

**How can the use of structured organisers
improve my P2 class's engagement with
the success criteria in writing?**

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Abstract

This study investigated how educators can use *structured organisers* to support metacognitive development in a group of 6 to 7 year old children engaged in individual writing tasks. Research was carried out from a Scottish perspective. Metacognitive learning is now recognised as important in schools, however how to support metacognitive development in young learners has not been widely researched. This paper focused on self-regulation, something that is key to ensuring the active control over the cognitive processes engaged in learning. A mixed method approach was taken to avoid inaccuracies due to the small sample size of six children. Each child completed four pieces of writing, some involving the use of organisers, aimed at providing children with a metacognitive scaffold. Findings showed that structured organisers have the potential to be an effective way of scaffolding children's metacognitive development. However, definite assumptions about the educational effectiveness of using structured organisers cannot be made due to the small scale of the project.

Introduction

Writing is a recursive process involving both cognitive and metacognitive skills (Larkin, 2009) and one that is essential to both academic and vocational success (Graham & Perin, 2007). Ways to develop effective writing instruction amongst young learners are therefore of great interest (Barbot et al., 2012). Recent analyses of writing data have called for further research into practical methods of doing so, as the current literature does not provide steps to support good teaching practice (Nielsen, 2012). This paper aims to bridge the gap between theory and practice by looking at how the use of structured organisers can help a group of primary two children become more effective self-regulated learners in order to engage more fully with the success criteria in writing.

Review of Literature

The importance of metacognitive learning in schools is now recognised (Larkin, 2009). Recent studies have displayed evidence of the importance of the role of metacognition in learning in mathematics, in science and in literacy (Larkin, 2009). These examples are only a small insight into the huge amount of work carried out in these fields. Research on metacognition has developed from early definitions in the 1970s describing the concept itself, to ways of applying these metacognitive theories to classroom practice (Larkin, 2006). Many of the early studies of how to apply these theories were in the area of literacy (Larkin, 2009). However, these were mainly focused around reading. Many fewer early studies focused on metacognition and writing (Larkin, 2009). It has been argued that it is later models (Kellogg, 1994, cited in Larkin, 2009), which have highlighted the metacognitive aspects of writing and led to more research in this area (Larkin, 2009). Later models also took the emphasis away from describing the features of text and focused more on the processes of

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writing (Larkin, 2009). This has brought about further investigation into the self-regulatory features of young writers (Perry, 1998; cited in Larkin, 2009).

Metacognition can be defined as an individual's knowledge about cognitive processes (Lockl & Schneider, 2006) and how he/she uses this knowledge to regulate or control the cognitive processes (Brown, 1978; Flavell, 1979). It is the control aspect of this definition that is of particular interest to this study. Indeed, self-regulation is vital to metacognition (Boekaerts & Corno, 2005). Self-regulated learning is learning that is guided by metacognition, strategic action and motivation to learn (Boekaerts & Corno, 2005). *Motivation to learn* is beyond the scope of this study. Instead this study will focus on the strategic action that I, as the teacher, can take to plan ways to help young learners think about their thinking. Thus, when metacognition is mentioned in this project, it is in relation to self-regulated learning.

Research shows that self-regulation is key to ensuring the active control over the cognitive processes engaged in learning required for a higher level of thinking (Chatzipanteli et al., 2014). Self-regulation has proven to be a difficult concept to define and operationalise (Boekaerts & Corno, 2005). However, what research has made clear is that self-regulated learners have the ability to use clear learning strategies when working (Chatzipanteli et al., 2014). Learning strategy itself has many definitions, however when discussing a group of six to seven year old children, it is well defined as any thought or behaviour that a learner engages in (Weinstein and Mayer, 1986).

