



Undergraduate retention and attainment in Business and Management

A literature review and synthesis

Professor Paul Hibbert, University of St Andrews

Contents

Section	Page
1. Executive summary	3
2. Retention and attainment across Business and Management: an introduction	3
3. Curriculum, culture and custom in Business and Management	5
I.1. Introduction and approach	5
I.2. Pedagogic research on curriculum and attainment concepts	6
Employee competencies	7
Employee formation	8
Scholarly competencies	8
Scholar formation	9
Summary: emerging directions in pedagogic research in Business and Management	10
I.3. The influence of accreditation agencies and professional standards bodies	10
I.4. Curriculum and retention	11
I.5. Cohort, community and cultural variations	12
Academic trajectory variations in cohorts	12
International/cultural variations	13
Gender correlations	14
Non-traditional and (expanding) traditional cohorts, and academic skills	14
Distance learning cohorts and communities	15
Variations in business school/university cultures and aspects of the 'student experience'	15
I.6. Concluding thoughts on curriculum, culture and custom	16
4. Gaps and areas for future research	16
5. Recommendations	17
Good practices for potential dissemination	17
Focusing future interventions	18
Future research	18
6. References	18

1. Executive summary

The purpose of this report is to open up the discussion of possible reasons for student withdrawal or for retention and attainment in Business and Management studies. This report builds on the general treatment of retention and attainment across the disciplines in the UK set out in Woodfield's (2014) report. It differs, however, in having a focus on academic research centred on student retention and attainment in Business and Management studies, where possible; and a concern for insights about causes and improvement interventions that can impact on retention and attainment, based on a qualitative (rather than quantitative) engagement with the issues as they are presented in the disciplinary and general literature.

1. Conclusions drawn from this review are intended to be a contribution to debate and stimulate further inquiry, given that the field is still developing and should not be seen as exhaustive or definitive. Since, therefore, research in this area is not as extensive as one would wish, insights drawn from general studies on other disciplines and territories outside the UK (which can be argued to provide relevant insights, if thoughtfully applied), have been used selectively to flesh out points of discussion in this report. In general, the report focuses on peer-reviewed, published (or forthcoming) research from the last three years, whether it is centred on Business and Management or more broadly focused.
2. Through a review process, this report adds to discussions in Woodfield (2014) by considering, with a clear focus on Business and Management studies: pedagogic research on curriculum and attainment concepts; the influence of accreditation agencies and professional standards bodies; connections between curriculum and retention; and cohort and community variations.
3. A number of good practices for potential dissemination, to improve retention and attainment, are identified: the use of threshold concepts in course development; the development of early first-year assessment approaches to boost student confidence; and paying attention to how programme content connects with students' 'future-self' images.
4. Some tentative suggestions in relation to future practical pedagogic development are offered in the report. In summary, where intellectual and practical resources are being devoted to future interventions, these should consider: a continued focus on the first year of the student experience (both academic and social factors); the particular tensions and possibilities offered by Business and Management studies' concerns with either scholarly and/or (future) employee development.
5. Future research has also been considered. Once more these suggestions are tentative. Nevertheless, research could usefully be focused upon, inter alia, the connections between programme content and students' 'future-self' image, especially alongside concerns with either scholarly and/or (future) employee development.

2. Retention and attainment across Business and Management: an introduction

This report follows on from Woodfield's (2014) HEA report on Undergraduate Retention and Attainment Across the Disciplines. That report considered the broad landscape of retention and attainment across all of the main disciplines studied at undergraduate level in the UK. It indicated that for Business and Management, the patterns of retention (94% continuing to complete their studies) were in line with the cross-discipline average while attainment (the proportion of students obtaining a first or upper second degree classification) at 56% was lower than the cross-disciplinary average.

The present report has some commonalities and overlaps with Woodfield's (2014) report, but also some key differences. In terms of commonalities, the present report includes a consideration of areas of demographic difference in the student population. Woodfield (2014) outlined a number of

particularly important factors of this kind that were clearly correlated with retention, persistence in studies and attainment. As far as the evidence allows, the compilation of the present report has also included a consideration of diversity and demographics. But to keep those issues in view within a more focused disciplinary landscape, this review included some research that was conducted outside the UK where it, nevertheless, seemed to offer salient insights.

The present report also echoes Woodfield (2014) in considering the importance and impact of the mode of study undertaken by students, in so far as the evidence allowed some consideration of this in relation to Business and Management studies. As with diversity and demographic factors mentioned above, some insights from outside of the UK were incorporated where these were thought to be helpful and potentially generalisable.

The main differences between this report and Woodfield's (2014) more general report lie in the areas of purpose, approach and aims. The purpose of the report here is to open up the discussion of possible reasons for student withdrawal or for retention and attainment in Business and Management studies, rather than to set out definitive (statistical) information on differences in relation to student characteristics. This leads to the difference in approach; for the present report, a range of published (and forthcoming) qualitative and quantitative research was considered, with a view to identifying emergent themes of interest (which would nevertheless integrate helpfully with the previous report), rather than focusing on statistical evidence. The review approach taken to generate the present report is discussed in more detail later in a later section. In terms of aims, the present report sought to complement Woodfield's (2014) general study by generating research-informed insights in relation to:

- the causes of attrition and poor attainment (although evidence is not extensive);
- good practices that may help to improve attainment and retention in Business and Management (and potentially elsewhere), where the evidence seemed persuasive;
- areas where future improvement initiatives/interventions might usefully focus;
- distinctive themes for further research that addresses retention and attainment Business and Management.

However, it is important to point out that the (robust) evidence to support this discussion is not as extensive as one would wish. For this reason, the findings, insights and recommendations of the present report should be seen as indicative and a contribution to current debate on retention and attainment – and not, therefore, as exhaustive or definitive.

Having set out the context and caveats, the overall structure of the report can be introduced. It is structured to provide insights in relation to themes that were inductively developed from literature largely focused on Business and Management studies. The core of the review developed in this way, which follows below, therefore addresses:

- Pedagogic research on curriculum and attainment concepts.
Business and Management studies are distinctive in harbouring (at least) two co-existing concepts of curriculum purpose and attainment outcomes. These concepts are focused either on the development of scholars or on the development of future employees; the concepts sometimes exist in tension, and are sometimes synergistic;
- The influence of accreditation agencies and professional standards bodies.
Information on the role of such agencies was briefly considered, but there are no concrete insights from current research in this area that are pertinent to this report's focus on retention and attainment;
- The relationship between curriculum and retention.
There is a strong overlap between retention and two curriculum-related factors. The first is the connection between attainment early in the first year of studies and ongoing student retention. For

example, assessment regimes in the first year help students to develop an early sense of achievement and confidence, it seems that student persistence and retention may be maintained. The second connection is between constructing curriculum and course content in such a way that students could see the (future) practical relevance of it (i.e. how the content was relevant to their future-self-image) and retention;

- The impact of cohort and community variations.
the evidence of variation in relation to particular student populations, as it relates to Business and Management students, was somewhat confused. In general the picture was consistent with Woodfield (2014), however, some further detailed studies may be merited, especially in relation to incoming expatriate students and their patterns of attainment and retention.

