The implementation of Lego®-Based Therapy in two English mainstream primary schools

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Small-group interventions are often used in schools to support the development of children’s social skills. One such intervention, Lego®-Based Therapy (LBT), is increasingly popular internationally in schools. Although LBT has an emerging evidence-base, there is limited research exploring effective LBT implementation. An in-depth, exploratory multiple-case study design was used to explore the process of LBT assimilation in two English mainstream primary schools which were considered to have implemented LBT effectively and reported positive programme outcomes. Data collection was through structured observations and semi-structured interviews based upon Durlak and DuPre’s (2008) established implementation framework. Transcripts were subjected to Hybrid inductive–deductive thematic analysis used to identify themes which were triangulated with observation data. The data largely correlated with the Durlak and DuPre (2008) framework, identifying key themes of: provider characteristics, characteristics of the intervention, organisational capacity and the need for a support system when implementing the intervention. Themes of facilitator factors and participant responsiveness emerged inductively, suggesting that a revised model of implementation is required for LBT. Recommendations include calling for EPs to use models of implementation when working with schools, as a cyclical, iterative process to promote positive outcomes and, therefore, cost-effectiveness of school investment in interventions. Limitations and future research are discussed.

Introduction

It is widely accepted that social competence correlates with later life outcomes in mental well-being, education, employment, crime and substance misuse (Chernyshenko et al., 2018). This raises the importance of identification and intervention at an early stage of a child’s education. However, there is no agreed definition or conceptualisation of social skills, (Gresham, 2018), contributing to complexities in measuring, assessing and identifying need and progression (Wigelsworth et al., 2010). Interventions for pupils with social, emotional and mental health needs include universal intervention for all pupils. These are often curricula such as Promoting Alternative Thinking Strategies (PATHS) (see Greenberg et al., 1995) which are delivered as part of the school’s standard offer. For most children, this is sufficient. However, a small number require further, targeted support, often delivered to small groups of children based on assessed need. Schools are increasingly encouraged to adopt a systematic approach to intervention planning by using evidence-based interventions and considering implementation factors (Education Endowment Foundation, 2019).

A recent systematic literature review (2020) into the characteristics of effective small-group social skill interventions in the primary age phase (five to 11 years) suggests that despite being widely used across educational settings, these interventions are often developed independently of schools and very few are adequately informed by implementation models. One such intervention which is becoming increasingly popular in schools is LBT, a small-group, targeted intervention developed from professional practice (LeGoff et al., 2014). Although popular, LBT can be critiqued as to date a clear theory of change underpinning it has not been articulated. This is important as there is confusion as to how the intervention works and its intended impact; the term ‘therapy’ is perhaps somewhat misleading as some of the therapeutic elements are not clearly specified. It is perhaps best described as a group social skills intervention as evidence to date suggests the intervention can be effective in developing social skills. Although it is perhaps best described as a Lego-based social skills intervention, the term Lego-Based Therapy (LBT) will be used here as this is the name given to this intervention in the literature.

In LBT, pupils take one of three set roles; the Engineer, Parts Supplier or Builder. These roles have rules requiring pupils to use specific communication skills such as turn-taking, giving clear instructions, asking for clarification and help. The adult, or facilitator, scaffolds these skills to enable the group to reach a shared, motivating goal of a completed model. LeGoff et al. (2014) proposed the
following stages; check-in, rule reminder, set building, freestyle building, tidying, Lego points and farewell.

LBT was initially developed as a motivating way to enable autistic children and young people to develop their social skills (LeGoff et al., 2014). In schools, it has mainly been used with this population but has also been extended to wider groups of children who would benefit from opportunities to develop their social communication skills (Boyne, 2014). LBT is regarded as having growing practice-based evidence but is not yet considered evidence-based practice (Bond et al. 2016).

A recent literature review demonstrated that LBT could be effective in developing children’s social communication skills and concluded that further research is needed into both LBT implementation and outcomes (Lindsay et al., 2017). Given the origins of LBT in practice-based evidence, no publication to date has specified the core components of LBT or the features relating to the theory of change deemed necessary to produce desired outcomes (Blase and Fixsen, 2013). Only three of the 15 papers reviewed by Lindsay et al. (2017) assessed integrity and fidelity. Therefore, although both outcomes and implementation of LBT warrant further research, the current study focuses upon the significant gap regarding LBT implementation.

