responsible student'
P14	Karen	Discontinued support, no further data; not interviewed
P15	Shannon	Marks increased from 65% to 85%; felt more confident than before, 'you (support) saw my potential - that's why my confidence went up'
P16	Tanya	Felt better after support; worked on having better relationships with classmates and lecturers; felt safer at uni; was beginning to do well in her assignments
P17	Sammije	Submitted an essay with added criticality as requested, and then worked on a presentation, mixed emotions throughout, confident but disappointed with feedback

Table 6: Overview of how the participants responded to support

### Summary

Most of the participants can be shown to have responded well to support, both emotionally and academically. Anxiety levels were reduced to more manageable levels, and this in the main had positive effects on the participants' academic output and marks. The participants spoke of being grateful for the opportunity to access extra support outside of the classroom, and feeling relieved by the *presence* of support; knowing that support was there for them whenever they may need it was comforting. Some participants were pleased with the targeted approach, and that this was beneficial to them. Most felt that their confidence in their ability to complete future assignments had increased. The majority stated that they had passed their assignments and were happy about this, some gained distinctions. There were a few who dropped out, and

some final marks were not disclosed. On the whole, the findings were positive, and the implications and takeaways will be discussed later in the Discussion chapter.

## Academic Skills

### Academic writing 1: essays, reports, dissertations and theses

Putting together an essay or a dissertation from scratch was one of the more common needs of the participants. Many students are not aware that an essay, for example, has a particular, generally-recognised structure, nor were they aware that the Introduction also has a structure which is unique to that part of the essay, as does the Conclusion. This goes for dissertations too, with the different sections having particular functions and tones. These structures are explained in more detail in the Discussion chapter, where the technical support concerning these issues is further evaluated. Understanding these structures can be of significant help to students when planning their assignments. For Stephen (P5), the initial practical reason for seeking support was for help with a reflective essay, something he had never done. 'The support I needed and received, I would say, with particular focus on my reflective essay... (was) how to approach this essay in term of structure... and there were other questions I had about academic writing in general that weren't specific to that essay...' (25-30). After his assignment was completed, the support shifted to more detailed assistance with academic writing style for later assignments.

Georgette (P7) sought help with the writing of an essay she had already been researching, '... the academic structure that the university was requesting from me, I did not know anything about,' (32-35). For her, it was the regularity of the support meetings when focussing on writing that was beneficial, '... that was really helpful, I think it was the weekly meetings. So, I then could be confident that I was not ... on the wrong path,' (53-55). Isabel (P1) was relieved to get 'significant' help with the structures of the chapters of her thesis (35-39) which she had been asked to update by her supervisors. She described this kind of support as 'personalised', and this

is explored in more detail, and in connection to the design of the support framework in the Discussion chapter.

Writing support also included not just work on overall structures, but also on paragraph and sentence structures and functions, how sentences form paragraphs, what the sentences are doing (functions) and how to construct them cohesively. As Georgette (P7) explained, this kind of focus helped her to prioritise what she might best be working on at any point, '... you have the deconstruction of the paragraph ... where do I go now? Do I go to the Conclusion or the beginning? I'll write that, correct that... there was structure to our meetings...' (56-57, 81-84). Caitlin (P12) also asked for support with her essays, how to structure them, as well as how to cite sources. Like other participants, she did not consider her background to be academic, '... because you know, my background is not very academic and I'm older, and I've been out of school for a long time, so I want to make sure I'm developing myself...' (113-118). For her, as for the other participants, the support involved discussions on a host of writing areas such as sentence structures, sentence functions, paragraphs, and academic writing style, which will be further detailed below.

Many of the participants were overseas students, and felt that local academic conventions may be different where they had come from. This included the names given (in the UK) to specific sentences and their functions. In the support sessions, the participants and I often looked specifically at topic sentences, and how to make the subject of the paragraph clear in the first sentence of a paragraph. We looked at many different types of sentences which were used for different functions, including concluding and transition sentences in paragraphs, something that appeared to be new to many of the participants. Caitlin (P12) said, '...English is not my first language... in the last essay, you gave me some great advice on how I can conclude the first sentence... especially the last sentence of the paragraph... I think I found that the most helpful...'

(30-44). Likewise, Ziva (P13) also sought support with sentences, paragraphs, and structure, '... the other one so far has been around the way that I write, so my sentence structure...' (46-50). For Nadia (P9), the support involved looking at the different aspects of writing, academic writing style, sentence structures and lengths, in addition to cautious language and how to write more clearly, as she feared she writes the way she talks, 'I tend to be quite flowery with my language... overly flowery!... I tend to talk too much!...' (108-119).

Ebonie (P10) found the support useful for her writing abilities, '... it has been effective. I've learned an awful lot. I can start to write a bit quicker... I've learned how to structure the essay, how to plan it, how to have one section flowing into the other one, one paragraph flowing into the other one...' (97-98, 322-325). Isabel (P1) had been asked to resubmit a proposal for a thesis which she had not yet begun in earnest. She needed to look again at the structure of the individual sections or chapters, to develop them and the focus of the research in such a way that she would get the green light to go ahead with the research. Part of that involved her wanting her 'titles to be slightly different from proper academic... that was a very interesting exercise...' (74-81). Isabel (P1) felt that that part of the support had been successfully accomplished. In terms of the structure of the proposal and the academic writing itself, she suggested that her approach was no longer intuitive but more organised, '... I think I start paying more attention to how I write, I have much more structural approach to how to formulate sentences... paragraphs, how to relate them together... basically it's not intuitive any more...' (150-157).

Caitlin (P12) felt pleased with assistance which focused on 'fine-tuning things to make it sound more academic... with the structure of my essay, as well a little bit with the referencing...' (32-36). She felt she could skim read 'much faster..' than before (54) and that she can take in more information as a result (76). She also said she 'enjoyed the process more... I do enjoy the reading bit more... I found writing the essay much easier, and I actually enjoyed writing it a bit more

now...' (151-161). Concerning her overall development, she went on, '... I have developed more skills now, I feel like I'm getting better, and I know now that there's support...' (170-173).

### Academic writing 2: academic style

Amelia (P3) needed assistance mainly with academic writing, and felt that the support would be 'suitable' for her as she was coming from another country and another academic environment, where 'we don't have things like this' (12-13). She felt she needed help with '... writing, planning, how to write a report, how to do a literature review... literally everything...' (34-36). She said she experienced significant internal disruption due to not comprehending quickly enough the differences between what 'academic' means in her country and what UK academic conventions require. This was echoed by Tanya (P16), who arrived late for her course and found adjusting to the UK academic system challenging, 'I realised academic English can be really different than the English that you speak... how can I even write a paper?' (73-75, 230). She was stressed for a number of reasons, and suggested that these differences added to her general disorientation, '... I was an international student and had just moved to London, and everything was super different, and I really needed some help because from my background and the place that I come from everything is done differently, especially in education... I hadn't even wrote one paper in my whole life...' (18-26).

### Reading skills

Support with reading may be an underused area of support. It has much to do with students' saving time, or using the time students do have more effectively. This is explored in more detail in the Discussion chapter. Some of the support that happened in this study concerned these issues. Caitlin (P12), for example, as mentioned earlier, found the tips she received on reading saved her time. She explained that in the past she would read an article word for word, from end to end, and found that this was not a good or effective use of her time, '... I didn't do skim

reading! ... I started at the beginning of the paper, then halfway through I got exhausted, and I thought "I'm never going to get this into my head..." Eventually this got easier after receiving advice, and she recognised a difference in her abilities, '... I realised a couple of days ago that I read it much faster (now), because I don't read everything any more, I just skim, I find information much quicker generally, in any area of my life... I'm not so focussing on too many details...' (58-61, 66-70, 76-77). Tips on reading were given to a majority of the participants, as time is something that many of them were short on before the submission deadline.

### Criticality

Criticality, also described as critical thinking, critical expression, or critical evaluation, is an area that often befuddles students, and this was true for the participants too. Many of the support sessions involved discussing criticality in some way, whether that is when planning an assignment, or in the writing and evaluating of ideas or data, or in the research process. The participants had at one time or another received feedback from their lecturers on the need to add more critical evaluation in their work, which can, in turn, raise the marks. Maya (P8), for example, noted, '... I think I always used to avoid it... part of me was... scared to face criticality... However, Maya had a positive, can-do attitude to criticality. She had sought out support after having completed her assignments, but was looking to the future already and wanted to continue to build her skills. She started up her own pet project in her home city, looking into how poor children access free teaching in their local community centre. She wanted to come across as professional in her approach, and wondered if the academic skills she was accessing could be incorporated somehow into that scenario (91-99). The criticality aspect of her project involved checking on the feasibility of access to community teaching, involving student numbers and language issues. She reflected that criticality had become clearer to her over the process of the support sessions, 'I was always just scared to face criticality... and now I know this is just re-evaluating things from different perspectives... now, whenever I read something... or there's a

question... I tried to think about that... you know, thinking about other things like multiple perspectives... (101-109). Such thoughts about criticality being unclear were common across the participants.

Amelia (P3) admitted there was more work to be done for her on understanding and using criticality, but that progress had been made, '...I'm not as critical as I want to be, that's the critical evaluation part, but it's way better than I was at the beginning...' (190-193). In a similar vein to criticality, the academic skills team also support students with argumentation, with building line of reasoning, often in written assignments. This was the case for Nadia (P9), who was interested in constructing 'well-balanced arguments' (341-342) in her work and in learning how to use 'in-text citations and references', (351-359).

### Research skills

Research skills are often covered in classroom teaching by course lecturers. This can include help with finding and assessing relevance of sources, assistance with methodology or methods, such as whether to use surveys or interviews for data collection. Librarians and other staff are often asked to go into class to help in these areas. Georgette (P7) initially sought support in finding articles from the library website as she could not physically get to the library during the lockdown period and had some difficulty learning online and using technology, 'I was looking for finding articles straight from the library (website), which was difficult without support', (22-24). She confused the software being used by her lecturers and department during these times, for example confusing Teams™, Zoom™, the VLE, and the university and library websites. 'Perhaps it would have been easier if I hadn't been on everything on Zoom?' (24-25). The assistance she received finding articles, however, helped her, '... it was very useful to help me with the situation with Zoom™ and the library and what to read... that was one point... it saved me a lot of time because I was completely lost', (27-34). Maya (P8) also sought support for research skills

generally, how to navigate academic articles, and talked too about criticality. '... I received... general support especially... you showed me how to get good resources... for essays... I think this will benefit me immensely in the future...' (24-27)

### Plagiarism and academic conventions

As has been mentioned earlier, Amelia (P3) experienced three shocks together after submitting her assignment. She failed, her similarity percentage was 70%, and she was accused of academic misconduct for plagiarising. She had brought in her sources without citing them, with the result that she had given the impression that this was her own work and these were her own ideas. She had arrived from a country where these things were not part of the academic system. Together we worked on many of the academic conventions that were quite new to her, such as citing sources, paraphrasing or summarising rather than quoting directly. It was clearly difficult for her and she often broke into tears during the support sessions. However, she was determined and able and in the end passed her master's degree with a distinction. A second participant was also accused of academic misconduct after she had submitted her assignment, but the result of the panel meeting was not shared with me.

### Other related feedback

Cautious language is an academic convention of avoiding overgeneralisations and unevidenced certainty. Nadia (P9) developed this specific skill which she had not previously been aware of, '...using cautious language, that's been one of my biggest ones...' (95-96). Amelia (P3) felt she had grown in other ways as a result of the support, where she sought to 'look at things I can improve on... look at the strengths and weakness, where I can grow, where I can better...' (42-45) and felt that the support had touched on issues such as relationships that were present in Yeager and Walton's (2011) work, that the support had been '... really good, from the beginning of the term till now. There's been a huge difference in my academics, and my relationships with



people...' (20-24). The above findings, concerning how the participants developed and progressed academically, including specific skills, are summarised below:

Participant number	Anonymised name	Academic skills responses and development
P1	Isabel	Greater understanding of the different sections of a thesis, having been asked to rewrite her proposal, found being an overseas independent learner difficult; felt the personalised support sessions helped make thesis sections more clear to her, some ideas involved being more creative with sub-headings
P2	Leanne	Had submitted her degree work before the support sessions, wanted to keep working on her self-confidence and speaking skills as she was going to set up her own company after her studies.
P3	Amelia	Struggled initially with the differences between the academic conventions in her own country and those in UK; was accused of plagiarism which appeared non-intentional; admitted issues with understanding criticality but that this had improved a bit; achieved a distinction
P4	Rebecca	Did not complete her course. Felt the difficulties with her lecturers were too overwhelming. She discontinued her studies and started a small business in her hometown.
P5	Stephen	Felt 'liberated from certain anxieties' regarding academic writing; better understood academic language, and the differences between an academic essay and a reflexive essay; biggest positive was the tip to write in his normal style at the beginning and not try to write 'perfect academic sentences' straight off, which would create a block of flow and of ideas
P6	Sandy	Had serious issues in her dissertation proposal concerning structure, rationale, research; she left things very late and this impacted her writing and presentation; discontinued support; final outcome unknown
P7	Georgette	Confidence in written academic English increased via support as she had never written in English; greater awareness of essay structure, including overall cohesion as well as paragraph structures; sought help researching materials online during covid lockdown, found navigating online resources difficult;
P8	Maya	Was 'scared to face' criticality but developed a stronger engagement with it through support discussions; used it after her studies in a local project in a community centre in her home city, rephrasing it herself as seeing things from 'multiple perspectives'. Improved research skills, during covid lockdown, needed assistance finding sources online and did not know how best to go about this;
P9	Nadia	Stronger awareness of academic writing style, tended to write very long sentences and repeat herself; greater awareness of the use of cautious language to avoid sweeping generalisations; used discussions on criticality to construct better-balanced arguments; developed better understanding of the use of in-text citations and referencing; achieved a distinction
P10	Ebonie	Started to write quicker, stronger understanding of how to structure the ideas in an essay, how to plan it
P11	Sandra	Discontinued support, no further data, final outcome unknown

P12	Caitlin	Reading skills improved, such as skim reading, as opposed to spending huge amounts of time reading every word; time management was positively assisted by this; better understanding of the overall structure of essays, including paragraphs and sentence functions (e.g. topic sentences, supporting sentences, transition sentences)
P13	Ziva	Also developed stronger awareness of essay structure, including paragraphs and sentence functions (e.g. topic sentences, concluding sentences)
P14	Karen	Discontinued support, no further data, final outcome unknown
P15	Shannon	Marks increased from 65% to 85%, seemed satisfied with final outcome; felt that her confidence grew due to the support staff 'believing in her'.
P16	Tanya	Arrived late for her course, needed assistance with all areas of academic skills, academic language, essays, structure; managed to get through her assignments after some significant work on her relationships, building friendships and feeling more connected generally
P17	Sammije	Received 58% for essay, was very unhappy about this; was thinking about discontinuing her course; received 80% for her presentation; final outcome unknown, not interviewed

Table 7: Participants' academic development

## Summary

Many of the participants experienced similar difficulties technically concerning academic writing style and criticality. The support covered lots of technical assistance which helped them understand how to better polish their normal writing style into a more academic one. This involved techniques such as rewriting sentences so that they had a stronger, clearer subject; reducing the length of sentences to make them more impactful; employing clear sentence functions to allow greater cohesion throughout paragraphs, and so on. Many participants stated that when they were told they did not need to write academically straight off, that they could just write in their normal style (but then make their writing more academic later, by polishing and using some of the aforementioned tips), they felt relieved and often reinvigorated. This led to lower levels of stress, and a higher production of writing. Many participants were not aware of how paragraphs are structured, and indeed how sentences can be presented academically. Some participants mentioned that it was the regularity of support sessions that helped them

most, week after week, that is, a continuous sense of development and support up to the point of assignment submission.

