# 5. Discussion

## 5.1 Context of the enquiry

#### Summary

The selection of literature reviewed above (Section 2), demonstrated that recent research interest in academic confidence in adult learners, especially those in higher education, has indicated the importance of understanding more about how students at university engage with their studies. It has been shown that those who are able to tackle -with confidence- the curriculum content and assessment processes that are core features of their learning experiences at university, are not only likely to gain higher academic rewards than their less confident peers, but will have enjoyed their time at university, been consistently well-motivated, will have considered that their achievements were worthy recompense for their investments, both in time and financially, and that the complete experience will be of lifetime benefit. Theoretical perspectives were presented which supported the view that academic confidence can be considered as a sub-construct of academic self-efficacy, itself one component from a plethora of attributes that together, serve to regulate human behaviour. Such self-regulation is argued to be derived from multifactorial influences stemming from interactions between intrinsic personal characteristics, the local and wider environment that serves as the domain for the behaviour, and the behaviour itself. This understanding of the ways in which individuals function co-operatively and independently is enshrined in Bandura's Social Cognitive Theory, a model which has been adapted to the domain of education and learning and serves as one of the underpinning theories upon which this research project has been grounded.  No studies have been found to date which specifically focus on how academic confidence - as the mediating variable between students' inherent academic capabilities, their learning styles and preferences, and opportunities presented to them at university - is impacted by their feelings of 'otherness' attributable to being members of an atypical group of learners, notably those with dyslexic learning differences.

This research study has been interested in relating this explanation of how we function as people not just to the domain of learning and teaching, but specifically to try to explore how the model accommodates the more atypical learning characteristics and behaviours of communities of learners from minority groups - in this case, students with dyslexia at university. The clearly stated aim was to find out more about how the particular attribute which casts them as 'different', 'othered', and 'labelled' might impact on their confidence when tackling the challenges of studying at university, an environment that remains steadfastly literacy-based, and in which they are inherently disadvantaged. For example, one student in this study captured these experiences, saying:

"I don't like feeling different because people start treating you differently if they know you have dyslexia, and normally they don't want to work with you because of this". (Respondent #85897154; ABC24=47.33; Dx16=850.90).

Drawing from prior anecdotal and practitioner-observed evidence in university learning development contexts, the objectives of the research were firstly to establish that students with dyslexia do, indeed, present lower levels of academic confidence in comparison to their non-dyslexic peers, and secondly, to determine whether evidence would emerge to support the conjecture that knowing about one's dyslexia might, in actual fact, compound the additional learning demands relatable to the dyslexia itself. Were this to be established, thence to argue that one remedial course of action may be to adopt an alternative, counter-intuitive approach to current norms for equalizing the learning playing field. At present, these are based firstly on establishing the dyslexia through a 'diagnosis', and secondly by designing and attempting to implement a programme of individualized learning support, grounded in applying 'reasonable adjustments' to teaching and learning engagements for that individual. Paradoxically, those approaches might be said to increase the workload of such students rather than ease their pathways through the rigours of academic study, not least through a regimen of less self-regulated, but more externally directed and supervised learning, which can generate additional demands on time-management, organization and scheduling. Resonating with many comments in this current study, this issue was succinctly put by a dyslexic student from the previous Masters dissertation who said:

"Going for help with my studies takes up more of my time when I'm already

struggling with too much work and not enough time; and it rarely helps as I can't explain why I'm struggling - otherwise I would have just done it on my own in the

first place". (Dykes, 2008, Respondent #28);

...and in this current study, a student with a moderate level of dyslexia-ness but with a high level of academic confidence suggested that:

​"[Support] should not just be for one type or group of people such as those

with particularly learning difficulties. I think that puts many people off as soon

as they see the term 'learning difficulties'". (Respondent #71712644; ABC24=86.6;

Dx16=542.92).

​Hence, evidence has been assembled which first all indicates an inverse relationship between academic confidence and dyslexia-ness in university students; and secondly, to support the polemic that from an academic confidence perspective at least, students with dyslexic learning differences studying at university may be likely to gain academic credentials more in line with their academic capability were they just left to get on with it as best they can, and that the focus of remedial activities at university should be shifted towards changing the means' of curriculum delivery and learning assessment, and away from changing the student into one who fits more readily into the more conventional and traditional interpretation of a 'university student' in the UK.

