

Beliefs, Knowledge and Practices of Grammar Pedagogy: Teaching Dyslexic Learners

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ABSTRACT

This paper examines the beliefs, knowledge and practice of specialist teachers who teach the English Language to dyslexic learners in Singapore. It explores the pedagogical bases of teachers' work in grammar teaching and investigates the extent to which personal beliefs and knowledge have informed instructional practices. The results reveal weaknesses in the teachers' language awareness and a lack of grammatical knowledge, which have negatively impacted their effectiveness as teachers of dyslexic learners. There is a call to provide teachers the knowledge on language teaching in teacher development programmes and to develop a common belief system on pedagogical practice amongst them.

KEY WORDS: Grammar pedagogy, dyslexia, teacher cognition

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Introduction: Teachers' beliefs, knowledge and practice

Teacher cognition is currently one of the most researched areas of applied linguistics. It is not surprising; since it is generally understood as a wide array of complex beliefs, that form a usually structured set of principles and are derived from their prior experience, training, classroom practices, and their individual personality (Borg, 2003), it lends itself to various approaches of investigation. One particular field is interested in how beliefs, values, and principles influence teachers' classroom decisions and actions and what impact these may have on the development of 'teacher knowing'. Although the area is very popular among researchers, understanding what drives a teacher's classroom work is not an easy task.

Broadly defined, teacher beliefs and values refer to the "tacit, often unconsciously held assumptions about students, classrooms, and the academic material to be taught" (Kagan, 1992, p.65). It is not surprising, therefore, as Pajares (1992) pointed out, that it is difficult to investigate teachers' beliefs, partly due to the lack of generally accepted definition and understandings of beliefs. For a start, it can be problematic to distinguish between beliefs and knowledge. Although a belief is usually based on evaluation and judgment, whereas knowledge is linked to objective facts, beliefs always seem to be part of knowledge that underlies teachers' actions in the classroom. What one knows as 'fact' and what one thinks to be 'true' are sometimes merged into an amalgam on which pedagogical practice is based.

Elbaz (1981) argues that teachers' knowledge is two-fold: a) 'practical knowledge', which involves the knowledge of subject matter, instructional routines, classroom management, students' needs, and b) the 'personal aspect' which is the teachers' knowledge of themselves (p.47). Thus, it is a combination of theoretical knowledge and instructional methods, and feelings, values, needs, and beliefs - paired with experience - that guides instructional practice in a given context. Clandinin and Connelly (1987) expanded this concept of practical knowledge by coining the term 'personal practical knowledge', which they defined as "a moral, affective and aesthetic way of knowing life's educational situations" (p.59), emphasizing the unique nature of multi-faceted knowledge that guides teachers' work. Closely connected to the concept of personal practical knowledge is research that focuses on subject-matter knowledge and its link to practice. The term 'pedagogical content knowledge' (PCK) was coined by Shulman (1987, p. 8) to refer to a "special amalgam of content and pedagogy that is uniquely the province of teachers, their own special form of professional understanding".

The picture gets even more complicated when it comes to language education, where content knowledge is not as straightforward as in other disciplines. In the case of language teaching, a distinction can be made between 'knowledge about' and 'knowledge of' a

language, i.e. knowing the language system (syntax, morphology, phonology, etc.) and the ability of using the language appropriately in various communicative situations. Andrews (2001), therefore, extended the understanding of language teachers' PCK to include teachers' language awareness (TLA) to emphasize the unique relationship between a teacher's subject-matter knowledge and her communicative language ability. He argues that TLA forms the "bridge between language competence / strategic competence (as major components of communicative language ability) and knowledge of subject-matter" (p.78).

The inextricable intertwining of content and medium of instruction is distinctive for language teachers and it is likely to impact teacher thinking and pedagogical practice, thus renders itself for further research. Especially so, if a study aims to focus on understanding the pedagogical decision making processes of specialized language educators who work with learners with Specific Learning Disabilities (SpLDs), such as Dyslexia. The word *dyslexia* comes from two Greek words: *dys* which means 'difficulty with' and *lexia* which means 'language'. Put together, *dyslexia* literally means *difficulty with language*. The American Psychiatric Association uses this term when reading achievement falls substantially below the expected, despite normal intelligence, no sensory or neurological impairment, and adequate educational and socioeconomic opportunities (DSM IV, 1994). Converging evidence has now established dyslexia as a language disorder, which critically affects the phonological domain of language development (Bradley & Bryant, 1983; Frith, Landerl, & Frith, 1995; Snowling, 1995; Snowling, 1998; Stanovich, 1988; Stanovich & Siegel, 1994). In addition, the dyslexic condition has been found to be associated with working memory (Jeffries & Everatt, 2004), visual processing (Lovegrove, 1994), speech perception and auditory processing (Schulte-Körne G., Deimel, Bartling, & Remschmidt, 1999) as well as attention (Knivsberg, Reichelt, & Nøland, 1999). Therefore, when teachers work with dyslexic students, language teaching operates at even more complex levels: there is not only a distinction between knowledge of and about the language, but also between the language processing abilities between teacher and learners. Furthermore, there might also be a mismatch of instructional strategies prescribed for teachers, and their own beliefs about language education concerning teaching communication skills, writing, vocabulary, and grammar.

Dyslexia and grammar

Dyslexic learners, apart from having phonological deficits, usually exhibit problems in vocabulary and grammatical development. Studies found that pre-school children at risk of dyslexia produced shorter sentences, and scored more poorly on receptive and expressive vocabulary measures compared to normally developing children (Lyytinen, Poikkeus, Laakso, Eklund, & Lyytinen, 2001; Scarborough, 1990, 1991). They were also less sensitive to grammatical and ungrammatical structures, produced fewer correct forms in both verbal inflection conditions and in nominal plural conditions (Alphen et al., 2004). This decreased sensitivity to grammatical patterns at an early age may signify the delay in grammatical morphology, suggesting that other aspects of linguistic competence, notably syntax and grammatical competence, may be compromised in dyslexic children.