In the same way, many of the participants were not sure what the term 'critical engagement' or 'critical evaluation' meant. The assignments all asked for this, but there was little information for them about what this actually looked like on the page. Much work, therefore, during the support sessions, consisted in discussions about how to evaluate critically. Often, this boiled down to explaining what the significance of the information they were bringing in to their assignments was, in what way their line of reasoning was important, or interesting, or relevant to various features of the task. All of the participants noted how helpful this had been to them in going about addressing the tasks set by their lecturers. In terms of time management, working on reading skills was felt to be beneficial by many of the participants, this speeded up their research for assignments, and allowed for more writing up time prior to the deadline, something which most participants were struggling with. Essay structures, dissertation structures and reports were also described as unclear by many of the participants, most often those from overseas. Many felt that once they had a better understanding of the structure of an essay, for example, they were better able to order their ideas, and place them into a cohesive whole.

## Chapter Four - Findings (2) - the support app

### Introduction

Part Two of the findings focuses on the support app, its features as educational resources, and how these were experienced by the participants. Kearney *et al.* (2012) have argued that 'learning is affected and modified by the *tools* used for learning, and that reciprocally, the learning tools are then modified by the ways they are used for learning' (p. 1). The app developed for this research was employed in such a way, connecting to the philosophy of participatory action research, that is, the participants were consulted on what kinds of resources they might need or benefit from, and these were incorporated into the app for the second cycle. The participants' experiences of the app designed for this study are laid out first, followed by the app's resources and features.

### Participants' experiences of the app

The app was generally well received, and had a significant number of visits during the research periods. The final version of the app is shown below, together with a table of its features.

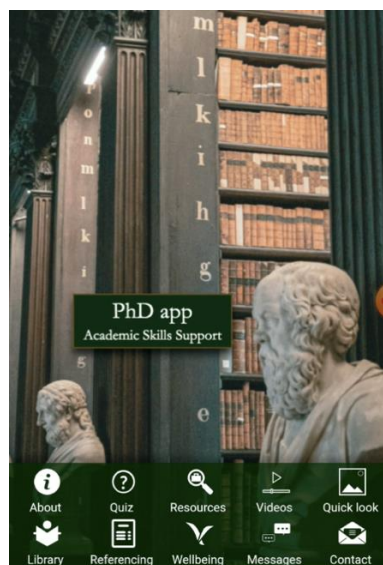


Figure 9: Final version of app (Cycle Two)

Feature	Total visits
About	33
Quiz	90
Resources	28
Videos	16
Quick look	8
Library	29
Referencing	22
Anxiety and Mindfulness / Wellbeing	31
Messages	28
Contact	52

Table 8: List of features and visits (of final app version)

## Analytics from the app builder

### Cycle One

A total of 249 visits were made by the participants between the dates May 17, and June 23, 2021, from those who were able to access the app. Table 7 below shows that the Quiz was most visited function in Cycle One with 81 visits, followed by the information page About with 24 hits, the Anxiety and Mindfulness page, also with 24. The top five features visited are shown below, followed by the total number of visits for all features:

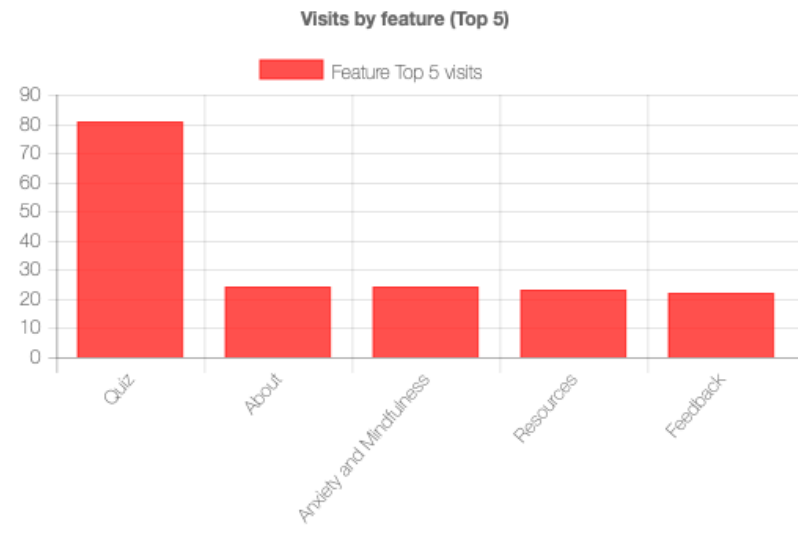


Table 9: Screenshot of number of top five visits per feature to the app in Cycle One

Visits by feature (All)	
<b>Total</b>	<b>249</b>
Quiz	81
About	24
Anxiety and Mindfulness	24
Resources	23
Feedback	22
Library	18
Videos	13
Your needs	12
Referencing	11
Quick look	8
Messages	7
Referencing	6

Table 10: Screenshot of total number of visits per feature to the app in Cycle One

## Cycle Two

By the time Cycle Two took place, the process of getting the apps onto participants' smartphones had been made a little smoother.



Table 11: screenshot of number of top five visits per feature to the app in Cycle Two

Visits by feature (All)	
<b>Total</b>	<b>74</b>
Library	11
Referencing	11
About	9
Quiz	9
Quick look	8
Wellbeing	7
Messages	6
Contact	5
Resources	5
Videos	3

Table 12: screenshot of total number of visits per feature to the app in Cycle Two

Below is an embedded video in which all the features of the final Cycle Two version can be played in brief.



Figure 10: Playable video of final app version features (click to play via link)

### App features accessed

Findings based on the individual features will now be presented, together with a screenshot of the first page of each feature.



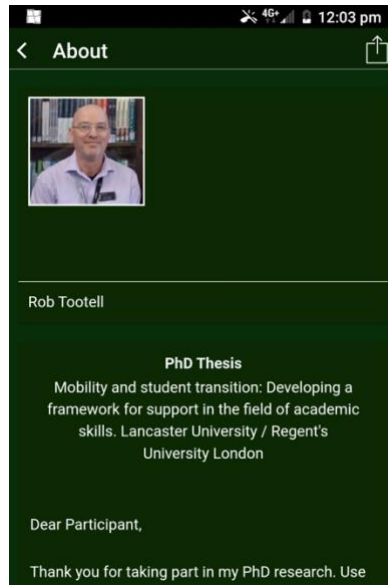


Figure 11: 'About' app feature

### The 'About' feature

This feature introduced myself and the title of the research, (slightly different to the final version of the title). My Regent's University email address and mobile number were also presented here, and there was a small photo of me at the top. The About feature was visited a total of 33 times across the two cycles, but no participants mentioned the 'About' feature in their interviews or feedback.

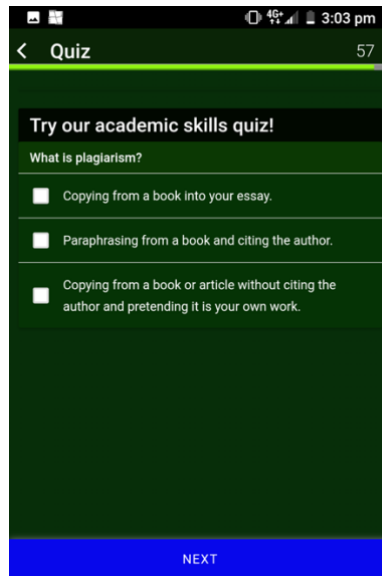


Figure 12: 'Quiz' app feature

### The 'Quiz' feature

The Quiz was the most visited feature in Cycle One with 81 visits. This involved 20 questions on various academic subjects (Appendix F). No answers were given, as the idea was for the participants go to the resources and videos on the app to find the answers to those questions they were not sure about. The findings revealed that the Quiz was popular with all participants who were able to access it. Rebecca (P4) attempted the Quiz, '... and I did alright!' (254) and Amelia (P3) felt that a learning process was involved '...there are some good things on there that I did have to look up afterwards...' (276-277). Amelia joined both cycles for support and said she used to the Quiz in both cycles 'to challenge myself', (123). She 'got maybe 10 out of 15...' (128) (in fact the top score is 20) but she was not satisfied with this, '... and I'm like 'hell no!...' and got a higher score of 14 on the second attempt. She went on, '... you get to learn something new every time you take the Quiz...' (132-133). She also stated that the 'Notes' function was useful '...where you get to read something...' (146-147) although she may have been referring to the PDF Resources pages where there are visual, readable tips and materials. Stephen (P5) thought the Quiz was '... quite... fun...' (293-300). For the full list of Quiz questions, see Appendix F.

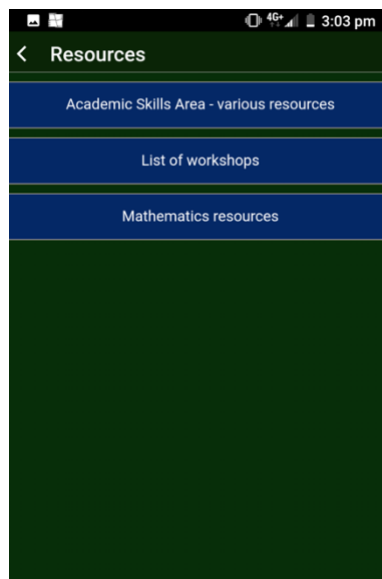


Figure 13: 'Resources' app feature

### The 'Resources' feature

The Resources feature connected participants to Academic Skills Team's resources area, which contains videos, PDF resources and other materials that students can access to learn more about academic writing, reading and so on. A programme of workshops on the above skills was also made available which participants could join. The Resources page also included a link to the Mathematics resources such as materials on data analysis, how to use Excel, and others. The Resources feature was visited a total of 28 times across the two cycles.

Nadia (P9) took part in Cycle One and liked the fact that the programme of academic skills workshops was listed on the app and that it was useful to be able to '... refer back to that and to plan ahead...' (418-419). Students receive an email the day before a workshop runs but if they have not looked at the programme of workshops in advance they may not be able to attend at such short notice. She mentioned having support on an app being 'accessible' (430) and also mentioned the wellbeing features '... I mean, your phone is so accessible... it's just very handy... I also really liked the meditations and the anxiety tips...' (445-451). She concluded by stating that

she could '... definitely see the value in it...' (468). Maya (P8) described the Resources as '... very useful... there's all these exercises, and I clicked on the one about reading... I really like having this sort of exercise on my phone. It felt really nice...' (309-315).

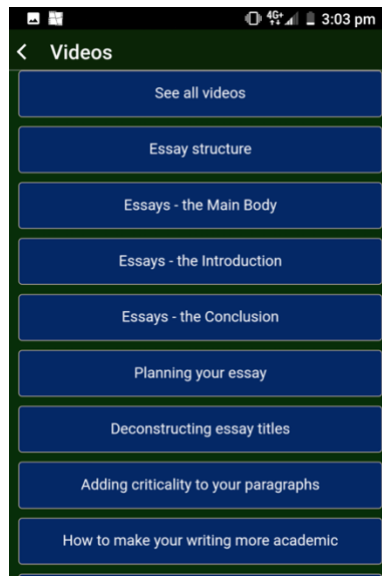


Figure 14: 'Videos' app feature

### The 'Videos' feature

The videos feature consisted of a series of videos that had already been recorded and put up on YouTube. I had set up a YouTube channel the year previously which presented tips and assistance to students at the university level on all the various academic skills that they needed to succeed in their studies. The image above shows just a few of these. Rebecca (P4) used the app to access the YouTube help videos on the video resources page. These videos helped her with her understanding of literature reviews. '... with my literature review, actually, thinking back, it really helped, your podcast helped a lot. When you talked through the sections of the ... literature review is like really clarifying it, kind of demystifying it...' She went on '... I liked the features with the links to your videos... So that was really useful because that's how I started my journey of demystification, that was really really valuable...' (249-253). Stephen (P5) felt that '... what was definitely beneficial was... to have all the resources in one place...' (234-235) Although

he mentioned that there were already a lot of links to resources on Blackboard, as Amelia (P3) had said, '... but when I used the app to ask you a question, and got a response from you so promptly... that's a super helpful resource... to get a bespoke response to a question...' (Stephen (P5), 242-254). Although that would happen with an email too, he seemed pleased to have received a response to the message sent via the app. He went on, '... it seems like an amazing resource, it's sort of much more personal and specific... that's what I felt was the most exciting part of the app, it was a resource that could be personal...' (267-277, 287-289). He also mentioned that when he leaves Regent's he will take lots of pdfs with him, because he took '... screenshots of all your PowerPoints from the videos that are on there as well...' (373-374).