Implementation is the process of putting interventions into practice, with implementation science being exploring and attempting to explain how interventions work in real-life contexts (Kelly, 2012). Researchers have studied implementation in other services including the healthcare sector (see Greenhalgh et al., 2005) and, in recent years, interest has grown in education. This has focused particularly upon implementation of whole-school interventions, for example, the PATHS (see Greenberg et al., 1995) and Social and Emotional Aspects of Learning (SEAL) curricula (see Lendrum et al., 2013), with barriers being found at the programme, teacher and school levels. Similarly, Greenberg et al. (2005) identify classroom, school, district and community-level factors impacting upon implementation. Building on this, Durlak and DuPre’s (2008) literature review on the implementation of universal interventions proposed a widely accepted implementation framework.

In comparison, there is a scarcity of research into implementation of targeted interventions (2020), although these are often used in schools. Because implementation quality potentially impacts upon outcomes more than the programme itself (Durlak and DuPre, 2008; Snow and Juel, 2005) and variability in implementation links to variability in outcomes (Lendrum and Humphrey, 2012), it is essential to understand how small-group interventions should be implemented. One study by Humphrey et al. (2009) did evaluate implementation factors of small-group SEAL interventions and identified a range of factors specific to this SEAL. This study focused upon the role of Local Authority (LA) support for implementation, and the findings broadly fit with Greenberg et al. (2005) findings for universal interventions. However, this study explored the experiences of LA staff in implementation, and the role of the participants varied hugely, for example, educational psychologist, lead behaviour advisory teacher and consultant supporting a multidisciplinary team. It did not specifically explore implementation within the system of individual schools.

This discrepancy in implementation research of universal and targeted interventions is possibly due to the nature of universal interventions being more straightforward and ‘one size fits all’, whilst targeted interventions must meet varying and unique needs of children with additional needs and are, potentially, more complex. Small-group interventions tend to be more specialised, and the remit of a smaller group of staff which makes them potentially more vulnerable to broader school-wide changes in staffing and priorities (Bond et al., 2011). Implementation models of targeted interventions must, therefore, capture the more idiographic aspects often not prioritised within universal level frameworks (2020).

Although there is some literature to show effectiveness of LBT, a significant evidence-practice gap has emerged relating to the implementation of this intervention (Evans, 2019). Schools are being encouraged to focus more on implementation (Education Endowment Foundation, 2019) as these unpredictable and dynamic real-world contexts vary from the carefully controlled environments of empirical studies from which evidence-based interventions often arise (Kelly, 2012). This variability of implementation has a significant effect on outcomes (Durlak and DuPre, 2008) leading to calls for greater attention to implementation in educational research (Lendrum and Humphrey, 2012) and LBT specifically (Lindsay et al., 2017). This paper aims to use Durlak and DuPre’s (2008) implementation framework to evaluate the implementation of LBT as an example of a targeted school-based social skills intervention in a school context.

Method
The theoretical framework underlying the current study is primarily based upon Durlak and DuPre’s (2008) Ecological Framework for Implementation, referred to herein as the EFI model, a widely accepted model of programme implementation, which posits that various contextual factors impact upon LBT implementation in each school which may overlap and interact. The factors impacting implementation at each level are outlined in more detail in Figure 1 and were used to guide data collection during this research.

The research adopted an exploratory multiple-case study design with embedded units of analysis (UoA), informed by Yin (2014). Figure 2 illustrates the overall case study design and each UoA:
Ethical approval from the host institution was received on 7th December 2017 by the university’s research ethics committee with no further permissions required. The project was also supported by the Educational Psychology Service where the research was undertaken. Schools in North-West England were selected on the basis of meeting the following inclusion criteria: school staff participated in LBT training from the Educational Psychology Service (EPS), the school self-reported the intervention to be effective based upon their own evaluation measures, the link EP perceived the school to have implemented LBT well and multiple LBT cycles had been completed. Schools were invited to participate until two schools were recruited. School A was a one-form entry primary school of approximately 200 children. The school had well-developed nurture provision. School B was a 1.5-form entry primary school of approximately 300 children and was part of a multi-academy trust (MAT). The first author met with the school SENCOs and handed information packs for staff, parents and children. The SENCO discussed the research with all participants and passed the researcher’s contact details, before collecting written informed consent.