Linguistic abilities were also found to be impaired for older children with dyslexia. McArthur, Hogben, Edwards, Heath and Menglar (2000) found that 53% of dyslexic children (7-14 years) had poor oral syntactic and semantic language ability. Rispen, Roeleven and Koster (2004) further demonstrated that they performed significantly worse in tasks involving the marking of subject-verb agreement in spoken language. Dyslexic children were also found to make more spelling errors on regular past tense verb endings relative to irregular past tense verbs and non-verbs (Egan & Pring, 2004; Joanisse, Manis, Keating, & Seidenberg, 2000). In a recent study examining the proficiency of syntactic production in children and young adults, Altmann, Lombardino and Puranik (2008) found that students with dyslexia showed particular impairment in the use of irregular past participles in sentences. Having seen the problems, the question can be raised: how can grammar be taught to dyslexic learners?

Teaching grammar for dyslexic learners

Direct and explicit instruction in grammar is considered critical and essential for students with language learning problems (Hutson, 2006; Smith, 1999). To date, several programs have been developed: The Winston Grammar Program developed by Erwin (1982) proposes the use of colour-coding, where parts of speech are taught one at a time using the coloured-cards in a game-like manner. Similarly, Carreker (1993) also advocated the use of colour-coding to analyze sentence structure as part of an explicit teaching process that followed a structural syllabus.

Other methods also rely heavily on visualizing grammar. Greene and Enfield (1993), and Hutson (2006) suggest that grammar is taught through a system of diagramming, using unique graphical symbols to represent sentence parts: The subject is represented by a line; the action verb, is depicted with a jagged line; adjectives are encased in rectangular boxes and adverb phrases are encased in triangles and labeled 'how, when and where'. Lessons progress from simple to complex and a new part is taught one at a time while incorporating the new and previously taught concepts. The kinesthetic element in the rule "as your hand goes, your voice goes" (Hutson, 2006, p. 11) is considered a vital part of the multisensory element. On the whole, the grammar pedagogy for dyslexic learners is built on the foundation of multisensory instruction, designed to provide structured, sequential and explicit teaching to learners with SpLDs.

Although there has been an ongoing discussion on the value of explicit grammar instruction in the past few decades (see e.g. Canale & Swain, 1980; Celce-Murcia, 1991; Ellis, 1997, 2006), the direct and explicit teaching of grammar has always been considered critical for the dyslexic learner as they are not incidental learners (Hutson, 2006). According to Hutson (2006), this deductive instruction in the Orton Gillingham (OG) approach, the generally accepted and practiced programme for dyslexic learners, is said to have "withstood the test of time for 80 years" (2006, p. 3), despite the limited number of scientifically sound and clinically relevant reports on its effectiveness, as far as grammar instruction is concerned. However, recent research indicates that children with developmental dyslexia may be impaired in their implicit rule abstraction mechanism (Pathos & Kirk, 2004; Pavlidou, Kelly, & Williams, 2010), thus the

effectiveness of naturalistic/implicit learning theories and practices for individuals with learning difficulties is highly questionable.

This is in stark contrast to current theories that stem from mainstream language education and raises the question whether language teachers who work with dyslexic learners would experience conflicting beliefs about grammar teaching? Since there is an obvious lack of research into this area, it seems important to investigate how teachers cope with the challenges their specialized context presents and what informs their pedagogical decisions when teaching grammar to dyslexic learners.

Research

In order to address these areas, three research questions were identified:

- a. What beliefs do teachers working with dyslexic students (age 7-16 years) hold about grammar teaching?
- b. What is the extent of teachers' language awareness and how does it influence their pedagogical practice in teaching grammar?
- c. What is the degree of alignment between teachers' beliefs, knowledge and practice in the classroom?

The context of the research project was the Dyslexia Association Singapore (DAS), an organization that – among other things – provides educational support services to school children who suffer from dyslexia. The teachers – also referred to as educational therapists – who work at DAS are not necessarily trained language teachers. They are mostly graduates from a variety of subject disciplines, with a good command of English; actually, graduate qualifications in English Language and/or Education are not considered pre-requisites for working with dyslexic learners. However, all new teachers are required to attend a 3-week intensive training where they are trained in the OG approach by the DAS Academy, a training subsidiary of the DAS. This is followed by a 6-month probation/mentoring programme and on-the-job training, supervised by educational advisors and/or senior teachers.

Following a successful probation, the new teachers are required to complete a one year Postgraduate Certificate in Specific Learning Differences (PGC-SpLD) conducted by the DAS Academy and awarded by the London Metropolitan University, which will mark the completion of the formal teacher training programme at the DAS. Language content, in aspects of grammar, vocabulary, morphology, reading fluency and writing take up approximately 15% of the entire PGC-SpLD. It is interesting to note that while teachers are working with language, they do not necessarily have a thorough understanding of how language works, given their generally limited training. Thus, what they think about language teaching and what values and beliefs they hold about grammar teaching is influenced by their own experiences as (secondary school) learners, their OG/PGC-SpLD training, and work experiences they acquired while working with dyslexic learners.

