How teachers' inclusionary and exclusionary pedagogical practices manifest in disabled children's uses of technologies in schools.

Abstract

There has been much debate in recent years about how to promote regular and effective use of digital technologies for learning in schools. Alongside this, there has been much critique of how inclusive education policies are enacted in schools, often said to amount to little more than integration rather than inclusion. This paper will bring these debates together by exploring pedagogical practice in relation to digital technologies and inclusion. It will draw on a wider project carried out with visually impaired children as an illustration to investigate how disabled children use and experience digital technologies to learn. In particular it will consider teachers' inclusionary and exclusionary practices with technology to understand the implications. It will call for teachers to be supported further to develop inclusive digital pedagogy.

Introduction

This paper brings together two different agendas apparent in many of today's schools. On the one hand, digital technologies are said to have the potential to enhance teaching and learning, on the other, educational policies commit schools to being inclusive. The ideal scenario therefore would be that class teachers develop digital pedagogies that meet the needs of *all* children in their classes. The reality may be somewhat different, however, with many teachers limited in their expertise to, firstly, regularly use digital technologies effectively to enhance teaching and learning (Blikstad-Balas & Davies, 2017; OECD, 2015); and, secondly, to develop inclusive pedagogy (Cameron, 2014; Moore & Slee, 2012). The outcome of teachers' lack of expertise in both areas may be that teachers continue to use digital technologies in limited, ineffective ways and rely on adjunctive support from teaching assistants to support disabled children in situ.

In light of this, this paper will draw on a participatory research project which took place in the North West of England to explore disabled children and young people's uses and experiences of digital technologies for learning (Removed for review process). Visually impaired children were included in the project as an illustrative case along with interviews with their class teachers, teaching assistants (TAs) and qualified teachers of vision impairment (QTVI). This paper will draw on the data to explore how teachers support disabled children to use digital technologies and how inclusionary and exclusionary pedagogical practices are manifested in these activities.

Background

It has been established that digital technologies have potential benefits for learning (Livingstone, 2012). Nevertheless, uses in schools may be somewhat limited and inadequate because teachers may lack the training, expertise and confidence needed to use them effectively (Brečko, Kampylis, & Punie, 2014). Inclusion in schools remains highly problematic. Recent policy has reinforced earlier legislation stipulating that disabled children should be included in mainstream schools when possible (Council for Disabled Children, 2014), but recent research shows that in practice, integration is more likely to happen in schools than inclusion (Cameron, 2014). Moreover, recent research has called into question teaching assistant roles and the implications of current organisation in schools to support disabled young people. Prevalent structures have been found to contribute to exclusionary practices, questionable pedagogy and loss of independence for disabled children (Webster & Blatchford, 2018).

In relation to disabled children's uses of digital technologies for learning in schools, research is limited generally and particularly with regard to inclusion (European Schoolnet, 2014; Passey, 2013). This has resulted in a situation where the potential opportunities of digital technologies for disabled children are relatively unclear and teachers lack both the training and guidance to develop digital pedagogy in inclusive ways (European Schoolnet, 2014).

The contribution of this paper therefore is to consider how teachers support disabled children's learning in mainstream schools within the context of inclusive education policy and briefly consider the implications of these findings.

Methods

A participatory, in-depth qualitative case study approach was adopted to investigate disabled children's uses of digital technologies in schools. The participatory approach was crucial to address the lack of research that takes account of disabled children's voices (McLaughlin, Coleman-Fountain, & Clavering, 2016); and enabled by developing inclusive questions and data collection tools and methods, analyses and reporting. Draft reports were shared with the children and teachers who took part in the study and comments integrated before finalising. Children and young people aged 13-17 were recruited in three secondary schools via the Vi-forum, a UK Government Department for Education hosted discussion group. Data was collected between 2014-2015; three follow up interviews were carried out with teachers (two QTVI and one TA) in 2017 to understand how the situation in schools might have changed.