Maya (P8) looked 'at the essay writing and the structures that take you to your YouTube channel...' (329-331). The structures she speaks of I believe are the essay structures, for example the structure of an Introduction, or a main body paragraph, or an essay Conclusion. Unlike Amelia (P3), she believed that an app for different courses was a good idea '... honestly, I think it's a great idea, and if there's an app dedicated to every subject it would help me immensely...' (Maya (P8), 469-471). She went on '... it would be very clear what I had to do... sometimes Blackboard or other softwares ...could be very intimidating...' (472-475). She talked about being overwhelmed by the 'number of words' on Blackboard and that an app for each course would 'be amazing...' (489, 481 ). It was Maya (P8) who recommended having all the features on the front of the app for easy access, and this was implemented, as PAR recommends, between cycles.

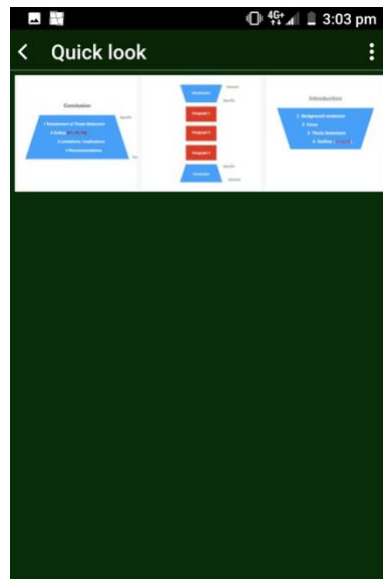


Figure 15: 'Quick look' app feature

### The 'Quick look' feature

Some of the participants mentioned that they often found visual resources helpful and this prompted me to include a new feature in the second version showing the structures of different sections of an essay. These are also part of the video resources on the YouTube channel where the 'shape of an essay' is described and explained in a series of videos. The Quick look feature was visited eight times in the second cycle.

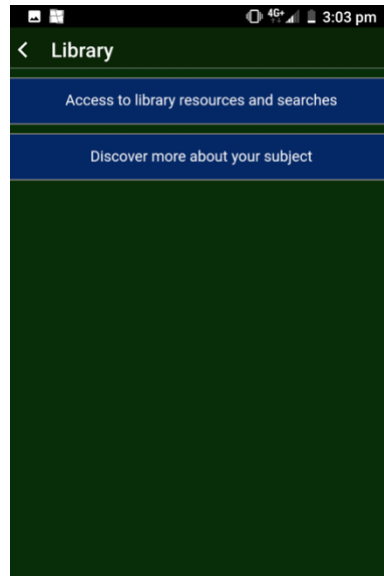


Figure 16: 'Library' app feature

### The 'Library' feature

The library pages were accessed 18 times in the first cycle and 11 in the second and were popular mainly as participants did not need to sign in multiple times on the app to access the library services, whereas on a computer they would. The library services include the search engine for academic materials, as well as databases and contact to librarians for any queries. Immediate access was noted by participants as one of the more advantageous aspects of having everything together in one place (on their phone).

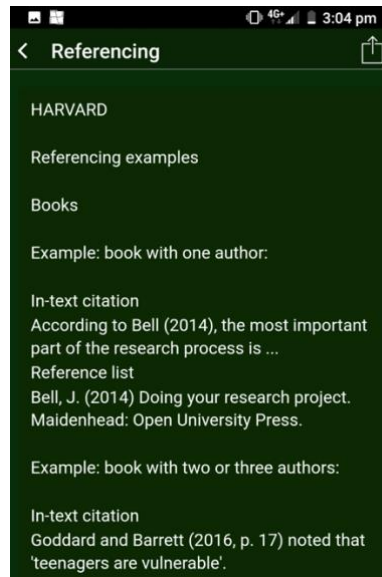


Figure 17: 'References' app feature

### The 'Referencing' feature

Referencing examples were also popular with participants. In the first version of the app these seemed to be only accessed a small number of times, but this is misleading, as participants said they were able to print out these examples, but then used them multiple times to make sure their references were accurate. In the second version, this feature was accessed more often but they were not printable, as they appeared on the page directly now rather than as a downloadable, printable document. Both seemed popular for different reasons, the first because participants could print it out and keep it close by, the second mainly for reasons of accessibility.



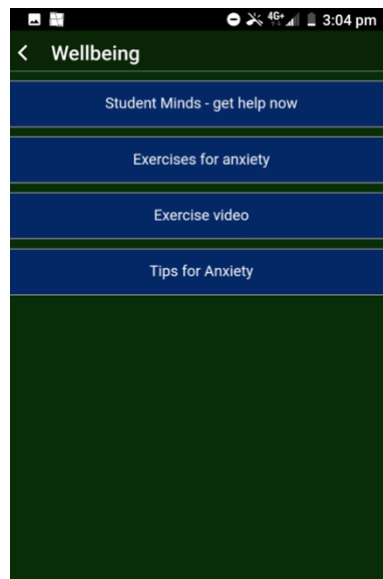


Figure 18: 'Wellbeing' app feature

### The 'Wellbeing' feature

This was called Anxiety and Mindfulness in the first version of the app. In order to fit all ten features onto the front page of the second version, this was renamed Wellbeing, but contained all the same materials and links. Ziva (P13) joined Cycle One and, as she had experienced severe anxiety, pointed out that she had '... used the tab for the mindfulness techniques, and I believe there is a link to Headspace... I read a couple of articles over there, there was some breathing techniques...' (113-117) and also the APA referencing examples (122). She said it would be helpful if there were examples of reflective writing on the app (138), as opposed to links to another website. This is quite difficult as there can be different variations of reflective writing requested by a lecturer and examples need to follow specific assignment guidelines closely. She did highlight the 'immediacy' of using an app (174) as had been mentioned by other participants.

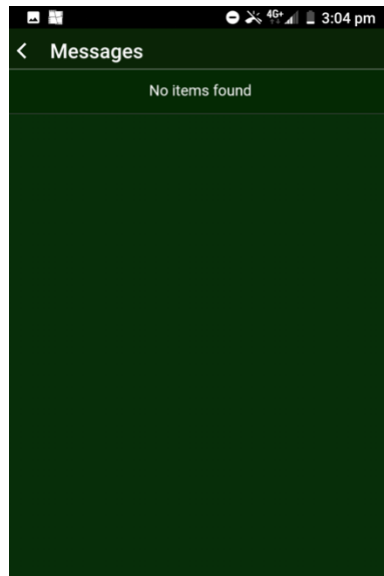


Figure 19: 'Messages' app feature

### The 'Messages' feature

The Messages feature was an attempt to investigate whether participants would leave messages or comments on the app itself about their experiences, much as a blog or a comments section would do. No participants left a message for others to read on the Messages page of the second version, although the total number of messages sent to me using the Feedback, Your Needs and Contact features across the two versions of the app came to 52.

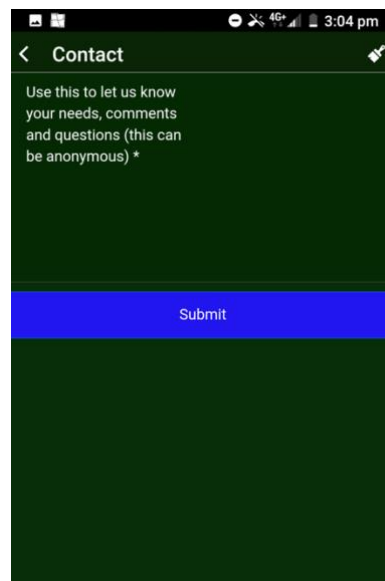


Figure 20: 'Contact' app feature

### The 'Contact' feature

In the first version of the app, there were more features overall, but some of them were rather similar. For example, there was a Needs feature and also Feedback feature as well as a Contact feature. These were merged into one feature called Contact for the second version, in part to have all the features visible on the front page, something that the participants requested. More on these requests now.

### Concerning requests, suggestions, and changes

In keeping with PAR principles of valuing participants' experiences and views, the period between cycles (23 July - 18 Oct) was used to listen to the experiences that the participants' had had of using the app, and incorporating any changes they suggested into the second cycle version. These included changing the references examples from a downloadable PDF doc in the first version of the app to having them readable directly from the app in the second version. The app front cover was redesigned so that all the features could be visible there, as opposed to having to click on a 'More' button to open up the other features.

### Technical issues and general impressions

Not all of the participants were able to download the app that was designed specifically for this research onto their smartphones. Some could not locate their UDID (unique device Identity) code which is needed by Apple to download apps in beta mode (experimental) for a limited time for research purposes. The majority of android users were able to download the .apk file of the app onto their devices. Once downloaded, the participants were free to explore and use the functions of the app in their own time. They were asked to remember those functions which they thought were useful or of interest. These experiences were brought up during the interviews and the following findings emerged.

Georgette (P7) found the app '... agreeable to look at...' (212) and wondered if she needed to input her student ID to use it. This was not necessary (even though the initial Needs page asked for the student ID to save time responding by email, which uses the student number directly). She said she was 'glad there is such an app...' (255). Tanya (P16) joined Cycle Two and did not use the app very much, but did think that an app would be helpful, although '...you can put that in any website...' but that '... the app should provide some other facilities for students, especially internationals...' (157) but did not elaborate further.

Caitlin (P12) joined both cycles, though predominantly Cycle One. She did not access the app often, describing herself as more of '... a paper person, I'm a bit old school...' (180-181) but she said that the app would suit her needs better if there was a mind mapping feature in connection to essay planning '... where you could just add all your ideas, like what's going on in your mind before you start... it would be good to have a mind map feature where you can add things...' (189-194). Unfortunately, the app builder BAB used to design the app did not have such a feature to add, although a link to an external mind mapping tool was looked at but considered too

complicated to add. This was a disappointment to me. She concluded by disagreeing that an app for each course would be useful as '... there's already so many apps on my phone...' (235-236) and that she would prefer everything on one app (239).

Ebonie (P10) took part in both cycles and '... found the app very useful, because it was much quicker to access what you needed...' (141-142). As other participants noted, she mentioned that she was able to find something she needed '... like I need to one day look at how to write reflectively, and by clicking on the resources I was able to find it much quicker than logging on to your Regent's account...' (142-145). She said she found all the features useful, highlighted the Resources and the videos (156, 168) but was unable to access the Quiz (217), possibly for unknown technical reasons. She made a point of stating that having resources on a phone would be good when in transit '... and if you're waiting somewhere, you're on a train or you're travelling or something... you can be looking things up... and especially the library part, if you're waiting somewhere... waiting for an appointment or you're travelling on the bus you can get onto the library to do the research...' (253-269). She felt that having an app for each course '... would be useful...' (574, 588).

### Summary of Findings

A total of 17 participants took part over two cycles of support. 13 of these were interviewed. Data were collected and analysed from initial surveys, contemporaneous logs of support sessions, interviews, exit surveys and analytics from the participants' use of a support app. The research shows that many of the participants presented in an upset state, but expressed relief that additional academic support was available to them. A majority of participants said they were experiencing anxiety in various forms at the beginning of the support. Some talked about feelings of fear or imposter syndrome. There was a lack of clarity in places as to what kind of support the participants' subject lecturers offer, and what kind of support the academic team

offers. However, the participants said that the support was useful to them, that they enjoyed and benefitted from the personalised nature of the individual, confidential support sessions. The sessions involved working with the participants in the areas of academic writing, paragraphing and paraphrasing, for instance, adding criticality to their assignments, discussing time management, and a number of other areas. For many participants, their anxiety dropped to more manageable levels, which had positive effects on their subsequent work. Many said that they felt comforted by the presence of support, even if it was not needed at that moment. Many participants said they had increased self-confidence as a result of the series of support sessions. The majority of participants reached the academic goals they had set themselves, with a number of distinctions being awarded. The app was deemed useful to a majority of participants who could access it, with a total of 323 visits to the various features, over the two cycles. These findings are now explored further in the Discussion chapter.

## Chapter Five - Discussion

### Introduction

Having presented the findings, the Discussion chapter will now analyse and summarise those findings, and evaluate how they reflect relevant concepts in the literature. First, the academic skills that the participants were keen to develop are reviewed, followed by how anxieties can affect these developmental processes. Yeager and Walton's (2011) employment of social psychological interventions are then evaluated as a possible method to connect students to their environment in such a way as to create a renewed sense of belonging, and a reconnection with their studies. The design of a new transition support framework is then presented. How mobile app innovation can complement the personalised support work is explored as a complementary component of the development that takes place in the context of students transitioning into more confident, independent learners. The main aims of this thesis, therefore, can be summarised as follows:

- to investigate in more detail the challenges facing participants in their studies
- to identify what concerns were triggering high levels of anxiety for the participants
- to establish through analysis of findings in what way, and how effectively, academic skills support could address those concerns, and where those findings sit within the literature
- to create a new framework of support which may assist support staff in helping students make successful transitions into more confident, independent learners
- to investigate whether app innovation can further support students from an independent learning perspective

It may be pertinent here to touch on the question of where academic skills support may best be delivered, that is, inside the classroom (as part of the lectures themselves) or as a separate entity. The literature reveals arguments on both sides. I would like to address this here as the positions held by academics such as Hitch *et al.* (2012), Wingate (2012) and McWilliams and Allen (2014), who advocate for academic skills support to be embedded within lectures, are not in alignment with the majority of studies on this issue, nor do they reflect the positive effect of the external, personalised support that the participants received and responded well to. Wingate, for example, recommends that study skills support 'cannot be separated from content' (2012, p. 457). However, it will have been noted in the review of literature that most studies that have looked at the effectiveness of academic skills support (e.g., Bailey *et al.*, 2007; Hill, Tinker and Catterall, 2010; Mansfield, 2020) have concluded that it certainly has a beneficial effect on student achievement *outside* of lecture content, and this thesis and its findings concur. The main argument against embedding support into lectures is that there appears to be little time or capacity for lecturers to incorporate these skills-based support sessions into lecture time to individual students. The numbers of students involved in classroom and lecture teaching all but prohibits any individualised or personalised support.

