The Mediation of Learning in the Zone of Proximal Development through a Co-constructed Writing Activity

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This article develops a theoretical understanding of the processes involved in the co-construction of a written text by a teacher and student from a Vygotskian perspective. Drawing on cultural-historical and sociocultural theories of writing and Vygotsky's concept of the Zone of Proximal Development (ZPD), this case study of a student and teacher interaction in a UK secondary school examines the social mediation of collaborative activity in the negotiation of meaning. While expressivist process theories of writing focus on the development of the authentic voice of the writer, this article contends that the development of a student's writing abilities requires active intervention by a teacher within a constructed zone of development. Writing is viewed as a situated activity system that involves a dialectical tension between thought and the act of composition. Finally, the article will argue that the recursive and complex nature of writing development is an integral tool in the learner's own agency in creating a social environment for development.

Introduction

The premise for this paper is that writing is a complex form of social and cultural activity which involves a "high level of abstraction" as pupils attempt to communicate meaning (Vygotsky, 1986, p. 181). Vygotsky (1986) argues that the process of composition involves social and cultural interaction leading to the translation from inner speech, or internalized thought, to outer speech in the form of writing. This change involves "deliberate semantics—deliberate structuring of the web of meaning" that is unique to writing (Vygotsky 1986, p. 182). Britton, Burgess, Martin, McLeod, and Rosen (1975) describe this transformational process as "the dialectical interrelationship of thought and language" (p. 39). Writing therefore represents both a complex activity and a developmental mode of learning.

A central theme in this paper will be the argument that the most powerful forms of learning take place when students are working within a Zone of Proximal Development (ZPD), defined by Vygotsky (1978) as

the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers. (p. 86)

Vygotsky goes on to describe the ZPD as "a tool through which the internal course of development can be understood" (Vygotsky, 1978, p. 87) and argues that "the only good kind of instruction is that which marches ahead of development and leads it; it must be aimed not so much at the ripe as at the ripening functions" (Vygotsky, 1986, p. 188). Yet as Moll (1990) points out, Vygotsky never "specified the forms of social assistance to learners that constitute" a ZPD beyond generalized comments about "collaboration and direction" (p. 11). This article examines both the mediating role of teachers in the development of a particular pupil's writing abilities and the consequent appropriation and internalization of the cultural tools required for writing.

Through an analysis of the production of a text co-constructed between a student and teacher, an argument is developed that the recursive nature of writing development is an essential element for the learner's own agency in the creation of a social environment for development. By developing a critique of Tharp and Gallimore's (1988) four stages model of the ZPD and assisted performance, this article also puts forward an argument that the key to understanding development of an individual's psychological and mental functions lies in analyzing the social interaction that the individual is involved in during the learning process: that is, the immediate culture of teaching and learning.

Literature Review

Mediation and Writing

In the context of school learning, Vygotsky states that a child's development within a ZPD involves social interaction, dialogue, and mediated activity between learners and with their teachers (Vygotsky, 1978, 1986; Vygotsky & Luria, 1994). As Wertsch (2007) argues, mediation is a central theme throughout Vygotsky's writing:

> In his view, a hallmark of human consciousness is that it is associated with the use of tools, especially "psychological tools" or "signs." Instead of acting in a direct, unmediated way in the social and physical world, our contact with the world is indirect or mediated by signs. This means that understanding the emergence and the definition of higher mental processes must be grounded in the notion of mediation. (p. 178)

Vygotsky distinguishes between the mediating functions of tools that are "externally oriented" and "serve as the conductor of human influence on the object of activity" and signs that are "internally oriented" and "aimed at mastering oneself" (Vygotsky, 1978, p. 55). Sociocultural theorists (e.g., John-Steiner & Mahn,

1996; Moll, 1990; Wertsch, 1985a, 1985b) and activity theorists (e.g., Cole, 1996; Engeström, 2001) use the term "cultural tool" to refer to both physical tools (e.g., pen, computer) and psychological tools such as language. For example, Wertsch (2002) has made the claim that "action and mind are fundamentally shaped both by the 'cultural tools' and 'mediational means' that individuals and groups employ" (p. 105). Brown, Ash, Rutherford, Nakagawa, and Campione (1993) suggest that the active agents within the ZPD "can include people, adults and children, with various degrees of expertise, but [they] can also include artifacts such as books, videos, wall displays, scientific equipment, and a computer environment intended to support intentional learning" (p. 191).

Moll (2000) summarizes the centrality of mediation to learning as follows:

> To put it simply, human beings interact with their worlds primarily through mediational means; and these mediational means, the use of cultural artifacts, tools and symbols, including language, play crucial roles in the formation of human intellectual capacities. (p. 257)

When analyzing the process of students' writing, it follows that as teachers and researchers we should play close attention to the ZPDs of students, the mediational tools that we provide to help scaffold their learning development, and the range of social interaction and activities involved in the process of composing a written text, which include reading and writing, feeling and thinking, speaking and listening, observing and acting (Bazerman & Prior, 2004, p. 7).

Vygotsky argues that human mental functioning is inherently social because it "incorporates socially evolved and socially organized human tools" (Wertsch & Tulviste, 1992, p. 551). Vygotsky (1981) states that

> the word *social* when applied to our subject has great significance. Above all, in the widest sense of the word, it means that everything that is cultural is social. Culture is the product of social life and human social activity. That is why just by raising the question of the cultural development of behavior we are directly introducing the social plane of development. (p. 164)

Writing, in this sense of a situated social activity, can be seen as socially mediated activity through which a pupil develops the ability to deploy the psychological function of "deliberate semantics—deliberate structuring of the web of meaning" (Vygotsky, 1986, p. 182).

It is here that Vygotsky's "tool" of the ZPD is again instructive for the activity system of writing. As Engeström (2001) argues, dialectic contradictions are part of "historically accumulating structural tensions within and between activity systems" (p. 137). Vygotsky (1978) explains that the ZPD "defines those functions that

have not yet matured but are in the process of maturation" (p. 86) and adds that "learning awakens a variety of internal developmental processes that are able to operate only when the child is interacting with people in his environment and in co-operation with his peers, (ibid., p. 90). In other words, mediated, social activity is the key both to learning and to cognitive development.