In order to understand how these teachers work and what guides their practice four teachers were selected to participate in this study, out of a total of approximately 70 teachers who worked at that time at DAS. Using purposive sampling we aimed to select participants who had markedly different experiences and backgrounds to allow the study to explore the variation among the respondents and to see if prior training – the only documented common experience for the participants – had any impact on their beliefs about grammar teaching. The elements of diversity among the participants included factors such as age, gender, educational background, and the length of their teaching experience with dyslexic learners. Furthermore, the participants were also selected based on their willingness to participate in the study. To ensure anonymity, the teachers were assigned pseudonyms which only revealed their gender: Liz, Rebecca, Joe and Emily. The table below offers a brief summary of their backgrounds.

Table 1: Research participants

Name	Age	Education	Exp. of teaching dyslexic learners (years)
Liz	30s	BA in psychology and English language PGC-SpLD (MEd in progress)	5
Rebecca	Early 40s	BA in Business Administration MA in Business Administration PGC-SpLD	2
Joe	30	BSc in Life Sciences PGC-SpLD	6
Emily	26	BA Psychology and Media Studies PGC-SpLD	2

Research methodology

A case study approach was selected as the methodological framework for the research in order to gain an in-depth understanding of teachers' values and beliefs concerning grammar and grammar teaching, and to investigate how individual teachers' practice may or may not align with their beliefs. In order to understand the different factors that contribute to teacher cognition and consequently to the formation of pedagogical content knowledge of grammar, the case study approach seemed most adequate as they provide adequate data to answer 'how' and 'why' questions (Yin, 2009) that are essential when investigating such elusive concepts like beliefs and values. Furthermore, a case study research does not require any control, or manipulation, of events and variables within the research context as it focuses on understanding contemporary situations and events.

The research design followed a spiral approach, with each stage of the data collection and analysis contributing to the following stages from which a variety of data sources allowed theory to emerge from the data directly, and “offer insight, enhance understanding and provide a meaningful guide to action” (Strauss & Corbin, 1998, p. 12).

Data collection

Data collection was carried out over a ten-week term period. The main sources included a pre-interview questionnaire, lesson observations through video recordings, a test of the participating teachers’ grammatical competence, and in-depth interviews.

Pre-interview Questionnaire

A pre-interview questionnaire was sent to the participating teachers to gather information about their beliefs about grammar teaching to both general and dyslexic learners. The teachers were asked to choose one of the five possible responses on a Likert scale – strongly disagree, disagree, neutral, agree, and strongly agree – for each of the sixteen statements twice; first keeping dyslexic learners in mind, then thinking of general language learners. The pre-interview questionnaire was designed based on Ellis’ (2006) work, who identified eight areas concerning the teaching of grammar from the second language teaching perspective. The questions, derived from theory and research of second language acquisition, addressed whether grammar should be taught at all, and if so what grammar, when, and how it should be focused on.

Firstly, the data gathered from the pre-interview questionnaire were used to tailor questions for each participant, seeking clarification and extended explanations during the in-depth interview. Having the questionnaire prior to the interview ensured that sufficiently rich data was obtained from the participants within the time constrain of a one-hour interview. Secondly, the information was also used to theorize about the approach to grammar teaching participants would follow, and thus to identify possible foci in the lesson observation.

Lesson Observation

The next stage of the study consisted of twelve one-hour lesson observations (i.e. three one-hour lessons for each teacher). These lessons were video-recorded and in addition, all copies of lesson plans and instructional materials were collected for analysis. The purpose of the classroom observations was two-fold: a) To provide an insight into the use of metalanguage in the classroom; b) to document the grammar teaching strategies adopted by the teachers (if any).

The researchers were not present in the lessons that were observed to avoid becoming an intrusive, disturbing presence in the classroom, since lessons at DAS are generally conducted for small groups of 3-5 students. An ‘outsider’ during these sessions might disrupt classroom dynamics and have an impact on how the teacher conducts their lessons. Therefore, participants were asked to video record their own lessons. The videos were accompanied by memos taken by the researcher while viewing the recorded lessons

that helped to interpret classroom events involving grammar teaching. These data – video and memos – provided a detailed account of classroom events and presented an inventory of key instructional episodes concerning grammar teaching and learning. These included the use of particular grammar activities, the explanation of a grammar rule, a response to a student’s question about grammar, or a reaction to a student’s grammatical errors/mistakes. The data was used to a) compare what actually happened in classrooms with the stated beliefs of teachers in order to determine the extent to which beliefs and actions were aligned, and b) elicit the reasons and rationale behind the teachers’ actions and instructional decisions in the classroom.

In-depth Interviews

The lesson observations were followed by in-depth interviews based on Borg’s (2003) framework of teacher cognition to provide an insight to the teachers’ beliefs in grammar teaching. The interviews were semi-structured and they focused on particular themes and domains – i.e. schooling, professional coursework, contextual factors, and classroom practice (Borg, 2003) - that were believed to contribute to the formation of the participants’ values and beliefs on grammar and grammar teaching. The themes included general beliefs about teaching and learning, the participants’ experiences of learning English at school, their teacher training experiences, and reflections on teaching students with dyslexia. The main interview questions were written and sent to the participants before the actual interview and served as a structural guide and direction for the interview session. However, their open-ended format also allowed for clarifications and further probing, encouraging the interviewees to elaborate on identified issues.

The interviews served multiple purposes. They aimed to:

- Establish the teachers’ beliefs about grammar teaching (and to some extent generate some reflections about their values on teaching in general);
- Clarify and further probe the teachers’ views and beliefs in grammar teaching vis-à-vis the pre-interview questionnaire and the lesson observations;
- Discuss key instructional episodes from the lesson observations by eliciting explicit rationales for their instructional decisions and actions during the lessons.

The interviews were audio-recorded and transcribed for coding.