In the remainder of this report, the findings outlined above are discussed in more detail, and suggestions for further research and the general recommendations (for reflection in relation to policy and practice), which flow from these review findings, are also presented.

3. Curriculum, culture and custom in Business and Management

1.1. Introduction and approach

This section sets out the detailed insights developed from the literature review and synthesis. Before presenting that material, the approach to engaging with the literature is briefly discussed.

The initial approach taken in developing the insights in this report was to seek to focus on recent, peer-reviewed academic literature that was specifically concerned with attainment and retention issues and insights for undergraduate Business and Management students. However, initial database searches did not yield a rich range of material and therefore a revised research approach was developed iteratively:

1. For reasons of conciseness and currency, there was a deliberate focus on the most recent published articles and other recently disseminated scholarly sources. Some older published material was also included, where it was referenced as a key study in recent work.
2. Having ruled out a 'deep, vertical' historical review, the search was broadened in two ways: through the collection of grey literature (theses, reports, and practitioner journal articles) relevant to the core disciplinary focus of Business and Management; and the collection of additional academic journal articles that, while not focused on Business and Management, offered relevant general insights that connected with the themes in the core articles.
3. Articles were reviewed and appraised in order to develop a final list of sources that were recent and useful, in terms of summarising current insights and suggesting new directions for research and practice. During this part of the process, the total number of collected sources (84) was reduced to the final list of 38 that are cited in this report. The final source list is dominated by peer-reviewed journal articles (either focused on Business and Management studies, where possible, or of more general relevance); very few items of grey literature were found to be useful as the review and synthesis was developed and refined.

While the resultant review does not claim to offer a systematic summary, it does offer a good overview of relevant themes, issues and opportunities in relation to retention and attainment in undergraduate Business and Management studies.

In the remainder of this section of the report, the insights from the review are collated under four main sub-sections, some of which have further subdivisions. The main sub-sections, addressed in turn below, are: *pedagogic research on curriculum and attainment concepts; the influence of accreditation agencies and professional standards bodies; curriculum and retention; and cohort, community and cultural*

variations (where patterns of variation in relation to particular student populations are discussed). Of these four major sub-sections, the first is the most extensive and is perhaps particularly distinctive for Business and Management studies. Following the four major sub-sections, some concluding thoughts close that section of the report.

1.2. Pedagogic research on curriculum and attainment concepts

Pedagogic research in this area is well developed, with over 80 journals of various levels of quality contributing to this field, either as a whole or in some focused way (e.g. in relation to accounting education). Among these journals there are two that have a particularly important impact on teaching and learning in theory and practice (*Journal of Management Education* and *Academy of Management Learning and Education*) while a third (*Management Learning*) is especially important in relation to the establishment of the critical agenda in relation to management education more broadly. However, there was not a great deal of relevant research focused directly on retention and attainment in these 'top three' journals, so the net was cast more widely. The relative importance, impact and distinctive mission of the broad range of journals in this field are matters of some debate, however, as has been discussed by Cunliffe and Sadler-Smith (2014) and Currie and Pandher (2013).

There are some useful pointers in recent research that indicate how research on curriculum and delivery is seen to (potentially) impact on retention and attainment within the discipline, although the pedagogically oriented research seems to be more often specifically focused on attainment than retention *per se*. Nevertheless, insights can be organised along two dimensions.

First, there is the *scale* dimension, that spans from the whole curriculum for programme(s) down to more focused research that is concerned with particular courses or the applications of techniques and teaching strategies within them. Thus there is a distinction between approaches that favour fundamental change or design 'from the top down' and approaches that take a more 'bottom-up' approach in which techniques applied and developed on a small scale may, nevertheless, have wider curriculum implications.

Second, there is the *outcome* or teleological dimension – that is, what the ultimate signal of attainment is considered to be. Outcomes focus either on *academic* performance, or (perceived) *economic* performance 'in the real world' – that is, in meeting the (perceived) needs of business, and in so doing including successful employment within the concept of attainment. Thus attainment, in curriculum research in Business and Management Studies, should not be understood simply as successful achievement of a degree (or component thereof), but also where and how that achievement has its impact for the student.

These variations in curriculum-oriented research in the Business and Management discipline – along the scale and outcome dimensions – can be used to identify four particular categories of research. These four categories are summarised in Table 1 below, which also provides an example citation (from among many others) for each category of research. Following the presentation of the table, each category of research is discussed. In each case the selected example is discussed in more detail, along with other pertinent examples where this provides additional relevant detail to flesh out the research insights.

Table 1: Categories of attainment-related pedagogic research in Business and Management			
		Scale of research	
		Particular course	Whole curriculum
Attainment focus of initiatives or interventions researched	Economic	Employee competencies Research that seeks to explore how particular competencies, that may be useful to students in future employment, may be developed in particular courses or through the application of particular teaching and learning strategies on the classroom scale. For example, Ylikiski and Kortelainen (2012).	Employee formation Research that is focused on the development of students into ideal employees, or to help students possess attributes which are perceived to fit with (particular segments of) the employment market for graduates of the discipline. For example, Wolf and Wright (2014).
	Academic	Scholarly competencies Research that is focused on the development of a scholar's competencies within a particular subject area or in relation to transferrable study skills/teaching and learning strategies on the classroom scale. For example, Wright and Gilmore (2012).	Scholar formation Research that is focused on the development of the student to be a rounded scholar, able to take a critical view on Business and Management, or in relation to the development of an overall pedagogic strategy that enables this. For example, Spee and Fraiberg (2015).

Employee competencies

The work of Ylikiski and Kortelainen (2012) provides a good example of research oriented towards developing an understanding of how employee competencies – student attainment that is recognised in particular skills or capabilities in the workplace – may be developed. Their study found, for example, that commercially relevant skills in customer-relationship management were effectively developed through partnership arrangements with a range of commercial organisations.