Process Theories of Writing

During the 1970s and 1980s, the idea of process writing workshops became influential in the educational field of teaching English—first in North America, then in Australia and the UK. In a famous short article, Murray (1972) argues that writing should be taught as a process instead of as a product:

> What is the process we should teach? It is the process of discovery through language. It is the process of exploration of what we know and what we feel about what we know through language. It is the process of using language to learn about our world, to evaluate what we learn about our world, to communicate what we learn about our world.
>
> Instead of teaching writing, we should teach unfinished writing, and glory in its unfinishedness. (p. 12)

The concept of writing as an exploratory process led Elbow (1973) to criticize the notion of planning before writing:

> This idea of writing is backwards. That's why it causes so much trouble. Instead of a two-step transaction of meaning-into-language, think of writing as an organic, developmental process in which you start writing at the very beginning—before you know your meaning at all—and encourage your words gradually to change and evolve. Only at the end will you know what you want to say or the words you want to say it with. (p. 15)

The concepts of "authentic voice" and "ownership" run throughout the literature of process writing (Atwell, 1987, Calkins, 1986; Elbow, 1973, 1986; Emig, 1971, 1977; Graves, 1983; Macrorie, 1985; Murray, 1972, 1985). Macrorie, for example, asserts that "all good writers speak in honest voices and tell the truth" (Macrorie, 1985, p. 5). Graves (1983) asserts that "voice is the imprint of ourselves on our writing" and focuses attention away from the finished product of writing and onto the processes young pupils need to go through as writers (p. 227). Emig (1977) argues that writing consists of a recursive, five-part process of pre-writing, drafting, revision, editing, and publication. Atwell (1987), Macrorie (1985) and Elbow (1973) have all advocated expressivist process-writing approaches based on free writing exercises and, in Elbow's argument, teacher-less writing programmes. For all, the key to progress in writing lies in the importance of conferencing, allowing time to write, and the importance of the writer finding a voice. However, it is worth pointing out that Atwell (1998) subsequently developed her views on process writing to include more active teacher intervention. For Atwell (1998), the teacher's

role is a writing expert to the student's role as apprentice. The teacher establishes direction for writing assignments and actively intervenes in pupils' writing at key points. Atwell here recognizes "the fluid, subtle exhilarating balance that allows me to function as a listener and a teller, an observer and an actor, a collaborator and a critic and a cheerleader" (p. 21).

Process writing theories have increasingly come under attack from theorists who argue that the teaching of process writing is reductionist in its attempts to describe a universal process and that writing is public, interpretive, and situated (e.g., Kent, 1999; Ivanič, 2004) and from genre theorists who argue insufficient attention is paid to the linguistic features of text types (e.g., Cope & Kalantzis, 1993; Freedman & Medway, 1994; Kress, 1988) or to social activity systems (e.g., Bazerman, 1994; Russell, 1997). Applebee (1986), in a critique of the original concepts of process writing, argues that many projects failed because of an inadequate understanding of what writers do when they write for specific purposes. He goes on to advocate instructional scaffolding based on the idea that "learning is a process of gradual internalization of routines and procedures available to the learner from the social and cultural context in which the learning takes place" (p. 108).

Delpit (1988, 1995), on the other hand, argues that students from backgrounds outside what she terms the "culture of power" need to be taught the codes for participation: "they must be allowed the resource of the teacher's expert knowledge, while being helped to acknowledge their own 'expertness'" (Delpit, 1988, p. 296).

The cognitive theories of Flowers and Hayes (1980) and Bereiter and Scardamalia (1987) stress the importance of revision to the process of composition as a writer becomes more expert. However, cultural-historical and sociocultural theories of writing (e.g., Bazerman, 2012; Bazerman & Prior, 2004; Myhill, 2010; Prior, 2006; Russell, 2009; Smagorinsky, 2008) focus on the social and cultural practices involved in the learning and teaching of writing. Prior (2006) argues that a purely cognitive focus was "critiqued as too narrow in its understanding of context and was eclipsed by studies that attended to social, historical, and political contexts of writing" (p. 54). Smagorinsky (1995) challenges Emig's (1977) view that the writing process in itself is developmental by arguing that "any sign system that is culturally sanctioned has the potential to enable learners to engage in the construction of meaning through tool-mediated activity" (Smagorinsky, 1995, p. 180). As Prior (1998) points out, writing is a situated activity and "writing happens in moments that are richly equipped with tools (material and semiotic) and populated with others (past, present, and future)" (p. xi). The mediating role of cultural and psychological tools within the particular situated writing activity is central to an understanding of writing development. Russell (1995) argues that it is the dialectical nature of the activity system of writing that leads to transformation through joint activity. Bazerman (2012) states,

The high degree of imagination, information gathering, mental framing, and meaning making required for reading and writing suggests that literate processes are constantly adaptive to and constructive of situations, organizing the brain for situated action. (p. 102)

Indeed, the suggestion here is that the tension, or dialectical interaction, between meaning-making and situated activity is essential to the learning process. In this model of the act of written composition, writers transform or develop their knowledge through the dialectical tension between the intended content of a text and the language used to create the script. Ivanič (2004) identifies six "discourses of writing": skills, creativity, process, genre, social practices, and sociopolitical discourses (p. 225). Although Ivanič believes these discourses all have a useful place in the practice of "eclectic teachers" (p. 230), she makes a crucial distinction between the discourses of process, genre, and social practices:

In the *process discourse of writing*, the event is reduced to the writing processes them-selves, and in the *genre discourse of writing* the role of the event is limited to shaping linguistic features. In a *social practices discourse of writing*, however, the text and the processes of composing it are inextricable from the whole complex social interaction which makes up the communicative event in which they are situated, and meaning is bound up with social purposes for writing. Writing is purpose-driven communication in a social context. (p. 234)

This definition of writing as socially and contextually situated is compatible with a sociocultural analysis of writing. As Vygotsky (1978) put it, "writing should be meaningful…and the natural methods of teaching reading and writing involve appropriate operations on the child's environment" (pp. 117-118).

Methods

The data presented and discussed in this paper are drawn from a longer action research project influenced by Vygotskian and sociocultural theory designed to change the pedagogical practice of English teachers. Action research in education seeks to challenge and change practice in order to improve the educational experience of pupils (Herr & Anderson, 2005; Lomax, 2002; McNiff, 1988; Somekh, 2006; Somekh & Zeichner, 2009). However, the central focus of this article is the negotiation in an interaction between a teacher and student. Accordingly, the article addresses three related research questions:

1. What mediational role do teachers or more capable others have in the development of pupils' writing abilities?
2. How do pupils appropriate and internalize the cultural tools that aid their psychological development from inner speech to written speech?

3. What is the role of the learner as an agent of his or her own development?

The case study presented in this article is drawn from video data of two Year 8 (ages 12-13) English lessons that I taught as the class teacher in a computer suite in a UK comprehensive (non-selective state secondary) school in 2004. The analysis concentrates on the interaction between a 13-year-old student, identified as John, and me as his teacher as we engaged in collaborative writing of a text and then modeled the process to the Year 8 English class.

This particular group was composed of students whose writing had been assessed as at least one National Curriculum level behind their reading and speaking and listening levels (a scale from 1-7). As a result, many of the pupils have experienced severe problems in mastering written composition, with their oral ideas often well in advance of their written efforts. This imbalance between ideas and practice in the area of writing suggested to me a fruitful area of research into the students' zones of proximal development. There was clearly a difference between the students' ability to write independently and what they could achieve with guidance, but there was also resistance among some of these students towards using the stages of planning and redrafting that may improve their writing. Put another way, the possibility of investigation into the development of psychological processes existed within the area of frustration for the students that constituted the process of written composition. Typically, students struggled to produce cohesive pieces of writing that addressed specific audiences. Problems of choosing an appropriate register and vocabulary for specific genres were also common.