Self-regulation has been said to be a process where learners, *direct their thoughts and actions toward the attainment of their goals* (Flavell & Mille, 1998). Pintrich (2000) takes this further, describing self-regulation an active, constructive process where the learner sets goals, monitors their learning and controls his/her cognition. Zimmerman (1998) states that self-regulated learning is related to self-generated thoughts and actions for the attempted attainment of academic aims. However, he (Zimmerman; 1998, p1-2) also states that:

Academic self-regulation is not a mental ability, such as intelligence, or academic skills, such as reading proficiency; rather it is the self-directive process through which learners transform their mental abilities into academic skills.

It is clear that Zimmerman views self-regulation as a skill, rather than a mental ability. However, most research details self-regulated learning as a combination of skill and will (Kuo, 2010). These skills are in reference to how children use a variety of cognitive and metacognitive strategies such as planning, goal setting, self-monitoring and evaluation along with time and resource management strategies (Corno, 1986). Will is in reference to how students are motivated by goals, values and expectancies (Garcia, 1995). It is the view that self-regulated learning is a trainable *skill* (Kuo, 2010) that this project will focus on. *Will* is beyond the scope of the enquiry.

One of the problems with research related to metacognition is the lack of clarity around definition (Larkin, 2006). When analysing classroom data this can lead to confusion about what is and what is not metacognition (Larkin, 2006). This problem partly arises when metacognition is seen as something tangible, something fixed and something that is viewed, without question, as metacognition (Larkin, 2006). Whilst Larkin (2006) states that this may be possible in some cases, it is unlikely to be so in her study of five to six year old children. This is because metacognition develops with age and with practice (Larkin, 2009). This enquiry piece is aimed at developing metacognitive awareness through developing self-

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regulated learning abilities. Using self-regulated learning as a lens to view metacognition through helps avoid such problems of definition when analysing results.

Recent research by Patel et al. (2015) has concluded that students who engage in self-regulated learning are more likely to achieve academic success compared with students who have deficits in self-regulated learning and tend to struggle with academic performance. This research (Patel et al, 2015) has concluded what many previous studies on self-regulated learning have hinted at. However, the problem with Patel et al's (2015) work is what Cribb and Gerwitz (2003) call *Critique from above*. Like many studies on metacognition (Corno, 1986, Flavell, 2000, Garcia, 1995, Zimmerman, 1998), this theory was written at a distance from educational practice. At this level, Patel et. al (2015) offer a critical account of educational practice from outside of the education system. They do not think it is part of their job to consider the practical strategies for implementing practices to help self-regulated learning and the difficulties that educators face in doing so (Cribb and Gerwitz, 2003).

Work from inside the education system concludes that the ability to self-regulate one's thoughts is vital for higher-level thinking and is an important skill to begin to develop in young learners (Barbot et al., 2012; Larkin, 2006, 2009). Furthermore, self-regulated learning is of particular concern to the model of regulation in academic learning in the classroom (Pintrich & Linnenbrink, 2000). Therefore, the academic nature of writing (Smith, 2013) provides an appropriate foundation upon which a study of self-regulated learning can be built.

The *Critique from above* (Cribb and Gerwitz, 2003) level from which many studies of metacognition and self-regulated learning have been written, leads me to look to policy and works from inside the educational system for practical ways to help train children's metacognitive abilities. Many researchers working within the education system have investigated strategies that can improve metacognition in early learning (Schneider, 2008). Work by Chatzipanteli & Digelidis (2011), highlighted the use of 'metacognitive prompting' as a successful way of improving self-regulation amongst learners. Self-questioning (Martini, Wall, & Shore, 2004) has also been suggested as another means of doing so. Central to this research is how my lesson materials can be structured to help a group of six and seven year olds self-regulated thinking. Key to the design of these resources will be the ideas of 'metacognitive prompting' and self-questioning.

In relation to the design of my resources, it is important to make a distinction between the term 'structured organiser' and 'template.' The term template implies a resource or form that is used as guide to creating something new (Dickinson, 1996). A template serves as a starting point, a new piece of work and is pre-formatted in some way (Dickinson, 1996). Whilst this project aims to guide children in their metacognitive development, the resource's use is as prompt throughout the writing task and a means of reflection at the end, rather than a starting point.

