Social-identity and self-efficacy concern for disability labels

David Jodrell

Introduction: Educational policy in the UK has moved towards inclusion (Lindsay, 2003), resulting in debate over the use of disability labels (Lauchlan & Boyle, 2007). Labelling influences social-identity (Olney & Broekelman, 2003), this paper suggests social-identity influences self-efficacy and, therefore, academic performance (Zimmerman, 1996, 2001).

Aims: To investigate if past performance of in-group members will influence students’ self-efficacy beliefs.

Method: A convenience sample of 30 undergraduates was recruited, half of whom were dyslexic. Participants were split equally into three conditions and informed of either high-dyslexic or high non-dyslexic performance or were kept naive of past performance. Scores for efficacy beliefs were taken and analysed for differences between conditions.

Results: For dyslexic participants both the high-dyslexic and high non-dyslexic performance conditions resulted in significantly differing self-efficacy scores when compared to dyslexic participants in the control group. Scores also significantly differed for non-dyslexic participants in the high-dyslexic performance compared to non-dyslexic controls, for one self-efficacy scale, however, no significant differences were found between non-dyslexics in the control condition and those in the high non-dyslexic performance condition.

Conclusions: While, dyslexic students showed predicted differences in efficacy scores relative to in-group member’s performance. For non-dyslexic students, a significant difference was only found for those in the high-dyslexic performance condition. Therefore, results suggest that dyslexic students’ self-efficacy was influenced by social identity. For non-dyslexics this was not the case. The small number of participant’s per-condition and the impact of stereotyping are suggested as mitigating predicted significant differences in self-efficacy scores for non-dyslexics. The effect of past dyslexic performance on dyslexic self-efficacy scores is described in relation to disability labels. Due to alternative theoretical explications for data trends found, and methodological limitations the study’s principal conclusion is the need to expand on findings demonstrated.

Keywords: disability; specific learning difficulties; dyslexia; social identity; self-efficacy; university students; disability labels.

In recent years, inclusion has become a key theme for policy concerned with educating disabled young people. Since the Salamanca Statement for special needs educational (UNESCO, 1994) adherence to inclusive policy has increased, and now is advanced in the UK. The example of such adherence can be seen in the Special Educational Needs and Disability Act 2001, which states that children with special educational needs must be educated in mainstream schools unless this would impede the effective education of peers and/or is against the wishes of parents.

While UK policy advocates inclusion, reviews have failed to demonstrate its educational benefits (Lindsay, 2003; Sebba & Sachdev, 1997). Despite a weak evidence-base, inclusion has caused marked changes to the way disability in education is viewed. Specifically, a ‘social model’ of disabilities has been adopted, which argues the disadvantages faced by disabled people are created by their social environment (Low, 2001). UK adherence to a social model of disability is demonstrated though many Government papers, such as, the Disability Rights Commission Act (DRC) stating that ‘exclusion experienced by disabled people is not a inevitable result of their impairments or medical conditions but rather stems from environmental barriers.’ In the UK this has led to disability...
labels being reviewed, to the existent use of the term disability, itself, has been debated.

From a academic perspective the debate over use of disability labels is also fiercely contested with some authors arguing that disability labels perpetuate environmental barriers to inclusion (Keil et al., 2006) through stigma. For example, Hunt (2006) found dyslexia was viewed more disruptive to the social and academic success of students, than Attention Deficit Hyperactivity Disorder. Conversely, research advocating their use claim that disability labels familiarise people with impairments and can increase tolerance (Gross, 1994). Riddick (2000) argues that stigmatisation occurs without the influence of labels and that labels simply encapsulate a disability. She also provides evidence that dyslexic students find their label useful, as it is an explanation of academic problems experienced. Therefore, current research has been unable to resolve the usefulness of disability labels in education with reviews, such as Lauchlan and Boyle’s (2007) being unable to put forward suggestions over their use.