Test of Grammatical Competence

The purpose of the grammar test was to measure the participating teachers’ grammatical competence as it has the potential to reveal the extent of their language awareness and indicate its possible influence on pedagogical practice (see e.g. Andrews, 2003, 2007). The grammar test was based on the idea of a quiz (Wright, 1994) that aimed to explore “views about the correctness and acceptability of language in use” (p.21). However, as the original test was based on speech particularities of English native speakers in the United Kingdom, it needed adaptation for use in the Singapore context. Therefore, the original language samples were replaced by 10 sentences of common local language

forms with varying levels of accuracy, that were written in both Standard Singapore English (SSE) and Singapore Colloquial English (SCE), also known as Singlish. Participants had to judge the accuracy and acceptability of language samples using a 3-point scale, assigning '3' for completely correct, '2' for grammatically incorrect but acceptable, and '1' for totally incorrect and unacceptable utterances.

For each correctly identified answer they were awarded one mark. Another mark was given when the teachers were able to provide an adequate explanation of the grammar point the sentence was demonstrating, and/or a correct alternative for the sentences deemed incorrect. For each statement, a maximum of two marks could be scored. By adding the points up, a total score (of maximum twenty) could be obtained that indicated the participants' grammatical competence. Of course, this measure cannot be considered a thorough test of the participants' language awareness; its purpose was only to provide a glimpse of their grammatical awareness as it had the potential to explain why certain decisions and actions were made or avoided in the classroom.

Data Analysis

The analysis of data was carried out using a four-stage process. First, the pre-interview questionnaire was analyzed by comparing the answers to the dyslexic learners and general education parts of the questionnaire. This provided the researchers with an understanding of how the participants viewed the importance of grammar teaching and what values they held in terms of (grammar) teaching strategies. The questionnaire also helped identify conflicting beliefs that could be furthered probed during the interview.

The second stage of data analysis was carried out after the video lesson observations. The videos were viewed in order to identify key instructional episodes of grammar teaching. Memos were written on these with cross references to the educational values and beliefs teachers indicated in the pre-interview questionnaire. For example, when a participant used error correction in a lesson, it was marked as a key instructional episode and cross references with their answers given on the importance of error correction. This proved very important for the in-depth interview as the data – and preliminary analysis – were used to elicit rationales and justifications for classroom actions.

The third stage of data analysis used in-depth interview data. First, the raw data was broken up into chunks to identify conceptual categories or codes. These categories were meant to delineate a researcher-denoted concept or at times, an in-vivo code (Corbin & Strauss, 2008, p. 160) was used. The purpose of this was to identify discrete concepts or themes, e.g. 'no need for grammar correction', or 'importance of grammar'. This was followed by axial coding where interrelationships between the categories were identified through a continuous process of analysis and memo writing. Themes were compared for similarities and differences, and those that were found to be conceptually similar to previously coded themes were given the same conceptual label and put under the same code. The purpose was to generate tentative statements of relationships between phenomena, i.e. stated educational values and classroom actions, similar to the process adopted by Breen, et. al. (2001).

Finally, the fourth stage of analysis focused on integrating the results of the grammatical competence test (language awareness) with the concepts and themes identified by the previous stages of analysis. A grammatical language awareness score was calculated for each participant and this was used to provide further interpretation to the participants' actions (or lack of), values and beliefs, and their pedagogical content knowledge of grammar and grammar teaching.

Findings

The data are presented as four professional portraits, which reveal the teachers' beliefs, grammatical competence and language awareness, pedagogical practice in grammar teaching, as well as the degree of alignment of beliefs and practice. The portraits are inclusive of all sources of data collected during the project since they each contributed to drawing a final portrait of the participating teachers' beliefs, values, and practices of grammar teaching. This form of presentation also attempts to highlight the inductive processes of data analysis that was central to the research, and show how teachers – although they share similar training and the same educational context – can develop rather significantly different, personal PCK.

Case 1: Liz, the 'Pragmatic Teacher'

Liz, who was 30 years old with 5 years of experience with dyslexic learners and a BA in psychology and English language (and an MEd degree in progress), believed that grammar was important and it should be explicitly taught in English lessons. Yet, she thought that this should depend on the students' learning ability: "for children with no dyslexia... it is important... to know when to be accurate in their language because [they] are able to". However, she added that "for people with dyslexia... I think I will be more forgiving towards them". Liz felt that grammar should be taught only when dyslexic learners have developed a basic communicative ability in English, as she believed some of her learners, whose first language was not English, lack the necessary language competence to discuss grammar or to focus on accuracy.

Similar duality was observed in her thinking about language teaching methods and their context-based application. While she knew that repetition in the form of grammar drills and explicit teaching were beneficial for dyslexic learners, she felt that such learning strategies would be boring. Therefore, her solution was to modify the presentation-practice-production (PPP) model of grammar teaching, taking into account the learners' preference for "games and stories".

"So how to do PPP in another angle. Is it by the activities involved... meaning that the first stage of Presentation, you introduce something using flash card... Practice stage is where they practice more... in our case can we do it in terms of games, using games to practice, but still involves correction but in a fun way, and then when it comes to the Production stage... it comes in very free-flow activities. We can do different types of games. The games in the previous practice stage in more structured,

gearing towards being corrected. The game in the last stage will be more flexible.”

Liz believed in the value of deductive teaching in the PPP approach but thought that activities within the segments could be adapted to suit the context of instruction. However, such beliefs were not entirely stable. Liz remarked, “I’m not sure whether it is right, what right do I have to deviate from a model that has stood throughout the years... do I have the right to mold it?” This reservation could have arisen from her self-perceived lack of teaching experience, “probably ten years down the road, yes, I can say that I will probably do it without much hesitation, but at this stage... I only have five years of teaching and I’m supposed to do curriculum work.” These hesitations reflected the interplay of beliefs, theories and self-doubt, embedded and build upon each other.

