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TEACHING ASSISTANTS' PERSPECTIVES OF DEAF STUDENTS' LEARNING EXPERIENCES IN MAINSTREAM SECONDARY CLASSROOMS

Jackie Salter
The School of Education, University of Leeds, Leeds, West Yorkshire, UK
j.m.salter@leeds.ac.uk

Sue Pearson
The School of Education, University of Leeds, Leeds, West Yorkshire, UK
s.e.pearson@leeds.ac.uk

Ruth Swanwick
The School of Education, University of Leeds, Leeds, West Yorkshire, UK
r.a.swanwick@leeds.ac.uk

Abstract

This study aims to investigate the teaching assistants' perspectives of deaf students' learning experiences within a mainstream secondary school. The majority of deaf students in the UK are educated within such settings and they continue to underachieve in all curriculum areas when compared with their hearing peers.

A qualitative, collaborate methodology was developed that facilitated a trustworthy method to collect data that accurately represented the teaching assistants perspectives. Consideration was given to how the teaching assistants talked about learning and the challenges they perceived the deaf students encountered in the classroom as a result of their deafness. This paper presents one of the early findings which indicates deaf students learning in a mainstream setting is may frequently be different from that experienced by their hearing peers.

The teaching assistants described a range of challenges that related to the students' knowledge acquisition, skills and mental state along with the environmental factors they perceived impacted on the students' learning experience. From this perspective the findings indicate that deaf students may be engaged in a significant amount of accommodative learning, as opposed to assimilative learning, in secondary classrooms.

This study is the first of its kind in the UK to investigate deafness and learning in mainstream secondary schools with a specific focus on the perspectives of teaching assistants who support these students. The collaborative methodology provides a new approach to investigating the functional learning of deaf students in order to inform educational support practices and develop new understandings of learning.

Introduction

Learning in a mainstream school presents a number of challenges for deaf students that may contribute to underachievement. In 2013 just 37.7% of UK deaf students, identified as requiring additional support within their school setting, gained the highest expected level of academic qualifications for 16 year olds, in contrast to 58.8% of the general school population (Department for Education, 2013).The wider study, from which this paper reports, investigates the learning experience of deaf students educated in mainstream secondary schools in the UK. The term deaf student refers to a child within any level of hearing loss that impacts on their ability to hear spoken language within any settings. Approximately 84% of the cohort is educated in mainstream schools (CRIDE, 2013) and those deaf students that require additional support will receive visits from a peripatetic teacher of the deaf as well as regular support from a teaching assistant . The teaching assistant may provide assistance in class and individual intervention sessions and they may have more extensive experience of deaf students' learning experience than the subject specialist teachers. It is from the teaching assistant perspective that the investigation was conducted and in particular posing the question "What challenges do teaching assistants describe deaf students experience in mainstream classrooms?"

Deaf students' learning

The majority of research into the learning of deaf pupils has adopted an empirical approach and been seated within cognitive and psychological fields. A significant amount of the research has considered the development of language skills, the use of different modes of communication and how these influence cognitive processes, knowledge acquisition and skill development. Most deaf children are born with the same physical and psychological capacities as their hearing peers although there are a higher proportion of deaf children born with additional learning needs than in the general population(Fortnum and Davis, 1997; Wiley et al., 2011).Deafness does however impact on early life experiences which leads to variance in brain and psychological development (Marschark and Hauser, 2012) and whilst technology may provide a deaf child with access to spoken language it does not change them into a hearing child. They remain deaf and this has significant implications for their education within mainstream schools (Archbold, 2010; Stinson and Kluwin, 2003).

The study investigated deaf students' learning experience within in the context of a mainstream classroom environment and it was necessary therefore to adopt a theoretical approach that would provide a holistic view to bring into focus both the internal processes and external factors involved in deaf students' learning. Such theoretical perspectives have emerged within the field of adult learning and embrace the life experiences of the adult as an important factor that shapes subsequent learning (Jarvis, 2006; Illeris, 2007), . The early experiences of deaf children are known to influence their ensuing learning and therefore the use of a holistic theoretical approach with secondary age pupils, who will bring at least eleven years of life experience to their learning in the classroom, appears appropriate.