Semi-structured interviews were carried out with seven children in three schools and observation took place of each young person in the classroom, where possible, to gain authentic exemplar of digital use practices in situ; noted by hand to capture learning activities, digital use practices, opportunities/barriers to using digital technologies and support available. Further semi-structured interviews were carried out with class teachers (CTs)/qualified teachers of children with vision impairments (QTVIs)/teaching assistants (TAs). This process of triangulation was useful to build up a detailed and comprehensive picture of the situation. Analysis involved a number of stages. Interviews were transcribed and common themes were identified across the sample drawing on grounded approaches to qualitative data analysis (Charmaz, 2006). Codes were refined and data systematically coded into themes. Observational data were described in order to provide authentic accounts to triangulate with the interview data thereby adding detail and reliability to the reporting. The complete systematic analysis was reported (see removed for review process, 2017). In this paper, the observational data has been foregrounded through the selection of two cases that show contrasting examples of exclusive and inclusive digital pedagogy. These selections are underpinned by thorough analysis of all data collected for the project.

Results

It was evident in the observational data that clear differences existed between how class teachers approached inclusion manifested through digital pedagogy. The two instances here illustrate authentic, indicative examples of contrasting pedagogical approaches. Both examples show mobile devices being used to improve disabled learner's access to the curriculum, but there are clear differences in relation to inclusionary/exclusionary practices. The exemplar will be followed setting out brief implications of these instances as drawn from the data.

Example 1

This observation took place in an English lesson in School A focused on teaching about 'inferences' in literature. The teacher wrote on a whiteboard. The only digital technologies used in the lesson were those deployed by Fern, age 14, who is equipped with an HP Envy (a laptop with detachable screen). One teaching assistant was present. One of the activities included students reading from the board. Recognising that Fern could not see the board (although she was seated at the front of the class) the teaching assistant walked from the back to the front of the class, detached the HP Envy screen from the laptop and took a photo of the whiteboard. He returned this to Fern and she enlarged the image on the screen at her desk so that she could see it.

Example 2

The observation took place in a French lesson (School B) focusing on teaching food and drink vocabulary. One teaching assistant was present. All of the children had been provided with iPads

through a school ownership scheme. The teacher positioned himself near to Nigel, age 13, and called out words in French, jotted down on a mini whiteboard near enough to Nigel for him to see. The task was to incorporate these words into sentences to be spoken out loud in French by puppets using Puppetpal and Sockpuppets software. Both of these allow children to speak sentences into an app which then get automatically lip-synched to the puppets and spoken out loud.

Implications for disabled young people

The examples above are drawn from two schools to demonstrate findings indicative of the wider project. They reflect other established research in the field showing that teachers adopt a range of approaches to inclusion along a spectrum with many teachers unequipped to teach inclusively (Cameron, 2014). Furthermore, these instances provide examples of how inclusionary/exclusionary digital pedagogical practices are manifested in classrooms.

In the first example, it is notable that the teacher has not planned the lesson inclusively and instead relies on teacher assistant support. The impact for the young person of this may be loss of learning independence. Moreover, being the only person in class using digital technology can be stigmatising, especially when the TA has to step in. Fern said that she is sometimes bothered by this: '[…] coz like I feel like everyone's looking at me, because I have it and like.' The teaching assistant echoed this and said that a situation like this is frustrating; a key challenge was: […] Getting across to the teachers what the students, visually impaired, what they can and can't see'. In the second example, the class teacher has taken inclusive pedagogy on board and works closely with the teaching assistant ahead of the class and adapts his own teaching to be more inclusive. He said: '[…] we've worked out a system, myself and his TA whereby we have adapted the media and the software that we've got available and the books, so that he can have access.' Presumably this results in a more inclusive and independent experience for the learner.

Discussion

This paper has shown brief examples of how uses of digital technologies in classrooms can result in inclusionary and exclusionary digital pedagogy through the adoption of different approaches by class teachers. In the first example, the class teacher relies completely on the teaching assistant to support a disabled learner; in the second, the teacher has embedded inclusive digital pedagogy into their practice. Both uses of digital technologies are positive but these examples show how one can enhance inclusion; the other undermine it. Clearly teachers need to have access to further training in both initial teacher education programmes and through continuous professional development if they are to embed digital technologies into their pedagogy in inclusionary rather than exclusionary ways. The full paper will explore these issues further (bringing in more of the interview data) and make recommendations about what needs to happen in order to fully realise the potential for digital technologies to support inclusion for disabled children.

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