Now, as universities have opened their doors to a much broader spectrum of learners, notably through now well-established widening participation and alternative access schemes, it has become increasingly evident that all students would benefit from a better institutional-level understanding of the impact that individual differences can have on educational engagement, ownership of learning, and hence likely attainment. This implies that the learning environments and processes that generally prevail at university may be less informed by psychological knowledge than might be hoped.

Hence, progress towards meeting the aspirations enshrined by UDL for example, has, to an extent at least, been stymied. It is not unreasonable to suppose that a slowdown in the learning development initiatives at university that were beginning bear witness to the value of greater adaptability and flexibility in curriculum delivery and assessment, are likely to have had the greatest impact on communities of learners who come to university with spectra of learning profiles and preferences that are atypical. Of these unconventional learners, some are labelled with difficult-to-define learning 'disabilities' which are likely to be dynamic in nature, and not necessarily an objective fact. Strong arguments have been presented to suggest that it is learning institutions that translate broad profiles of learning strengths and weaknesses into difficulties and disabilities, not least through the strongly literacy-based transmission of knowledge, and the traditional, inflexible assessments of how much of it has been retained. This is especially true for learners with dyslexia, (which, it has been shown, is difficult to define), who comprise the most numerous amongst those deemed to be 'disabled' in our universities. Evidence from this current study readily documents some of the frustrations. Resonating strongly with the quotation above from the previous study conducted more than a decade prior to this current research, one participant from the dyslexic group said:

"... universities provide support with tutorials geared at helping the individual

with learning, but somehow they seem to expect that a person understands what

they find difficult ... [but] because they have been living with it their whole lives,

[they] can't see objectively what is 'wrong' ". (Respondent #87564798; ABC24=49.17;

Dx16=783.20);

With another respondent echoing experiences of poor levels of institutional understanding:

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"I think there could be more support for students with learning difficulties. As yet,

the dyslexic team haven't been very helpful or supportive" (Respondent #61502858; ABC24=61.88; Dx16=629.90);

... and one of her non-dyslexic peers appeared to indicate unmet, or possibly unrealistic expectations about the learning experiences ahead of her, or at the very least showed a lack of understanding and preparedness for the challenges that university learning would present, and that these were considered not to have been met by an appropriate institutional level response:

​"Ways that studying at university can be improved is by far, to teach students

how to learn. We're always taught the content for a specific subject, but has

anyone ever taught a student on how to learn?" (Respondent #52289216; ABC24=56.88; Dx16=547.61).

These comments were neither uncommon, nor have been taken out of context, were all drawn from the dyslexic students' group in this current study, and they echoed much of the qualitative data collected in the preceding Masters dissertation. It is regretful that this appears to indicate, anecdotally, and for those students at least, that little, or at best, patchy progress has been made at institutional levels that demonstrates understanding more about how to accommodate more readily the learning development needs of such students.

#### Challenges

The challenges facing this research topic have been considerable, notably because the syndrome of dyslexia remains controversially defined, not least because the research surrounding its aetiology and manifestation of the learning differences that is purported to be attributable to it, remain varied, sometimes co-morbid with other disadvantaging learning or physical characteristics, and apparently explainable from several different angles. Furthermore, the substantial majority of research has involved children, not unreasonably stemming from an educationally desirable response to explain the slow uptake of reading and other literacy skills amongst a sizeable minority of early-years learners. Only relatively recently has research attention widened to include exploring more about the nature of dyslexia in adults, more particularly in adult learners, where a review of a wide range of selected literature suggested that taking dyslexia to be an information processing difference (a multifactorial condition existing in many learners in varying degrees) would be the most neutral and unbiased perspective to adopt. The multifactorial approach fits well with the BDA's description of what it means to be dyslexic, notably where this adopts the idea of a *continuum* for cataloguing the characteristics and attributes of dyslexia, acknowledging that due to its wide and varied nature, it remains very difficult to adopt a binary approach to the existence of an individual's dyslexia. Hence in this current study, the continuous nature of dyslexia as a variable led to the establishment of *dyslexia-ness* as the quantifier, and thus, The Dyslexia-ness Continuum.