The social identity framework offers an under-researched avenue in the labelling debate. It suggests that labelling produces ‘in-groups’ and ‘out-groups’, influencing the self-esteem of those affected (Abrams, 1990; Finlay & Lyons, 1998; Gillman et al., 2000). In other words, the social identity adopted by disabled students could have large implications for their academic achievement, as how students feel about themselves influences their academic outcomes (Oyserman et al., 1995).

The evidence linking disability labels to social identity is scarce. In a rare example, Olney and Brockelman (2003) found that students with learning difficulties socially identify with their disability. Lack of investigation may reflect the misapplication of the social identity framework. Early social identity theory was primarily concerned with group behaviour when a social identity was clearly used over an individual’s identity, as in a crowd situation (Hogg & McGarty, 1990; Tajfel, 1978; Turner, 1987). Its application to disability labels in education was not, therefore, obvious. Self-categorisation theory (Turner, 1987), a later addition to the social identity framework, can be more appropriately applied.

Social identity theory and its more current addition, self-categorisation, differ in two fundamental ways: first, in how individual reality and social identity are viewed and, second, regarding how an individual’s action is influenced by their social identity. Both differences have implications for the influence of disability labels on academic performance. Social identity theory views social, and individual identity as distinct, whereas self-categorisation views the social as part of individual identity, just at a different level of abstraction (Turner, 1987). Abstraction takes place through depersonalisation shifting an individual’s self-perception towards that of the groups. Depersonalisation is governed by the ease that a social identity is retrieved from memory and its fit with explaining people’s actions (Hogg & Williams, 2000; Oakes, 1987; Oakes et al., 1994; Turner, 1987). Therefore, self-categorisation allows one’s social identity to be adopted outside of collective interactions. For example, a disabled social identity could influence individual classroom behaviour, if it was sufficiently salient to a student and fitted with their current actions. Meaning disability labels could have a bearing on academic outcomes.

The original and contemporary variations of the social identity framework also differ over the process through which social identity influences action. Self-categorisation theory views social identity, itself as influencing group adherence and behaviour. By contrast, social identity theory suggests a person’s self-esteem comes from group membership, and, therefore, alters people’s behaviour during collective action. For example, when abroad, especially unfamiliar cultures, self-esteem results in people feeling their nationality far more keenly. Social identities agent, self-esteem is,
however, not predictive of academic outcomes (Mone et al., 1995; Pajares & Schunk, 2001; Hansford & Hattie, 1982). This is unsurprising as self-esteem is too global a concept: while, it is linked to past achievements, its effect on academic achievement is mediated by many factors, such as self-worth and self-respect (Mone et al., 1995). Because social identity forms the basis for group adherence and individual actions, self-categorisation theory places an individual's social identity in a position to influence behaviour through other self-referent constructs.

Self-efficacy is one such construct, which also influences academic performance through judgments of future ability (Bandura, 1997). Efficacy beliefs rely on four sources of influence: mastery of experience, vicarious experience (observation of others), verbal persuasion and physiological and affective states (Bandura, 1997). Self-efficacy is robustly linked to academic performance (Pajares, 1997; Zimmerman, 1996, 2000). Studies that have compared self-esteem and self-efficacy show that the latter is significantly more predictive of academic outcomes (Mone et al., 1995; Lane et al., 2004). More specifically, efficacy beliefs have been shown to affect academic performance through level of effort, persistence, emotional reactions and choice of activities (Miuton et al., 1991; Zimmerman, 1996, 2000). They also influence self-regulatory learning through goal setting, strategy use, self-evaluation and self-monitoring (Zimmerman, 1996, 2000).

Despite self-efficacy’s predictive power, the theory has been criticised for its lack of acknowledgment of the social environment (Markus & Kitayama, 1991). In response, Bandura (1997) states that all sources of self-efficacy, excluding mastery of experience, are dynamically related to the surrounding social environment and systems (society), and provides examples of how the theory works collectively. Even so it is arguable that the theory is individualistic insofar as it views the ‘self’ as a self-contained entity that is independent of the social environment, the mediation of which is based upon internal factors (Markus & Kitayama, 1991).