Through the construction of a 'business lab' that facilitated partnerships with a number of commercial organisations, a blended-learning environment was constructed that included online as well as hands-on learning in association with partners. Interestingly, undergraduate students were responsible for the management of the partnership programme itself, which provided the most 'authentic' lessons connected to relationship management. The intervention could therefore be seen as something of a hybrid between a simulation environment and an experiential learning programme (both of which have received considerable attention in the pedagogic literature more generally). Ylikiski and Kortelainen (2012, p. 354) concluded that, "this results in improved learning for the students, as they gain first-hand experience in customer relationship management, but also, deeper partnerships, as the relationships evolve over time."

More generally, the value of participative approaches has been affirmed in supporting student attainment in areas where academic and economic outcomes overlap (Black, Daughtrey and Lewis 2014). In addition, Blackford and Shi (2015) argue that simulation-based classes are not as effective as

case-based approaches, suggesting (perhaps) that the simulation aspect of Ylikiski and Kortelainen's (2012) approach is not as important as the actual "hands-on" activity of students. However, it is important to note that Blackford and Shi's (2015) study involved comparison between computer-based simulations and other approaches, and was applied to capstone (terminal) classes, when students might already be comfortable with other, established learning and teaching methods.

Employee formation

Researchers have also considered student attainment in the broadest possible category of post-graduation capability, in which more or less the whole curriculum (or underlying principles of its construction) is intended to develop students into successful (future) employees. This attainment-as-fit model may be developed in relation to general patterns of skills or in relation to key employment success attributes (as discussed in relation to student confidence by Caza, Brower and Wayne 2015), or in relation to fit with a particular industry or segment and its needs.

A good example of a programme developed to fit with industry needs is the undergraduate 'Certificate in Managing International Trade and Investment' (CMITI) developed by Schulich School of Business, as described by Wolf and Wright (2014). They describe how to "ensure the curriculum was in line with real-world needs, executives and other experts were interviewed to identify the skills they wanted to see in people they were hiring for their [international business] activities" (Wolf and Wright 2014, p. 165). Importantly, as with the development of particular employee competencies (discussed above), it seems to be key that employee formation at a whole-curriculum level includes an experiential component. In the case of CMITI, this key experiential component was practical international exposure.

While Wolf and Wright (2014) do not offer data on the employment destinations and relative success of their CMITI students, they do describe a range of learning outcomes from the programme (broadly in the areas of knowledge, communication skills and professional capabilities). Significantly, many of the areas of skills and knowledge overlap with conventional academic outcomes that might be expected from any programme of study, so it is not necessarily the case that academic attainment has been disregarded (either deliberately or accidentally) in the process of developing an employment-oriented set of outcomes. But nevertheless, the practical outcome from the CMITI programme is consistent with Caza, Brower and Wayne's (2015) observation that integrated curricula that include an experiential element are better at preparing graduates to face the complexities of the "real world". This fit with the "real world" was also borne out by Brooks and Youngson (2014), who found that students whose programme included an extensive placement (work experience period) were more likely to obtain graduate-level work and higher starting salaries, but that they also had better academic outcomes in their final year than students who had not undertaken a placement. However, one might question whether an additional year of maturity might also be at play, or whether the work experience helped students to perceive the utility of study. Nevertheless, it seems clear that many outcomes related to future commercial/professional practice would not necessarily be relevant to future advanced study within the discipline. There is thus, perhaps, a tension between the two kinds of attainment concept.

Scholarly competencies

Wright and Gilmore's (2012) work on the application of threshold concepts in an introductory management course is an excellent example of pedagogic research focused on improving student academic attainment within a Business and Management studies setting. Their work shows how the application of ideas from the broader literature on threshold concepts (see e.g. Meyer and Land 2003) led to the transformation of student achievement within a particular class. Their results are concrete and impressive, especially in the context of a more-or-less open access introduction to management course, which now accommodates around 1,200 students per year:

In the two semesters prior to the course redesign, 17.5% of students enrolled in the course failed. The failure rate dropped to 11% after the course redesign and has been sustained at 10% in subsequent semesters. Moreover, in the two semesters prior to the course redesign, only 2% of students enrolled in the course achieved an overall course grade of 85% or higher. The number of high-achieving students increased to 10% after the course redesign and has been sustained at this rate or higher in six subsequent semesters. The proportion of high-achieving students is now higher than other introductory courses in accounting, computing, and marketing for the same cohort of students. (Wright and Gilmore 2012, p. 629)

Wright and Gilmore's work focused on helping students to engage with the concept of management as discipline informed by theory, and as such it also perhaps begins to bridge the gap between course-focused and curriculum-focused research. That is, the principles engaged with in the introductory course that they describe become a lens through which study across the whole curriculum is seen. In any case, threshold concepts in Business and Management education continue to attract research attention (see e.g. Wright and Hibbert's 2015 introduction to a special issue of the *Journal of Management Education*).

Perhaps the ultimate focus on scholarly competencies goes beyond the application of theory through supporting undergraduate engagement in research. In this vein, O'Donnell, Botelho, Brown, Gonzalez and Head (2015) suggest that undergraduate research may have beneficial effects on student success, although their inferences are drawn from work with a general population in the University of Californian system (437,000 students) rather than a specific focus on Business and Management students. In addition, they suggest that further, more detailed studies on the effects of undergraduate research are merited in order to develop deeper insights.

As alluded to earlier, there is also some overlap between research focused on employee competencies and scholarly competencies, in that the impact of experiential learning and case-based approaches has been shown to be of value in supporting academic attainment (Blackford and Shi 2015; Black, Daughtrey and Lewis 2014) as well as employment-relevant competencies.

Scholar formation

Spee and Fraiberg's (2015) work is perhaps the antithesis of economically oriented curriculum research, being focused on the integration of liberal learning within the business curriculum. Their aim is to support the development of rounded, adaptable and reflective scholars. Indeed, their paper is has been selected for particular attention in this report for that reason: it provides an interesting contrast to attainment framed as "employee formation."

Spee and Fraiberg's (2015) deal with a particular integrative course – rather than offering a design for a whole curriculum – but this is in the context of a programme that requires seven liberal learning foundation courses as pre-requisites. Thus it could be argued that they describe the ways in which multiple threads of liberal learning are knitted together. Importantly, the breadth of curriculum envisaged through an integration of liberal arts with business curricula is argued to lead to the attainment of a set of inter-related and inter-connected skills and capabilities that are important in relation to both academic success and complex 'real world' problems:

- practical reasoning – the ability to apply knowledge and intellectual capabilities in order to engage with complex problems in the world; the ability to engage holistically with issues that transcend tidy (disciplinary) frameworks;
- analytical thinking – the ability to inductively and deductively develop or modify theory, through engagement with experience;

- > multiple framing – the ability to engage with and deploy multiple intellectual and theoretical frameworks; the ability to avoid capture by one particular mode of (instrumental) reasoning;
- > reflective exploration of meaning: the ability to see oneself as (morally) involved in the deployment of intellectual abilities, decisions and action-in-the-world.