The term 'structured organiser' on the other hand is built upon Dickinson's (1996, p13) work on *advanced organisers*. In their simplest form, advanced organisers use a key question or short summary or prompt at the beginning of a piece of work. The idea is that the learner first sees and reads the question or summary before moving on to the main body of work. This provides reason for completing the work. Dickenson (1996, p17) also advocates the use of *structured templates* whereby learners are not only able to see what is covered but also how the content is structured in a logical sequence. By combining elements of the advanced

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organisers (using questions and short prompts) with another from structured templates (learners are able to see the content covered), the term 'structured organiser' is formed. Key to my design of the structured organiser is the concept of *chunking* (Miller, 1956), whereby a learning task requiring the assimilation of a large amount of information is broken down into smaller parts. Providing the context is understood, part learning can be very effective, particularly with low ability or young learners (Child, 2007). Overall, 'structured organiser' is a much more appropriate term to give to the resource design than 'template,' in view of its aim to structure children's thinking.

There have been many studies into how social interaction and peer learning can develop metacognition (Dweck, Hong, & Chiu, 1993, Wertsch, 1978). Indeed, interactions with others can provide the stimulus for children to increase their awareness of cognitive processing (Wertsch, 1978). However, there have been far fewer studies related to how the development of the self impacts upon metacognition. The research presented here explores the dynamic interaction between the development of the self and the development of metacognition (McCombs, 1989). It focuses on the development of self-regulated learning by 'improving engagement' with the success criteria. The terms 'improve' and 'engagement' in this study are both used in relation to self-assessment.

Engagement has been defined as participation in educationally effective practices in the classroom, which leads to a range of measurable outcomes (Kuh, 2007), and as the extent to which students are engaging in activities that are linked with high-quality learning outcomes (Krause and Coates, 2008). In contrast, engagement has also been defined as the process whereby institutions make deliberate attempts to involve and empower students in the process of shaping the learning experience (HEFCE, 2008). Kuh (2009) later combines these perspectives, stating that engagement is the time and effort children devote to activities that are empirically linked to desired outcomes and what institutions do to induce children to participate in these activities. It is Kuh's (2007) view of engagement that defines engagement in this research. As previously stated, engagement in this study will focus on self-assessment.

Positioning self-assessment theoretically, the first standpoint to consider is the argument that reflective methods in writing support metacognition by requiring writers to reflect on their own writing, their process of writing and revising and the necessary changes or improvements needed to be made (Campillo, 2006). Murray (1982) believes the process of writing and revising to be a conversation with the writer's self. With this in mind, writing requires continuous metacognition, as pupils learn to objectively evaluate their ideas, expression and writing process, in order to make improvements (Vickers & Ene, 2006). Vickers & Ene (2006) suggest that self-assessment is a useful tool in prompting this type of internal discourse. Nielsen (2012, p13) states that "the formative, rather than summative, nature of self-assessment practices is supported by a significant number of publications, several of which specifically reference the coaching of students to evaluate their own work as a beneficial way of ensuring metacognitive growth in children."

Nielsen (2012) believes that formative assessment is crucial to learning because students have information about where they are in their learning, the steps they need to take and how they need to take them. Again, there is a vast array of contemporary research (Black and William, 1998, Harlen, 2005) to support the use of self-assessment as a key method for sustaining learning.

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Overall, there is much evidence to show that self-assessment methods in writing present meaningful ways to promote pupil writing achievement through reflection and metacognition during the writing process (Nielsen, 2012). Much of this evidence is empirical, examining changes in writing, instead of using tools to record student behaviour. This research is relevant to this project, whereby the engagement with success criteria is determined by examining changes in writing. However, I will also be observing and scaling pupil engagement during the writing task. Laevers (2011, p1) states that engagement is evident, "when children are concentrated and focused, interested and fascinated and when they are operating at the very limits of their capabilities." As one of the leading authors on pupil engagement (Harlen, 2005) employing Laevers' (2011) five-point scale of active engagement will provide essential depth to the analysis of my data. (Appendix A, Leuven scale)