Notwithstanding this point, vicarious experience offers, mechanism for social identity to interact with self-efficacy. Self-efficacy theory suggests that efficacy beliefs are influenced by social sources such as models (Bandura, 1997; Schunk, 1987). A model refers to a person who is performing a task for which efficacy beliefs are being constructed, to simplify it some what, a pupil’s (model) performance on a spelling test would, intern influence other class members efficacy for the same task. Performance appraisal that is referenced to others (e.g. ‘You did better/worse than other children’) increases a model’s impact on self-efficacy (Bandura, 1997). This type of social comparison is apparent in academic environments (Huguet et al., 2001; Jacobs et al., 1984), through students performance being judged relative to classmates, class wide testing would be just one example.

The perceived similarity of models also increases their influence on the recipient’s efficacy beliefs. Initially, as one might expect, performance similarity produces stronger modelling (Bandura, 1997; Brown & Inouye, 1978; Schunk, 1995). However, other similar attributes, that are more associated with those that form a social identities, also bolster a model’s influence on efficacy beliefs. Namely research has demonstrated attributes, such as, age, educational and socio-economic status, sex and race have been shown to increase a model’s influence on efficacy (Bandura, 1997; Schunk & Hanson, 1985). Bandura (1997) suggests that the effect of attribution similarity on efficacy is due to over-generalisation from other activities, where such attributes are influential. For example, a models gender would be a important attribution to ‘factor in’ when making efficacy beliefs over sporting abilities, however, over-generalisation would result in, taking account of gender where it is not as important, such as, a spelling test.
While at first glance over-generalisation offers neat explanation similarity of a model’s attributes influence on self-efficacy on closer inspection such explanation is not elaborated on, this seems inadequate, and furthermore it has received no empirical support. This paper draws on ‘social projection’, the process through which people come to view others as increasingly similar to their selves (Robbins & Krueger, 2005). Social projection is strongest when people share the same social identity (in-groups members) but it is inhibited when, another’s social identity is view as different (out-group members) (Bramel, 1963; Robbins & Krueger, 2005).

Drawing on these theoretical frameworks, this article suggests that the influence of model similarity on self-efficacy is channelled through self-categorisation and social projection. Self-categorisation allows those sharing the same social identity (such as the same age, race or socio-economic status) to increase social projection and therefore perceive others sharing this identity as more similar and subsequently becoming a more salient gauge for the formation of efficacy beliefs.

Tying this prediction to disability in education, disability labels produce a social identity (in-group) through self-categorisation. In turn, those in-group members (others with the same label) will be perceived as more similar, through social projection, and, therefore, provide a superior modelling influence on an individual’s self-efficacy. The mediation of self-efficacy will influence the performance of students, as perceived efficacy is uniformly a good predictor of academic outcomes (Pajares, 1997; Zimmerman, 1996, 2000). Therefore, the aim of this investigation was to understand if disability labels influence students’ self-efficacy.

**Method**

While, the SpLD (specific learning difficulty) label that is made up of individual disabilities, such as, dyspraxia, dyscalculia and dyslexia (Heathcote & Brindley, 2006) is in vogue with UK education professionals (Alm, 2004), it is unlikely to be meaningful to students. In contrast, dyslexia is meaningful to diagnosed individuals (Riddick, 2000). It is also the most prevalent SpLD (Roongpraiwan et al., 2002). As a result, the label of dyslexia was investigated in this study.

**Study design**

The investigation incorporated a 2x3 between-subjects design. Eligible undergraduates were allocated to one of three conditions, each containing 10 participants half of whom were dyslexic. Participants in the high-dyslexic performance condition received instruction sheets explaining the upcoming academic tasks. These contained fictitious information stating that past dyslexic undergraduates performed significantly better on the upcoming academic tasks than non-dyslexic undergraduates. Participants in the high non-dyslexic performance condition received instruction sheets claiming that non-dyslexic participants performed significantly better. Participants in the control condition received the explanation of the upcoming test but without fictions reference to prior performance. See Figure 1 for overview of the design.