Pedagogical Practice

Liz’s teaching was characterized by a balance of accuracy and fluency work, and her approach to grammar teaching was based on a movement from controlled to less-controlled work through a modified version of PPP which is illustrated in the examples below.

Episode 1 (Presentation)

[The teacher holds a pictorial card and engages the students in conversation]

T: What is a verb, can someone tell me?

S2: It’s an action word.

T: A verb is an action, look at all these, these are

All: Actions

T: So verbs are action words. Well done. Now, what if I ask you what is a past tense verb?

S3: Like jumping, jumped

T: (to S3) Jumping? I hear you say *jumped*, you add

S3: -e

S2: -ed

T: (to S1) -e or -ed?

S2: Because ah, because ah it is a past tense verb.

T: (to S1) Yes.

S1: Gave

T: So whenever you change to past tense you add ‘-ed’. Good job. (Teacher writes ‘-ed’ on the board)

The extract highlights the way Liz presented grammar using metalanguage and grammar terminology in the classroom. She introduced to the learners a basic set of terms (e.g. regular verbs) in an explicit, sequential, cumulative and interactive way. Although Liz was explicit in the way she exposed the learners to grammar terminology, she never made explicit demands on the students to study or reproduce them. However, she did indicate incorrectness by using appropriate questioning techniques. This could be observed in the practice segment:

Episode 2 (Practice)

T: **Where** is the proper noun here?

S3: I don't know.

T: **What's** wrong with birthday party, is birthday party a proper noun? (student has circled 'birthday party')

S3: Yes.

T: **Why** is it a proper noun?

S3: No. It's not a proper noun.

T: Yes, it's not right? It's not a specific thing. **How about** Tampines? Is it a specific place?

S3: Yes.

It was evident that Liz was concerned with the learners' understanding of language use rather than with explicit knowledge *per se*. She often questioned the students' understanding in their application of grammar rules (e.g. using 'why') and offered alternatives (e.g. using 'how about') as prompts. To her, a lesson could be considered successful "when a child makes meaning for herself". However, this intention to assist learners' understanding with language use seemed to be hampered by the lack of ability to explain more intricate grammar terms during the production stage

Episode 3 (Production)

T: He ask [sic] his gods **not to set fire** on earth or ask [sic] his gods to **don't put fire** on earth. Which one sounds better?

S1: They both sound the same.

T: They both sound the same? I'm going to write it out for you and you're going to tell me (writes on board). Ok, Ginny, could you tell me which one do you feel it sounds better?

S2: The second sentence.

T: The second one? (to S1) Zach, tell me which one sounds better for you?

S1: They both sound the same to me.

T: Ok, I'm going to ask Kenny. Kenny, which one sounds better?

S3: Both of them are same.

T: He asks his gods **to don't put fire** on earth or ask [sic] his gods **not to put fire** on earth?

S3: It's the same.

T: It's the same? Actually the second one is better.

S3: Why?

T: The first one sounds really strange.

S3: It's not strange.

T: Well, you try putting this down and I think maybe you'll get it wrong, because it sounds very very awkward.

In response to S3's request for an explanation for the use of 'not' instead of 'don't', Liz was not able to give a reasonable answer, except that the phrase 'don't set fire' sounded 'strange' and 'awkward' and that the second phrase 'not to put fire' 'sounds better'.

Grammatical Competence and TLA

Liz scored a total of 11/20 for her grammar test. This test score was indicative of her inability to identify errors was also a reflection of a reduced sensitivity to grammatically incorrect statements typical of Singaporean English speakers. This score was considered slightly below average as compared to other teachers in the study, which was slightly surprising as she held a BA degree in English Language.

Degree of Alignment between Beliefs and Practice

On the whole, there was a sense of alignment between Liz's beliefs and practice in grammar teaching, and this was largely influenced by her pragmatic outlook in resolving internal conflicts and tensions. In her bid to meet the needs of the learners, she resolved to adapt the PPP model in her teaching through the use of games and activities. Her pedagogical decisions reflected her practical bearings, which in turn had guided her beliefs and actions.

Case 2: Rebecca, the 'Inconsistent Teacher'

The second participant was Rebecca, in her early 40s with two years of experience with teaching dyslexic learners. Initially, Rebecca indicated that grammar was important for dyslexic learners. However, she did not think that it should be taught formally in English lessons, as she believed grammar would be best acquired in a naturalistic environment in communicative situations. This was largely due to the fact that she did not consider grammar important for dyslexic learners in comparison to the many other competing needs. For Rebecca, building up a dyslexic child's self-esteem and helping them to learn how to read were more immediate concerns, as "kids will probably need to learn how to read... then you talk about grammar. It makes more sense".

This initial belief that grammar should not be taught in English lessons, however, contradicted her later espoused beliefs on grammar teaching methodology. In her pre-interview questionnaire, her responses were affirmatively inclined towards the use of drills, as well as the direct and explicit teaching of grammar rules. In particular, she believed that drilling would enable dyslexic learners to use language more fluently and accurately, and that grammar rules should be taught in a direct and explicit manner as those who were aware of the grammar rules were able to use language more effectively than those who were not.

Grammatical Competence and TLA

Rebecca scored a total of 9/20 for her grammar test. She was keenly aware of the negative influence of SCE on her English language use which she considered as one of her flaws. She remarked, "my weakness, a lot man... I speak a lot of Singlish... it's very bad, it's really very bad". Her grammar score was the weakest compared to other teachers in the study.

Her desire to teach in a way that fostered understanding amongst her learners was evidently hampered by her lack of grammatical knowledge and understanding – “I want to make sure that my kid really understand why it is taught this way... but a lot of times I find that I don’t have that kind of knowledge to teach”. This had resulted in a fear for the subject and had shaken her confidence. In a self-depreciating manner, she remarked, “I’m very afraid of grammar, I’m very lousy in grammar, I mean, to be very frank with you”. These comments were a reflection of her deep apprehension with grammar, as well as her lack of confidence as a teacher.