John was a particularly complex case in the group. His writing level had been assessed as being at level 3, well below the national average of level 5, while his reading assessment suggested that he at times reached level 6, although his written expression often made this difficult to judge. John was easily distracted in classes, and his behavior had at times been very challenging towards staff. John had poor social skills, was isolated in groups, and often used extremely inappropriate language to both staff and peers. On the other hand, he made occasional insightful comments in discussions and had worked well independently on occasions. John was an avid reader of horror stories and possessed a large oral vocabulary that was rarely replicated in his writing. His handwriting was at times illegible, although when pressed he was able to produce a legible cursive style. It was extremely difficult to get John to work in pairs or in groups because of his habits of name-calling and occasional bursts of temper. John's response to attempts in Year 8 to involve him in group writing projects had been to withdraw himself both socially and physically from the group. The writing group approach of Atwell and Elbow was clearly not likely to work for a reluctant writer such as John (Thompson, 2012a).

The case study of John focuses on our collaborative work, with me acting as a model for other pupils in the class over the course of two lessons. Although inevitably this relationship involved a hierarchical teacher-to-pupil dynamic, there was also an element of equality between pupil and instructor built into the task. The chance to work with John therefore opened up the possibility of working as an equal with him on a shared piece of writing and directly observing areas of collaboration. Of course there was an element of power imbalance, but I had previously got on well with John and felt that he would trust me not to humiliate him in front of the class when we shared our writing with the group. Indeed, Panofsky (2003) argues that mutual respect and trust may be a prerequisite for constructive dialogue within a ZPD. Although my previous attempts to help John develop as a writer in Year 8 had been limited, he had begun to accept constructive comments from me as his teacher, although he didn't necessarily act upon them.

The instances chosen for analysis are examples of critical incidents where the collaborative element of learning established conditions of negotiation between student and teacher or significant other (Alexander, 2000, 2008; Mercer, 2000; Newman, Griffin, & Cole, 1989). Critical incidents have been defined as moments that exemplify important developments in learning (Woods, 1993) and that allow teachers to reflect on their teaching (Tripp, 1993, 1994)—thus serving as "a means of finding a focus for classroom action research" (Tripp, 1993, p. 24). The critical incidents presented here are moments when the secondary school student John could be observed working in a ZPD with the help of his teacher. These moments might involve dialogue, instances of written composition, or gestural or positional evidence from video data. The identification of these key moments, therefore, was a key research method of analysis or theoretical sampling of data (Brown & Dowling, 1998) based on the underlying theoretical position that learning is situated and involves mediation and negotiation of meaning. In the lessons, two cameras were set up to film John working either individually or collaboratively at the computer. The aim was to capture spoken interactions and interactions with the computer. Video clips that focused on John's activity allowed me to glimpse some of the thought processes involved in his learning (Heath & Hindmarsh, 2002).

Erickson (1992) points to a tendency in video analysis sampling to what he calls "hypertypification in primary data collection" whereby evidence that does not conform to the dominant pattern tends to be ignored (p. 209). This is a particular problem when looking for key moments or critical incidents that by definition may look different from other points in the data. On the other hand, Erickson identifies three key strengths of video data: (1) the potential for completeness of analysis through repeated viewings with different foci; (2) the reduction of observer dependence on premature interpretation; and (3) the reduction of dependence on frequently occurring events as the best or most important data source.

Because the research questions involved identifying rare moments where pupils were working within ZPDs, the process of repeated viewings of video data became integral to the research methodology. The importance of these episodes was to try to work out what John was thinking when he was writing, using the evidence of spoken utterances, physical movements, psychological and cultural tools, and the written texts produced. To summarize, through repeated viewings of the video data, key episodes were identified where development was observable through visual data, whereby John manipulated text on screen in a collaborative way, and through speech that accompanied this process. In each case, the key to choosing the instance for analysis was that the student developed writing skills in response to help from either other students or his teacher.

Frameworks for Analysis

In order to analyze and interpret the video data, a framework was developed for investigating collaborative learning within a ZPD. This involved categorizing the potential contexts that might trigger the emerging psychological process observed through the video data. Evidence from video data involved not just linguistic activity but also a range of gesture, gaze, position, or action, sometimes but not always connected with speech (Moll & Whitmore, 1993).

Drawing on work that used scaffolding to help frame students' writing (Bodrova & Leong, 1996, 2001; Hartman, 2002; Wray & Lewis, 1997), a three-part model of the ZPD over time was used as a means of identifying key moments of interaction in the development of John's writing. This emerged from repeated viewings of the data (see Figure 1). When I identified a key moment when John appeared to be soliciting and using the advice of a more able peer or teacher, I then attempted to track the progress of his writing based on the advice or instruction. I take Vygotsky's use of the term "more able peer" to refer to a student working at a more advanced level of development in a particular activity system. This tracking included looking at both the video data of the pupil writing either alone or in collaboration and at the texts produced.
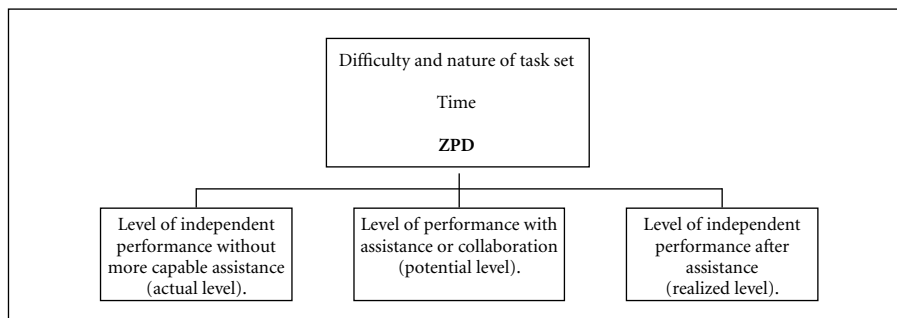

FIGURE 1: *Learner's progress through ZPD over time.*

In this model, setting appropriately challenging tasks and understanding the time needed to transform students' performance are crucial if learners are to enter into a ZPD. The potential size of a ZPD "refers to the extent to which a child can take advantage of collaboration to realize performance beyond what is specified by independent performance and relative to age norms" (Chaiklin, 2003, p. 53). However, Newman et al. (1989) and Mercer (2000) point out that the ZPD can only be created through negotiation between the learner and the more advanced other. Likewise, Tharp and Gallimore's (1988) concept of assisted performance and Moll and Whitmore's (1993) insistence on collaborative forms of mediated meaning-making suggest that the ZPD constitutes a reciprocal shared space between the learner, teacher, and peers constructed through social interaction in the classroom. The importance of the research presented in this article is the attempt to understand how learning within this zone becomes transformational for the children as they exert their own agency on their learning environment.

Introducing different forms of adult assistance for a student writing was a key part of the intervention in the research. However, evidence gathered over my sixteen years of teaching suggested that some students, while mastering a skill in one or a series of lessons, sometimes reverted to previous levels of performance in subsequent lessons. The concept of recursion in the following four-part ZPD framework, adapted from the work of Tharp and Gallimore (1988) (see Figure 2), suggests that forms of assistance such as models or collaboration with more capable peers may need to be repeated or used in a different form if the transformation of learning is to be completed.