Spee and Fraiberg's (2015) course-and-curriculum connections eschew a focus on (sub-) disciplines to address intellectual management and business challenges in integrated, thematic treatments such as, for example, inter-disciplinary study of the meaning of work; a critical engagement with globalisation and assumptions about its positive nature. They also articulate a number of critical approaches (related to highlighting unexpected connections and consequences between themes, challenging assumptions and omissions in dominant thinking, and thoughtful application of a range of theories). While they report institutional success and student acceptance of their approach, they also suggest that it is under pressure from more instrumental approaches – approaches which can either seek to edge out their approach or recast it as simple intellectual preparation for students who then go on to more functionalist, applied courses. (For a related, relevant discussion on the contrast between focused instrumental learning and open, curiosity driven learning see Hibbert, Siedlok and Beech 2014.) A middle ground between these two extremes is suggested by Ledley and Holt (2014), who make a case for inter-disciplinary science education for business students on the basis of practical and critical/ethical outcomes.

It is difficult to point to concrete outcomes from the approach advocated and described persuasively by Spee and Fraiberg (2015), but that really is not the point with the kind of research that they describe. However, intuitively, their approach might this lead to successful scholars well prepared for advanced study (as well as – or perhaps even in preference to – commercial employment). Going a little further out on a limb, one might even point to the idea of character formation as a particular signal of student attainment (i.e. that there are ethical interests in all knowledge, and so graduates would need to be aware of this). Such arguments tend to favour the principles of a liberal arts education, and have also been advocated by others (see e.g. Hibbert et al. 2014; Wren, Riggio and Genovese 2009).

Summary: emerging directions in pedagogic research in Business and Management

Overall the pedagogic research spans areas of contribution that range from very practically oriented research that focuses on Business and Management as a domain focused purely on vocational education, through to research that takes a more critical and theoretical view of Business and Management education as itself being a social phenomenon to be studied in order to advance social and organisational theory. Both of these kinds of research (and other types within the range between these extremes) are likely to be accessed by management educators looking for operationalisable educational insights. Thus, there is a rich research discourse that includes work that is not simply utilitarian in its focus and impact, but which may have a practical impact on curricula nonetheless. More research would be helpful, but it may well be the case that curricula of either focus can be successful. This can be inferred because, despite potentially divergent approaches existing within the discipline, Woodfield's (2014) findings do not suggest that Business and Management is a standout discipline (either positively or negatively) in relation to academic failure and withdrawal – although attainment levels are somewhat lower than average and different groups do not have equal attainment outcomes.

1.3. The influence of accreditation agencies and professional standards bodies

Accreditation agencies specifically focused on Business and Management have a significant impact on the discipline globally, in terms of regulating standards of attainment. Although in the UK such agencies

largely impact on postgraduate (MBA) programmes, standards also impact on business schools more generally through explicit frameworks (for example those set forth in the Association for the Advancement of Collegiate Schools of Business (AACSB) standards), or through their influence on the discourse about good teaching and learning practices – which then impacts on the usual practices and standards within business schools. Thus accreditation agencies and professional standards bodies may impact directly on the content and structure of curricula or on the underlying ethos and principles through which curricula are constructed. In contrast, professional standards in teaching and learning, it can be argued, have only an indirect impact on the specific underlying ethos and principles through which Business and Management curricula are constructed and delivered, since they are (in the UK at least) a generic set of principles applied across the disciplines (Hibbert and Semler 2015). Overall, there is no evident current research on how the influence of accreditation agencies and professional standards bodies plays out in attainment and retention effects downstream.

1.4. Curriculum and retention

As has been clearly articulated above, pedagogic research in the area of (or relevant to) curriculum development tends to be more relevant to a consideration of attainment, on a variety of scales, rather than focusing on retention issues. However, there is some limited research that focuses on retention. Much of this research – that addresses retention directly – tends to focus on the student experience in the first year, where attrition issues are known to be most significant (Meer and Chapman 2014; Trede and McEwen 2015).

However, research related to attainment also has some additional relevance here: it can be argued that retention is connected to attainment, particularly where this is associated with development and/or support for student confidence. For example, a recent study (Meer and Chapman 2014) has also shown that attention to scholarly competencies and student confidence, through the design of a supportive assessment regime, can also aid student retention in business schools. Meer and Chapman's (2014) action research project focused on the development of 'low-stakes' (10-20% of a course/module grade) assessments, delivered early in first-year students studies. They found that such assessments boosted student confidence and (as part of a broader set of institutional changes) were associated with a drop in first year business student attrition from around 15% to 5%. The characteristics of their "assessments for confidence" were (Meer and Chapman 2014, p. 191):

- early (within four weeks of starting a course);
- low stakes (10-20% of overall mark is suggested);
- simplified task;
- quick turnaround for marking;
- written and oral feedback given;
- self-assessment form for the students;
- opportunity for re-draft.

In an interesting if indirect contrast, Caprar, Do, Rynes and Bartunek (2015) found that introductory management students were less likely to accept material that threatened some aspect of their 'self-concept'. In particular, when the theory being examined questioned some students' competencies, they were less likely to accept it than theory perceived as being more 'neutral'. Once again, there are interesting links with the extant research literature on threshold concepts (e.g. Wright and Gilmore 2012); threshold concepts can be perceived as troublesome and self-undermining by students and are therefore a source of struggle and resistance. Thus, if such troublesome concepts not addressed thoughtfully, they may perhaps undermine retention.

In addition, particular kinds of curriculum may be helpful in terms of retention. For example, there is a suggestion that practically oriented, integrative approaches (e.g. approaches that that apply sub-

disciplines together to address a problem or case) are helpful in retaining students, because students are able to see the utility of them (Caza, Brower and Wayne 2015; Ledley and Holt 2014). That is, students are able to perceive how practically oriented courses that connect with the messiness of the 'real world' might be useful to them in the future when they are engaged in (or are seeking) employment. In a similar vein, Trede and McEwan (2015) have shown how early work-place learning experiences can help to reduce student attrition in the first year. Their study was conducted across a range of universities in Australia, and while their research was not limited to Business and Management studies, half of the ten courses they studied were situated in business schools. Across all of the courses they found that, while it was important to have an appropriate pedagogic foundation that enabled students to grasp practice-based learning, where the foundation was in place then the results were positive. This work-place learning approach was seen to be helpful because it helped students to associate studies early in their academic life with longer term vocational and career aspirations. Connecting with the curriculum categories discussed earlier, this kind of approach seems to provide employee competency development and (early stage) scholarly competence development in a connected process. Trede and McEwan (2015) conclude that:

The curricular significance of early placement experiences include a richer pedagogical repertoire and more balanced approach between academic learning and hands on practice, early exposure to ethical, cultural and political issues in professional practice and a stronger focus on practice- and inquiry-based education that nurtures deliberate, life-long learners. (Trede and McEwan 2015, p. 30)

It is important to add that Trede and McEwan's (2015) study was relatively small-scale and based in a multi-campus Australian university with a commitment to, and tradition of practice-connected education; application to other contexts should perhaps be cautious. In contrast to a focus on practice-based education, better theoretical material might be helpful too. As mentioned earlier, Wright and Gilmore (2012) have shown that theoretically informed courses could be developed through thoughtful pedagogy in ways that increased student academic attainment (a higher proportion of excellent outcomes) and retention (fewer outright failures) at the same time. Overall, it seems that curricula can influence retention and attainment through stimulating instrumental (employment oriented) engagement or academic engagement (Flynn 2014) but the motivations behind particular patterns of engagement might be different for different students and contexts.

1.5. Cohort, community and cultural variations

There is a considerable body of material that looks at the needs of particular student cohorts within business school environments; attention has been directed towards issues of, for example, gender, race, occupational class and deprivation. Only a selection of such material is directly focused on Business and Management. Thus, in this part of the report the focus also includes some selected insights from broader studies, where these can be argued to have potentially broader utility. The insights are organised in five sub-sections, namely: academic trajectory variations in cohorts; international/cultural variations; gender correlations; non-traditional and (expanding) traditional cohorts, and academic skills; and distance learning cohorts and communities. Each is addressed in turn below.

Academic trajectory variations in cohorts

Buhiagar and Potter (2014) considered attainment in relation to a very particular course, focused on quantitative business skills. They were concerned with the relative performance differences between students who had transferred in from another university or community college to a different university to complete their degree, compared to those that were 'native' to the receiving university. They found that the 'native' students did better, and that gender differences in relative performance were

(unusually) not apparent in their sample. While these kinds of college-university transfers (typically from a two-year community college for general education, on to a four-year university to study the major subject) are distinctive to the US environment, similar ideas have been floated from time to time in relation to possible further education (FE) college to university transfers in the UK. On Buhiagar and Potter's (2014) evidence, this would not seem to be a good idea for all students.

International/cultural variations

Perhaps of more important and immediate relevance to the UK context is the need to consider how international students' attainment compares to that of 'home' students. Crawford and Wang's (2015) study indicates its own limitations in relation to the diversity of programmes considered within a relatively small sample, but it nevertheless provides some important insights in relation to the comparative performance of a particularly important international student group in the UK: Chinese students. They found a significant decline in the performance of Chinese students (compared to UK students) after the first year and across the remainder of the degree, despite Chinese students initially outperforming UK students.

Crawford and Wang (2015) considered their findings to be enigmatic because the strange drop in performance for Chinese students was counterintuitive; prior achievement in the first year ought to be a relatively good predictive factor for final performance, at least statistically speaking. They also found contradictory results for Chinese students when compared to Brooks and Youngson's (2014) general sample; that is, in their case Chinese students whose programme included an extensive placement performed worse, not better, in their final year than their compatriots who had not undertaken a placement. Considering the limited evidence available, they speculated that Chinese students were less comfortable with the critical, depth approaches to learning that are characteristic of the later years of degree study. (They point to supporting evidence from Sun and Richardson (2012) although this study focused on postgraduate students.) However, as they suggest, considerably more research is needed in this area. One could also speculate that comparisons with other specific international student cohort and minority ethnic groups might not necessarily reveal the same pattern. Flynn (2014), for example, certainly showed a complex pattern in which academic and social engagement of minority ethnic students was related to persistence in degree programmes, but not to ultimate attainment; engagement encouraged the students to stick with their studies, but did not boost their level of educational outcomes. While Flynn's (2014) insights are drawn from a large US-based study and were not focused specifically on Business and Management students, the influence of social engagement (in the cultural and social life of the student community/context) as well as pure interest and engagement in the academic programme seems to be an area that merits further investigation. To put it another way, the at-home-ness of the student in their new social context and their programme of studies could both be important.

Returning to Crawford and Wang's (2015) findings, they offer more counterintuitive insights since they contradict Richardson (2008) who had argued that lesser attainment in final degree classifications of ethnic minority students could partially be associated with initial comparative academic weakness. Richardson's (2008) conclusions in this area have also been confirmed by Zhang, Fei, Quddus and Davis' (2014) study, which was focused on historically black colleges and universities in the US; they found that a lack of preparedness among some students and poor early performance were indicative of later problems, but that additional advising could be helpful in offsetting these problems. It seems, overall, that Crawford and Wang's (2015) UK results are atypical and point to the need for further research in this area, However, it seems clear that differences in background cannot explain all variations in attainment outcomes.

Gender correlations

Zhang et al. (2014) found that gender was a relevant factor in predicting attainment (and attainment-related retention) since, in their study, female students were more likely to pass their classes. However, in contrast to Zhang et al.'s (2014) work and the general pattern for UK students (cf. Smith and White 2015) – in Crawford and Wang's (2015) study, female Chinese students tended to have lower attainment outcomes than male students. While the picture of variation in relation to gender in Crawford and Wang's (2015) study highlighted particularly unusual and unexpected results for their student population – suggesting that further detailed research to investigate the nuances may be necessary – Davis and Geyfman (2015), based in the US, found that there was one consistent gender-related trend that could be established. That is, the growing under-representation of women undergraduates in (higher status) AACSB-accredited business schools. From 2003 to 2011, they observed that the percentage of women in such schools declined from 44.7% to 41.1%.

In the UK context, AACSB accreditation is common for MBA-oriented schools and there are obviously significant underlying demographic, cultural and economic differences between UK and US communities. Nevertheless, the underlying reasons that they suggest for the growing imbalance may be important in relation to the retention and attainment of female undergraduate business school students in the UK. The reasons for the gap, that they determined, are: female students were more likely to be deterred by higher fee levels and entry standards; female students tended not to favour larger schools; and female students tended to favour schools where the university in general had a higher proportion of graduating women and female faculty. But these reasons suggest the need for further research into why they are the important correlated factors.

Gender differences were also explored – along with other factors and across a wide range of degree subjects – as part of a study conducted by Smith and White (2015); the findings from their work did not highlight differences in attainment related to the choice of degree subject, and therefore they can be seen to be relevant – in a broad way – to the current report. Smith and White (2015) echoed the results of earlier studies that found that female students tended to have a higher proportion of first and 2:1 (upper second) classified degrees. The predictors of attainment that they noted were: identifying as white (overlapping therefore, to some extent, with the findings of Crawford and Wang 2015), and prior academic attainment (measured as A-level results). Interestingly, they found that the occupational class background of students was not a significant predictive factor.