Perhaps, in some situations, where classroom numbers are small, for example, an argument can be made for both to happen in parallel, to ensure that those students who do not seek out external support - or are not aware of its existence - can nevertheless be exposed to and learn about important aspects of academic conventions necessary for specific modular success. That might, however, present some challenges concerning consistency across the cohort, that is, that it can be ensured that students are being given the same advice inside and outside of the classroom. Both the literature (for example, by Kimmins and Stagg (2009), Yeager and Walton (2011), and others), and the findings in this study, suggest that academic skills provision as an



external and complementary layer of support for those students who do find themselves struggling, can - on an individual level - reduce anxiety, and increase confidence and performance levels.

### The academic skills challenges facing students at university

The research questions concerning the academic challenges students face at university were as follows:

#### RQ1 Concerning the challenges

What kinds of academic challenges do students face at university?

Sub-questions:

- 1 What are the challenges involved in accessing academic support via mobile devices?
- 2 How are these challenges experienced by the students?

Academic skills support, for those students who seek it out, can be beneficial and supportive to students' overall learning processes and development at university (Polansky, Horan and Hanish, 1993; Bailey *et al.*, 2007; Wernersbach *et al.*, 2014; Mansfield, 2020). Students do face numerous challenges when they arrive at university, and the nature of the challenges can change throughout the duration of their studies. The findings suggest that such challenges include initial difficulties with self-confidence, with managing course content, and with understanding fully what is being asked of them, for example, navigating assignment briefs. In addition, overseas students can find it hard to get a grasp of UK academic conventions within the UK university education system; they can also experience difficulties with relationships with academic staff, confusion over plagiarism regulations and finding their own voice, time management, and issues connected to wellbeing and anxiety. These are all aside from the more common obstacles

students face, such as home sickness, finding friends, and settling in to new accommodation and an unfamiliar social setting. Many of the above were experienced by the participants in this study.

From the perspective of institutions, the application of academic skills support can have positive consequences for wider concerns, such as attendance, student engagement, and retention rates (Hamann *et al.*, 2020; Tight, 2019). Not all students will need such support. But for those who do, arriving from overseas, or perhaps coming up fresh from UK 6th form colleges, the challenges that students face are real and can be significant. The findings have borne this out. However, once students have made the decision to seek out support, they may find that a targeted, personalised support can help alleviate some of these anxieties via individual meetings, workshops for small groups of students, or in the classroom for the entire class (Wernersbach *et al.*, 2014). A more in-depth look at some of the specific areas of support that students seek out is now presented. These include skills areas such as academic writing, reading techniques, research skills, and criticality, and these are further discussed now.

### Academic writing

The majority of the participants undertook support to improve the quality of their academic writing. As the review of literature highlights, the process approach to writing (Nunan, 1991) is the closest approach to that which was often needed by and implemented with the participants during their support sessions. The different 'how to' aspects of planning a written assignment, from collecting data and organising ideas, to paragraph structures and academic style, were often unknown to the participants. Lecturers appeared to have assumptions as to what the participants - and students generally - were able to do for themselves. The findings reveal that many of the participants, although conscious of a need to deliver a decent finished product, an

essay or dissertation, found that there were many blocks in the process, where supportive input helped them along.

My experience as an academic skills support officer supports the idea that it can be helpful to see academic writing, indeed writing generally, as a craft, in the same way that a sculptor's work is crafted from a raw form, over time, into a more polished form. My own experience is that the skill of academic writing is one that needs time and effort, in order for a student to become proficient in this process. This may be especially true at the higher levels, such as with master's courses. It may not be enough for a student to start working on this skill weeks or days before a submission is due, as some of the participants discovered. The details of how academic writing works can remain a mystery to many students at many levels, and the process approach is able to address this. Advice concerning process was one of the most commented upon parts of the writing support. To speed up productivity, and to capture ideas more effectively, participants were advised during the support sessions at the beginning stages of their assignments not to try to write in very academical language straight away, but to write in their normal writing style. This enables them to get clarity of ideas on the page first, before transforming those notes into a more academic style at a later stage. Doing this can prevent writing blockages. By writing in their normal writing style, the students can see more clearly what it is they would like to say, and get everything down faster on to the page. This is what happened with the participants in this study, and the results, as can be seen in the findings (Stephen *et al.*) were positive in this regard. The participants were advised to make a start on writing in this way at the earliest opportunity. This can be especially helpful with students for whom English is not their first language. Metalanguage terms such as *topic sentences*, *sentence functions*, *thesis statements*, for example, can be new terms to many students, even though these are the technical names of the building blocks of academic writing. Metalanguage is the language used to describe language, but it need not be only linguists or teachers of TESOL who can become familiar with

it. These are terms which, once learned and used by students themselves, can make a difference between a poorly constructed academic paragraph, for example, and an effectively-constructed one.

The support sessions in this study have shown that participants whose academic writing is not highly polished, can, over a period of weeks, make significant inroads towards an increased understanding of how language works in terms of academic sentence and paragraph structures. This is reflected in many of the final marks of the participants' assignments, several of whom were awarded a distinction. Paragraph *deconstruction*, that is, looking more closely at sentence functions and how sentences interconnect cohesively, helped the participants understand how to *reconstruct* their paragraphs, and thereby clarify the ideas within them. This deconstruction and reconstruction can also develop overall cohesion. The findings suggest that where this is taking place, the anxiety that students experienced earlier concerning their writing decreased to more manageable levels.

#### Criticality as a cognitive skill

Criticality and developing critical evaluation skills is one of the more challenging areas of study for many students, and this was confirmed by the participants in this study. The participants noted in their support sessions that their assignment briefs almost always asked them to 'critically evaluate' a text or a concept, or a particular business model, for example, but the participants were not sure what that actually meant. They were often unsure how to go about evaluating *critically*, or what that would look like linguistically on the page. Many of the support sessions that took place during the two cycles of this study - and many more in the support sessions of the academic skills team over the course of any semester - focused on this area of confusion, and this is never a quick fix.

The work carried out during the support sessions centred on a definition of criticality more in line with the cognitive model, that is, having a focus on specific skillsets such as information analysis, drawing inferences, and checking for irregularities in a line of reasoning. That area of criticality, as argued by Felix (2016), based on Freire's pedagogy, where students become *critical beings* whose focus 'should' be on socio-political inequalities, was not that which the participants' lecturers required of them. In other words, the participants were being asked to develop technical proficiency in information analysis, rather than deeper awareness of *societal* relationships and class inequalities. Facione's (2007) definition - however cumbersome - is therefore closer to the technical skills being asked of them than Felix's (2016), and is repeated here: critical thinking refers to 'purposeful judgment ... (and) interpretation, analysis, evaluation, and inference, as well as explanation of ... evidential, conceptual, methodological, criteriological, or contextual considerations...' (Facione, 2007).

In an attempt to add clarity on criticality for the participants, the support sessions focused on three aspects of criticality. The first is a general understanding of what critical evaluation might entail, and is done by showing the students that they evaluate things critically all the time, every day, and probably every minute. The following (anonymous) definition is used, that critical thinking consists of two things: *questioning* and then *evaluating* information. Examples are given, such as, when deciding which cafe or restaurant a group of friends would like to go to that evening, they will gather information first, then question it, then make an evaluation of it. For example, the choice may consist of three cafes, and their questions concern how close the cafes are, what kinds of atmosphere they have, and perhaps how expensive they are. They discuss the choices... cafe A is nearby and good fun, but rather expensive; cafe B is a little way off, quite relaxed and not too expensive; cafe C is a bus ride away but full of other students and really cheap. Based on those descriptions, they choose cafe C. The rationale for that choice? They are not in a rush, and want to have a good time without breaking the bank. When the

students begin to understand what is involved in such *critical evaluation*, the second part is to apply it to the context of their academic assignments. The students assess the assignment details, gather information, and begin to make evaluations based on the directions of the assignment brief. The third part involves how those evaluations are *expressed* in writing on the page, whether or not the line of reasoning is suitably clear, and relevant to the task, and so on.

These types of activities happen over a number of support sessions, and take time, but the findings suggest they are effective in getting the students to a place where they feel they can go away and carry out more of the assignment by themselves, ask more relevant questions, and evaluate more analytically. Initial levels of anxiety concerning adding criticality to their assignments were observed to have reduced, and the participants were able to take on more of the challenges and tasks required of them than they were able to previously. These increments add up over time; the findings reveal that participants began to develop more confidence in their ability to analyse data, and their productivity increased.

### Reading skills

Reading skills, likewise, can also be developed and improved by breaking down the processes involved (Abrams and Jernigan, 1984). The participants in this study seemed greatly relieved to discover that it was not necessary - and sometimes counter-productive - to read every word of every text they came across in order to complete a particular assignment. It can lose them a lot of time in so doing, and the participants reported this during the support sessions. Different reading techniques may need to be employed at different stages of the students' studies. When a student is in 'research mode', when they are searching for relevant articles and books for an assignment, it does not make sense for the student to spend three weeks reading every word of dozens of texts, to end up with only two that are useful. Time can be wasted in this way. The participants' anxiety concerning this gathering of information is explicit in the findings, but it

was reduced when they learned that they can cut time needed in reading by checking the *Abstract* of an article first, to pick up quickly how relevant the article may be for their assignment. If they are still unsure as to the relevance of the paper, they can then skim the *Conclusion* of that article, which will state the findings and significance of the research. Caitlin found this especially helpful, and mentioned that by learning to skim-read, she had avoided trying to learn everything as she read, and speeded up the process of gathering information. Breaking down different aspects of the reading process can speed up the process of structuring a plan, for the completion of an assignment (Cohn, 2021).

A number of the participants agreed that their anxieties were exacerbated by the length of time they felt they were wasting in the early stages of tackling a new assignment. By learning about different reading techniques, students' initial anxieties can be relieved in some measure. Once they feel they have gathered sufficient material for an assignment, they can then move on to the writing stages, and then the criticality stages. Measuring a students' reading skills ability can be challenging, especially for students who may have a diagnosed or undiagnosed disability such as ADHD, but as the participants stated, such techniques and tips can reduce feelings of being overwhelmed, and help create a more manageable structure to enable them to carry out the work that is required, within the time frames of the assignment.

#### Planning and time management

Planning and time management are also important aspects of a student's studies, and this is reflected in the support that took place. The findings suggest that many participants found it useful to have someone make a plan of action with them, not least to help a student get an assignment or piece of coursework completed on or in time. As one participant stated, this can add a degree of accountability, which can in turn enhance a sense of commitment. Just having a list of things to do will not in itself get those things done. In the same way that it is not enough

for an assignment brief simply to state 'students must *critically evaluate* X or Y or Z in order to pass this assignment' if the students do not know what this means, or how to go about it. The participants related that having someone discuss a brief with them, helping them develop clarity on it, can be a timely intervention. This personalised approach - targeted, individualised advice - using examples and how-to tips, can allow the students a greater opportunity to take on such tasks more effectively, which became evident during the participants' interviews and in the contemporaneous logs taken during the support sessions.

The findings reveal that time saved by support given to students on how to read more effectively, how to deconstruct in order to reconstruct, and so on, can have a positive effect on study anxieties. The time that is also saved by guidance in finding sources for assignments more quickly is a common feature of the interviews. This is also aligned with tips on reading skills, which is highlighted elsewhere in this study. Sometimes stress is caused by time pressure. A closer examination into the types of anxieties, as expressed by the participants at different stages of the support, will now be undertaken.

### Understanding how student anxieties affect skills development

Issues associated with anxiety are often interconnected to those pertaining to how a student *feels* about their *abilities* to do well in their studies (Vitasari *et al.*, 2010; Yeager, Walton and Cohen, 2013), and these are explored further in the second section of this Discussion. The research questions concerning student anxieties were as follows:



RQ2 Concerning anxiety

In what ways do students' anxieties interfere with or affect their academic development?

Sub-questions:

- 1 What kinds of anxieties do students experience at different stages of development?
- 2 To what degree might academic support address these anxieties?

The findings reveal that many participants were experiencing anxiety at the time of seeking out academic support. As the review of literature shows, anxieties can come from different areas of a student's life, and can concern social adaptation issues, cultural and educational shocks from arriving at a new environment, family issues, health and mental health issues (Howard, 2020), as well as purely academic issues. High levels of anxiety can impede students' academic development (McCraty, 2007; Sena *et al.*, 2007; Luigi *et al.*, 2007). These are supported in the findings of this thesis. A variety of triggers or reasons for stress were observed from the participants during their interviews and in the contemporaneous support session logs. The reasons for stress in the participants of this study included a relationship breakup, disorientation after arriving from a different culture, self-confidence issues such as imposter syndrome, being away from education for a long time, not having English as a first language, a lack of sufficient feedback from lecturers, a lack of clarity on assignment tasks, having ADHD, dyslexia or other conditions, to mention a few.

#### Academic anxiety and performance levels

The findings suggest that dealing with the issues that are affecting students (where this is appropriate) in terms of anxiety or stress can be an effective way of *entering* the academic support process, and of addressing academic performance issues. This thesis makes the claim (and supports the positions of Vitasari *et al.*, 2010, and McCraty, 2007) that there is a distinctive relationship between academic anxiety, issues around students' self-efficacy and their academic

development within the context of higher education. That is, that the experience of a student feeling 'yes, I can do this, I have the ability and the self-confidence to complete this successfully' is hampered when anxieties are present but unaddressed, that the paths forward can be blocked by such anxieties, leading to a slowing down or even a breakdown in academic development. Students in such situations can disengage. Assignments can go uncompleted. In some worst-case scenarios, students can drop out altogether (Jeffreys and Clarke, 2022). Therefore, if timely strategies and frameworks can be put in place to address the sources of a student's anxiety, whether academically-based or not, whether it derives from inside or from outside of the academic environment (Vitasari *et al.*, 2010), that student's academic development can be rescued through early, personalised and sustained support.