As a tool of analysis, the four-part model sharpens a focus on the process of composition and the texts produced over time as pupils develop through their ZPD. However, as Meira and Lerman (2001) point out, there is a danger that scaffolding in the form of teacher control as envisaged by Wood, Bruner, and Ross (1976) and Tharp and Gallimore (1998) correspond more closely to behaviorist concepts than sociocultural theories of learning.

Ageyev (2003) suggests that Vygotsky in his own research focused his investigation on a particular phenomenon or emerging psychological function in learners and traced the developmental phases of the phenomenon such as play, sign usage, or mediated memory in at least five phases that are identifiable as follows:

1. The time in which the phenomenon does not exist
2. The initial traces corresponding to the psychological tools and social forces that triggered the emerging phenomenon
3. The climax of the phenomenon linked to tool usage and social interaction
4. Gradual internalization of the phenomenon
5. The phase where the phenomenon is embedded in an individual and appears natural (Ageyev, 2003, p. 436)
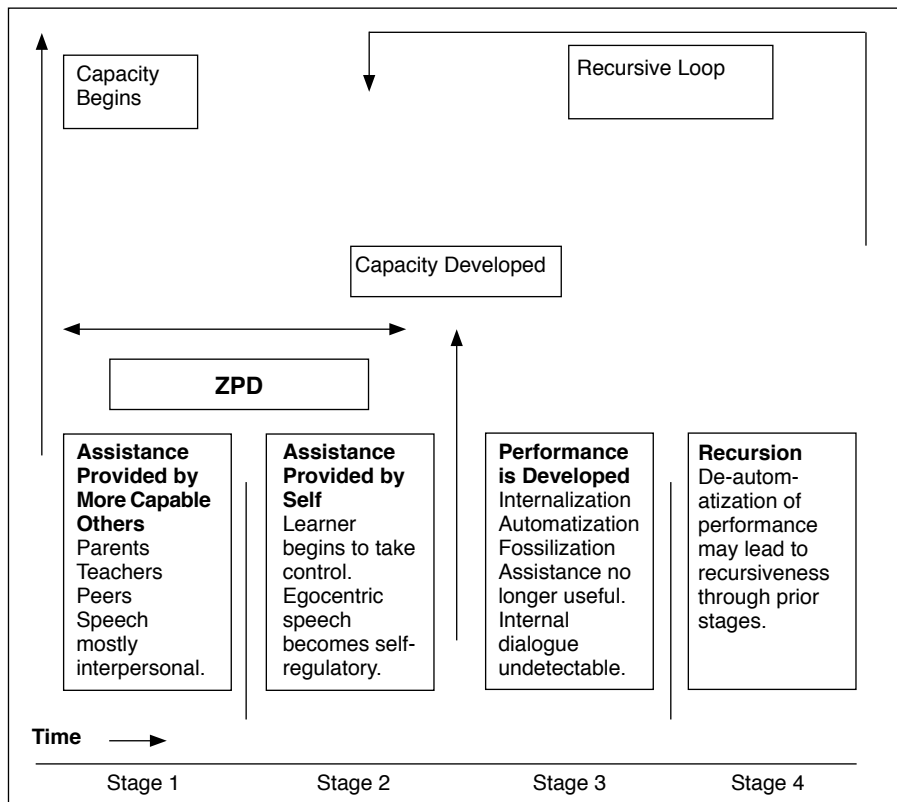
FIGURE 2: *Four-part ZPD Framework. Excerpted from Tharp and Gallimore (1988, p. 35).*

These phases can be seen to correspond to development within a learner's ZPD as the student develops, masters, and finally internalizes higher-order psychological processes such as abstract thought or mediated memory (Thompson, 2012b). The following framework uses the term "phases" to refer to a more fluid and recursive concept of development than the idea of fixed stages. Appropriation and internalization in this model take place within a fluid process of interaction and negotiation within the learner's ZPD:

Phase 1: Where written performance is assisted by more capable others such as a teacher or more advanced peer (Assisted Performance). Although the psychological function has begun to emerge, the student cannot progress at this point without either more expert assistance or other contextual stimuli such as peer collaboration. The student's response to instructions or modeling may be defined as imitative or acquiescent (Vygotsky, 1978; Wertsch, 1985a).

Phase 2: Where written performance is assisted by the self through the phenomenon of self-directed speech (Self-Assisted Performance). At this point, performance is not fully developed but control of the cognitive process is starting to move from instructor to learner. This phase is linked to tool usage and social interaction with either peers or between student and teacher.

Phase 3: Where performance is developed and becomes automatic (Developed Performance). The cognitive process has now been appropriated and developed by the learner, and assistance at this point is no longer helpful.

Phase 4: Where a change in context leads to recursion back through the ZPD (Recursion through ZPD). This is a situation whereby the cognitive process may have been forgotten for some reason (such as environmental or social change) and the learner goes through elements of the previous phases in order to recall the cognitive process.

The first three phases describe the learner's progression through a ZPD in terms of a transition from assisted performance to self-assisted performance and finally to a level of developed performance. For any individual, learning over time consists of a mixture of psychological processes at various stages of assisted performance, self-performance, and automization. Although not inevitable, the fact that recursion occurs so often suggests that this constitutes a separate phase of development (Tharp & Gallimore, 1998). This analysis leads to the questions of what types of assistance can be offered within the ZPD to improve student performance and how Vygotskian teachers can assess the appropriate form of help for different types of ZPD. In order to develop my overall analysis of the functions of different types of assisted performance, I created the following framework for investigating collaborative learning within a ZPD and specifically during the process of writing (Figure 3).

At the heart of this framework is the assumption that the act of collaboration is central to pupils' developing the higher-order skills of critical thinking or problem-solving. Some or even all of the other elements may be necessary for pupils to develop the trust or equal power relationship necessary in collaborative writing. In addition, the overall context of students' prior learning histories related to both learning and the act of writing influences the various interactions between the students and other agents of change or classroom contexts. For example, past experience of a particular teacher's teaching style or a pupil's aptitude or attitude towards computers may have a positive or negative influence on the collaboration between learners. Finally, the social and physical contexts of writing are influenced
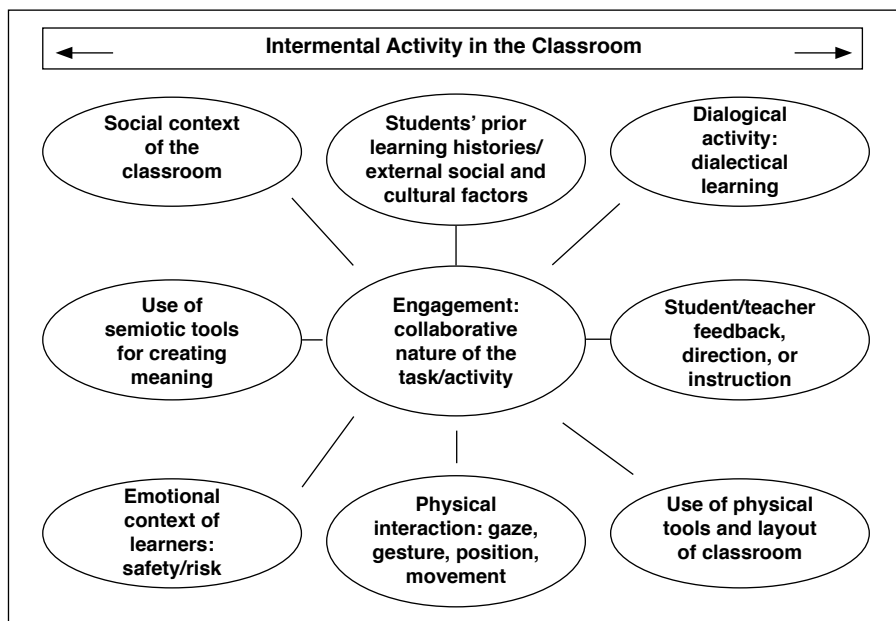
FIGURE 3: *The Contexts of Mediated Activity: Psychological and Physical Tool Usage within a ZPD.*