Semi-structured interviews and researcher observations of LBT were used to explore the UoAs and propositions. The SENCO and LBT facilitator were interviewed at each school to explore LBT implementation and delivery. Three structured observations, based upon criteria by

**Figure 2: Units of analysis**

| Context: Local Authority-wide LBT training |
|-------------------------------------------|
| **Case:** LBT within School A             |
| **UoA1:** LBT assimilation                |
| **UoA2:** LBT delivery                    |
| **UoA3:** Factors impacting LBT implementation |
| **Case:** LBT within School B             |
| **UoA1:** LBT assimilation                |
| **UoA2:** LBT delivery                    |
| **UoA3:** Factors impacting LBT implementation |
Brett (2013) and LeGoff et al. (2014), of an established LBT group, were carried out in each school. In this way, the case study synthesised data from multiple streams, incorporating a range of variables and triangulating common units of analysis.

The semi-structured interviews were directly informed by the EFI and required the interviewee to consider the process of assimilation and implementation of LBT, as well as factors which facilitated and hindered this process. The interview schedule was piloted in a school in a different Local Authority (LA), ensuring that the questions were easily understood and coherent with the aims of the study. Interviews were recorded, transcribed verbatim and subjected to hybrid inductive-deductive analysis (Fereday and Muir-Cochrane, 2006) using a codebook derived from the EFI. This process integrated data-driven codes and themes with theory-driven codes and themes, allowing for deductive data analysis whilst also enabling themes to emerge from the data.

Blind coding of a portion of the data by the second author showed broad consistency in coding between the researchers, and data which were not adequately represented in the EFI were coded inductively by both authors.

Interview and observation data from each school formed individual case reports before a cross-case synthesis (Yin, 2014) was carried out.

Results

The results suggest that many EFI elements were also key implementation factors at the case study schools, with additional factors arising inductively. This summary focuses on the most salient aspects of EFI and additional delivery factors which appear to be relevant to targeted intervention (a more detailed mapping of the data onto all EFI dimensions is presented in Evans, 2019). The themes follow the EFI structure in Figure 1, highlighting inductively generated themes and discrepancies between the data and the EFI accordingly. No data were found to support implementation factors at level 1 of the EFI (community-level factors). Therefore, the summary begins with EFI dimension 2.

Provider characteristics

Data relating to perceived needs and benefits of LBT were inextricably linked, possibly due to the schools perceiving LBT as effective, meaning perceived benefits met perceived needs. Rather than viewing needs and benefits separately, as presented in the EFI, the current data suggests these factors should be viewed as ‘tension for change’. Although staff identified that LBT linked broadly to ‘the needs of the school’ [SENCO, School A], only the SENCO at School B specified that LBT addressed a gap in provision for pupils without a diagnosis of autism who might ‘not have a lot of intervention or one-to-one support’. A range of individual needs was identified that could be met using LBT including social communication skills, motor skills, emotional and language needs. Although this needs-led approach allowed flexibility in participant identification, variations in need being addressed may hinder impact evaluation.

A range of facilitator level factors impacted upon LBT implementation. Data pertaining to facilitator self-efficacy and skill proficiency were highly linked. Both facilitators were confident, reflective and demonstrated high-quality delivery during observations. However, they did question their ability to deliver the intervention with fidelity; ‘I think it was a confidence thing … like ‘am I doing this right?’’ [Facilitator, School B]. This tended to relate to specific skills required to facilitate LBT effectively such as skilful mediation; ‘you try not to [intervene] because they’ve got to do it themselves haven’t they? Unless they get very, very frustrated and then you can step in maybe a little bit.’ [Facilitator, School A].

Characteristics of the Intervention

Many aspects of this EFI element were identifiable within the data. LBT was reported to be compatible with the mission and ethos of enjoyable learning experiences at each school: ‘it’s good fun for them, I mean what intervention can you go and say to the children “it’s Lego group”? [and they reply] “Yes! It’s Lego group!” ’ [Facilitator, School A]. The facilitators also valued the low complexity and high generalisability of LBT, stating that the ‘whole point…is to take it back to the classroom’ [Facilitator, School A]. LBT was perceived to be socially valid with generalisation opportunities outside the intervention; ‘you feel like you can bring it back to a scenario maybe, “do you remember when you need to explain yourself [in Lego group]?”’ [School A]. Conversely, promoting awareness of pupils’ skill development within LBT across all staff could be ‘a battle’ [SENCO, School B] because, due to the appealing play-based nature of the intervention, some staff perceived LBT as a reward rather than an intervention.