Cultural differences, language barriers, and perceived discrimination can contribute to high levels of anxiety, which, in turn, can affect academic performance (Adeoye-Agboola and Evans, 2015). Stress, if unaddressed, can build up to unmanageable levels (Ajmal and Ahmad, 2019). And even though those students who may have a health condition, or a learning disability, can apply for an individual support agreement (known presumably by different names across different institutions) and can apply for extensions to assignment submission deadlines, the assignments still need to be successfully completed. The findings in this study suggest that, though there are health and wellbeing and other support teams across the university, the academic skills team can play an additional, complementary part in addressing some of these anxieties, which in turn can lead to openings for academic skills support to take place. Amelia (P3), Sandra (P11) and Ebonie (P10), for example, all said that they had not been aware that academic support outside of their classes was available to them. In this regard, it can be beneficial if communication systems are in place to allow the free flowing of information concerning support provision that is available to students. For this to happen effectively, certain conditions may need to be in place in order that such support to be utilised effectively. Those

conditions may include the following: that academic skills support is visible to all students, whether that comes via a VLE, or email, or the lecturers, the departments, or other systems of notification across the university; that the areas of support covered (i.e. writing, reading, criticality etc) are clearly denoted; that the methods in which students can contact a support team are clear; that the nature of the support is also made clear, for example, that the sessions are confidential, free, available to all students. By allowing for issues concerning anxiety to be acknowledged, accepted and addressed as part of academic skills provision, it may enable the student to tackle the *impediments* to academic development in the same place, and at the same time. None of the participants mentioned the confidentiality part of the support sessions per se, however, this is made clear to all students during the first meeting, and I feel that this may be one of the many reasons why students allow themselves to speak freely, and to open up so emotionally.

One of the points that came up in discussion with my colleagues (learning developers) in a lunchtime seminar in which I had been invited to present my PhD ideas, was that not all students experience anxiety, and that a distinction can be made between those students who are stressed and struggling, and others who are not and who are able to perform well in their studies. One learning developer suggested that these two can be separated into academic support (where anxiety is present) and academic development (where anxiety is not present). This proposition, I feel, can be questioned. In its place, the following reasoning and position is suggested - that *all* students, regardless of whether anxiety is present in any particular moment, will naturally develop academically, and will transition in different degrees academically. It can be argued that all students are on, and are part of, the *same* learning curve, that some students have greater needs than others, or have issues impeding development *at some stage*; nevertheless, those who struggle are not distinct from the whole (or the greater) body of students. It will always be the case that some students need more - or just different - support than others, and that educational institutions have a duty of care to offer such support to all

students in need. There is also the argument, perhaps not considered by colleagues, that a non-stressed, high-flying student can *at any time* suffer a life event, an unexpected disruption to their studies, to their wellbeing, their health, their mental state, which may trigger a state in which they may need additional support, that is, that the needs of high-flying students can change *at any time*. They will then have just as much right to, and possibly a need for, additional academic support as those who present with anxieties at an early stage of their studies. This paper therefore holds the position that *all* students are part of, and belong on, the same learning curve, and that additional academic or emotional support may be needed *at any time* for any of the entire body of students. As one of the participants stated, just knowing that support is there is in itself supportive. The question of how struggling or anxious students can be (re)connected to their academic environment, and to their assignments and coursework, is the centre of this study, and will now be further addressed.

#### The significance of social psychological interventions

Yeager and Walton's (2011) and Yeager, Walton and Cohen's (2013) findings suggest that a subjective approach to dealing with students' individual concerns, and subjective emotional or academic experiences, can lead to a later increase in academic achievement. The findings in my study concur, and suggest that this may also be an effective way for struggling students to *enter* the academic skills support process. Yeager and Walton's (2011) research on social psychological interventions may therefore be one of the keys to the success of the support sessions which have been taking place. The support sessions were confidential, which, as stated above, may be one reason why the participants felt comfortable in opening up. This, in turn, may have added to the effectiveness of a targeted, personalised approach to support, as Yeager and Walton's (2011) observations suggest, and the participants responded well to the support, as the findings reveal. Yeager, Walton and Cohen's (2013) paper, a further commentary on the underlying rationale behind the 2011 paper, argue that social psychological interventions 'raise student

achievement' (p. 63) by changing students' subjective experiences in the learning environment by using the interventions wisely, without stigmatising recipients, and by 'tapping into self-reinforcing processes that sustain the early effects' of the interventions (p. 63).

The findings in my study corroborate Yeager and Walton's (2011) conclusions. The participants were invited to discuss their personal anxieties during the support sessions, and data from the interviews suggest that this was helpful, and benefitted the participants' overall academic journey. As Yeager and Walton's (2011) work has identified, positive inroads can be made with students when targeted, personalised support is applied. A number of participants related that the *personalised* nature of the support was very helpful. Rebecca, for instance, reflected that the support that helped her most 'was more emotional than academic' and had had an overall impact on her work (Rebecca (P4), 47-49). Yeager and Walton's (2011) observations on the effectiveness of social psychological interventions are therefore drawn on, and are incorporated into the first part of the new support framework.

The new framework has implemented these ideas into the initial stages, where a student's academic needs and emotional concerns can be addressed, after meaningful contact has been established. The review of literature did not reveal an educational *framework* for support which employs a social psychological approach directly in an academic skills setting. The findings in this thesis suggest that if meaningful, personalised contact can be established, a targeted approach to addressing the *academic* needs, and the development of specific academic skills, of those students seeking support, can be effective. This fits Vygotsky's (1978) vision that development happens through social interactions (1978, p. 57). As Vygotsky details, 'an interpersonal process being transformed into an intrapersonal one is the result of a long series of developmental events... and become inner functions... they take on the character of inner processes only as a result of

prolonged development...' (p. 57). In other words, transformation happens from interpersonal social processes via a series of developmental interactions, to internalised, intrapersonal psychological identities. These new identities, Vygotsky argues, are capable of individual *self-development*. I believe that these concepts are reflected in the findings of this study. According to Yeager, Walton and Cohen (2013), these social psychological interventions create a social connection to the support staff, and to the series of developmental events - in this case the support sessions - and help internalise the skills being developed, which in turn has a positive, confidence-boosting effect on the *identity* of the learner. As Vygotsky puts it, 'psychological processes... are incorporated into this system of behaviour and are culturally reconstituted and developed to form a new psychological entity' (1978, p. 57). The findings suggest that the new psychological entity that Vygotsky is referring to is the student who, after working together with the support staff on a particular aspect of their skills, is now able to say 'yes, I can do this now. Wow!' - and, 'perhaps I can do *more?*'

Yeager and Walton (2011) list two different types of interventions. The first are *social-belonging* interventions, whereby students are reassured that all students experience in some form or another, worries about belonging (in a social group, or in an educational environment); the second, which the authors term *values affirmation interventions*, connect to the students' personal values, and reinforce the students' sense of identity (p. 63).

The findings show that similar such interventions were probably in play during the academic skills support sessions, without having been given that name, and that the participants' connections to the staff member administering the support (myself in this case), gave them a renewed sense of belonging, renewed confidence, and subsequently may have had a positive effect on the participants' sense of identity. The key, Yeager, Walton and Cohen (2013) argue, to understanding the longer-term effects of these interventions, is to recognise that they 'tap into self-reinforcing processes... like when students make friends and then feel more confident they belong, how they build relationships with teachers who give them more support and

encouragement, and how they feel more confident in their ability to learn and succeed...' (2013, p. 64). These positive effects can be observed throughout the findings in this study.

The timing of the interventions is important, and this is reflected in the framework. A 'well-timed, well-targeted intervention can improve students' relationships, experiences and performance at a critical stage... before a negative recursive process has gained momentum...' (Yeager, Walton and Cohen, 2013, p. 64). But because a timely intervention may rely on the student who may be struggling to make initial contact with support staff, there is the chance that opportunities to catch students before it is too late may be missed. This is why clear communications about the support that is on offer to students outside of the classroom setting need to be in place.

#### Affect, and opening the doorways to skills support

It can be beneficial for educators to explore how students within an institution interact emotionally with their surroundings. Barrett (2006) studied the role of affective processes on emotions using the constructivist theory of emotion and found connections between experiences and emotional states. The participants in this study reflected this in the interviews that were conducted. Such experiences included failing papers, or feeling that they were the weakest in the class, for example. But there were also positive experiences which lead to enhanced emotional states and feelings that included relief and joy. Domasia (1994) had earlier written about the concept of somatic markers, explaining how bodily sensations can influence affect, specifically decision-making. It could be argued that the interactions that happened between myself and the participants had a positive social association, which, as Collins (2004) examined, can affect emotional responses such as empathy and contagion in social groups. The responses of the participants were for the most part positive in this regard, with knock-on effects on productivity and performance. In other words, the social interactions (and

interventions) produced positive emotional responses, which in turn lead to increased engagement with the participants' assignments.

Exploring how affective experiences can shape shared environments can be a beneficial undertaking with regards to student support. Seligman (2009) argues that developing positive emotions in educational institutions can enhance learning and personal development, and that allowing negative affect, such as anxiety, to fester can have an unhelpful impact on learning (Beilock, 2011). Some of the participants spoke about this too, and confirmed that their anxieties were in fact impeding their abilities of concentrate on their studies and assignments. I feel that exploring and understanding how issues of affect can be developed to support students from all groups who may struggle in higher education is something that can be further researched and implemented. These concerns have also gone into the design and shape of a framework for support that I feel may be of assistance to support staff in higher education. The new support framework will, therefore, now be introduced, which highlights the implementation of social psychological interventions.

### Introducing the Academic Skills Transition Framework

One of the key aims of this study was to establish a framework for support which would enable staff to help students address the concerns they have regarding the challenges they face at university. It is intended to be a system to aid both staff and students in their understanding of how to overcome the academic and emotional challenges that students face. A framework specifically designed with academic skills support in mind might be useful to that end, and such a framework has been formed from the findings of this research. It is here introduced as the Academic Skills Transition Framework, and is essentially an assemblage of *schema*, that is, '*actions that unify experiences and enable understanding which lead to successful transitions*' (Freedictionary, 2022), and a '*re-organisation of concepts and actions*' (Wordweb, 2022). In



order to explicate how the different elements of the framework combine, it may be utile to revisit briefly the research questions concerning *transitioning*, which were as follows:

**RQ3** Concerning the transition

How do students transition into more confident, independent learners with regard to academic skills development?

Sub-questions:

- 1 What kind of transition takes place in terms of academic development, and also in terms of wellbeing?
- 2 In what ways might a transition model assist support staff in facilitating students' development?

As the review of literature found, 'transitions can provide a framework in which experiences of coping with change can be described and addressed' (Musamali, 2018, p. 245), and that *unmanaged* transitions can impede successful adaptation. As described earlier, the modus operandi concerning the construction of the new framework was to *simplify* and *exemplify* Nicholson and West's (1988) transition model, to produce an adaptation which more closely relates to the *educational* aspects of the support process and transition that students may experience in higher education, through targeted, personalised support, with examples or questions to guide support staff. The first stage of the new framework targets the usefulness and significance of support interventions, and is designed to increase the potential for achievement *early*, to activate positive responses to the students' sense of self, to the challenges and anxieties being faced, and to the academic skills support which follows on afterwards. The second part introduces the academic skills support sessions themselves, where students develop the specific skills they may need to complete an assignment successfully. The third part checks for evidence that tasks have been completed, and that a successful transition has taken place, or not, and also looks ahead to any new challenges that the developing student may need to take on. The framework is presented below:

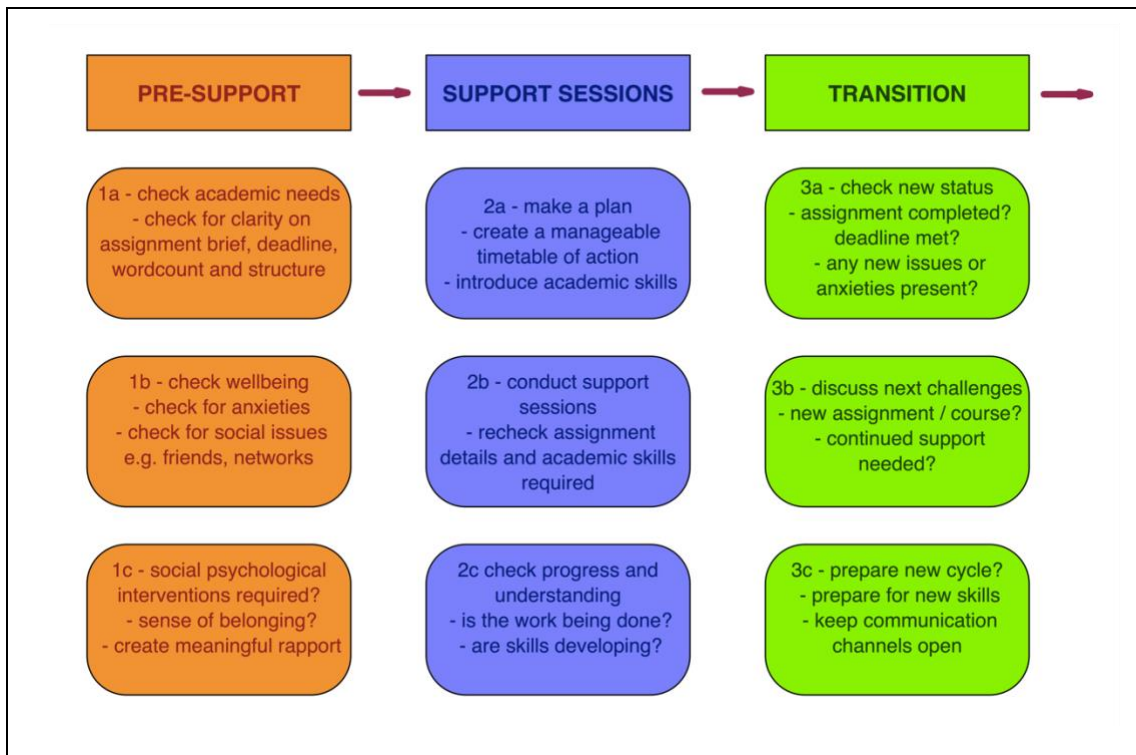
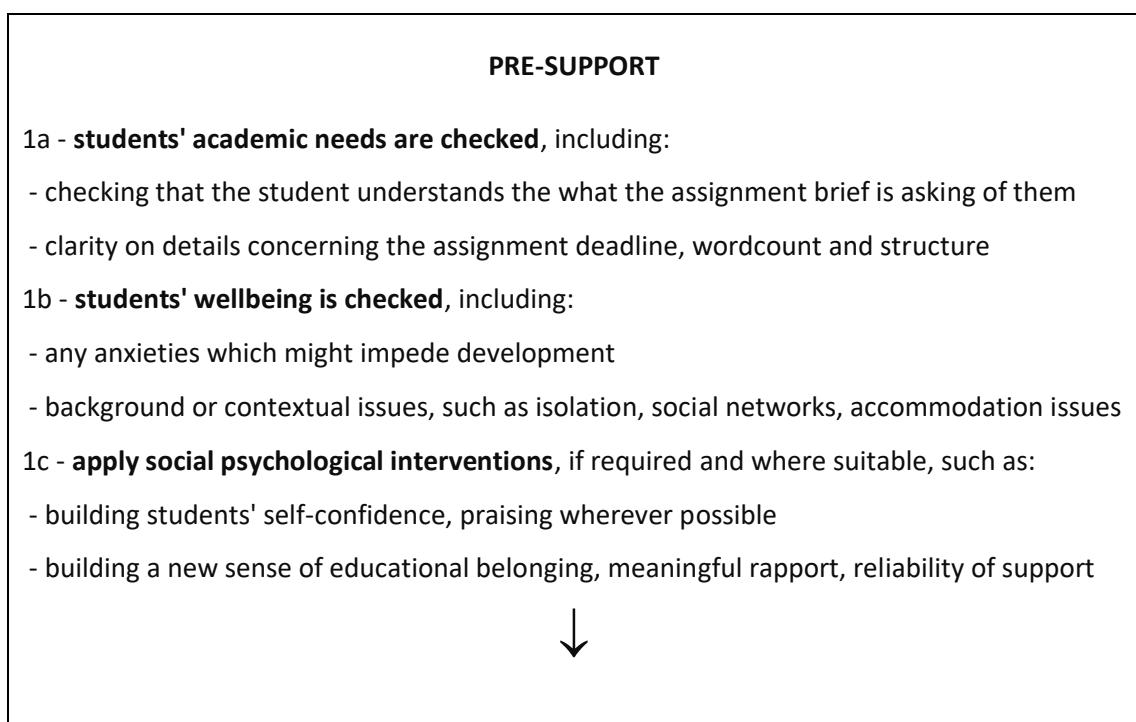