by the physical contexts of the layout of the computer room and the tool usage afforded by computers.

The following case study of the interaction between John, me, and his peers explores the social mediation of collaborative activity in the negotiation of meaning. The framework of the contexts of mediated activity within a child's ZPD (Figure 3) is used in this analysis to address the related research questions of the mediational role of teachers and peers, how pupils appropriate and internalize cultural and psychological tools, and the role of the learner in his or her own development.

Findings

Social and Emotional Contexts of the Classroom

The different environment of the computer room had an obvious motivational influence on John. His demeanor was more positive than his normal attitude in his English classroom, and he also settled to work on a computer quickly and quietly. In the previous lesson in the computer room, I had asked the class to write down the positive and negative effects of working on computers. John's comments reveal some of the reasons that made him feel positively towards new technology:

> Computers can help us write because the writing looks more appealing. New words, colour, spell check makes you feel you've done more, write more quicker and helps you by you can save your data and can help you put more detail in your work. I also think computers are bad as they can crash and freeze on you on you and could run out of ink. Computers are neater than my handwriting.

John believed that computers "can help us write" as if the computer itself becomes an active partner in the process of composition rather than a tool that he was able to manipulate. He also said that the computer helps him to write "quicker" and "makes you feel you have done more," suggesting that his attitude to writing using a word processor was qualitatively different from his attitude when he wrote by hand. This feeling of progress therefore was in contrast to John's normal experiences of writing in a classroom, which were marked by failure and frustration. The comment that he could save his data and "put more detail" in his writing showed a positive attitude towards redrafting that had been absent in his classroom work. John liked the "look" of written computer work and although his negative comments suggest past frustration with technical difficulties, he returns to presentation at the end, feeling that computer text was neater than his own handwriting.

Task and Engagement

The task, a dual narrative, was designed to involve pupils in a collaborative writing task. The term dual narrative refers to the use of narrative voices that tell a single story from two contrasting perspectives. This can either be achieved through narrative perspective, perhaps alternative chapters concentrating on two characters, or through contrasting narrative voices. This writing task lends itself well to collaborative writing, as a pair of pupils can negotiate a shared narrative, adopt different narrative voices, and negotiate the shared production of a text. My aim in co-constructing a text with John was to play the role of an equal partner in the negotiation of meaning. In fact, I intended John to take the lead wherever possible, as it was important for his development that he experience success as a writer in contrast to his past history of frustration. However, I also intended to act as a critical partner who could prompt and question. I was, in this sense, conscious of my mediational role as a significant other. This meant an intense period of working with John that involved risks as I played the dual role of teacher and co-constructor. Decisions of when to intervene and when to leave John alone to develop the text were to be critical.

After an initial teacher-led session that explained the dual narrative task, I explained to John that I was going to work with him on writing the story. John was asked to choose the theme for the story and to begin a plan. John quickly started planning his story on his computer and gave it the title of "The Thing from Shelby." John normally took several minutes to start any writing and had to be prompted several times. However, the combination of the particular context of the computer

suite, the nature of the writing task and the fact that he was able to use a computer was obviously motivational for him. In the final part of John's plan there is a clear sense of the teacher as a critical other in the planning process:

> I also need to print out comments to Mr Thompson telling him what I think I need to improve or things that he thinks I need to improve I can use a printout to prove that I have done these things.

The fact that John referred to improvement is instructive, as he clearly had a sense of redrafting that had been absent previously. Although John did not refer again to this piece of planning, it appeared to serve a recursive signpost for him whereby he revisited the planning process he followed for a completely different task. John told me that the plan "helps me to think" although it actually represents the process of collaboration needed in shared writing. I then asked John if he had decided on his bullet points and, as I watched him, John then wrote down six bullet point ideas underneath the title he had already written (reproduced below). He did this quickly and with minimal corrections, suggesting that the writing of his abstract plan had been produced at the same time as his inner dialogue on the narrative plan.

The plan for John was a symbolic representation of thought that would not be apparent to anyone else. He was creating and using signs to trigger inner speech into outer speech:

The Thing from Shelby
- Pupils start to disappear
- Slime is found around the school
- USE A CHILD AS BAIT
- CAPTURE IT IN THE BASEMENT AND LEFT THERE IN CASE THERE ARE ANY BAD STUDENTS FOR IT TO EAT
- One child is framed and the thing can't capture him
- People prove it and he is set free and has a potion to make him forget everything and he lives happily ever after

What John created here became the basis for his dual narrative; however, on closer inspection, it becomes obvious that John had already moved into this narrative structure. The first two bullet points were written as facts intended to create the tension around which the narrative was going to be based. Yet bullet point three was written from the perspective of the monster who was going to "use a child as bait," while bullet point four attempted to give a context for the monster. John had differentiated the text in these points by using upper case. He had initially also used upper case for bullet point two, but he changed this back to lower case as it belonged to the domain of the humans. The layout of the bullet points had become a visual representation for John of the developing dual narrative perspectives.

John had also used a green-colored background behind his text, and in the following short interchange with John I wanted to find out why:

TEACHER: Why have you done that? What does it represent?

JOHN: It makes me remember.

TEACHER: Remember what?

JOHN: The slime. The monster. What it does.

TEACHER: What does it do?

JOHN: Slimes them to death.

TEACHER: Sounds revolting.

JOHN: That's the point isn't it (*laughing*).

The green color for John represented a further visual point of reference relating to the tone and mood of the planned story. John and I then discussed his bullet points, as I did not initially understand what the sixth point meant. To John the point was clear: the monster was discovered and the pupil was given a potion to make him forget. I suggested that this was unclear and was in any case a weak ending for a horror story. John was not prepared to rewrite the bullet point but he did think about what I had said.

TEACHER: Is that how you want it to end?

JOHN: It's like a horror fairy story.

TEACHER: Is that what you want in a horror?

JOHN: I want to scare you.

TEACHER: Will that scare your reader?

JOHN: I don't know. I like it.