References were also made to the adaptability of LBT. Although originally designed to promote social competence in children with autism, the target population varied in both schools. A significant adaptation was made in School A where the freestyle component was omitted due to timetabling restrictions. Frequent adaptations were made to the intervention according to the needs and interests of the children in the groups;

I wouldn’t say that every Lego group I’ve done has worked exactly the same because…we go off the majority of what they want so it’s adapted to what they like. [Facilitator, School P]

Adaptations were made to the reward systems, visual prompts available to pupils and set selection based upon children’s interests and motor skill ability.
Prevention delivery system: organisational capacity

A range of references to the integration of LBT with current provision was made. Financial implications seemed significant in School A where the SENCO reported that, following cuts, she required a ‘strong rationale’ for the facilitator, an experienced teaching assistant (TA), to be out of class. In contrast, School B’s SENCO emphasised ease of resourcing rather than budgeting difficulties, possibly because the MAT benefitted from pooled resources. Temporal and special resources also impacted upon LBT implementation; although School A had a specific intervention room, timetabling often interfered with classroom activities. The SENCO at School B described facilitators who just delivered LBT having it ‘built into their timetable’. However, for facilitators who were also classroom-based staff, it was important for ‘the class teacher to be on board’ [SENCO, School B].

Similar to the EFI, specific practices and processes were identified as impacting implementation. However, whilst the EFI emphasises shared decision-making, the participants in this study sought to balance joint decision-making and autonomy. Whilst both SENCOs referred to giving facilitators a high level of autonomy supported by regular liaison, this perception was not always held by facilitators. School A’s facilitator reported that the SENCO identified group participants in collaboration with parents. Communication was a core factor in balancing autonomy and joint decision-making. Frequent but ad-hoc, as well as formal communication, between the facilitator and SENCO was described in School A, whilst in School B this was more formalised, possibly due to the SENCO role spanning multiple schools. Both schools linked communication with evaluation and monitoring:

any situation has to be communicated...we assess every child with teachers. [SENCO, School A]

Communication with teachers and parents promoted generalisation of skills. Communication with pupils appeared to be lacking, with the facilitator in School A stating that not all children were aware of their targets.

As in the EFI accountability, monitoring and evaluation were commonly cited by staff at both schools as impacting implementation. Two foci of evaluation emerged for the SENCOs: children’s progress and evaluating implementation, whilst both facilitators focused upon the day-to-day running of the groups. Both schools expressed a lack of confidence in their current evaluation systems. The SENCO in School A referred to lack of criteria for ceasing LBT: ‘I suppose if we look at [child], I’d say he doesn’t really need to go now but if we take it from him, could it rock the boat?’. She planned to improve this by involving TAs in intervention reviews to promote accountability. Similarly, the SENCO at School B commented that they ‘need to look at a better way of recording’.

Whilst the EFI highlighted the importance of leadership, the current data suggests that the SENCO advocating for facilitators was also important, highlighting the impact of staffing considerations such as leadership and advocacy. In School A, this bridged the senior leadership team (SLT), who make systemic decisions, and the facilitators, who make day-to-day decisions:

unless you’ve got a voice in SLT in order to provide time for you, then it doesn’t happen. [SENCO, School A]

Complementing effective leadership, both facilitators assumed a champion role. The facilitator in School A summarised: ‘I’m very enthusiastic about it, I think it’s very good’. This was supported by the SENCO’s description of the importance of the champion: “[Facilitator] believes in it and she drives it for me”. Likewise, the SENCO in School B reported that the facilitator ‘manages it really well...she’s great at delivering it’.

Factors relating to the prevention support system

Training and post-training technical assistance, identified in the EFI, was evident in the data. Both schools reported receiving high quality, experiential LBT training to promote their skill-proficiency and self-efficacy. Both facilitators highlighted the importance of experiencing ‘how hard it was to communicate without actually being able to point’ to the pieces. [Facilitator, School B]. All interviewees highlighted post-training support in relation to skill proficiency and the process of assimilating LBT. School A referred to reviewing LBT implementation with the school EP, balancing dosage with timetabling:

in consultation with the EP, she said once a week is OK, so we adopt once a week now. [SENCO, School A]

Linking to their management roles, both SENCOs reflected upon the need for a ‘further round’ of training due to staff turnover.

Not explicit within the EFI, both schools emphasised the importance of peer support in effective implementation. The SENCO in School A reported staff feeling ‘nervy...because they need a bit more practice’ and viewed her role as encouraging them to observe each other. In School B, peer support developed between the learning mentors in the MAT who were able to ‘fall back’ on each other.