Figure 21: The Academic Skills Transition Framework (2022)

The first part of the framework is essentially a diagnostic of how the student feels at the start point, what their academic needs are, and whether there are any issues such as anxiety which might impede progress. This is also where meaningful connections or rapport can be established, and where social psychological interventions can be identified and informally implemented. The second part of the framework is where a plan of support is drawn up. The support sessions take place, whether just a single supportive session is required, or a series of meetings where the assignment task is addressed and academic skills are developed. It is during this stage that students may move over time from low confidence to slightly elevated levels of confidence and self-efficacy. In other words, after support provision has been administered, the student may then feel they have developed their skills and understanding just sufficiently so as to feel that they are now able to continue their studies and work a little more independently. The support sessions will likely be a precursor to new assignments and perhaps more difficult

challenges. The final part of the framework can be described as a further checking mechanism, which also looks forward to the next set of challenges and associated skills that may need to be developed. The cycle starts off again; the new status is checked, the new needs are noted, and any new anxieties are addressed. It may be that the student at this stage has developed skills sufficiently to no longer need the same levels of support, and this is a positive step. A successful transition (or interim transition) may have occurred. This was observed in the findings with some of the participants.

For the support to be effective, certain procedures ought to be in place. Students need to be aware that additional support is available to them if such provision exists. Students need to know that they can access this support for any reason connected to their studies, and that ideally that the support is confidential and discreet. Teaching staff may also need to be made aware that such additional support is available to students, something that this paper has revealed may not necessarily be entirely the case across an institution, perhaps where staff turnaround is an issue. The framework can also be presented in the following written form:



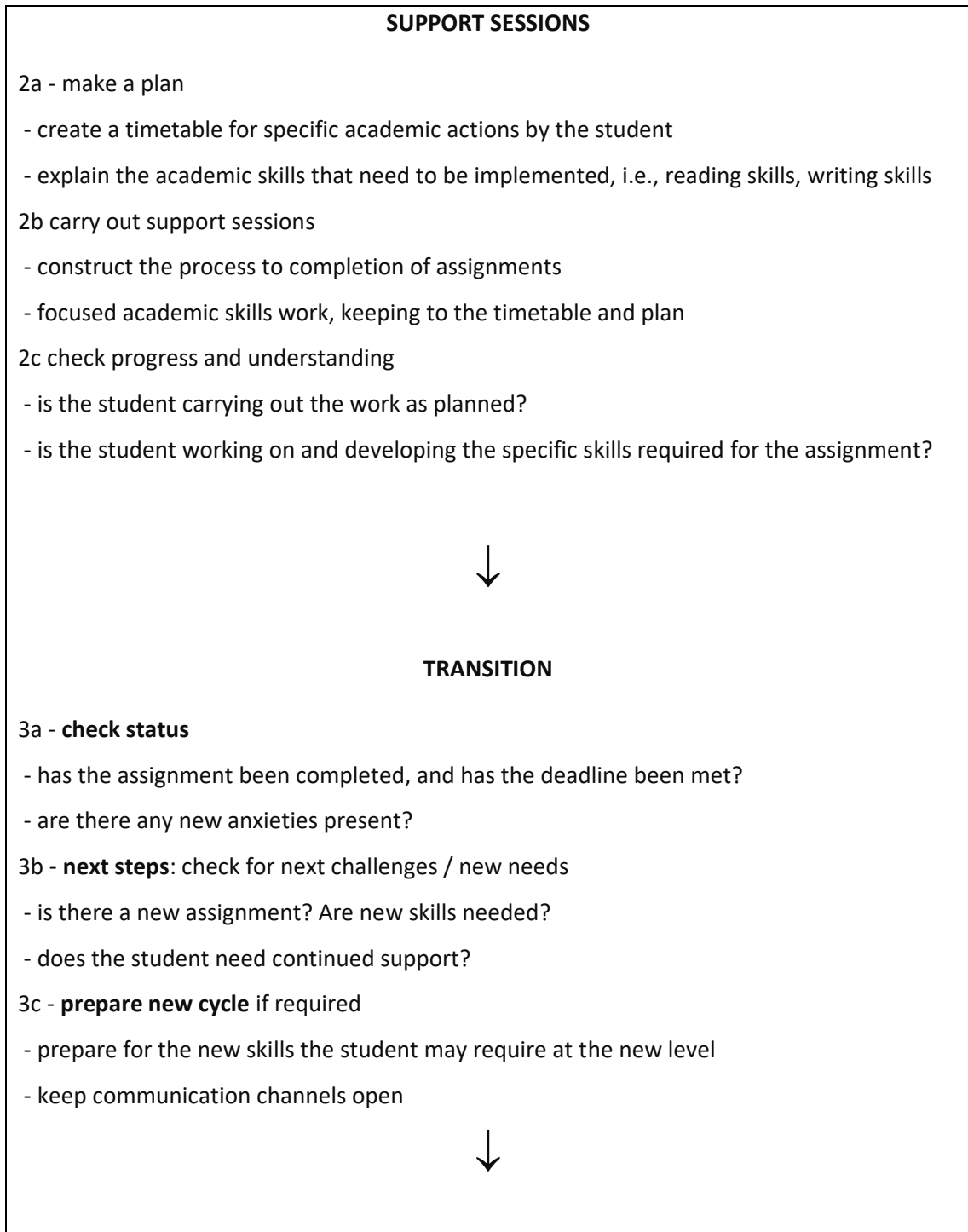


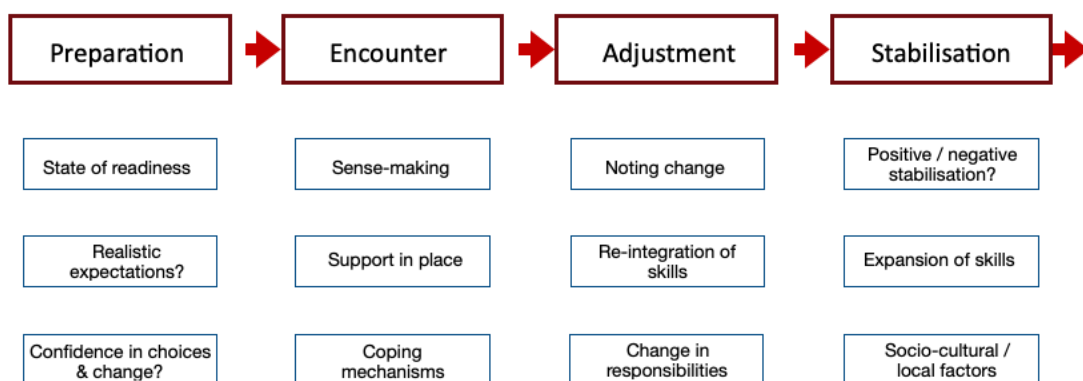
Table 13: Academic Skills Transition Framework (list format)

As students head towards the last part of the framework, after having completed a number of support sessions and hopefully having accomplished the goals they had set for themselves, they are in fact travelling in the direction of greater learning independence. That is, their

understanding of academic conventions is expanding; they may be able to take on more challenges alone from hereon in. In what way might support staff feel that this is approaching? Indications that a positive transition may have taken place may include the student feeling a renewed sense of belonging to their academic environment, an increase in confidence and self-efficacy, higher marks, and perhaps feeling ready to undertake more difficult challenges. At this stage, and perhaps earlier, as the findings suggest, mobile app support can facilitate or complement the ongoing process of learner independence. The implications of app innovation will now be discussed further in terms of independent learning development and mobility.

### Interpreting the participants' transitions using Nicholson and West's model

Nicholson and West's model was simplified and exemplified in order to better adapt the model to the particular educational experiences of the participants. The findings can be interpreted using Nicholson and West's model (see below) as a prism, through which we end up with the final new framework.



When participants started their support sessions, the Preparation component began, and their state of readiness (for support) was assessed. This included how they were feeling, what their academic needs were at that time, and whether their expectations of the work needed to be put in, in order to succeed were realistic. As recorded above, many of the participants were

anxious, upset, afraid and confused. These emotions were real, and were affecting their ability and confidence concerning the completion of their assignments. The new framework would reflect these emotional components and needs as an important point of origin for the support. It was often at this point that a positive rapport needed to be instigated, and for the most part this happened.

The Encounter component of the model became synonymous in the new framework with the action that occurred during the support sessions. A plan of action was put together in consultation with the participants' needs, wishes and timeline, and this is commensurate with the 'Support in place' element of the Encounter component. This is where the participants were asked to rewrite a part of their assignment, or do some particular research or reading. Their progress was monitored (coping mechanisms in the model), and checks were made of the development of the skills they were applying (reading, writing, being critical). The findings reveal that some of the participants struggled at times at this juncture. This was because either they were still experiencing confidence deficiencies, some became further confused about how to go about a particular task (where to find articles, how to evaluate information effectively, and so on) and at this point the teaching aspect of the support kicked in, explanations were given, advice was imparted.

The Adjustment component and the Stabilisation component of Nicholson and West's model were combined and simplified in the new framework. Checks continued as to the completion of an assignment. The emotional status of the participants was checked again, and often this was where the transitions begin to be observed, if they were in fact taking place. This is confirmed in the findings for most of the participants. For example, as sections of assignments were being ticked off, the anxieties that the participants had initially experienced showed sign of reduction. If any difficulties came up, as they did with two or three of the participants, the process returned

to checking the new difficulties and needs, and a new plan was put in place. The Stabilisation component of Nicholson and West's model, I felt, was not deemed an accurate terminology at this point and was removed from the framework as a term. In its place, the term Transition was introduced and was considered more appropriate, even if the participants needed to work on new difficulties that came up during the support sessions, transitions of a kind had been observed. The new difficulties might entail merely an expansion of skills, and were often a natural progression as more taxing challenges appeared for the participants. New checks would be made, and new plans put in place. Continued support would be offered, and communication channels would naturally be kept open at all times.

At times, a small number of participants became stuck, some relapses occurred, and anxieties returned. At this point we would go back to an earlier stage in the support (framework), reassess their emotional status and needs, and make a new plan. This stepping back, or recycling, and reconsolidating their understanding of what was needed often worked. On occasion, the participants took a break from the support. The majority, however, persevered, developed the relevant skills to complete their assignments, and were pleased and grateful in the aftermath.

### App innovation as a tool for further learning support and mobility

The concept of mobility and learner independence is one of the foci of this thesis. Part of the transition process that students may undergo involves students becoming more independent as learners. The research questions concerning mobility and app innovation were:

RQ4 Concerning mobility and app innovation

In what ways might app innovation further assist the transition into more confident, independent learners?

Sub-questions:

- 1 How do students experience academic support via mobile devices?
- 2 To what extent - and with which kinds of functionality or features - might mobile app innovation assist in this development?

This research has explored how an educational support app containing academic resources can assist learning and development outside of the classroom. The findings suggest that there remains further opportunity for app innovation to facilitate or complement independent learning opportunities and mobility. This supports the idea that no matter where the student is at any one time - on the bus, in a cafe, on holiday or on a lunch break - academic resources and therefore skills support can be made available to them on their mobile devices, with or without internet connectivity. This kind of mobility is what led Keegan (2002) to describe the mobile era from the early 2000s as a shift into a new *mobile paradigm*, and as the findings highlight, the participants found certain features of the app academically helpful and supportive, and at times when they were off campus.

This literature review revealed a growing body of research into what has become an increasing trend within education to adopt technological innovation to expand teaching and learning approaches. It might be the case, as these trends develop, that new theories of learning will emerge, which not only take into consideration the technological innovations happening in educational institutions, but also become the central part of updated pedagogies where app innovation may become a key part in terms of learner mobility. Fullan (2007) has argued that technology had for years been integrated into education *without* sufficiently well-thought-out



pedagogical purpose, and identified a lack of 'dialogue' between pedagogy and technology as being one of the main reasons why there had not been a 'learning transformation in education'. In his later work 'Stratosphere' (2013), he describes three *forces* which he argues are integral to such a transformation: technology, pedagogy and change knowledge. In this situation, Fullan explains, technology 'opens up vast resources of information, offering opportunities to learn in alternative ways (pedagogy)', such as away from campus, in the students' own time, using technology that the students enjoy using, for example, which delivers development in knowledge and skills, in order to change things for the better. The findings in this study, I feel, touch on many of these key areas.