Mainstream Secondary Classrooms

Mainstream secondary classroom environments are constructed to deliver a subject based curriculum that will ultimately enable students to pass exams. With classes of twenty five or more students, teachers need to make assumptions regarding the knowledge, experiences and skills the body of students bring to the classroom in order to plan their lessons. Teachers may adapt and differentiate their curriculum delivery to endeavour to accommodate a range of

differences between the individual students. However for those students whose knowledge, experience or skills differ significantly from their peers it is likely they will experience challenges learning alongside their peers and may be identified as having special educational needs. Many of these students, including many deaf students will be allocated the additional support of a teaching assistant. The perspectives of teaching assistants who support deaf students has not previously been investigated in developing our understanding of the students' learning experiences and may therefore provide new insight. As there is no requirement for teaching assistants to have undertaken any training or gained any specific qualifications in respect of the role it was important to consider how they talked about learning before reflecting on the challenges they described deaf students experiencing within the mainstream classroom. This presented an important question that was considered extensively in the study: "What language and terminology do teaching assistants use to talk about learning?". The analysis and results provided a context from which to consider the challenges the teaching assistants described students encountered and is reported in detail elsewhere.

Methodology

In the absence of any previous studies that explored teaching assistants' perceptions of classroom learning experiences, the third key research question addressed the development of a methodology that would facilitate the generation of data that accurately and trustfully represent the teaching assistant perspective. The resulting methodology involved a three stage action research cycle involving two groups of teaching assistants all of whom supported deaf students within mainstream secondary second settings. Six teaching assistants form the Data Group were engaged in three focus group discussions and twelve individual interviews the transcripts of which provide the core data. The remaining four teaching assistants formed the Consultancy Group and strengthened the trustworthiness of the data through a review process at each cycle of the research. The core data was also triangulated using data collected during individual interviews with the mainstream teachers, deaf students and teachers of the deaf who worked with Data Group teaching assistants.

The Analytical Framework

In order to examine the internal processes and external influences that generate the deaf students' learning experience the investigation turned to a theoretical framework, the Complex Learning Model (CLM), developed by Illeris (2006) whose work is situated within the field of adult learning. The CLM developed over many years provides one way of reflecting on the interaction of internal and external factors that are involved in the holistic learning process. Illeris identified three dimensions of learning he labelled as: Content, Incentive and Interaction that occur within a Social Situation that is embedded within a Societal Situation. Content and Incentive encompass the internal processes, these are connected with the external influences from the Social and Societal Situation through Interaction. See Figure 1

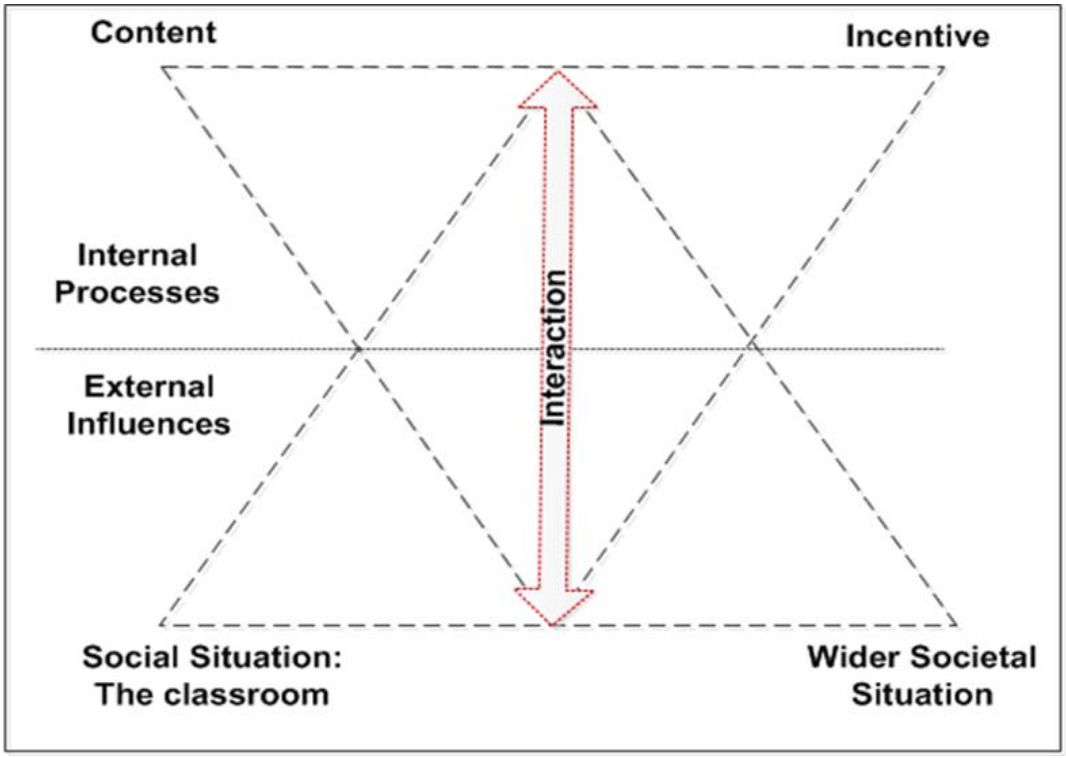

Figure 1 Complex Learning Model (Illeris, 2006)

Content and Incentive embrace the internal processes of learning. Content refers to cognitive function, knowledge, the construction of meaning and the development of abilities and skills. Incentive, or the body and mental balance that facilitates effective learning, combines emotions and feelings such as motivation, and confidence with physical well-being such as being warm, comfortable, alert and not hungry.