Additional factors impacting targeted interventions

Not explicit within the EFI but identified in the data were the processes of informal diffusion and planned
dissemination. Informal diffusion, or the incidental acquisition of knowledge, occurred when both SENCOs heard about LBT at a conference. The SENCO in School A described this to the Facilitator and, together, they decided to ‘give it a go’ whilst the SENCO in School B ‘thought this would be great for our kids and we then asked [EP] to come in and run some sessions’. Following this was a planned and intentional process of assimilation of LBT into school provision. The SENCO at School A described the cyclical process:

phase 1 – get [LBT] established, workable. Phase 2 – bring some more TAs on board

Both schools referenced ‘trialling’ LBT [Facilitator, School B] with different groups of children in order to refine their skills and a phase of ‘practising on each other’ [SENCO, School A] which allowed staff to build skill proficiency.

Finally, both schools highlighted the need to consider children’s responses to LBT when planning, delivering and evaluating LBT. The facilitator in School B commented that ‘most importantly the children enjoy it and they don’t see it as work’ but it was essential to consider the group dynamics:

on paper you think, ‘that group would work well together,’ but knowing the children and how they react, is completely different.

However, some disagreement was required in the day-to-day group for social problem-solving opportunities:

they’ll have a little argument…but eventually they decide between themselves. [Facilitator, School A]

Although participant responsiveness forms one aspect of implementation (Dane and Schneider, 1998), Durlak and DuPre (2008) specified that it was not a focus of their literature review, therefore, was not represented in the EFI, possibly being more salient with group rather than universal interventions, as highlighted by this study.

Discussion

This exploratory case study examined the assimilation and implementation of LBT for social skills development in two schools which self-reported positive programme outcomes. The discussion begins by summarising key factors in targeted implementation of LBT before evaluating how effectively these are represented by the EFI model. Implications, limitations and directions for future research are considered.

Key factors in the targeted implementation of LBT

Implementation in both schools was a carefully planned process, encompassing informal diffusion and carefully considered assimilation through training, piloting and evaluation (Greenhalgh et al., 2005; Rogers, 2003). The current study is unique in that it offers a retrospective exploration of effective assimilation and ongoing implementation; whereas, most previous LBT studies consist of outcome evaluations (Lindsay et al., 2017). Several key factors related to the EFI appear particularly salient to LBT and are discussed below.

In relation to selection for LBT, children with social skill and other identified needs, including autism, participated. This differs from the findings of previous LBT research, given that all 15 studies reviewed by Lindsay et al. (2017) and Cheng’s (2016) doctoral thesis targeted participants with autism. In both schools, staff perceived LBT to have the potential to address a wider range of needs than autism. This may also reflect the challenges of identifying very specific groups of pupils for interventions in relatively small schools whilst also ensuring effective use of staff.

Staff training in LBT, focusing upon achieving skill proficiency and self-efficacy, was important given that a trained member of staff facilitated LBT in each school. Only five of the 15 studies in Lindsay et al.’s (2017) review were facilitated by a member of staff despite school staff implementation having many potential benefits (Paulus et al., 2016). Although fidelity measures were not reported, both facilitators referred to adapting LBT. Similarly, Brett (2013) reported the omission or reduction of the freestyle component. Although no core components of LBT have yet been identified, adaptations are inevitable and impact upon outcomes (Durlak and DuPre, 2008), and the quality of implementation and types of adaptations (Lendrum and Humphrey, 2012) should be monitored given that schools are increasingly encouraged to address implementation (Lyon, 2018).

Careful selection of schools which prioritised the delivery and implementation of LBT with established infrastructures to support this enabled identification of implementation factors with minimal interference from competing factors. Like Lendrum et al. (2013) and Greenberg et al. (2005), a range of factors at different levels interacted to influence LBT implementation. This included characteristics of LBT, relationships and communication between staff, home–school collaboration and, similarly to Humphrey et al. (2009), the importance of EP support in training and technical assistance. The interviewees described staff and parents perceiving LBT to be effective, as found by LeGoff (2004) and Evans et al. (2014), respectively, facilitating the maintenance of LBT. There also appeared to be a careful balance between autonomy and shared decision-making, and between empowering leadership and sensitive management, contributing to a positive ethos for change and intervention maintenance. This has not been found in prior LBT literature, possibly because most studies have focused on quantitative outcome measures. The SENCO and champion roles appear to be key,
supporting Roger’s (2003) notion of opinion leadership exerting frequent influence on others’ opinions.