This led to the most substantive challenge of the study which was to design a data collection instrument that could gauge dyslexia-ness sensitively, and across a sample of the complete university community. This meant that it had to be able to reliably determine levels of dyslexia-ness but not be a dyslexia screener, which would have had ethical implications were one to have been covertly used to collect data. Drawing from a balance of theory taken from the multifactorial explanations of the dyslexic condition with an interpretation of the prevalence of characteristics (dimensions) of dyslexia noted in practical, university dyslexia-support situations, the Dyslexia Index (Dx) Profiler met its design objectives by providing a realistically dependable and reliable interpretation of research participants' levels of dyslexia-ness, and hence their location along the Dyslexia-ness Continuum. However, and aside from its use in this current study, the Dx Profiler remains unique and untested as a data collection tool, which naturally limits the generalizability of its findings. The concepts upon which it is based being theoretically sound, and following anticipated publication shortly relating its development and use to a wider research audience, it is hoped that the opportunity will arise to refine and strengthen both the Dx Profiler itself, and also the concept of dyslexia-ness which it aims to gauge.

​Additional challenges arose through use of the existing but also recently developed Academic Behavioural Confidence (ABC) Scale, and the questionnaires that were designed to measure levels of ABC amongst university students. Although the Scale has been deployed effectively in a range of prior studies, and thus is some years ahead of the Dx Profiler along its development journey, it too warrants further refinement. For example, this might be to acknowledge more readily the local nature of the factor structure of the ABC Scale, where sub-scales that emerged from the dataset-specific interpretation of reliability analysis and data reduction techniques in this current study suggested that accepting a degree of fluidity around its factorial composition should be an important component in understanding its determining characteristics, and hence, what the outcomes from the Scale(s) mean, both locally, and for that interpretation to be more widely generalizable.

But this is surely the nature of all measuring scales and instruments that are attempting to gauge tenuous, psychological and educational constructs that are not overtly measurable. It means that outcomes must be treated cautiously and that either repetitive use of the instruments in as far as possible, highly similar experimental circumstances, or otherwise careful meta-analyses of a number of studies should be conducted so that such scales can become more robust and dependable. In this current study, this led to outputs being generated from four versions of the ABC Scale, two being existing, apparently standardized versions, and two developed from a local interpretation of factor and reliability analysis. Far from this exposing weaknesses in the study design, it was considered as a strength since outcomes were all broadly similar, taken to indicate that whichever version of the ABC Scale were used, it would be possible to draw generalizable conclusions from the outcomes.

## 5.2 Summary of the outcomes

The data collected in this study was rich and varied. The research questionnaire was a lengthy affair comprising in total, 80 dimensional statements that participants were requested to apply their best judgement to respond to. It was designed and constructed to ensure that it was concise, easy to navigate by dividing it into respondent-controlled hide-reveal sections, interesting and accessible to engage with, and especially easy to record responses through use of innovative range-slider input fields. It has not been possible to estimate a response rate because the process used to publicize the questionnaire and hence recruit participants was twofold, and neither mechanism gauged how many students subsequently chose to take part as a proportion of the number of students who actively read the summary of the research purpose and the invitation to participate. However, of the 183 questionnaire datasets that were returned, only 17 were discarded through being less than 50% completed. Hence, the questionnaire design parameters were considered vindicated, and the size of the datapool deemed to be sufficient for meaningful outcomes to emerge from the analysis of the data collected.