Pedagogical Practice

The lack of grammar competence has adversely affected Rebecca’s competence and pedagogical practice as a language teacher. In lesson planning, this had affected her ability to select appropriate learning objectives, materials and activities for her learners. During lesson, this weakness in TLA had an impact on her performance in mediating input, providing examples and explanation; monitoring learners’ and her own output, as well as helping the learners make useful generalizations based on the input. This in many cases led to teaching episodes where she required dyslexic learners to produce as many questions and answers as possible *simultaneously*. For example, in a reading comprehension task students had to: 1) answer ‘who’, ‘what’, ‘where’, ‘when’, ‘why’, and ‘how’ questions; 2) come up with grammatically correct questions using the right tenses and punctuations; and 3) provide semantically coherent and grammatical correct answers to the questions formulated. Essentially, the learners had to handle both syntactic and semantic demands of the English language simultaneously. What seems to transpire from the data is that Rebecca’s practice was mainly influenced by teaching strategies (the 4Ws1H comprehension questions) practiced in mainstream Singaporean secondary school classrooms. This indicates that her own schooling had a more significant impact on her work than the (limited) teacher education programme she participated in.

Furthermore, Rebecca’s output in class seemed to be inadequately monitored, where she tended to ask too many complex questions (with a mixture of questions on ‘tenses’ and ‘content’) with arguably insufficient reflection upon the intelligibility or usefulness of what she was asking. In order to answer, the students would require the ability to ‘hold’ and understand the questions and to provide a suitable answer to the questions posed. This could be challenging for dyslexic learners who usually display deficits in working memory, visual and auditory processing, as well as attention. In other words, she was not grading the language content in light of the students’ learning difficulties and she failed to anticipate problems. Consequently, her lessons were not pitched at the right level and new language was not presented clearly and efficiently.

Degree of Alignment between Beliefs and Practice

Not surprisingly, there was a mismatch between her espoused beliefs and pedagogical practice. For example, she expressed her belief that grammar should be taught in a direct and explicit manner to dyslexic learners. Yet, the following episode, where the students were working on singular and plural forms, seems to contradict it:

- T: Grazing, so what were grazing? (Points to paper)
- S: Sheep
- T: Sheep. Right, sheep over here, ok, let me ask you. Ok, look at here. Sheep can be plural can be singular. But how do you know this sheep over here is singular or plural? How do you know?
- S: Don't know.
- T: You don't know. Ok, read to me first.
- S: Sheep were grazing.
- T: From this sentence, are you able to tell me whether the sheep is a plural, one sheep or many sheep?
- S: Many sheep, plural.
- T: How do you know?
- S: Because there's a 's'.
- T: Is there a 's'? No, you don't add a 's' behind the sheep, it's still sheep. So how do you know from this sentence whether it's a plural or whether it is a singular?
- S: Plural
- T: Ya I know it's a plural. Agree, I agree it's a plural. But how do you know it's plural?

The dialogue above appeared to be an exasperating attempt to 'guide' the student to identify the plural verb in the sentence. With this implicit approach, she took a total of thirteen questions/attempts to get the learner to identify the plurality marker, which was an inefficient way to get the learner to notice grammar in the phrase "the sheep were grazing". The same learning objective could have been achieved if the verb "were" was highlighted, explicitly taught right from the beginning, or contrasted with a singular form.

Case 3: Joe, the Eclectic Teacher

Joe was 30 years old and earned a BSc in Life Sciences; he had been working with dyslexic learners for six years. He did not think that grammar was important for dyslexic learners and hence thought that formal teaching of grammar was not required. He believed that dyslexic learners would acquire grammar best in a naturalistic environment and if grammar learning was necessary, it would be most effective when they work out the rules themselves. To him, "incidental learning makes the learning more permanent, because it is to a certain extent more experiential". This was also largely due to his own language learning experience, in the way he had learnt the English language incidentally all through his formative years. From his perspective, explicit teaching of grammar had limited utility, "I'm not too sure how it impacted my English proficiency, I'm just again learning it for the sake of knowledge... nobody actually taught me how to use it in my daily life". In the case where dyslexic learners needed to be taught grammar, he believed that this should be done only when they have developed a basic communicative ability in English. To Joe, he saw grammar as "something added on, on top of something", and he listed "word recognition", and "the ability to decode the word" as basics that dyslexic learners needed before they start learning grammar.

Grammatical Competence and TLA

Joe scored a total of 12/20 for his grammar test. This score was considered slightly above average as compared to other teachers in the study. However, as a teacher, Joe admitted that he had difficulties teaching English to dyslexic learners. In particular, he felt he lacked the ability to distinguish ‘good’ and ‘bad’ grammar, he commented, “I am not able to differentiate between the very good English, the very bad and the mediocre, I don’t have that kind of perception”. Despite having accumulated some years of teaching experience, Joe was still lacking in terms of language awareness and he confessed that he continued to struggle to see the “big picture”. Consequently, this had affected his ability to teach the English language to his learners.

Pedagogical Practice

Joe’s teaching was characterized by an assortment of direct, explicit teaching through drills and discovery-oriented work with a focus on interactivity. Without a fixed orientation, Joe appeared to be somewhat undecided about how grammar should be taught to dyslexic learners. He attributed this to his lack of experience and remarked: “I’m not too sure what my stand is, I don’t really know what’s best at this time, I’ve not tried enough, I’ve not experienced enough to be able to tell you whether an explicit way is better or a more incidental way”.