Non-traditional and (expanding) traditional cohorts, and academic skills

There was little specific Business and Management, UK-focused research in this area. For that reason, this sub-section includes research from Australia (which has similar higher education institutions to the UK, and a strong tradition of educational research) and from the US, where alternative higher education routes are well developed. Since the UK has been moving towards more open enrolment of students (i.e. the removal of caps) that resembles the Australian system and a reliance on tuition fees (in England) that resembles the US market, it seems timely to consider these insights.

While there is reasonably extensive material on some of the main cohort variations in traditional-age undergraduate students, one of the communities that seems to have been less thoroughly considered is non-traditional-age adult learners, who undertake degrees later in life. Although her work focuses on the US context, Kasworm's (2014) observation that different standards of attainment and retention may be appropriate for such groups seems to have general relevance. In part, one could speculate that there may be a preference among non-traditional undergraduates of this kind to be more strongly oriented towards economic concepts of attainment, because their (often part-time) studies may be related to career development or professional enhancement. Kasworm (2014) also argues that patterns of study that are non-traditional (including distance education) need much more attention if the drivers

of attainment and retention in such contexts are to be better understood, but suggests that the academic skills of incoming non-traditional students (and having strategies that support these) may be particularly important.

Similar observations about the need for academic skills support might be made for expanding 'conventional' student populations. As the proportion of individuals from the population, of traditional student age, taking up higher education increases, then levels of preparedness for higher education (for some) are likely to be lower and require specific support strategies. These issues have been raised in the Australian context by King and James (2014), who also note that another effect of broader (almost open) enrolment may be pressure on standards (and thus, it can be suggested, on what particular categories of attainment are expected to measure or signify).

Distance learning cohorts and communities

Another developing cohort variation to consider arises from the burgeoning distance-learning sector in Business and Management education. This is beginning to attract research interest both in relation to the new challenges that are specific to the implementation of particular technologies, as well as in relation to classic problems of retention and attainment. For example, Cochran, Campbell, Baker and Leeds (2014) examined withdrawal from online classes and found that strong academic performance and later stage of participation in degree programmes was correlated with better retention rates, much as one would expect of conventional programmes. Their study focused on US students and was not specific to Business and Management, but the insights appear to be transferable.

Of more direct interest is the work of Stephens and Myers (2014), who investigated how online interactions for business undergraduate students might be indicative of potential failure. While online failure rates have been shown to be similar to failure rates in traditional classroom settings (Arbaugh, Desair, Rau and Sridhar 2010), Stephens and Myers (2014) suggest that this mode of learning and teaching does provide additional supporting data to help shape intervention strategies. In particular, they argue that combining evidence of erratic interactions, or a sudden decline in interactions, with known demographic factors could lead to pro-active early intervention strategies targeting at-risk students to support better retention and thus, ultimately, attainment. Similarly, de Freitas et al. (2014) advocate the development of 'learning analytics' that combine interaction data and interactive systems with the intention of enhancing student retention. As with Cochran et al. (2014), de Freitas et al.'s (2014) study is not specific to the field of Business and Management, but their insights appear to be generic and transferable.

Variations in business school/university cultures and aspects of the 'student experience'

As discussed earlier, along with students' academic engagement their social engagement in the university context also seems to have some influence on their attainment and retention, albeit in rather complex ways (Flynn 2014). This suggests that some further attention to the ways in which the social context or culture is experienced (positively or negatively) by students may be merited.

In this vein, Douglas, Douglas, McClelland and Davies (2015) conducted research that looked at the broad determinants of student satisfaction, and thereby notions of quality as students perceive it. They found that four main factors influence student perceptions of quality, which in turn they connected with student loyalty (and by extension one could argue that retention could be expected to correlate with this to some extent). The factors were:

- > access – the ease, convenience and clarity of access to facilities in the university including key staff, with most particular relevance to students' experience of interaction with staff;
- > attentiveness – the degree to which staff who students contacted seemed to be interested in the student and were helpful;

- availability – the time that faculty staff could devote to a particular student.
- communication – the degree to which communication between the university and students was perceived to be clear, complete and accurate and expressed in appropriately simple terms.

However, a number of other factors were also noted, namely, (a sense of) social inclusion; (perceived) usefulness of the subject matter being studied; the perceived value for money of the programme of study; and the sense of achievement that students were able to gain at points in their studies in relation to some identifiable learning outcome.

Although social inclusion and integration was not among the most prominent factors in Douglas et al.'s (2015) study, research conducted by Kane, Chalcraft and Volpe (2014) showed that it could be particularly important. They showed that while most students in Business and Economics degree programmes 'settled in' reasonably well within the early part of their first semester, a significant minority did not. This minority had much less sense of belonging than other students, with expected retention issues. They found that the activities and interventions that would help students to develop a sense of belonging, three were particularly important: effective induction and early engagement with personal tutors; student participation in normal academic activities such as lectures and tutorials; and extracurricular activities. To some extent, this echoes Flynn (2014) once more, although there are nuanced differences of detail, and the role of support services also needs to be considered.

1.6. Concluding thoughts on curriculum, culture and custom

This section of the report has presented the core, integrated picture of focused (and general, but relevant) research that informs our understanding of attainment and retention issues and opportunities in Business and Management studies, and provides some interesting material for reflection. However, while the organisation of the review material in a limited number of themes was necessary in order to make insights accessible, this should not be seen as definitive but rather as a pragmatic arrangement. As the preceding review has indicated at a number of points, the themes are to some extent interwoven; most particularly, it seems clear that efforts to support student attainment (especially in the first year) are also strongly likely to improve student retention.

There were also a number of limitations to the review, in part because of the limited research material that is available. Thus there are a number of gaps and opportunities for further research that might be considered, and the report addresses these in the following section.

4. Gaps and areas for future research

It is important at this point to underline four particular aspects of the review that suggest gaps or areas for future research that it may be useful to consider.

First, limitations of scale and scope (both thematic and practical) mean that there are rich veins of literature that could not be explored, largely because their direct relevance to the concerns of the field was not obvious. But there is room for considerable reflective application of higher education research from outside Business and Management, especially on emergent themes and approaches (such as e.g. the 'flipped classroom'), which could not be explored effectively in this report. Thus it can be suggested that:

There is an opportunity for an exploration of ideas from disciplinary focused teaching and learning research from outside Business and Management, the application of which might be considered (perhaps within an action research frame).