### I - Composition of the datapool

The datapool comprised 98 students who did not declare a dyslexic learning difference and 68 who did. Overall, these 166 students were considered to be a reasonable reflection of the composition of university students more generally, with distributions according to study level, domicile and gender not especially significant although overall, approximately twice as many female students as males took part. Since the analysis was not designed to look specifically for relationships between gender, dyslexia-ness and academic confidence, this bias was not deemed to be of consequence, although as these data were collected, scope for examining whether gender might have an impact on the relationships between academic confidence and dyslexia-ness could form part of a subsequent study. A second, notable exception to the generality of the datapool was indicated by the very small proportion of non-UK students in the dyslexic group, where the ratio of home to non-UK students in the complete datapool was approximately representative of the national distribution. Rather than this being an indication of a low proportion of non-UK students with dyslexia studying at UK universities more widely, (which would be an inappropriate conclusion to draw based on the relatively small datapool in this current study), it may be more likely accounted for by assuming that non-UK students with dyslexia were not known to the university's Disability and Dyslexia Service, and hence were not on the Service's e-mail distribution list and did not receive the invitation to participate in the study through that recruitment route. Assuming that access to the Service's advice, support, guidance and resources would be primarily driven by acknowledging students with dyslexia who had applied for the DSA through the university, it is no surprise that international students with dyslexia slip are unknown to the Service.

### II - Prevalence of dyslexia in this current study

The prevalence of dyslexia amongst university students in the UK (and elsewhere) is notoriously difficult to determine for several reasons. For example, the true proportion may be obfuscated through a reluctance to disclose by some dyslexic students due to perceptions of the likely consequences outweighing the possibly marginal benefits; but also, that the student community is likely to include a significant proportion of unidentified dyslexia. Taken with issues about how dyslexia is defined and thus, how this raises challenges for measuring it, the proportion of quasi-dyslexic students identified in this current study was of no surprise. Indeed, this was exactly the outcome that was anticipated in the foundation stages of designing the enquiry, and is consistent with evidence from studies conducted over the last two decades, that dyslexia amongst university students is widely under-reported, but also that a substantial number of dyslexic students in UK HE are only identified after their enrolment at university. With all participants levels of dyslexia-ness determined by the outputs of the Dx Profilers, it was heartening to note that the small sub-group of 18 (Dx20) or 19(Dx16) quasi-dyslexic students were identifiable from the group of participants who had declared no dyslexic learning differences. At close to 20% of the non-dyslexic group, this sub-group represented a substantial minority, although in absolute terms was still a small sample. The Dx Profiler was not designed to be a dyslexia screener, but its composition did include a breadth of gauging parameters that would not be misplaced in a screener. So, it is not unreasonable to suppose that of the eighteen or nineteen students comprising this sub-group, a proportion, possibly a significant proportion, may be unidentified with dyslexia. To put this in context, the most recent data available from HESA (at the time of writing) indicated that students in UK HE institutions who disclosed a learning disability accounted for 4.8% of the student population overall. This was the incidence of all 'defined' learning disabilities, which, in addition to dyslexia, includes dyspraxia, ADHD, and Asperger's Syndrome, for example. Although there is currently no mechanism in place in their data collection process for discriminating students with dyslexia as a discrete subgroup of those disclosing learning disabilities, it was indicated that HESA takes the view that dyslexia is likely to be the most represented subgroup. However, it is important not to consider this apparently significant incidence of quasi-dyslexia in this current study as a 'dyslexia fact', because the prevalence of dyslexia amongst university students remains inaccurate, and the 'dyslexia debate' continues to be controversial and to a point, contested. Equally, this is a result not to be ignored, nor set aside as a data analysis glitch, because the Dx Profiler which revealed this subgroup of students, demonstrated good, if not strong sensitivity when applied to students in the known dyslexic group, subsequently used as the control.