<table>
<thead>
<tr>
<th>Participants</th>
<th>Control</th>
<th>High dyslexic performance</th>
<th>High non-dyslexic performance</th>
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<tbody>
<tr>
<td>Dyslexic</td>
<td>5</td>
<td>5</td>
<td>5</td>
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<tr>
<td>Non-dyslexic</td>
<td>5</td>
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<td>5</td>
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**Figure 1: Detailing participant allocation to study conditions.**
Following this, an identical procedure was followed for each condition. Participants were administered the self-efficacy scale and then completed the sentence-comprehension task, which involved filling in missing words of incomplete sentences over four minutes. Finally, the word-reading task was administered. Word reading was completed individually, with participants reading out as many words as possible over 30 seconds.

Sample

Undergraduates were sampled because disabled identities are heightened on coming to university (Borland & James, 1999). Thirty participants were recruited through convenience sampling: 15 were dyslexic, while the remaining 15 had no SpLD. Participants were excluded if they were over 25 years because the hierarchal nature of social categorisation meant older students may of adhered to a more specific in-group (Turner, 1987).

Measures

While self-efficacy can be measured by a variety of questioners (Bandura, 2006; Pajares, 1996), the scales need to be specific to the domain of investigation (Bandura, 2006). As no appropriate questionnaire was available for the present study's population and performance task, a self-efficacy scale was constructed. This study's performance task was the word-reading and sentence-comprehension measures of the Wider Range Achievement Test (WRAT) (Wilkinson & Robertson, 2006).

Self-efficacy scales were constructed by studying both the word-reading and sentence-comprehension measures of the WRAT. This led to development of two domain-specific subscales: one measuring efficacy beliefs for sentence comprehension one gauging self-efficacy for the academic tasks as a hole. Each question related to the upcoming academic tasks such as 'I know the meaning of most the words I read.' Each item’s response was recorded on an 11-point scale of efficacy strength ranging from 0 (‘not confident’) to 10 (‘fully confident’). Following its construction, the scale was assessed for its internal validity, yielding a Cronbach’s alpha coefficient of 0.94 overall. The two discrete subscales both demonstrated sufficient reliability and validity (for details on scales reported here see Jodrell, 2008).

Analysis

Two 2 x 3 between-subjects ANOVAs (univariate analysis of variance) were used to investigate interaction between students with dyslexic and non-dyslexic labels and their in-group performance (high-dyslexic, high non-dyslexic and control) for the two self-efficacy measures. Following this, a Tukey post-hoc test was used to examine simple main effects of in-group performance for both dyslexic and non-dyslexic participants. Subsequent pairwise comparison investigated at what level of in-group performance (high-dyslexic, high non-dyslexic) caused any of the two efficacy outcome measures to differ significantly from control participants scores in respective dyslexic and non-dyslexic cohorts.

Results

Two hypotheses were generated from the literature. The first (H1) was, self-efficacy scores of dyslexic participants in the control condition would be significantly lower then dyslexic participants in the ‘high dyslexic performance condition’ and significantly higher then dyslexic participants in the ‘high non-dyslexic performance condition’. The second hypothesis (H2) was non-dyslexic participants self-efficacy scores in the control condition would be significantly higher than those of non-dyslexic participants in the high non-dyslexic performance condition’ and significantly lower than those of non-dyslexic students in the high non-dyslexic performance condition.

Figure 2 displays the mean dyslexic and non-dyslexic test efficacy scores and SEM for these. Figure 3 displays mean sentence comprehension efficacy scores for non-
Figure 2: Mean test efficacy scores.

![Bar chart showing mean test efficacy scores for dyslexic and non-dyslexic groups with high and low performance.](chart2)

Figure 3: Mean self-efficacy scores for sentence comprehension task.

![Bar chart showing mean self-efficacy scores for sentence comprehension tasks.](chart3)
dyslexic and dyslexic participants, along with their SEM. Descriptive findings displayed here show that high-dyslexic performance produced increased efficacy beliefs for dyslexic students, when compared to controls, but reduced efficacy beliefs for non-dyslexics. By contrast, the high non-dyslexic performance condition produced higher efficacy beliefs for non-dyslexics, but lower efficacy beliefs for dyslexics.