Second, there are particular areas of variation which, since they are not currently well characterised or inferable from extant research, could not be explored within this review. Thus while the review has highlighted a key dimension of variation in approaches to teaching Business and Management studies between a focus on the development of scholars or a focus on the development of (future) employees, it was not possible to fully flesh out the differences in different schools within the UK where there is, for example, a strong and growing tradition of critical management studies. In addition, it is not necessarily the case that that scholar and employee development approaches are in tension – there may be some supportive relationships and common interests between these. Thus it is suggested that:

There is a need for further research on the synergies and tensions associated with focussing on Business and Management students' development as scholars and/or future employees, in relation to retention and attainment.

Third, insights from the literature lead to a number of inferences about why students find employment-related approaches (e.g. work-place learning, placements, and so on) beneficial. One of these inferences is that students can see how employment-oriented learning might apply to their future lives, and thus they can grasp the relevance of it. But this could be seen to leave students at risk of losing the opportunity of developing a richer self-image and idea of their potential through their education. To square this circle, there is an opportunity for research on the development of students' images of 'future self', and how those images help students to engage with educational material in a persistent and enriching way. Therefore:

There is a need for further research on the sources and development of students' images of future self, and how these may motivate persistent and successful studies in Business and Management.

Fourth, there are obviously variations in the material, length and mission of Business and Management studies degrees across the UK. These variations are not sufficiently explored in the research focused on Business and Management studies, and so:

There is a need for research on how assessment and retention in Business and Management studies degrees across the UK are affected by the variations in: curriculum content (which generally includes broad education in pre-honours in Scotland, but is more subject and vocationally focused elsewhere); length (generally four years in Scotland and three years in the rest of the UK); and mission (research or teaching-oriented, for example).

5. Recommendations

Having set out the review and possible gaps that merit further research in the preceding sections, this part of the report offers a number of key recommendations. These include: points where good practices can be commended for dissemination; considerations for focusing future interventions; and a reinforcement of particular suggestions for future research.

Good practices for potential dissemination

Pragmatically, all of the research insights on attainment and retention discussed earlier could be considered for adaptation (as contexts vary) and application. It is hoped, therefore, that the report will be considered as a whole. Nevertheless there are three stand-out opportunities that are worth highlighting at this point:

- Wright and Gilmore's (2012) research presents a compelling case for attention to threshold concepts in Business and Management studies (and elsewhere);

- Meer and Chapman's (2014) action-research project on assessment for confidence provides simple and practical advice for implementation in first year Business and Management studies (and their action research approach is in itself useful and developmental);
- whether particular degree programmes in Business and Management studies are oriented towards employee formation, scholar formation or both (see p. 6) articulating how the programme content connects with students' 'future-self' image could be helpful.

Focusing future interventions

Future interventions of a wide range could be considered, through reflection on the research summary presented earlier in this report. However, there are two particular areas of focus that seem to merit particular attention:

- it is clear that the focus on first-year students is as appropriate in Business and Management as it is across a wide range of disciplines. But it seems that interventions should consider social and academic integration together, and that the period leading up to and around the first item of assessment is critical;
- the tensions and/or synergies between scholarly and employee development in Business and Management need to be carefully considered and a clear case made obvious to students, in order to impact positively on students' motivations in Business and Management studies (and potentially in other professional/vocationally significant disciplines).

Future research

Possibilities for future research have been elaborated earlier. Of the four suggestions, the most interesting for Business and Management studies might be argued to be:

- research on the synergies and tensions associated with focusing on Business and Management students' development as scholars and/or future employees, in relation to retention and attainment;
- research on the sources and development of students' images of future self, and how these may motivate persistent and successful studies in Business and Management.

These two suggestions have been highlighted as being (relatively) particular to Business and Management, and because there is an obvious synergy in considering them together.

6. References

- Arbaugh, B., Desair, A., Rau, B. and Sridhar, B. (2010) A Review of Research on Online and Blended Learning in the Management Disciplines: 1994-2009. *Organization Management Journal*, **7** (1) 39–55.
- Black, G., Daughtrey, C. and Lewis, J. (2014) The Importance of Course Design on Classroom Performance of Marketing Students. *Marketing Education Review*, **24** (3) 213–26.
- Blackford, B. and Shi, T. (2015) The Relationship between Business Simulations in Capstone Management Courses and Standardized Test Scores. *The International Journal of Management Education*, **13** (1) 84–94.
- Brooks, R. and Youngson, P. (2014) Undergraduate Work Placements: An Analysis of the Effects on Career Progression [Internet]. *Studies in Higher Education*. Online early, 1–15. Available from: <http://www.tandfonline.com/doi/ref/10.1080/03075079.2014.988702> [Accessed 22 December 2015].
- Buhiagar, T. and Potter, R. (2014) A Comparison Between Academic Performance of Native and Transfer Students in a Quantitative Business course. *Journal of Instructional Pedagogies*, **14** (March) 1–15.