### III - The relationships between dyslexia-ness and academic confidence

This study set out to demonstrate that students with dyslexia at university are less confident about their academic studies than their non-dyslexic peers. The nature of academic confidence as a distinct, but related construct to academic self-efficacy has been extensively discussed earlier, validating its theoretical underpinnings. Academic confidence, as a construct that is measurable, emerged from an interest in explaining differences in learning preferences between students on similar academic pathways. Early studies led to the reimagining of the metric to acknowledge a more keenly focused interest on study actions and behaviours as the measurable indicators of students' confidence for tackling the rigours and challenges of university study. Thus, the Academic Behavioural Confidence Scale emerged as a practical means to operationalize and gauge levels of academic confidence amongst university students, and as a relatively recently developed metric, it has been used predominantly to gauge differences and similarities between groups of otherwise comparable students across a range of parameters and characteristics. Very few studies have been found to date which have used the scale to look at how disabilities impact on academic confidence - at least within the same framework that has defined academic confidence for this current study - and none have taken dyslexia as a specific focus. Whether or not dyslexia, as a difficult-to-define syndrome, should feature on the disability agenda remains a contested point. To adopt a position of relative neutrality, this current study has taken the position that dyslexia is best considered as a multifactorial, information processing difference, but one where many individuals beset with a range of its dominant characteristics in varying degrees, persistently remain disabled by the broadly literacy-based learning environment in which they are striving to engage with, and that their confidence in tackling their studies at university is significantly eroded. Hence, the research framework defined academic confidence as a sub-construct of academic self-efficacy; and considered dyslexia from the multifactorial perspective, and for which a new metric, the Dyslexia Index Profiler, was introduced to operationalize the extent and levels of individuals' aggregation of characteristics or dimensions of dyslexia, their levels of 'dyslexia-ness'.

From the outset two, clear objectives were established: firstly to establish that students with dyslexia, in whatever form it is defined, consistently show lower levels of academic confidence, (as gauged from the ABC Scale), than their non-dyslexic peers; and secondly, to assemble evidence that quasi-dyslexic students' levels of academic confidence are less severely depressed, hence suggesting that studying in ignorance that the pattern of challenges and difficulties that such individuals experience are comparable with the dyslexia envelope, carries with it a reduced impact on their academic confidence.

Meeting the first of these objectives was relatively straightforward, subsequent to the design, construction and development of a suitable data-gathering instrument. With two, clearly demarcated groups of students in the datapool - those who had declared dyslexic learning differences, and those who had not - individual levels of academic confidence were gauged using the ABC Scale and mean average outcomes were constructed for each of the two, discrete groups. The results affirmed an inverse relationship between academic confidence and dyslexia-ness. That is, higher levels of dyslexia-ness tended to be associated with lower levels of academic confidence. This was the expected outcome. However, it cannot be said from this outcome that dyslexia, or dyslexia-like learning and study characteristics *cause* reduced levels of academic confidence because firstly, the data collected from the datapool in this study was too small to support such a radical claim; and secondly, that in this study at least, no attempt was made to control for other factors that may also have a bearing on levels of academic confidence in university students. These could be wide-ranging and possibly include, for instance, social, cultural or ethnic influences on prior learning experiences and history, or intrinsic personal, psychological factors such as anxiety, self-esteem, predisposition towards academic procrastination, and so forth, or academic credentials on course-commencement, for example. But this datapool of university students was firstly, considered to be reasonably representative of students more generally, and secondly too small to permit analysis at the micro level required were groups and subgroups reduced in sample size in accommodate the distributions of these other factors. Hence the recommendation for further, similar studies to be undertaken so that the body of data becomes sufficiently large for this level of analysis to be considered.

In the event, those students with dyslexia presented levels of ABC that were on average nine percentage points lower than their non-dyslexic peers, representing 12-13% lower absolute levels of academic confidence. This was a consistent outcome across the four versions of the ABC Scale that were used. Adjusting values to account for sample sizes and distribution variances, the differences also consistently generated moderate effect sizes, with average ABC values shown to be statistically, significantly lower for the dyslexic group. When students in each of these discrete groups were further sifted according to their levels of dyslexia-ness, as determined from outcomes from either of the Dx Profilers used for the data analysis, the subgroup of students from the non-dyslexic group with low levels of dyslexia-ness showed substantially higher levels of ABC in comparison to the control group of dyslexic students with relatively high levels of dyslexia-ness, where the greatest difference of 14.96 percentage points emerged from analysis using the ABC 17-dimension Scale and the 16-dimension version of the Dx Profiler. This appeared to be indicating that students with low levels of dyslexia-ness were presenting levels of academic confidence some 20% higher on average, than their strongly dyslexic peers (Tables 12, 13; sub-section 4.3/IV(II)). At a factorial level, where dimension reduction had indicated two factors relating to the *academic* processes of studying with the third concerned with how these processes were planned and organized, outcomes showed that differences were most notable at the academic rather than the planning levels. Indeed, the data showed that all students in the datapool had similar levels of confidence in their capability to plan and organize their studies to meet their academic challenges and that dyslexic students in the Control subgroup presented similar average ABC levels to their non-dyslexic peers with low levels of dyslexia-ness in the Base subgroup. For the other two factors of Study Efficacy, and Academic Engagement, differences between these subgroups were significant, with the non-dyslexic students showing much higher levels of ABC (Table 27, sub-section 4.5/IV). So it became clear that these two 'academic' factors were the strongest contributors to reduced levels of ABC overall for the dyslexic group.