In general, his approach to grammar was largely unplanned – reactive rather than proactive - and this was demonstrated by the limited accounts of grammar work in his lessons. Furthermore, the accuracy of his explanations was compromised by his lack of grammar knowledge. This is demonstrated in the following episode in which he is trying to explain the rule of the use of articles.

T: When words beginning with what letter you use ‘a’? A bus, a cat, a rabbit.

The words begin with a consonant, then you use ‘a’. Ok?

S: (nods head)

T: If the word begins with a vowel, what do you use?

S: ‘an’

T: An apple, an elephant and so on. If you are referring to something very specific, like report book, the report book, then you use the ‘the’.

Joe’s explanation of the rule “a” and “an” was an over-generalization. While the rule was workable for his learners, there were exceptions concerning whether to use “a” or “an”, as their use was sensitive to pronunciation as well. In this case, however, the decision to offer a pedagogic rule was considered more suitable for the level of his learner and the context of the lesson.

Degree of Alignment between Beliefs and Practice

Joe did not believe that grammar was important for dyslexic learners and he did not appear to have a fixed orientation to the way grammar should be taught. On the whole, Joe’s approach could be best summarized by his following comments, “I know each

learner is very different, some learners actually respond better to explicit teaching, but others through incidental teaching, so it's up to me as a teacher to decide which method to use".

Case 4: Emily, the 'Novice Teacher'

Emily was the youngest participant (26) and she only had two years of teaching experience with dyslexic learners. She was educated in the US and held a BA degree in Psychology and Media Studies. In general, she believed that grammar was important for dyslexic learners and it should be taught in English lessons. She remarked, "I feel that not only do they not pick up the sounds and the things in language, they also don't seem to pick up grammar implicitly... it could be they just need direct and explicit teaching". Emily was acutely aware of the need for explicit instruction for dyslexic learners and this understanding had stemmed from her first hand, personal experience with a family member who was diagnosed with dyslexia. In addition, she believed that grammar should be taught as early as one started to learn English, and considered grammar a fundamental element of language. As she noted, "if the shortest sentence has grammar then it's already inherent in the process of teaching, because it's very hard to teach 'he ran' without talking about grammar". She believed that dyslexic learners needed to learn language in its entirety and not in parts, grammar included. She was convinced that grammar should be taught in a direct, explicit manner, and that repeated practice in drills would enable students to use language more accurately and fluently. In addition, she believed that it was important for dyslexic learners to know grammatical terminology and correcting their grammatical errors would help them learn more effectively. This philosophy was in line with the training she received when she started working at DAS.

Grammatical Competence and TLA

Emily scored a total of 14/20 for her grammar test, the highest among the participants, which might have been the result of her educational experiences overseas. However, as a teacher to dyslexic learners, she was keenly aware that she had to adjust her language to the abilities of her learners: "I really had to break down what I do sort of naturally... for these kids you have to be explicit... so it's a challenge for me to have to break down what is like inherent to me".

Pedagogical Practice

No grammar work was observed in Emily's lessons. The OG lesson plan did not focus explicitly on grammar, and as Emily had followed the lesson plan strictly, her lesson did not lead to any spontaneous instance of grammar teaching and learning. In addition, as a non-intervention/naturalist approach was adopted in the collection of classroom videos, the focus on grammar was not mentioned or discussed with the teachers. Consequently, it was possible that grammar work might not be evident in the observed lessons.

Degree of Alignment between Beliefs and Practice

Emily had adhered closely to the OG approach of phonics instruction in her lessons, and the intervention was focused mainly on teaching letter-sound correspondence, decoding skills, spelling rules, syllabication patterns through a multi-sensory, direct, systematic and cumulative instruction. There was no evidence of departure from the established, tried-and-tested methods, and on the whole, Emily's safe teaching methods exhibited traits of a novice teacher.

Discussion

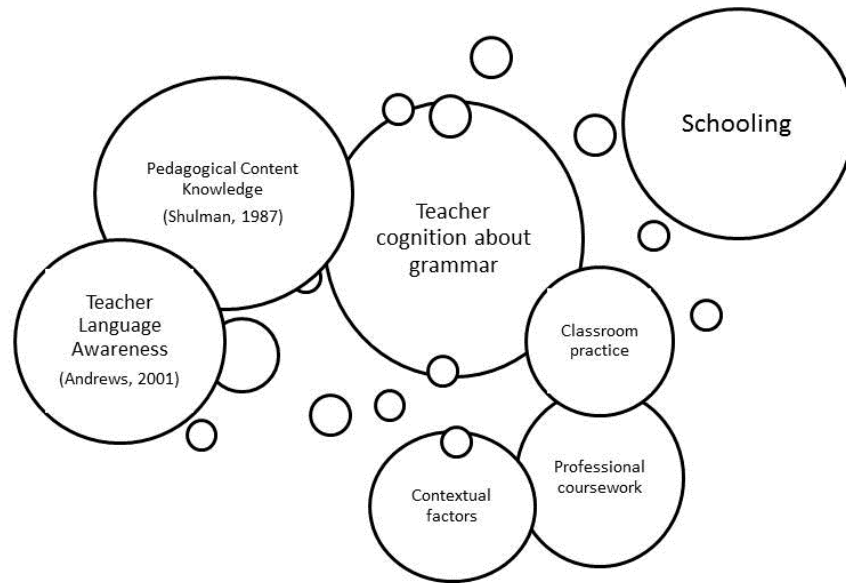
In general, despite the fact that they have very similar schooling background, the same 'initial training' in the form of the PGC-SpLD course, and a work context that prescribed certain classroom practices, there was no consensus among the teachers on the importance of grammar and on issues regarding when and how grammar should be taught. This is an interesting finding as it indicates that one of the most significant impact on the formation of their values and beliefs about grammar comes from their rather limited knowledge 'of' and 'about' grammar. In other words, the findings suggest the importance of content knowledge and PCK in developing attitudes, beliefs, and values towards a specific aspect of language teaching.