Inferential statistics indicate a significant interaction between group-identity and in-group performance for the test-efficacy measure \(F(2,24)=16.60, p<0.01\). Dyslexic and non-dyslexic cohorts both had a main effect of in-group performance: \(F(2,24)=10.20, p<0.001\) and \(F(2,24)=7.25, p<0.005\) respectively. Pairwise comparison indicated that dyslexic participants in the control produced significantly lower test efficacy scores than those in the ‘high dyslexic performance’ \((p<0.05)\) condition and significantly higher scores than dyslexic participants in the ‘high non-dyslexic performance’ condition \((p<0.05)\). Non-dyslexic participants’ test-efficacy scores in the ‘high-dyslexic performance’ condition were significantly lower than those for controls \((p<0.01)\); however, no significant difference was apparent between non-dyslexics in the control and those in the ‘high non-dyslexic performance’ condition.

Sentence comprehension efficacy measures also showed a significant interaction between group-identity and in-group performance \(F(2,24)=21.57, p<0.001\). A significant simple main effect of in-group performance was identified for both dyslexic \(F(2,24)=21.70, p<0.001\) and non-dyslexic \(F(2,24)=22.04, p<0.001\) students. Subsequent pair-wise comparison showed that dyslexic participants in the control condition had significantly lower sentence comprehension efficacy scores than their counterparts in the ‘high dyslexic performance’ condition \((p<0.005)\) and significantly higher scores then those in ‘high non-dyslexic performance’ condition \((p<0.005)\). Sentence comprehension efficacy score for non-dyslexics in the ‘high-dyslexic’ or ‘high non-dyslexic’ performance conditions did not differ significantly from controls.

**Discussion**

Recent interest in the labeling of disabilities in education has prompted arguments both advocating and dismissing their use. However, little research has been conducted into their influence on academic outcomes. A review of social identity and self-efficacy theories suggests that disability labels could influence a student’s academic achievement, through in-group identification increasing a model’s influence on self-efficacy. Therefore, the study’s primary aim was to investigate if social identity influences students’ self-efficacy.

The study’s results provide mixed support for the two hypotheses explored. Knowledge of in-group performance caused predicted directional differences in all efficacy measures for dyslexic students, thus supporting H1. The identified effect of social identity on dyslexic students’ self-efficacy can be interpreted as social identity increasing a model’s influence on efficacy beliefs as in-group performance was manipulated. Research has demonstrated that the attribute similarity of a model will increase the model’s influence on efficacy beliefs (Schunk & Hanson, 1985). Findings from the dyslexic participants in the present study support this. Furthermore, the results presented here suggest that attribute similarity influence is the result of in-group identity and subsequently social projection, thereby providing a theory-based path for model similarities’ influence on self-efficacy over that of over-generalisation (Bandura, 1997). Bandura’s (1997) superficial explanation of over-generalisation is a prime example of the self-efficacy construct being conceptualised as independent of the social environment, an approach that has been criticised (Markus & Kitayama, 1991). Findings from the present study support such criticisms.

Non-dyslexic participants produced inconclusive support for H2. While descrip-
tive analysis of data showed those in the high-dyslexic performance condition, compared to controls had a reduction in test, and sentence comprehension efficacy scores, and that non-dyslexic participants high non-dyslexic performance condition also showed an increase in scores for both efficacy measures in the high dyslexic performance condition, compared to control. A reduction in efficacy beliefs for the academic test as a whole was the only significant difference found. Despite this, the findings do not necessarily contradict the influence of social identity on self-efficacy, as the lack of significant differences found can be attributed to both the small sample size used and stereotyping of out-group members.