The external influences on learning are represented by the Social and Societal Situations. In this case the mainstream secondary classroom provides the social situation and incorporates factors such as the organisation, management, structure and culture of the classroom combined with the attitudes of staff and peers, teaching styles and the expectations of the classroom culture. The Societal Situation relates to wider societal influences and includes factors such as the expectations of parents; school ethos; government policies; social interactions from outside the classroom; cultural influences and the working relationships with adults both in the wider school environment and with external services.

The third dimension, Interaction, is of particular importance in the consideration of deaf students learning experiences. Consequently this has been developed within this investigation to draw out the internal components of interaction from the external influences. The internal process, or Internal Interaction, embraced the individual student's linguistic and communicative resources such as may be identified by formal assessments. It includes vocabulary, grammatical structure; ability to express ideas along with the motivation and confidence to engage in interactions. The External Interaction refers to the external process of interaction between the deaf student and other members of the learning community including teaching assistants, teachers and peers. It includes opportunities for participation; the effectiveness of the communication; the acoustic environment: the use of audiological equipment by members of the class community and the implementation of effective communication strategies.

The resulting six areas: Content, Incentive, Social Situation; Societal Situation, Internal Interaction and External Interaction provided theoretical positions from which to view the students' learning experiences. A coding strategy was developed that reflected on the provenance of the challenges with respect to the six areas from the teaching assistants' perspectives. See Figure 2

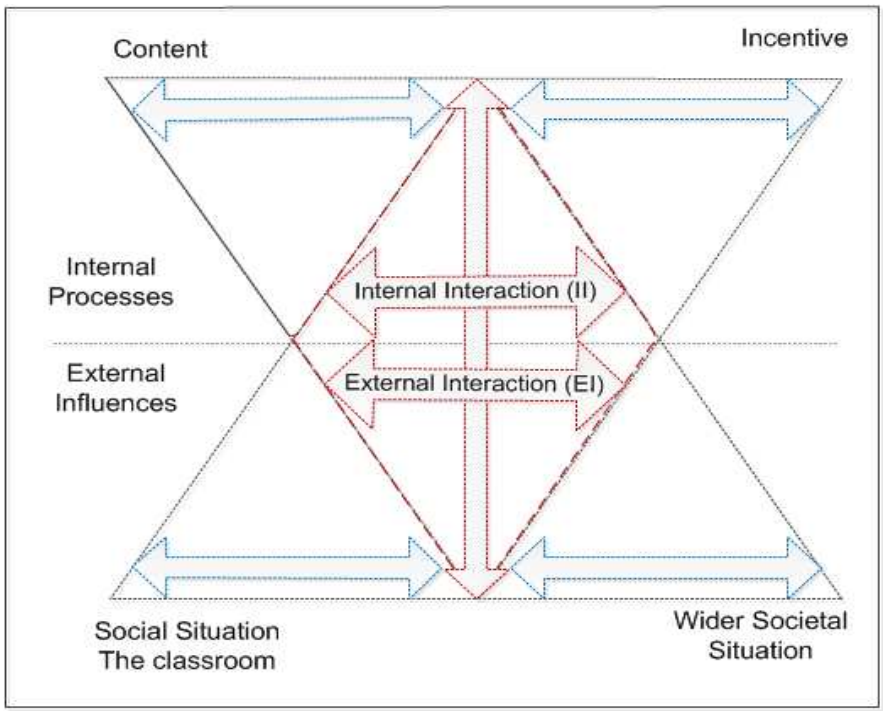

Figure 2 Complex Learning Model, adapted for deaf learners

It is important to note that the coding and the subsequent thematic analysis, was not intended to infer that the emergent themes were isolated units of influence or mutually exclusive of one another at any part of the learning process. Rather it was intended to reveal layers of influential factors that coexist within the formal learning environment. Each code of the analysis exposed different details of the intricate network of influential factors that exist within the classroom for each student at any particular point in time.

Findings

The analysis of the core data, transcripts of the focus group discussions and individual interviews with teaching assistants in the Data Group, revealed a range of different challenges they considered affected deaf students ability to learn in the classroom. Challenges were identified as originating within the internal processes of learning: Content, Incentive and Internal Interaction and as a consequence of the external influences originating from the Social Situation; the Societal Situation and External Interaction.