- Caprar, D., Do, B., Rynes, S. and Bartunek, J. (2015) It's Personal: An Exploration of Students' (Non) Acceptance of Management Research. *Academy of Management Learning and Education*, Online early, doi: 10.5465/amle.2014.0193. Available from: <http://amle.aom.org/content/early/2015/05/07/amle.2014.0193.full.pdf+html> [Accessed 22 December 2015].
- Caza, A., Brower, H. and Wayne, J. (2015) Effects of a Holistic, Experiential Curriculum on Business Students' Satisfaction and Career Confidence. *The International Journal of Management Education*, **13** (1) 75–83.
- Cochran, J., Campbell, S., Baker, H. and Leeds, E. (2014) The Role of Student Characteristics in Predicting Retention in Online Courses. *Research in Higher Education*, **55** (1) 27–48.
- Crawford, I. and Wang, Z. (2015) The Impact of Individual Factors on the Academic Attainment of Chinese and UK Students in Higher Education. *Studies in Higher Education*, **40** (5) 902–20.
- Cunliffe, A. and Sadler-Smith, E. (2014) Cottage Industries, Critique, and Scholarship. *Management Learning*, **45** (1) 3–5.
- Currie R. and Pandher G. (2013) Management Education Journals' Rank and Tier by Active Scholars. *Academy of Management Learning and Education*, **12** (2) 194–218.
- Davis, L. and Geyfman, V. (2015) The Glass Door Remains Closed: Another Look at Gender Inequality in Undergraduate Business Schools. *Journal of Education for Business*, **90** (2) 81–8.
- De Freitas, S., Gibson, D., Du Plessis, C., Halloran, P., Williams, E., Ambrose, M., Dunwell, I. and Arnab, S. (2014). Foundations of Dynamic Learning Analytics: Using University Student Data to Increase Retention. *British Journal of Educational Technology*, **46** (6) 1175–88.
- Douglas, J., Douglas, A., McClelland, R. and Davies, J. (2015) Understanding Student Satisfaction and Dissatisfaction: An Interpretive Study in the UK Higher Education Context. *Studies in Higher Education*, **40** (2) 329–49.
- Flynn, D. (2014) Baccalaureate Attainment of College Students at 4-year Institutions as a Function of Student Engagement Behaviors: Social and Academic Student Engagement Behaviors Matter. *Research in Higher Education*, **55** (5) 467–93.
- Hibbert, P., Beech, N., Grahle, C. and Siedlok, F. (2014) Leadership Learning and Development: An Interpretative Approach to Formation. In: *ANZAM conference: Sydney*, 3-6 December 2014.
- Hibbert, P. and Semler, M. (2015) Faculty Development in Teaching and Learning: The UK Framework and Current Debates. *Innovations in Education and Teaching International*. Online early. Available from: <http://www.tandfonline.com/doi/full/10.1080/14703297.2015.1022201> [Accessed 22 December 2015].
- Hibbert, P., Siedlok, F. and Beech, N. (2014) The Role of Interpretation in Learning Practices, in the Context of Collaboration. Accepted for publication in *Academy of Management Learning and Education*. Available from: <http://amle.aom.org/content/early/2014/11/25/amle.2014.0004.full.pdf+html> doi: 10.5465/amle.2014.0004 [Accessed 22 December 2015].
- Kane, S., Chalcraft, D. and Volpe, G. (2014) Notions of Belonging: First year, First Semester Higher Education Students Enrolled on Business or Economics Degree Programs. *International Journal of Management Education*, **12** (2) 193–201.
- Kasworm, C. (2014) Paradoxical Understandings Regarding Adult Undergraduate Persistence. *The Journal of Continuing Higher Education*, **62** (2) 67–77.

- King, C. and James, R. (2014) Increasing Participation and Attainment in Higher Education in Australia: The Early Effects of a "Demand-Driven" System. *Higher Education Management and Policy*, **24** (3) 145–60.
- Ledley, F. and Holt, S. (2014) Learning Objectives and Content of Science Curricula for Undergraduate Management Education. *Journal of Management Education*, **38** (1) 86–113.
- Meer, N. and Chapman, A. (2014) Assessment for Confidence: Exploring the Impact that Low-Stakes Assessment Design has on Student Retention. *International Journal of Management Education*, **12** (2) 186–92.
- Meyer, J. and Land, R. (2003) Threshold Concepts and Troublesome Knowledge: Linkages to Thinking and Practising within the Disciplines. In: Rust, C. (ed.) *Improving student learning: Theory and Practice – Ten Years On*. Oxford: Centre for Staff and Learning Development, pp. 412–24.
- O'Donnell, K., Botelho, J., Brown, J., Gonzalez, G. and Head, W. (2015) Undergraduate Research and its Impact on Student Success for Underrepresented Students. *New Directions in Higher Education*, **Spring 2015** (169) 27–38.
- Richardson, J. (2008) The Attainment of Ethnic Minority Students in UK Higher Education. *Studies in Higher Education*, **34** (4) 433–42.
- Smith, E. and White, P. (2015) What Makes a Successful Undergraduate? The Relationship between Student Characteristics, Degree Subject and Academic Success at University [Internet]. *British Educational Research Journal*, **41** (4) 686–708.
- Stephens, C. and Myers, F. (2014) Signals from the Silent: Online Predictors of Non-Success in Business Undergraduate Students. *Business and Management Education in Higher Education*, **1** (1) 47–60.
- Sun, H. and Richardson, J. (2012) Perceptions of Quality and Approaches to Studying in Higher Education: A Comparative Study of Chinese and British Postgraduate Students at Six British Business Schools. *Higher Education*, **63** (3) 299–316.
- Trede, F. and McEwen, C. (2015) Early Workplace Learning Experiences: What are the Pedagogical Possibilities beyond Retention and Employability. *Higher Education*, **69** (1) 19–32.
- Wolf, B. and Wright, L. (2014) Designing Curriculum for Real-World International Business Needs. *Journal of Teaching in International Business*, **25** (3) 165–84.
- Woodfield, R. (2014) *Undergraduate Retention and Attainment across the Disciplines*. York: Higher Education Academy.
- Wren, T., Riggio, R. and Genovese, M. (2009) *Leadership and the Liberal Arts: Achieving the Promise of a Liberal Education*. New York: Palgrave Macmillan.
- Wright, A. and Gilmore, A. (2012) Threshold Concepts and Conceptions: Student Learning in Introductory Management Courses. *Journal of Management Education*, **36** (5) 614–35.
- Wright, A. and Hibbert, P. (2015) Threshold Concepts in Theory and Practice. *Journal of Management Education*, **39** (4) 443–51.
- Ylikiski T. and Kortelainen M. (2012) A New Approach for Managing University–Workplace Partnerships. *Industrial and Commercial Training*, **44** (6) 349–56.
- Zhang, Y., Fei, Q., Quddus, M. and Davis, C. (2014) An Examination of the Impact of Early Intervention on Learning Outcomes of At-Risk Students. *Research in Higher Education Journal*, **26** (October) 1–12.

Contact us

+44 (0)1904 717500 enquiries@heacademy.ac.uk
Innovation Way, York Science Park, Heslington, York, YO10 5BR
Twitter: @HEAcademy www.heacademy.ac.uk

© Higher Education Academy, 2016

Higher Education Academy (HEA) is the national body for learning and teaching in higher education. We work with universities and other higher education providers to bring about change in learning and teaching. We do this to improve the experience that students have while they are studying, and to support and develop those who teach them. Our activities focus on rewarding and recognising excellence in teaching, bringing together people and resources to research and share best practice, and by helping to influence, shape and implement policy - locally, nationally, and internationally.

HEA has knowledge, experience and expertise in higher education. Our service and product range is broader than any other competitor.

The views expressed in this publication are those of the author and not necessarily those of the Higher Education Academy. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or any storage and retrieval system without the written permission of the Editor. Such permission will normally be granted for educational purposes provided that due acknowledgement is given.

To request copies of this report in large print or in a different format, please contact the communications office at the Higher Education Academy: 01904 717500 or pressoffice@heacademy.ac.uk

Higher Education Academy is a company limited by guarantee registered in England and Wales no. 04931031. Registered as a charity in England and Wales no. 1101607. Registered as a charity in Scotland no. SC043946.

The words "Higher Education Academy" and logo should not be used without our permission.