At the very least, it is argued that these outcomes together, are cause for reflection about how students with dyslexia engage with their university learning experience, perhaps indicating that the academic tasks and challenges of this learning experienced could be more appropriately packaged and presented. Hence, a logical conclusion is that more could be done to enable equitable levels of academic confidence to be an outcome of initiatives that could be designed and formulated to improve the 'lot' for students with dyslexia, especially if these can make them feel less othered, different and disabled. Such initiatives are also likely to be of benefit to all students as a result of more accessible and flexible learning situations, that are individually adaptable so that academic performance and achievement are more accurate reflections of their capabilities and learning potential.

### IV - Diagnosing dyslexia: Does this impact significantly on academic confidence?

An additional focus of this study has been to consider whether there may be evidence that the process of identifying dyslexia in university students (or in their prior learning) is likely to have had an impact on their academic confidence.

​It has been argued earlier that the outcome of a 'disability diagnosis' may lead individuals with dyslexia to perceive themselves to be valued less by their peers, or even by society more generally; a characteristic typically associated with stigmatization. It has been suggested that the significant part of these feelings may stem from associating 'diagnosis' with curative treatments, and uncertainty about what they are for or whether they will work. It has been shown in Section 2, for example, that affective responses are known to influence compliance with remedial regimes constructed around the modification of behavioural intentions and actions. Translated into the dyslexia context, it is reasonable to suppose that individuals whose dyslexia is diagnosed to them as a learning disability are likely to experience aversive emotional responses to the fact - perhaps even perceiving dyslexia as an illness without a cure - and that their disability has been imposed upon them, especially if this was unexpected. A student's reaction to their new situation could be unpredictable, and may impact on their perceptions of their ability and capacity to learn and study, not least from any lasting issues which may be associated with a reimagining of their self-identity and impact on their confidence more widely. One student in this current study whose dyslexia was diagnosed as a disability said:​

"[Only] In the first year of my degree I found out I was dyslexic and I was massively traumatised by it. I thought learning would never be the same again due to my learning disabilities" (Respondent #89059542; ABC24=53.25; Dx16=811.71)

In Section 2, it was suggested that the process of identifying dyslexia, the dyslexic 'label' that is the outcome, and especially the manner through which the label is attached to the individual concerned, may be a critical factor in establishing whether the affective response to this new knowledge is positive or not. One of the strands of this current study is acknowledgement of the stigma that is reportedly associated with the dyslexia label. Notably characterized as the ‘dilemma of difference’, there is a persistent and unresolved debate about the value of attributing labels to individuals with atypical educational needs as discussed earlier. At the time of designing this current study, no literature had been found which considered exploring as a variable, the impact of the different ways in which dyslexia is communicated to an individual as a result of a screening or assessment at university. Some studies have examined other psychosocial experiences of receiving an identification of dyslexia, but none appear to have explored the possible significance of *how*individuals were told of their dyslexia, always referring to dyslexia being diagnosed with nothing being found to indicate that the term ‘diagnosis’ had been considered  as a likely impactor on an individual's internalization of their new knowledge about their dyslexia. To attempt to gauge this impact through the lens of academic confidence is unique.