In summary, the process of implementation must be done with consideration of key factors (Lendrum and Humphrey, 2012). However, this has cost implications for schools, which can be a challenge for sustaining group interventions (Bond et al., 2011).

Applicability of the EFI to inform the implementation of targeted interventions

The lack of absolute fit with the EFI could be attributable to its derivation from literature exploring universal level implementation. Although the current study suggests that factors impacting the implementation of targeted interventions may be like those for universal interventions, the context and scale of targeted level work is different, and therefore, the range of factors may differ. Whilst factors at the universal level focus upon the needs of the school, targeted interventions address the needs of pupils for whom the universal provision alone is insufficient. Therefore, it is not possible to simply transpose implementation factors at the universal level to targeted intervention.

A further factor relating to differing scale between universal and targeted interventions relates to participant identification. Clearly, this was not represented within the EFI as universal interventions require no participant selection. However, to achieve desired programme outcomes, it is crucial to select participants with needs for which the intervention will be valid. In an outcomes-driven system, it is essential that schools have effective ways to do this (Evans & Bond, 2020; Gresham, 2018). Difference in scale will also heighten the importance of participant responsiveness in targeted compared to universal interventions, requiring more skilled planning and management by the facilitator. The data suggests that there are potentially more diverse adaptations made in response to pupil identification and responsiveness at the targeted level which will require further exploration.

The nature of dissemination and delivery differing between universal and targeted interventions could be another contributing factor for the lack of fit with the EFI. Universal interventions are usually introduced by senior leadership teams with a whole-school mandate, often with teachers as the primary deliverers, with the strategic focus being upon fidelity and consistency between classes (Lendrum et al, 2013). In contrast, teaching assistants often champion and deliver targeted interventions in collaboration with the SENCO, so their strategic role focuses upon promoting social validity and generalisation opportunities. As the current data suggests, one risk with targeted interventions is that they are seen as a reward or not deemed important, risking abandonment or lack of generalisation (Bond et al., 2011). This is likely to be a key factor given that the skills and key messages in targeted interventions are less likely to permeate to all staff in the way that would occur for universal interventions, for example, by way of posters in the PATHS framework (Greenberg et al., 1995).

The importance of facilitator peer support was also raised, ensuring that the intervention has enough critical mass to be sustained. This is less important at the universal level given that all staff are involved in these interventions. Given the lack of fit with the EFI, a model such as Greenhalgh et al. (2005) may hold promise for developing a model of implementation for targeted level interventions.

Implications, limitations and future research

The findings indicate that implementation models do not currently inform the adoption of LBT in mainstream primary education. This paper contributes to the growing call for EPs to use implementation frameworks, such as the EFI, to guide the process of implementation of universal and targeted interventions. The research raises the importance of intervention developers identifying the programme theory underlying interventions, possibly working alongside schools, to develop and test a theory of change to support effective implementation (Evans, 2019) which in turn underpins effective outcomes (Snow and Juel, 2005). This would go some way to addressing the lack of programme theory in more targeted areas such as autism-specific interventions (Vivanti et al., 2018).

Specifically for LBT, EPs must support school staff such as SENCOs in their strategic role. This includes developing training models and post-training technical assistance in areas such as participant selection and longitudinal evaluation (Evans, 2019) which should include evaluating the impact of adaptations (Lendrum and Humphrey, 2012). In light of previous research, the findings demonstrate that although validated procedures for developing and evaluating social skill interventions exist (Lane et al., 2005), these are procedurally focused and not explicitly guided by more holistic implementation models. The current research goes some way to addressing this gap by outlining key aspects of implementation for schools to consider when assimilating and implementing and evaluating LBT.

Although multiple-case studies utilising a literal replication design are considered robust (Herriott and Firestone, 1983), only two cases were explored. Six replications using a two-tail design might offer more certainty (Yin, 2014). The nature of schools self-selecting as using LBT effectively, rather than basing this upon reliable outcome measures, is a further limitation of the current study. Finally, despite positive participant responsiveness being described, pupil voice was lacking in the data. Brett (2013) explicitly sought pupil voice, suggesting modifications to promote motivation based upon their views. Given that children have the right for their opinions to matter in decisions which impact them (Lansdown, 2011), it could be argued that pupil participation in this model,
through their active involvement by amending it to reflect their opinions, is a first step.

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