Having said that, we noted that the majority of participants believed that grammar was important for dyslexic learners, and if grammar were to be taught, instruction should be intensive, i.e. a grammatical item taught over a sustained period of time. In addition, they believed that grammar should be taught using drills in a direct and explicit manner, which was consonant with the OG approach, the dominant teaching approach applied for dyslexics. One would think that they opted for this pedagogical choice because their weak language awareness (and lack of explicit grammar knowledge) could have necessitated a direct, explicit teaching of grammar where they could retain control over aspects of content and practice if everything was planned in advance.

Interestingly, this did not happen in the classroom; there was a lack of consistency in the teachers' pedagogical practice as was demonstrated by the four significantly different profiles gathered from the study. Can this be explained by the varying levels of language awareness they exhibited? To a certain extent yes, but it is more likely that their values were not only influenced by their 'knowledge'. One could argue that although their schooling experiences were similar, as individual learners they might have developed different attitudes (i.e. either positive or negative) towards grammar and grammar teaching, and also how they perceived grammar. This, paired with the level of their language competence – as we pointed out earlier – might have been the most influential factor on how they approached grammar in the classroom. During the lessons, their lack of PCK influenced the teachers' performance in terms of mediating grammar input, providing appropriate examples and explanations, monitoring learners' and their own output, as well as helping the learners make useful generalizations based on what they were supposed to learn in the lesson.

Figure 1 below illustrates the different influences on the participants' thinking, values, and beliefs about grammar teaching. While we strongly believe that it is their individual schooling experiences and their language awareness that influence their thinking and attitudes to grammar, we admit that there might be numerous other factors that shape one's cognition. These 'uncharted' factors which might be tacit for researchers and research participants alike are indicated by the empty bubbles in the figure.

Figure 1: Influences on teacher cognition of research participants



When we examine the alignment of their stated beliefs and their pedagogical practice, we notice that there is very little evidence that the teachers' classroom decisions are built on their values and beliefs. Again, there is hardly any consistency among the research participants which suggests that the individuality of the educator carries a lot more weight in pedagogical decisions and PCK than one would assume. For example, Rebecca's espoused beliefs are completely misaligned with her pedagogical practice, but she seemed to be unaware of this disjunction. Moving along on an imaginary continuum we notice that Joe's beliefs are somewhat aligned with his practice in that his eclectic approach reflects his diverse, pragmatic approach to teaching. Simply put, he believes in what works. However, as there was a limited number of teaching episodes that involved grammar work in his lesson, this verdict is inconclusive.

Liz is the only teacher in the project whose espoused beliefs seemed to be aligned with her pedagogical practice. This may be attributed to the fact that she lacked confidence in her teaching. She doubted the validity of slight changes she had administered to the methodology that is prescribed to teachers at the dyslexia centre, claiming that she lacked experience (even after 5 years of working with dyslexic learners). Her uncertainty might

have stemmed from her weak language awareness and lack of PCK which together might prompt her to follow and accept what – in her own words – “stood the test of time”.

Finally, there is unfortunately no evidence that Emily’s practice would be aligned with her beliefs. Unlike the other participants, she expressed very strong views about how grammar should be taught, which were most probably based on her good language systems knowledge and general language awareness. Yet, there were no grammar teaching episodes in her lessons which could have demonstrated these in action.

Conclusion

This research study investigated the link between teachers’ beliefs, their TLA (i.e. grammatical competence) and pedagogical practice in grammar teaching at the DAS. In particular, the study explored the degree of alignment of the espoused beliefs and practice of four teachers. The results revealed four professional portraits – the pragmatist, the inconsistent, the eclectic and the novice – which illustrates the diversity and complexity of their beliefs and pedagogical practices and indicated weakness in the participants’ language awareness, a general lack of grammatical knowledge, and a misalignment between beliefs and practice.

We argued that PCK and general language knowledge are central to what pedagogical practices are chosen in the classroom and what attitudes teachers develop towards certain aspects of language, in our case grammar. This is supported by others who argue that there is a place for *language* in the general language teacher knowledge-base (Graves, 2009; Roberts, 1998; Yates & Muchisky, 2003 etc.). Although teachers of dyslexic learners may not be considered *typical* language teachers, they handle students with special learning disorders that are related to language acquisition and learning. The absence of a strong foundation in grammatical knowledge amongst the research participants suggests that their training does not provide them with the knowledge on language teaching that is grounded in how languages are organized (i.e. grammar) and how languages are learned (i.e. teaching methodology and approaches), so as to enable them to become competent and efficient educators of dyslexic learners.

The study has proven that sheer experience in years of teaching English to dyslexic learners does not necessarily lead to a greater understanding of their needs or an expertise in language teaching. Due to their limited initial training, it is important that they are offered a structured and systematic in-service training to improve both their understanding of language and language pedagogy. It would also be important to create a professional community that fosters enquiry through which knowledge can be constructed (Borg, 2005). Thus, providing context specific in-service courses within the organization would offer invaluable opportunities for pursuing professional development (Burns, 2015).

Finally, with creating a community of practice, there is a hope that a shared value system on pedagogical practice can be achieved amongst teachers at the DAS. As a young organization, it is vital for DAS to develop a common corporate culture of common beliefs and values to drive its mission of ‘*Helping Dyslexics Achieve*’ to succeed. This

will enable the teachers to be more aware and sensitive to the needs of their learners and understand their roles and responsibilities in the organization, which can also lead to higher job satisfaction and motivation.

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