Analysis of results showed that students in this current study whose dyslexia was diagnosed to them presented a substantially lower ABC when compared with students whose dyslexia was identified, described or disclosed to them. The outcomes were similar whether dyslexia was diagnosed as a disability or as a difficulty, and it was notable that nearly two-thirds of dyslexic students who participated in this study had been diagnosed with dyslexia, and of those, more than half recalled their dyslexia being described to them as a disability. The absolute difference in average ABC between the subgroup whose dyslexia was diagnosed as a disability and those where dyslexia was identified, disclosed or described as a difference or a difficulty was more than ten percentage points, indicating that amongst the students in this sample at least, the academic confidence of the diagnosed/disability subgroup was depressed by more than 14%. This was a statistically significant difference, and when adjusted to account for sample sizes and variances, showed a moderate-to-large effect size of *g* = 0.64. A deeper interpretation of the results revealed that students whose dyslexia was diagnosed, were, in particular, less confident about attending their classes, lectures, seminars and other university teaching situations, and less confident about engaging with their peers or lecturers when they were there. Such behaviour appears consistent with observations in Cameron's (2016) study of the day-to-day learning lives of dyslexic students at university (reported previously), which revealed that as members of a class, seminar or lecture in the company of other students, participants often found these learning experiences uncomfortable or threatening, reporting 'fear of speaking out in seminars or discussions' so as not to appear 'stupid or incompetent in some way'; that they all felt 'different from others', 'less able or intelligent' and that they 'didn't belong' in academic spaces. Similar feelings were reported by some dyslexic students in this current study. One participant said:

"I don't speak in class because I am not very confident in answering questions in case I get them wrong and people laugh" (Respondent #85897154; ABC24=41.54; Dx16=862.79);

... with another reporting the lasting impact of feelings of difference stemming from earlier educational experiences:

"[In class] I do have to battle with elements of doubt ... particularly influenced by bullying at primary and secondary school to do with 'stupidity' and 'slowness' and my seemingly unrelated comments to topics at the time" (Respondent #87564798; ABC24=49.17; Dx16=783.20);

Another study (Thompson et.al., 2015) established that the majority of participants indicated a greater alliance with the perception of dyslexia as differences in ability than with disability, despite the apparently contradictory finding that many felt encumbered by an identity of dyslexia as a disability in *educational* contexts. In the Thompson and colleagues' study, three distinct identity personae were identifiable: firstly, that of being learning-disabled, where the dyslexia was focused on impairments and deficits. secondly, of being differently-enabled, in which dyslexic individuals were able to focus on their strengths and celebrate their alternative ways of thinking and learning as an asset rather than as a liability; and thirdly as a dyslexia-identity construction that was rooted in social-disablement, where individuals admitted to feeling disabled by the ways in which their conceptualized, diagnosed, disabling factors were transformed into barriers which they felt prevented them from conforming to the aspirations of a society which focuses on literacy as a marker of ability, achievement and normality. Evidence of these identity constructions also emerged from data in this current study, with multiple examples of all three being received.

Hence, there appears to be a likelihood that the means by which dyslexic students are informed about their dyslexia may be a contributing factor to a measurable, negative impact on their ABC, and by logical deduction, on their academic confidence about approaching their studies at university. What seems clear is that the manner in which individuals make sense of their dyslexia and internalize it into their academic self-identity, and especially how this then impacts on their engagement with their learning, is an under-researched area - no other studies were found that took this topic as the focus. It also seems reasonable to suggest that a greater effort needs to be made firstly, to recognize dyslexia - in whatever ways it can be defined - as a difference rather than as a disability, which is central to the stance of this current study; and secondly that for definitions of the syndrome and the labelling of individuals with dyslexia to remain apposite in educational contexts, care must be taken about how this dyslexic label is communicated to individuals finding themselves in this situation as a new experience. Lastly, we are drawn back to the recurring strand that runs throughout this project, that were learning environments designed and structured in more genuinely inclusive ways, the impact of such learning differences on academic confidence would be at least minimized, perhaps eliminated, as one of the factors that affect confidence in tackling academic studies. Taking this approach is likely to enhance learning quality, and hence likely achievement for students whose learning styles, needs and preferences are atypical.