One aspect of app innovation that has not been mentioned as yet is that of how to implement effectively new technologies *across an institution*. This was not a direct focus of this paper but may have implications for an effective roll-out. Two ideas may need to be thought through in order for an innovation to be implemented successfully. One is to do with organisational culture; the other concerns Rogers' (2003) ideas on the best ways to implement innovation across an organisation. As Collins and Halverson (2009) observed, effective learning is more likely to take place when learning environments are created which *align* with how students learn in everyday and informal settings. Drucker (1962) had previously argued that the culture that exists in an organisation can directly assist or impede the success to which ideas and innovations can be implemented via policy strategies. An alignment of actors needs to be in place across the whole organisation, and if this is not so, if they are not sufficiently aligned in their understanding and acceptance of the ideas being implemented, then those ideas will likely not succeed. As Drucker famously put it, 'culture eats strategy for breakfast'. In other words, no matter what strategies are planned or in place, if the underlying culture within the organisation is not in alignment, there will be problems. This will most likely be the case for app innovation too. There would need to be an alignment and agreement among the lecturers, the students, the technology

support apparatus, and many others, in order for app innovation in connection to learning support and academic resources to succeed. The findings in this study have shown that there may be positive potentiality for these ideas to be effective in terms of academic skills development, mobility, and learner independence. Implementation of this and other ideas may need to be carried out in a careful and well organised manner, as Rogers (2003) has laid out.

The key benefits of having such an app as an additional support tool could be summarised in the following way: all features are close to hand, students do not have to log in multiple times to access features, resources can include specific and requested how-to videos, referencing examples, a library search engine for research purposes, support sessions with staff can be requested or booked via the app, and so on. The findings reveal that the participants enjoyed and used the app as an informative support tool, a mobile more knowledgeable other (MMKO), as Vygotsky (1962) might have put it. That some participants accessed the wellbeing features and commented on their usefulness was significant, in the context of the focus of this thesis.

### Anomalies and disappointments

Generally speaking, the study went as planned, and there were very few surprises. The first minor disappointment, however, was that three of the original 14 participants did not continue their support sessions after the initial session or two. The reasons were never made clear, but this sometimes happens if a student manages to get clarity on an issue quickly, or where their lecturer has cleared things up for them to such a degree that they are now able to continue without additional support. Some of the participants achieved distinctions for their assignments, which was something we were delighted with, but one major disappointment for me occurred when a participant, after a number of support sessions working on a dissertation, submitted an assignment which I did not recognise, and was subsequently accused of academic misconduct. The final verdict remained confidential, and was not shared with me.

Concerning the app and its design, I was not completely satisfied with some of the limitations of the app builder. For example, one of the participants requested for the second cycle that a mind-mapping tool be added, to enable her to visually plan an assignment, but this was not possible. The app builder did not have such a capability. It may have been possible to incorporate a link to an external mind-mapping software, but this was rejected as I did not want the participants to be exposed to any external costs or sign-ups. The central idea of the app was to have as many features as possible in one secure place. Another anomaly was that the app builder could retroactively 'remember' when a feature was added to the app, and so when acquiring data from a previous month, say May 2021, any feature which had been added after that time appeared as if it had existed at all times. This is why the Quick Look feature (Figure 10) with eight visits, appears to have been part of the first cycle, when in fact it was an added feature only of the second cycle app. Overall, there were few disappointments and a small number of anomalies, and the study proceeded as planned without any significant hitches.

### Some reflections on Participatory Action Research

PAR has felt to me like a valuable choice of approach for research of this nature, as it invites and welcomes participants' voices, and allows for and accepts *change*, where change in this context is meaningful to the academic and emotional development of students in higher education. The ways in which participants can go on to shape change *themselves* may not be immediately practicable in every circumstance, given modular time constraints, deadlines, and timetabling issues that students must adhere to. One example, though, might be where participants could go on to become mentors to other students who may also be struggling and looking for support, an idea that I might explore further in the future. The findings suggest that the two cycles undertaken in this thesis could, in later research, be the first cycles of a longer *participatory* process. It would have been a very interesting prospect to set up a mentoring study in the

context of academic skills development (as opposed to emotional or social support, or purely subject content), noting the outcomes, and perhaps observing the participants 'giving back' to others.

I think it is worth mentioning that researchers should not be afraid to develop more progressive approaches and terminologies given the opportunities that PAR offers community members, after all, there are innumerable variations of lives and challenges within every community; new methods to reach those who are struggling or suffering should always be considered without necessarily having to follow the strict confines of previous research. For example, PAR may still be a valuable and valid approach even if the terminologies for the community members are further adapted to suit their unique lives and unique experiences, that they do not absolutely need to be called co-researchers, but can acceptably and appropriately be referred to as collaborators, or co-creators, or participant-learners, or some other appropriate term which better represents their relationship to the research driver and the research environment. In this way, we might reveal and get to understand more of the world and contexts in which we all co-exist.

### Contribution to knowledge and wider implications of this research

This research has endeavoured to add new knowledge in the field of academic skills support to 'bridge the gap between research and action, and ... theory and practice' (Brinberg and Hirschman, 1986), where, from the Vygotskian angle, social interactions and socio-psychological interventions (Yeager and Walton, 2011; Yeager, Walton and Cohen, 2013) can be employed to reconnect students to their surroundings, to re-establish a sense of belonging (Walton and Cohen, 2007) where befitting, and to (re)build students' self-confidence, self-efficacy, and sense of self. With these in place, students' academic skills development may then have a greater

chance to thrive. The transitions that the participants underwent in this study were observed, analysed, and then applied to the process of designing a new support framework, one which might be used as a guide for support staff and students alike in the future.

The framework designed in this study, which is based on the experiences of the participants, may be seen as a significant step towards developing a greater awareness and understanding of issues that students sometimes face when tackling the challenges of higher education courses. Institutions contain many different departments, academic and supportive, and communication issues between them can sometimes create silos where missed opportunities for cooperation can arise. The Academic Skills Transition Framework endeavours to add some clarity on the interconnections and relationships between anxiety and achievement, and between support and transition. Looking deeper into how students connect locally to their educational surroundings, into their sense of belonging, their feelings about their own potentiality, as Yeager and Walton (2011) have done, can be a beneficial undertaking.

The wider implications of this paper, I feel, in addition to the importance of checking students' wellbeing and anxieties, are connected to the area of learning independence. During the Covid and post-covid periods, institutions had to respond quickly and effectively to an enforced switch to online teaching. This was an opportunity to see how technological innovations such as mobile app support can play a supporting and supportive role. The findings revealed that academic features and resources on a mobile device can add a fast and effective extra layer of technical academic support, wherever the student happens to be - off campus or in the classroom - running in parallel to the students' regular classes. I feel that there is potential for these innovations and mobile features to be further exploited, further developed, to include academic resources that may not have been thought of for the present study. One of the participants, for example, requested a mind-mapping tool on the app to enable her to plan her assignment in a

more visual way. This type of feature may be possible to implement, as others might be too. For instance, in addition to the how-to videos feature, perhaps there could be a feedback feature whereby the students' lecturers could video-record feedback of the students' work or assignments, directly to the students' mobile device.

The wellbeing features on the app, which included meditation and relaxation exercises, direct links to support centres and counsellors, could be further developed to include student mentoring services, where previous students offer academic and emotional advice to new students. Peer support may yet be an under-utilised area of the student experience. Building student-to-student online networks, linked directly via an app, might be another innovation that could be further explored.

Finally, this thesis will be disseminated across numerous universities and libraries, including Lancaster University, Regent's University London and The British Library. I am in the process of writing - with the hope of publishing - two, possibly three, papers based on the research and findings. These will focus on the importance of targeted, personalised support in academic skills provision, and will include the new transition framework. The final thesis will also be shared on my LinkedIn pages and on my personal websites (Edusapp, and Surviving Uni) and will be downloadable from there.

## Chapter Six - Personal Reflections

As the world changes, so do learning environments, and learning strategies and theories. It can be beneficial to look again at how learning happens, and how learners can be supported. Today, the world can seem quite different to what it did yesterday, and this may be especially true for students who are living and learning in a time of rapid change in the fields of technology and mobility. More and more students are travelling abroad to study, and this can bring many challenges for them. The findings in this thesis suggest that academic skills provision is an appreciated and beneficial extra layer of support to those students who may be struggling and seek it out. As Yeager and Walton (2011) have shown, an organised, targeted and personalised approach to support can help students re-establish a sense of belonging with their educational surroundings, and can help build a renewed sense of self and academic clarity. The findings of this study confirm that anxiety is real for many students, but that it can be palliated through such targeted, personalised support. Transitions do take place, but to be effective, they need to be *managed*.

The Academic Skills Transition Framework has been designed to aid and guide this transition-management process, and may be deemed useful to support teams and others within higher education institutions. As Fullan (2013) has argued, it makes no sense not to involve technological innovation to aid and complement learning, and there is theory to support this, such as Kearney *et al.*'s (2012) mobile learning framework, which also supports the adoption of personalised approaches to learning and mobility. The app that was designed for this thesis has been shown to have been useful and interesting for the participants, and could be further developed and expanded in terms of learning resources and technological innovation, to facilitate and perhaps even drive new ideas around learner mobility and learning independence.

Following on from these points, several participants commented that it might be interesting to have an app for each module, or even for each assignment that they have to complete. The app would be able to contain all the sources, texts and information necessary in order to complete the assignment. For instance, it could contain the assignment brief details, always close to hand, including the deadline, wordcount and structure. It could also have direct links to academic skills support, to the students' lecturer, and to the library services. Rather than needing to log in multiple times to the university site to access these details, they could be accessible at the press of a button at all times on the device that the students carry with them constantly. Not every participant thought this was a good idea, though, with one stating that she was 'old school' and already had a sufficient number of apps on her mobile device. Nevertheless, it may constitute another step forward towards learner mobility and independence for a majority of students who do work in that way and who might be motivated by such accessibility.

I believe that there is still much innovating to be done in the area of mobile learning and mobility. Data reveals that more and more apps are being designed exclusively for mobile usage, as opposed to computer or laptop usage. Developments in user experience and educational design suggest that there may be unlimited opportunities to test new ideas and support features on mobile devices in research targeted at students and learners. Studies could be conducted, for example, with more wellbeing resources, with student anxiety in mind, or in areas such as social networking for students, peer support, academic peer mentoring, and so on. If Yeager and Walton's (2011) and Vygotsky's (1978) concepts and ideas of learning development through social psychological interactions can be further developed, in parallel with mobile app support innovation, perhaps the links between student anxiety and 'affected' achievement can be further addressed and effectively realised.



Finally, this study acknowledges the work being done by all those in student support positions in universities and other institutions across the country, who place value on the experiences and difficulties that students face in higher education, who offer constant support and guidance to help students strive towards the goals and futures they have tentatively set for themselves. I will finish with a closing thought: to successfully connect to those students who are struggling, it may involve more than staff just communicating the content (in order to share knowledge), and more than just 'being there for them'. Perhaps what is required of us is something that takes into account more of - if not *all* that - the students might be experiencing in their lives when we meet with them, and which may be affecting their emotional and academic development? Jung's advice comes to mind, when he counselled, 'know all the theories, master all the techniques, but as you touch a human soul, be just another human soul,' (Jung, 1928, p. 361).

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## Appendices

### Appendix A - Participant Information sheet



and



## Information Sheet and Consent Form

### Department of Educational Research

County South, Lancaster University, LA1 4YD, UK Tel: +44 (0) 1524 592685

Please take time to read the following information carefully before deciding whether or not you wish to take part.

### What is the study about?

This is a Participatory Action Research study with the working title:

**"Mobility and student transition: Developing a framework for support in the field of academic skills."**

The aim of the research is to explore the experiences of participants who access academic skills support via their mobile devices. Participants will fill out an anonymous survey, will be interviewed once or twice, around June 2021 and again around December 2021, and will take part in one or two group forums at similar times. It is hoped that analysis of the participants' experiences of accessing academic skills via mobile devices may help understand to what extent mobile innovation can be a useful additional tool for support.

### Why have I been asked to take part?

You have been asked to take part because you have expressed a desire to access academic skills support at Regent's University to help you in your studies and academic development. Your participation will help us to understand more about how mobile devices can be used in the delivery of this support and may help you in your academic skills development too.

## Participant Information Sheet

Hello! I am Rob Tootell, a PhD student from the Department of Educational Research at Lancaster University. I would like to invite you to take part in a research project at Regent's University London where I work as Academic Skills Officer in the Student Experience Team.

### What will happen during the study?

If you decide you are happy to take part in the study, you will be asked to sign a Consent Form (below) and a short online questionnaire. You will then be invited to access academic skills support with me, where much of the contact will take place in part via your mobile device using a free app that will be downloaded to your phone. The app will be safe and can be removed from your device at any time. You will also be asked to take part in one or two (semi-structured) interviews and also in one or two group forums, with five participants in a group. All the participants will be students currently studying at Regent's University. The interviews and forums will take place online at times that are convenient to you. 'Semi-structured' means that everyone will be asked the same core questions, but based on your responses and particular experiences, there may be some extra follow-up questions. The interviews will therefore take the form of a kind of structured conversation. You will be provided with a copy of the questions before the interview. It is expected that each interview will take less than an hour.

### How do I give my consent to take part?

You are asked to read this information sheet fully and make sure you understand all parts of the study. If you would like to participate, please sign (by typing your name) the Participant's Consent Form at the bottom. If you have any questions, you can contact me, Rob Tootell at [rob.tootell@regents.ac.uk](mailto:rob.tootell@regents.ac.uk) or telephone me on 07802 556932.

If you do not wish to take part then that is perfectly fine. You do not need to take any action. You might wish to change your mind after initially agreeing to take part, and to withdraw from the study. That is also fine, and we would simply ask that you inform me by email or telephone. If you wish to stop part way through an interview, that is also not a problem. You just need to notify me and the interview will stop. Your data will not be used in the study. You might decide *after* the interview or the group forum that you are no longer happy for your information to be used. If you decide to withdraw *after* the study, and contact us **within two weeks** of the group forum, your data will be destroyed and not used. After two weeks, the research analysis of the data will have commenced, and your data will remain in the study. Deciding not to take part, changing your mind or withdrawing from the study will not involve any penalty and will have no bearing on your relationship with the researchers or any institution associated with the study.