John's rejection of my suggestion to change the ending showed that he was starting to take control of the writing task. At this point John and I discussed who was to take each role in writing the dual narrative. John decided that he would write from the perspective of the pupil as he felt he would understand this part better. I decided to let John make the decisions and left him to start writing. When I returned a few minutes later he had written the following:

The first thing I knew was the fact that that all of my friends kept on disappearing. All that was left was this horrible slime.

My friends get told that they could get money for being a decoy. One of them volunteered. But when he came back he couldn't remember any thing about it. So I went to look but I couldn't be bothered.

The next thing I knew I got shoved into this room. A humongous monster appeared. So I ran and ran and then a teacher pulled me out and told me it was a mistake and to have a drink out of this cup. But I didn't forget and it still surprises me.

What John produced here was an extended version of his bullet points, although there was an attempt now to use figurative language such as the "horrible slime" or the "humongous monster." This was, for John, a sustained piece of writing. The second paragraph reads like notes rather than a story and uses the anticlimactic line "I couldn't be bothered." However, John had turned the ending into something slightly more subversive, as in this version the potion does not affect his pupil character. This change represented a response by John to the objections I had raised to the final bullet point. In order to continue the collaboration I then wrote the following three short paragraphs from the point of view of the monster:

The boy had tasted revolting. There were too many bones. The skin smelt of grease and stale fags.[1]

The creature crept carefully along. The target was inviting.

This one looked far tastier. Red hair, with plenty of flesh, it looked like a gourmet treat.

John's response to this was interesting, as he shows an engagement with the second part of the dual narrative:

JOHN:	Is that the monster talking?
TEACHER:	Yes. What do you think?
JOHN:	I think it sounds like a person. Does it talk?
TEACHER:	Do you want it to?
JOHN:	No, that won't scare people.

In the final few minutes of the lesson John added the following sentences to this sequence:

But it spat it out straightaway it was terrible it tasted horribly of fags and alcohol so it looked for tastier meat

Eventually finishing off the teacher and leaving the shoes behind

It got captured and brought bad students to eat it was bored

Of course there are weaknesses here, e.g., the sentences read in note form at times. Nevertheless, this work constituted a considerable advance for John in that he was considering another person's point of view and incorporating their ideas

into his own work. Indeed, he had extended the narrative from the monster's point of view, showing an ability to conceptualize the action of the story from two viewpoints. This was a conceptual advance for John, which suggested that he was moving into a Phase Two of ZPD development (self-assisted performance). Through working within a constructed ZPD, he was developing the ability to negotiate meaning through collaboration.

At the end of the lesson, John and I briefly discussed the next stage of the dual narrative, which was to merge the two narratives. This was clearly going to be difficult for John, who instead wanted to write two completely different stories, as "that would be easier." Despite his ability to develop his bullet points along the lines of dual narrative, the next stage in the writing appeared daunting. This was obviously a moment that required some form of instructive intervention or peer collaboration, but I made the decision that we did not have the time to do this in that lesson. Although he appeared to work well independently, he had, in fact, reverted to working in Phase One of his ZPD (Assisted Performance) and therefore dependent on mediated activity from a significant other. This recursive nature of John's development typifies the complexities involved in the attempt to translate abstract thought into writing.

Dialogical Activity: Dialectical Learning

At the start of the second lesson, the students were asked to sit facing the interactive whiteboard to observe a modeling sequence. I worked with John as my partner as both a means of moving him forward and of assessing the understanding of other students in the class. After a question-and-answer session, I was confident that all students understood the concept of dual narratives and the differences between first and third person voices. I then introduced John's narrative and displayed his text on the interactive whiteboard as sentence blocks.

After moving to the side of the class I read the text aloud and explained that we were going to reorder the sentences using the drag and drop facility. I then invited John to take center stage and invited students to make suggestions. The video sequence of John working lasts just over seven minutes. Throughout the video John appeared to be confident and responsive to other students in sharp contrast to what I had taken to be his normal behavior.

Although he did not speak much during the sequence he could be heard at times agreeing or disagreeing with other pupils. At points he moved text around, stepped back to read and sometimes reorganized the sentences. His focus was on manipulating the text while I addressed the rest of the class. Most of the pupils watched John as I talked. The following transcription from the start of the video data is an illuminating part of the dialogical discussion:

TEACHER:	So what should he start with?

PUPIL ONE: He should start where it says "The first thing…" (*John puts that sentence first.*)

PUPIL TWO: Then "The creature crept along." (*John does this.*) Then "the boy had tasted revolting." (*John follows this instruction. He then moves other sentences around at the bottom of the board.*)

JOHN: No. It doesn't look right. (*He changes sentence one and two and steps back to look.*)

PUPIL ONE: Yeah that's good. (*John nods.*) Put it there.

TEACHER: Do we all agree that works?

PUPIL TWO: I think so . . . Yes.

PUPIL THREE: I like it there.

John at first followed the instructions of his peers but quickly asserted his own ideas. His visual focus was reflected in his comment "It doesn't look right." However, he said this very quietly as if to himself rather than the rest of the class. His speech here was self-directed or speech for oneself. John was beginning to master tool and symbol use and appeared to have moved into Phase 2 of his ZPD (Self-Assisted Performance) in that he was solving the problems of composition through dialogue with others but also making his own choices. John's focus remained on the text throughout this exchange though he stood back slightly to read. He appeared to be pleased when Pupil One thought the revised order was "good" as shown by his nod of agreement. This pattern was then maintained as John sometimes accepted suggestions and other times rejected them. Other students appeared to accept his decisions without dissent, suggesting they were treating his role as the writer with respect. The collaboration here then involved the negotiation of meaning.

The task engaged both critical thinking and problem-solving through interaction with other pupils. The video data show that John appeared to be engrossed in his work throughout this sequence. He was responsive to others and clearly enjoyed the physical properties of the interactive whiteboard. Although the format of creating sentence blocks that could be moved around constituted a fairly crude form of redrafting, nevertheless the tool usages of the interactive whiteboard clearly had an effect on John's ability to merge his two narratives. There was a clear advance here from John's assertion at the end of the previous lesson that he wanted to create two separate stories. The whiteboard then can be seen as being a tool of double stimulation through which he solves problems of composition by means of a "second series of stimuli" (Vygotsky, 1978, p. 74).