However, the final part of this discussion is driven by results that appear to suggest that it may be best to leave students considered likely to be dyslexic to some degree, in ignorance of the fact. This is a radical conclusion, and although it is tempered by the small sample upon which the results are based, detailed analysis and re-analysis using all permutations of the versions of the metrics used in this study, generated broadly similar outcomes. If subsequent studies produce similar outcomes, it may raise difficult ethical issues relating to disclosure that might have to be resolved. The outcome is based on average levels of ABC from the subgroup of students in this current study categorized as 'quasi-dyslexic'. These were the subgroup of students whose levels of dyslexia-ness, and hence their location on the Dyslexia Continuum, placed them amongst the Control group of known dyslexic students with moderate to high levels of dyslexia-ness. Whichever versions of the ABC Scale were used to determine these students' academic confidence, and whether their dyslexia-ness was assessed from the 20-item or the reduced, 16-item Dx Profiler, this subgroup of students showed higher levels of academic confidence than their dyslexia-identified peers, across twenty of the twenty-four ABC dimensions of the full scale. Of these, dimensions where the greatest effect sizes were noted, were confidence to 'attain good grades' (ABC24.#7), and to 'read the recommended background material' (ABC24.#14). We can relate these specific dimensional differences between the dyslexic and quasi-dyslexic students into SCT theory, and also into the practical realization of academic confidence as Sander's academic *behavioural* confidence. The logical strand that connects Bandura's (1995) broad statement about self-efficacy being an individual's context-specific beliefs about their capability to get something done with Sander's adaptation of this idea into academic confidence (realized as academic behavioural confidence) is illustrated by these confidence differences in 'attaining good grades,' for example. Identified dyslexic students expressed reduced confidence in this dimension, both measured against their non-dyslexic peers but particularly against quasi-dyslexic students where confidence remained substantially higher than the average ABC level of their dyslexic peers. In one study, Sander and Sanders observed that students' confidence in their capability to perform well academically was affected by later outcomes of their assessments, not least due to setting unrealistic expectations about their academic performance. Hence it is possible to surmise that dyslexic students may attribute both their poor performance and their unrealistic expectations of their ability, to be attributable to their *identified* dyslexic learning challenges, whereas quasi-dyslexic students with likely similar learning challenges, as suggested by their comparably high levels of dyslexia-ness, may not echo similar attributions. Thus, their confidence levels are not as notably depressed when academic expectations are not matched by outcomes.

Effect sizes between quasi-dyslexic and dyslexic students in overall ABC were small - but not negligible - when the Test subgroup of quasi-dyslexic students was determined by outcomes from the full, Dx20 Scale. When the reduced, Dx16 Scale was used as the subgroup sieve, effect sizes were higher, falling well into the 'moderate' category (Tables 13, 14; Section 4.3/IV(II)). Although significant statistical differences were not detected, some outcomes were marginal. In terms of absolute mean ABC levels, values for this subgroup were squarely between those for the Base subgroup of non-dyslexic students with low levels of dyslexia-ness and the Control subgroup of strongly dyslexic students. At the factorial level, it became clear that the major influences on effect size differences in ABC overall between the Test and the Control subgroups emerged from the two academic process factors of Study Efficacy and Academic Engagement, with negligible differences noted for the factor Organization and Planning.

Assuming for the moment that these, quasi-dyslexic students would emerge as dyslexic students following a standardized dyslexia assessment, this outcome appears to suggest that knowing about being dyslexic is an impacting factor that depresses academic confidence. It is not likely to be the only impacting factor, however, as if so, it would be expected that these students' academic confidence would not be dissimilar to levels for the non-dyslexic group overall, which it was not. Indeed, the tentative regression analysis conducted more as a pilot for future studies than as a major contributor to the analysis outcomes for this current study also indicated that for the students in this datapool at least, the quasi-dyslexic subgroup presented higher than would be expected levels of academic confidence which although might be thought of as marginal, was nevertheless, not negligible or to be dismissed as a natural variation of the data.

None of these are outcomes to be ignored or that could be explained by chance, and suggest firstly, that a more detailed analysis of individual differences in ABC levels at a dimensional level is worthy of investigation (and will be the topic for a later study), but more so, that similar studies in the future are warranted, aiming to replicate this current one so that the academic confidence of quasi-dyslexic students can be assessed, compared, and subsequently aggregated with the results established here. From this, perhaps a clearer indication may emerge firstly about the extent to which dyslexia, in whatever form it is defined, is to be considered as a significant impactor on academic confidence, and hence, about whether the identification of dyslexia in university students might be counter-productive.