## How will my information be stored and who will have access to it?

Information collected from you (a survey, interview and group forum responses) will be stored in a dedicated, encrypted, password-protected computer folder and will only be accessible to the researchers working on the study. Recordings will be uploaded from the recording devices to a safe location in a password-locked computer and deleted from the device after their use. If you have no remaining questions, and are happy to take part, thank you, please sign the participation sheet - the consent form - attached to this information sheet. The recordings and participation sheet will not be stored with any names or other identifying information, and the transcripts will not be accessible to anyone other than the researcher. If you would like a copy of the information you provided after the study is completed then please contact:

Rob Tootell  
Tel.: 00447802556932  
Email: rob.tootell@regents.ac.uk

All information generated by the project will be stored in the secure computer folder, in line with the requirements of the Data Protection Act and Lancaster University Research Ethics Committee requirements. Any publications or presentations arising from this project will not identify you by name, with pseudonyms or codes being used instead. When presenting transcripts and other research data in publications or presentations, I shall also strive to limit the excerpts so that you are not identifiable, although there may be a small risk of this given that the institution is identified in the research.

## Are there any potential risks or benefits involved for me in the study?

There are no particular risks identified for participants who participate in this study. No confidential or sensitive information will be collected by the researchers. You do not need to divulge anything you do not wish to during the interview or group forum. We also would like to stress that the purpose of our project is not to judge your work or your participation, but rather to investigate your experiences. The benefits of participating are indirect, since it is not possible for us to offer any financial incentive or any expenses for participants for this project. However, participants in this study will be presented with meaningful opportunities to reflect on their own experiences and development through discussions with the researcher. Additionally, we wish to keep participants fully informed of the results of the project, which we anticipate may be of interest.

## Who has reviewed this project?

Ethical approval for this study has been obtained from the Faculty of Arts and Social Sciences Research Ethics Committee, Lancaster University, also the Research Ethics Review Panel at Regent's University London.

## Contact details for the researcher

Rob Tootell  
Department of Educational Research,  
County South, Lancaster University, LA1 4YD, UK, or  
AED, Room J203, Regent's University London  
Tel.: +44 (0) 20 7487 7961  
Email: [rob.tootell@regents.ac.uk](mailto:rob.tootell@regents.ac.uk)

## Who do I contact if I am concerned about some aspect of the study or if I would like to make a complaint?

Prof Don Passey  
Department of Educational Research  
County South, Lancaster University, LA1 4YD, UK  
Tel: +44 (0) 1524 592685  
Email: [d.passey@lancaster.ac.uk](mailto:d.passey@lancaster.ac.uk)

<p>This study has been reviewed and approved by the Faculty of Arts and Social Sciences and Lancaster Management School's Research Ethics Committee.</p>
--

**Thank you for considering your participation in this project.**

## Appendix B - Participant Consent Form

### Participant Consent Form

1. I confirm that I have read and understand the participant information sheet for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.
2. I understand that my participation is voluntary and that I am free to withdraw at any time during my participation in this study and **within two weeks** after my participation in the study, without giving any reason.
3. I understand that any information given by me may be used in future reports, academic articles, publications or presentations by the researcher/s, but my personal information will not be included, and I will not be identifiable.
4. I understand that my name/any information that can identify me will not appear in any reports, articles or presentation without my consent.
5. I understand that any interviews will be audio-recorded and transcribed, and that data will be protected on encrypted devices and kept secure.
6. I understand that *anonymous* data will be kept according to University guidelines for a minimum of 10 years after the end of the study.

Participant:

(name) \_\_\_\_\_ (date) \_\_\_\_\_

(signature) \_\_\_\_\_

(by typing your name you hereby give consent)

I confirm that the participant was given an opportunity to ask questions about the study, and all the questions asked by the participant have been answered correctly and to the best of my ability. I confirm that consent has been given freely and voluntarily. One copy of this form will be given to the participant and the original kept in the researcher's files at Lancaster University.

Researcher:

(name) Rob Tootell (date) \_\_\_\_\_ May 10 2021 \_\_\_\_\_

(signature) \_\_\_\_\_ RTootell \_\_\_\_\_

(by typing your name you hereby give consent)

Department of Educational Research, Lancaster University, Tel: +44 (0) 1524 592685,

or

AED, Room J203, Regent's University London Tel.: +44 (0) 20 7487 7961

## Appendix C - Initial Survey

# Rob's PhD research

Thesis: Mobility and Student Transition

Required

- 1.How do you feel about the upcoming academic support sessions?
- 2.How do you feel about the academic challenges you will face?
- 3.Which of your academic abilities might be in need of development?
- 4.In which ways do you use your mobile device for your studies?
- 5.How do you most enjoy learning? (Think about times / places / devices / environment etc)

Submit

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Appendix D - Contemporaneous logs of support sessions (coded example)

12	Psychotherapy / business. Mature student,			she is not happy with her marks and is disappointed. We are going to go through the lecturer's comments and look at how she can get higher marks in future essay.	marks (not happy)
7	received the results of her essay and achieved a Pass (pass/fail only) although it was not clear that it was a pass!!	Jun1	Zoom	was unhappy with the detail of the feedback. It was generally positive but no detail. EG where it said the writing was unclear in places. the marker did not explain how or why or how it could be improved. imo initial feedback is supposed to be the beginning of the process of learning what to work on next, where skills need to be further developed etc. Unacceptable that a short email is considered sufficient feedback to students paying huge amounts in fees. still trying to download the app.	feedback (not happy) how to improve? unhappy with feedback (short email)
3	psychology student - suffered acad culture shock when she arrived at uni, plagiarism issues etc made great progress and recovered well.	1	Teams	landed badly, became overwhelmed, but made a good recovery after working v hard	with shock?
10	she talked about her presentation on parents being blamed for childrens eating illnesses, last friday which went v well and she was surprised and pleased	2	Skype	We are working still on the resubmission of her failed essay - she is researching her subject now and will show me next meeting.	research
4	talked about her lit review, ontology and epist etc and how difficult they are...	2	Teams	arranged to meet twice next week as her deadline is 22 June for 10000 lit review	plan - lit rev.
8	looked at the articles on and urban planning and found them v interesting	2	Teams	She told me about how lots of children can't afford to go to school there, have no wifi, have no electricity or mobile phones and we discussed possible solutions to this (as she is interested in helping her local community, and her studies is helping her in this).	research skills + reading
9	is taking on lots of new clients and is feeling the strain a little - which means she hasn't done a great deal on her essay, but we have arranged to discuss the essay next meeting.	2	Zoom	may have created a model for support (for one of her clients) and we talked about how models can be represented by diagrams in essays, and that this is a positive sign the the model has merit. She may choose to use this in her essay, but is not sure	creating model

## Appendix E - The app (Cycle Two version)



## Appendix F - Full list of app Quiz questions

- 1 What is plagiarism?
- 2 Which of these in-text citations is correct?
- 3 Which is the correct order of a book reference?
- 4 What is the correct order of sections in a standard dissertation?
- 5 Which of the following do NOT usually have sub-headings?
- 6 What are the three key elements to look for in an essay title?
- 7 What are the main functions of a Literature Review?
- 8 What is synthesis?
- 9 What is critical thinking?
- 10 Which of the following is the best synonym for 'to critique'?
- 11 What is nominalisation?
- 12 Which of the following sentences contains cautious language?
- 13 Which of the following is often missing from a student's work but can give them the most marks?
- 14 Which of the following is believed to be good for your brain?
- 15 Who are the best people to help you find an article or book?
- 16 If you need help with your timetable, who can help and support you?
- 17 If you are experiencing mental health difficulties, where is the best place to go for confidential support?
- 18 Who can help you with time management?
- 19 Who can support you in your assignments and coursework and can help you make your writing more academic?
- 20 Which of the following is the best way to succeed in your studies and in life too?

Appendix G - Examples of coded transcriptions (x3)

128 Yeah, before the support I was very  
129 nervous, especially before I had to submit  
130 my first essay, I was quite overwhelmed,  
131 and because I know English is not my first  
132 language... and also I know generally I'm  
133 not the best in writing... and because my  
134 career is not been very academic ... I'm  
135 more of a practical person.. and nervous.  
136 and now with the support and by thinking  
137 of getting used to writing more and more,  
138 and especially with your support, I feel  
139 more at ease. I'm not so stressed anymore  
140 when I'm writing (essays)... still tired... but  
141 not so stressed more..

142  
143 And not being so stressed, what does that  
144 allow you to do more of?  
145  
146 Erm ...  
147  
148 What knock-on effect does not being so  
149 stressed have?

150  
151 I enjoy the process more, actually, I do  
152 enjoy the reading bit more, and the writing  
153 bits... because I... I have my... for me it's  
154 really important to have structure...  
155 because ... so I have a bit more of a  
156 structure in mind now, and during our last  
157 session we talked about my essay structure,  
158 it was really helpful for me to brainstorm  
159 and talk it through... so I found writing this  
160 essay much easier and I actually enjoyed  
161 writing it a bit more now..

162  
163 Ok, that's good, erm... you feel a little bit  
164 less, well, you feel less stressed, is that  
165 because you have more confidence in your  
166 skill so you've develop the skills or is it  
167 because you know that there's support  
168 there if you need it  
169

very nervous before  
overwhelmed  
english not 1st lang.  
(writing)  
not so stressed anymore

enjoy process more  
reading + writing  
structure important  
- writing became easier  
(enjoyed writing more)



87 Yeah

88

89 It's **come more** since I have accessed  
90 academic skills... definitely.

91

92 And, how do you feel now, that may be  
93 different to how you felt before.

94

95 I feel **more supported**, I **don't feel alone**,  
96 which is one of the things that I had been  
97 feeling because I had Covid, I live on my  
98 own. I don't have any family over here. **feel**  
99 **a little bit more in control**, still struggle as  
100 you know I **struggle with anxiety and worry**  
101 and stuff, so, those things and those  
102 thoughts and stuff still keep coming, but it  
103 definitely... there is there's kind of... I think  
104 that... having that support has meant that  
105 **feel more in control and calmer**, and **more**  
106 **able to do my work**.

107

108 Let's talk about the app. Did you manage to  
109 play with the app?

110

111 I have! I have managed to play with it, but I'll  
112 be honest, I haven't played around with it  
113 too much, so **I've used the tab for the**  
114 **mindfulness techniques**, and I believe there  
115 is a link to Headspace. So, I read a couple of  
116 articles over there, there was some breathing  
117 techniques...

118

119 This is for anxiety, yeah?

120

121 That's correct. And I believe **I used the app to**  
122 **check APA 7th edition**, for my most recent  
123 assignment, and actually that's pretty much  
124 been all the toying around I've done with the  
125 app to be honest.

126

127 That's ok. Is there any thing that's not on the  
128 app that you thought 'oh I wish I had this on  
129 the app!'?

more supported  
don't feel alone  
- bit more 'in control'  
"struggle with anxiety & worry"  
calmer with support

app - mindfulness  
feature  
breathing techniques

refs

85 Well, hopefully! We will find out! Is it  
86 possible for you to explain or describe how  
87 you felt *before* you accessed any support?

before support

88  
89 I felt like I was learning **from the books**. You  
90 know from my workshops. It was a little bit  
91 **less personalised**. It was **less personal**.  
92 **couldn't**. I understood you know what they  
93 teach us, but not necessarily could I adjust to  
94 my topic, because my topic is pretty different  
95 from other projects... and then and then I got  
96 the support...

books 'less personalised'

97  
98 So now, of course, the support is continuing  
99 into the future. How differently do you feel  
100 now compared to before?

101  
102 Well, I feel **first of all supported**, which is  
103 **good** and I also feel like I can discuss...  
104 almost **brainstorm** during **figuring out the**  
105 **plan for my research with you**, you know it's  
106 also very **individual support**, **personalised**  
107 **support** is something that is **obviously**  
108 tailored to my project.

feels supported

'personalised' support

109  
110 There you go. Would you say that your  
111 needs have been met? Or continuing to be  
112 met?

needs being met'

113  
114 **Yeah, continue to be met, yeah**

115  
116 So what would be the difference between  
117 the support you received from the  
118 department, from your lecturer, or your  
119 supervisor, and the academic skills  
120 department?

121  
122 My supervisor, my lecturer were talking in  
123 general terms, when ... you know, they give  
124 us general information about PhD process,  
125 about different theories, of PhD research,  
126 **while with academical skills, I get - as I said**

general terms (lecturer)

## Appendix H - Interview Questions

### Participant Question Framework

Participant Code		
Date		
No	Preamble	Tick when covered
A	On-campus domestics, if relevant (e.g. fire alarms; toilets; etc.)	
B	Participant Information Form / Consent Form / Ethics	
C	Introduction Statements (from Information Sheet) <i>"I am interested in your experiences of accessing academic support in your studies, using the PhD app, and learning about how you felt at different stages of the support..."</i>	
No	Question	Tick when covered
1	Could you please describe the academic support you received? Why did you feel you needed support?	
2	Could you describe how you felt at the beginning of the support?	
3	Could you describe how you felt after receiving academic support, and also whether your needs were met at this time?	
4	Could you describe how you found the PhD app, EG which features were useful and which ones were not so useful? Why was this?	
5	How do you feel you have developed as a result of receiving academic support and using the app?	
6	Is there anything else concerning your experience that you would like to add or talk about?	
	<p>Follow-up questions may be asked, such as:</p> <p><i>'Could you say a little more about that?'</i></p> <p><i>'... why do you think that is?'</i></p> <p><i>'Could you give an example?'</i></p>	

**Thank you very much.**

## Appendix I - Exit Survey

# Rob's PhD research (exit survey)

Thesis: Mobility and Student Transition

Required

1. In one sentence, how would you best explain or describe the transition you have made into a more confident learner?
2. Which aspects of the academic skills support were the most effective for you?
3. In what ways might a support *app* assist future students?
4. What advice would you give to students just arriving at university?

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