Social identity predicts that in-group identification uniformly causes the stereotyping of out-group members (Abrams, 1990). Dyslexia is stereotyped as being academically adverse (Hunt, 2006). Therefore, it is likely that some non-dyslexic participants viewed dyslexic out-group members as being prototypical of such stereotypes. This would result in some or all, non-dyslexic participants assuming dyslexic academic performance should be inferior. For those participants when high non-dyslexic performance was reported it was not interpreted as, high non-dyslexic performance per se but as typical poor dyslexic performance. It is likely that this undermined any increases in non-dyslexic efficacy beliefs thorough superior non-dyslexic performance on the academic tasks.

Considering the small number of participants pre-condition perhaps the significant differences found could be indicative of the influence social identity has on self-efficacy, when disability labels are used. Self-categorisation theory suggests that a social identity becomes apparent through depersonalisation. Depersonalisation is furthered by the emotional salience of a category (or a social identity) (Turner, 1987), along with the ease with which it is retrieved from memory (Hogg & Williams, 2000). It is clear that a dyslexic social identity is of more significance and thus more accessible in memory of dyslexic students than a ‘non-dyslexic identity’ of students with no SpLD. Differences in case dyslexic and non-dyslexic social identities are adopted could have undermined the influence of in-group performance on non-dyslexics’ efficacy beliefs, particularly when taken into account the number of participants per-condition.

A larger sample size would have also permitted the study to investigate if the differing self-efficacy scores where linked to academic performance. With larger numbers, an effect would have been likely, as self-efficacy’s influence on academic outcomes is widely reported (Pajares, 1997; Zimmerman, 1996, 2000).

Descriptive statistics showed that self-efficacy scores were mirrored between dyslexic and non-dyslexic participants. This interaction could not be elaborated past a general trend because the study’s use of between-subjects design precluded adoption of an ANCOVA. An ANCOVA would allow relative comparison between the dyslexic and non-dyslexic cohorts by controlling for pre-existing covariate differences. To compare dyslexic and non-dyslexic cohorts it would have been crucial to control for prior differences between groups, as academic self-efficacy varies between dyslexic and non-dyslexic students (Gresham et al., 1988). For an ANCOVA to be adopted the study’s design would have to of been within-subjects.

While self-esteem is not predictive of academic outcomes a correlation between self-esteem and self-efficacy has been reported (Lane et al., 2004, Saracoglu et al., 2001), and despite causality being disputed, several authors have suggested that self-esteem mediates self-efficacy (Dodgson & Wood, 1998; Lane et al., 2002). Consistent with social identity theory, self-esteem is the motivational influence for group adherence, and is linked to in-group evaluation (Abrams, 1990). Therefore, the past performance of in-group members may have influenced group evaluation, subsequently...
influencing self-esteem. Because, the use of dyslexic and non-dyslexic labels caused a high level of fit for these social identities participants self-esteem is unlikely to have been improved through their group identity, therefore, self-esteem was manipulated by past in-group performance. This may have, in turn, influenced self-efficacy. This alternative explanation of findings cannot be ruled out as no measure of self-esteem was taken.

Regardless of the path of mediation, a relationship between past in-group performance and self-efficacy has been demonstrated in dyslexic students. Therefore, the wider implications of this study are potentially quite significant. Indirectly it has been demonstrated that dyslexic students may adhere to such a social identity and, furthermore, this identity can influence self-efficacy, which is likely to influence academic performance (Pajares, 1997; Zimmerman, 1996, 2000). The study’s findings, therefore, suggest that dyslexic labels can perpetuate environmental barriers that lead to exclusion, hence criticizing their use in education. The conclusions drawn here may translate to other categories of SpLD’s as all SpLD show some level of impaired academic performance.

In conclusion, the influence of social identity on self-efficacy was supported by data obtained from dyslexic students. Retrospective theoretical analysis suggests that inconclusive findings from non-dyslexic students can be explained through the social identity framework. Hence, findings have noteworthy implications for both theories along with important consequences for disability labels in education. Due to methodological limitations and possible alternative theoretical explanations of the study’s findings, the study’s main conclusion is the importance of expanding the findings demonstrated.

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References