Through the help of his peers and by the appropriation of the interactive whiteboard as a cultural tool that focuses discussion, John was progressing within Phase 2 (Self-Assisted Performance) of his ZPD. The democratic nature of the task whereby John had control of his text and other students were invited to make suggestions created a positive working atmosphere where John thrived. The dialogic

discourse between pupil and teacher or pupil and peers (interpersonal mediated activity) became the process through which John developed his understanding of his inner speech into the written form of external speech (intrapersonal activity). As Vygotsky (1978) puts it,

> Every function in the child's cultural development appears twice: first, on the social level, and later, on the individual level; first, *between* people (*interpsychological*), and then *inside* the child (*intrapsychological*). This applies equally to voluntary attention, to logical memory, and to the formation of concepts. All the higher functions originate as actual relationships between individuals. (p. 57)

As the sequence continued John became increasingly animated as he moved sentences around. By this time he said nothing but did listen when I stopped him to read his work and make further suggestions. At this point in the lesson I started to address the other students, most of whom were nowhere near as advanced in their work as John. John asked if he could carry on working on his text on the interactive whiteboard and I agreed. As I talked, John worked behind me manipulating his text and standing back to read. His concentration was intense and he focused throughout on his movement of the text around the board. John's movements were fluid and in sharp contrast to his hesitant movement at the start of this sequence. In the video data, John could be seen moving his lips as he read text to himself. His independent work, ability to redraft and successful task completion suggested that John had moved into Phase 3 of his ZPD (Developed Performance). The process had become internalized and automatic and John no longer needed outside assistance. John's newly acquired mastery of the tools of the interactive whiteboard had also contributed to the development of his growing control of the writing process. The rest of the class now watched John intently. This change suggests that his peers were aware that John had taken control of the text, although whether they were conscious of this fact cannot be ascertained from the video data at this point. What is clear is that John was no longer dependent on the class to make progress and that the social nature of the class had been subtly altered. John in effect was now modeling the process of composition for the rest of the class. John's performance as an independent writer at this point can be described as "developed" since he no longer required intervention or interaction in order to develop his text. He clearly did not need further help at this point and was engrossed in his own thoughts.

As I finished my instructions to another student, John finished and asked me to read his work out to the class. John was clearly proud of his work and confident in the choices he had made. As I read out his work John stood back and read along with me. His work met the approval of several of his peers who commented favorably. His level of independence and competence at this point again showed him to be working at Phase 3 of his ZPD (Developed Performance). John was not only

a more effective writer by this point in the lesson but also a more reflective one. Although the success of his story was clearly important to John, the real learning that had taken place was in John's ability to think critically.

Of course, it would not be true to say that John had been transformed from a reluctant writer to a full-fledged, confident wordsmith. In fact, in the next lesson John typified the process of recursion identified in Phase 4 of a ZPD (Recursion through a ZPD) as he reverted back through his past experiences of his perceptions of failure as a writer.

TEACHER:	Why don't you continue with the story, John?
JOHN:	Can't you do it?
TEACHER:	Look back at what we wrote last lesson and see if you are happy with it.
JOHN:	I've lost it all. I can't remember what happened.
TEACHER:	Look at what you've got and try to remember…
JOHN:	Err. No. No.
TEACHER:	Think what you are trying to tell the reader.
JOHN:	I can't do it. Can you do it?
TEACHER:	I want you to try to remember.

John's frustration here was in part because he had only saved the opening sequence of the revised story. Nevertheless, as he struggled to recreate and develop his story he began with teacher guidance to draw on the psychological tools developed in the previous sequence. I had to remind John both of the need to establish separate narrative voices and the need to reflect on choices. My insistence that John recreate the piece represented a considerable risk, as I was imposing the power differential that the task had concealed. However, John quickly developed or recalled the critical awareness necessary for the task and was able to complete his story and redraft it in the allotted time. John displayed a level of concentration and dedication that was in advance of anything I had previously seen from him. The recursive and complex nature of the written task, and the subsequent development through mediated activity, had become an integral tool in John's own agency in creating a social environment for development.

The final text that John produced in the lesson is reproduced below in the fonts that John chose after some deliberation (Figure 4). In this version, John had incorporated elements of his original text, modified versions of my text, and redrafted and improved some of the sentences. He managed to combine the horror genre with a sense of humor and maintained two distinctive narrative voices. The paragraphs show coherence and John's use of a range of sentence structures to either build tension or create comic effect. In the final version, John had changed the effect of the sentences that I had provided for the monster: the monster de-

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THE THING FROM SHELBY

The boy had tasted revolting. There were too many bones.

The first thing I knew was the fact that all of my friends kept on disappearing.

All that was left was this horrible slime.

The creature crept carefully along. The target was inviting. This one looked far

tastier. Red hair, with plenty of flesh, it looked like a gourmet treat. Ugh! It spat it

out straightaway. It was terrible it tasted horribly of fags and alcohol. It finished off

the teacher leaving the stinking shoes behind. It looked for tastier meat

It was a monster! My friends were told that they could get money for being a decoy.

One of them volunteered. But when he came back he couldn't remember any thing

about it. So I went to look but all I could hear were screams. Was that Mr

Thompson?

FIGURE 4: *The final text of "The Thing from Shelby."*

vours a teacher that turns out to be me. In fact, he was particularly keen for other pupils to read this version and he had clearly included me as the target of the joke in order to amuse his immediate audience. This attempt to engage his audience represented a considerable social and cultural advance for John. The completed text was now identifiably John's: it had evolved through a collaborative process with his teacher and classmates but it was John who had taken ownership of the dual narratives. Significantly, John had produced an extended piece of writing that showed elements of understanding of genre, audience, and textual cohesion.

Discussion

The case study of John's development as a writer presented so far demonstrates that the activity system of writing is both situated within the specific contexts of the child's ZPD and that development in writing involves a dialectical tension between thought and the act of composition. However, in order to understand this development, a series of further questions needs to be addressed to understand how learning within this zone becomes transformational for the child. For example, how

had this progress in writing been achieved though mediational activity, and what contextual elements stimulated or affected progress? Were there specific reasons for the recursion viewed in lesson three? Was John really developing higher-order psychological processes or was he merely mastering a simple task? What sort of learning had actually take place?

The design of the task was a key mediating feature of the context in the scaffolding of the collaborative process. By positioning John at the interactive whiteboard working in front of the class, John could receive advice from his classmates while they in turn could see him working with their suggestions. By placing John in the center of the action, I had been able to withdraw to the side of the classroom and become part of the process of collaboration that was largely led by John's peers. This established a position of trust between John and his peers, and, as a result, he was willing to consider their advice on his composition.

John's growing confidence was clear in this sequence, as he moved the text around and stood back to read and reconsider. Although guided by his peers, he nevertheless remained the key agent in the development of the dual narrative. The use of the physical tools afforded by the interactive whiteboard involved a specific element of play that helped John to develop the semiotic tools necessary for the task. Nevertheless, the peer collaboration was a clear stimulus to John's development through the task of redrafting, showing that John was working within Phase One of his ZPD (Assisted Performance). He developed his skills of critical thinking and problem-solving because the social interaction with his peers allowed him to view his work from different perspectives.

At the same time, there was evidence in the video data of John developing the inner- or self-directed speech needed for him to move into Phase Two of his ZPD, where performance is assisted by self. For example, John looked intently at the screen in the board-writing sequence, only occasionally glancing at other students. At one point, he said the following aloud to himself as he considered the narrative:

> **John:** That's funny. That's . . . Mmmm. That's funny. Isn't it. It will eat . . . Mmm. Who it eats.