Within the area of Content and Internal Interaction the teaching assistants described the deaf students as having difficulty remembering lesson content and frequently revealing gaps in their knowledge that was particularly evident in their vocabulary. They considered the students took longer to process information than their hearing peers and were often not aware of whether or not they had understood a concept. They felt the deaf students needed to

concentrate more intently than their hearing peers in order to access the lesson which resulted in tiredness. They described the deaf students as visual learners who benefitted from access to visual resources.

With respect to Incentive, and Internal Interaction, the teaching assistants all agreed that the deaf students frequently lacked the confidence to engage in classroom conversations and activities. They attributed this to students concerns about not being understood by their peers or being unaware of other contributions, the students resulting frustration potentially leading to poor behaviour and an unwillingness to engage with the learning. Teaching assistants were also aware that some students did not wish to appear different from their peers resulting in inconsistent hearing aid use. This would impact on the interaction and exacerbate the interaction challenges in the classroom.

Discussion

Formal classroom learning is predominantly structured in a manner that promotes assimilative learning (Piaget, 1952). Assimilative learning is the process in which new skills and information are relatively easily linked to previous learning, building up concepts and understanding through the development of mental schemas. It is typical of the learning that occurs within school based situations in which the structure of the learning is determined by the curriculum. The knowledge may be readily recalled within a similar context but not in others. It requires a mental balance to be present that allows the learner to be receptive to the acquisition process (Illeris, 2003). The key aspects of assimilative learning can be associated with internal process of learning: Content, Incentive, Internal Interaction as well as the External Interaction dimensions of learning used to analyse the data see Table 1

	Content/Internal interaction	**Incentive/Internal Interaction**	**External Interaction**
Assimilative Learning	New information that builds on previously learning Easily recalled in a similar context May be more difficult to recall in others contexts	Information may be related to developing an understanding of own emotions Requires a mental balance to learn effectively	Likely to occur in structured learning environments such as school through curriculum delivery by teachers

Table 1: The content, Incentive, Internal and External Interaction dimensions of assimilative learning

Teaching assistants describe deaf students as frequently have gaps in their knowledge suggesting that the concepts or mental schemas they have developed do not match those anticipated by the teacher. Consequently they may not have the knowledge necessary to affectively assimilate the new knowledge delivered in a lesson. The teaching assistants also considered that the deaf students were not always confident and motivated to engage within classroom activities implying they may not have the mental balance to assimilate the learning in an effective way. This implies that for some deaf students the learning within a main stream setting may not always be the assimilative learning experience that the curriculum and pedagogical practices are developed to promote. It may indicate that the students are more

frequently engaged in a more challenging form of learning than their hearing peers, that of accommodative learning.

Accommodative Learning (Piaget, 1952) occurs when something new is encountered that cannot easily be linked to previous learning. It requires the learner to accept they will need to rethink previously developed concepts in order to accommodate the new information. This requires the mental energy and motivation to address this misalignment of information before being able to move forward with learning in a particular area. Once the learning has been successfully achieved it will be easily retrieved and may then be used to address a range of related but different situations (Illeris 2003). The key aspects of accommodative learning can also be associated with the Content, Incentive, Internal and External Interaction dimensions of learning see Table 2.

	Content and Internal Interaction	**Incentive and Internal Interaction**	**External Interaction**
Accommodative learning	New information that does not easily link to existing understanding. May need to deconstruct previous learning and reconstruct it to accommodate the new knowledge Learning may be retrieved and applied to different but germane situations	Requires effort and motivation to accept the limitations of previous learning and then to develop a reconstructed concept.	May require specific support in order to achieve effective successful learning

Table 2: The Content. Incentive, Internal and External Interaction dimensions of accommodative learning

The frequent gaps in knowledge, described by the teaching assistants, may indicate that deaf students will not easily associate the new learning presented in a lesson with previous understanding. This may require them to revisit and potentially re learn the knowledge and present the possibility that their learning experiences require more accommodation than is currently anticipated in the classroom.

Conclusion

This paper presents one finding from a wider study that investigated the learning experiences of deaf students in mainstream classrooms in order to develop new understandings of learning. It focuses on the perspective of teaching assistants who supports deaf students. By adopting a holistic perspective, that brings into focus both the internal processes and external influences, new understandings are emerging. A tentative early indication is that as a consequence of the Content, Incentive and Interactional challenges deaf students experience they may be more frequently faced with accommodative learning than their hearing peers in an environment that is constructed to support assimilative learning.

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