At other points he smiled and frowned to himself as he considered suggestions before moving the text on the screen. Although John responded to feedback, he was also developing the internal process necessary for him to question and revise his own work. Nevertheless, it was the interaction with his peers, and to a lesser extent with his teacher, that allowed John to make progress in the redrafting of the dual narrative text. The essentially dialogic nature of the discourse between John, his teacher, and other pupils enabled him to reorganize or reshape his ideas through writing (Alexander, 2008; Mercer, 2008). However, it was his internalization of

the cultural tools acquired through socially mediated activity and the dialectical process of moving from thought to text that allowed his self-agency to develop in Phase Three of his ZPD. The micro-analyses of instances of interaction and behavior represent moments when John was actively engaged in the dialectical process of attempting to resolve the tensions between his task and the mediational means required to achieve that goal. These are specific instances of development in collaborative writing and yet they illustrate the general point that development derives from social interaction and dialogue on the intermental level, as the pupils develop the egocentric speech required for development on the intramental level. Vygotsky (1934) argues: "Egocentric speech . . . grows out of its social foundations by means of transferring social, collaborative forms of behavior to the sphere of the individual's psychological functioning" (quoted in Wertsch & Tulviste, 1992, p. 550).

The stages of reordering the text, reflecting on choices made, and either accepting or redrafting his changes became an automatic part of the composition process for John. He was able to remember previous choices and revert to them when he deemed it necessary. At this stage John was using what Vygotsky (1978) describes as recalling, which, for an adolescent, is thinking (p. 51): socially mediated activity became a psychological tool of development. John's memory followed a logical pattern characteristic of developing adolescent thought (Vygotsky, 1978). This represented significant progress for John within his ZPD, as he had mastered the thought processes central to the critical thinking and problem-solving involved in redrafting his work. It is clear, too, that the element of play involved in the physical manipulation of text allowed him to experiment with narrative choices. He had appropriated the psychological and physical tools of writing as he exerted his own agency on his learning environment.

John's progress as a writer over the course of the next few months was one of mixed success. However, he did have some successes in contrast to the period before this research episode. John was able to draw on increasing resources for composition as his social interaction improved. In the then-compulsory national Standard Attainment Tests taken at the end of Year 9, John achieved the national average grade of a level 5. Two years later he achieved a better than average grade in his national English General Certificate of Secondary Education exam, and he went on to take an Advanced Level course in English Language in his post-compulsory sixth-form education.

Conclusion

Britton et al. (1975) argue from a Vygotskian perspective that while the vast majority of school writing could be categorized as transactional, it is the expressive mode that is crucial in the development of a child's learning because it builds on "linguistic resources—the knowledge of words and structures he has built up in

speech" (p. 82). In this article I have focused on the co-construction of a student's expressive text and argued that the development of a student's writing abilities requires active intervention by a teacher within a constructed zone of development.

However, the writing process explored in this article differs significantly from the workshop approach of Atwell, Calkins, Graves and others in the centrality of a social understanding of mediation in collaborative writing. As Cremin and Myhill (2011) argue, it is the complex and recursive nature that makes writing difficult as well as developmental for many young writers. My research suggests that the recursive nature of writing is an integral tool in the learner's own agency in creating a social environment for development.

Vygotsky (1978) explicitly states that learning takes place when the cognitive task is set at a level in advance of the student's current mental level of development. This has certain implications for the classroom teacher concerning the relationship between instruction and student development. The episodes that I have chosen to analyze in this article reflect significant moments during the process of planning and initial composition. In particular, they represent critical periods in a child's learning: moments where progress is either possible or actually made through the phases of the ZPD that the written task had created (Moll, 1990; Tharp & Gallimore, 1988; Vygotsky, 1978, 1986).

John's progression through the phases of his ZPD represented a considerable advance in John's development as a competent or independent writer. At the start of the sequence he was unable to progress without teacher assistance or peer collaboration. By the end, using an interactive whiteboard, John confidently controlled both the task and the tools required for redrafting. The development of the cognitive processes required for the critical thinking to solve the task involved a complex set of social interactions: from teacher to learner to peer collaboration within the specific context of the classroom and the development of physical and semiotic tool usage.

The interactive whiteboard in this specific context operated as a form of double stimulation, in that it provided an alternative means of problem-solving (Engeström, 2007; Vygotsky, 1978). The dialogic nature of the task created both the context for John's ZPD and the conditions through which John could begin to develop his understanding of the writing process. However, the variety of the teaching methods adopted also helped create the context for a ZPD. Working within a reciprocal ZPD requires both teacher and learner to be actively involved in collaborative and mediated activity, and this requires flexibility in the social context of the classroom.

The concept of assisted performance, then, is central to development within the ZPD. Progression through a ZPD is dependent on both social interaction between a student and their teachers and peers as well as the learner's own history or context of how they feel or perceive themselves as learners. The ZPD indicates

both the presence of maturing psychological functions and the possibility of meaningful interventions within the child's cognitive development (Chaiklin, 2003; Vygotsky, 1987).

According to Vygotsky (1978), there are several potential layers of assisted performance that may help the student to progress within a ZPD. Different students require different types of assistance if they are to achieve their potential development through a ZPD. The role of the significant other is to adapt to the needs of the learner as performance develops and to be responsive to the level of assistance required. The quality and quantity of assistance needs to change over time as the learner assumes more responsibility over his or her own performance. This teacher-to-learner relationship within the ZPD may differ from the learner-to-learner relationship, where the more significant other may not in fact be conscious of his or her developmental role for the other learner but nevertheless provides the stimulus for cognitive development. The importance of different types or layers of assisted performance is dependent on the dialectical (and hence transformational) relationship between the learner's own history and the level of assistance provided at any given time (Moll & Whitmore, 1993; Wertsch, 1985b).

The following categories, developed from sociocultural perspectives (e.g., Daniels, 2007; Smagorinsky, 2008; Thompson, 2012a, 2012b), represent an attempt to pinpoint the various forms of mediation that affect progress within a ZPD:

1. Direct instruction from a teacher or more capable peer. While initially didactic, the instructive voice can be internalized by the learner as part of his or her own inner speech.
2. Modeling of a behavior or task by an expert that the learner initially imitates and ultimately internalizes and appropriates.
3. Feedback, either oral or written, that offers guidance on performance.
4. Questioning to assess or assist performance.
5. Reassurance and reinforcement of partially understood concepts.
6. Redirection or recursion through the learning process.
7. Joint exploration of meaning between teacher and pupils.
8. Peer collaboration involving critical thinking, problem-solving, or making decisions.
9. Scaffolding of a task, or of part of a task, by the teacher in order to provide a constructive framework for the learner's developing mental processes.
10. Cognitive restructuring whereby perception, memory, and action are re-evaluated and re-ordered. The internalization of this structure becomes part of the learner's inner self-regulating voice.

These various forms of assisted performance are not mutually exclusive, and successful interventions within ZPDs may include several of these elements. For the student, however, the type of intervention offered is a critical part of the negotiation of shared meaning with the learner. The research presented in this article suggests that more attention needs to be paid to the construction of ZPDs through collaborative activity, for it is negotiation within this zone that leads to development. Secondly, the importance of the situated context of writing is integral to the understanding of social mediation and the negotiation of meaning. Thirdly, while it is the complex and recursive nature of writing that lends itself to the development of a student's agency within this situated social environment, it is active intervention that mediates learning within the activity of writing.

NOTE

1. In the UK, *fags* is a colloquial word for cigarettes.

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