According to Clarke (2014), success criteria summarise the key steps or ingredients the student needs in order to fulfill the learning intention. Establishing success criteria is important because it helps improve pupils' understanding by keeping them informed about how they will be assessed (NI Curriculum, 2004). This, in turn, empowers pupils because it involves them in their own learning (NI Curriculum, 2004). In time, pupils who have experience of working to success criteria are more likely to take an independent approach to learning, as they begin to understand how the criteria apply to their learning (NI Curriculum, 2004). They then are able to use this to independently assess their progress and areas where improvement can be made (NI Curriculum, 2004). Although this is Northern Irish policy, the thinking is directly in line with Curriculum for Excellence, where the benefits of using assessment to develop independent learners are emphasised (Scottish Government, 2011). The use of success criteria, then, allows children to take more responsibility for their own learning, by helping children themselves recognise when they have succeeded (NI Curriculum, 2004). Thus, the construction of the success criteria itself is important in attempting to develop children's ability to self-regulate. 'Success criteria' in this project will be operationalized by self-assessment.

The Curriculum for Excellence's Principles for Assessment state that Assessment approaches need to promote learner engagement and ensure appropriate support so that all learners can achieve their aspirational goals and maximise their potential (Scottish Government, 2011). The structured organisers provide the support and will be used to improve engagement, with the overall aim of maximising children's metacognitive potential. This approach will help promote greater breadth and depth of learning by focusing on the secure development of these metacognitive skills and knowledge (Scottish Government, 2011).

Enquiry Design and Ethical Guidelines

This enquiry was conducted in line with the Scottish Educational Research Association (SERA) (2005) Ethical Guidelines for Educational Research in order to ensure proper conduct in my research activities. SERA (2005) asserts the view that giving due attention to ethical considerations should not be seen as constraining or limiting research but rather as enhancing the quality of educational research in the widest sense. Indeed, I found the challenge of constant reflection and evaluation to ensure I remained within SERA's Ethical Guidelines (2005), to be an enhancement of the quality of my research.

Voluntary consent forms were sent home to parents/ guardians. Participants were informed about the aims of the investigation and the processes in which they would be engaged. They were made aware of how the information gathered would be used and what for. Parents/ guardians were given the opportunity to give their informed consent before the children

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participated in the research. The anonymity of participants was guaranteed. Names have been concealed in pupil work and no identity or personal information shared from personal notes. Personal notes that are no longer of use have been disposed of. All forms sent home were returned with consent given to proceed with my research.

Throughout the project I continually reflected on my research to be sure that it is not only rigorously conducted, in line with SERA guidelines, but to ensure it also makes a worthwhile contribution to the quality of education (SERA, 2005). Whilst I do not claim that a project of this size will have far-reaching benefits to education in general, it has been particularly worthwhile for my own pedagogical development. Thus, it is of benefit to the quality of education that learners in my care will receive.

Whilst the whole class were involved in using the structured organisers, a sample size of six was chosen to measure improvement in engagement. This sample was made up of three children taken from each of the two writing groups (grouped by ability). Numerous methodologists have warned that a small sample size implies low statistical power (Cohen, 1970; Rossi, 1990). Indeed, de Winter (2013, p13) states that: "according to the law of large numbers, a larger sample size implies that confidence intervals are narrower and that more reliable conclusions can be reached." Therefore, a mixed method approach has been taken in this research project. The advantage of this mixed methods approach is that it balances efficient data collection and analysis with data that provides context (Cresswell, 2013). The bulk of my research findings are made up of qualitative data, however conclusions will be drawn using both qualitative and quantitative data.

The qualitative data in my findings is made up of four pieces of written work undertaken by each of the six children. Increased written evidence of engagement with the success criteria help determine whether engagement with the success criteria improves when structured organisers are used.

The advantage of using qualitative data is that children are free to answer any way they would like— they are not constrained to a pre-determined set of possible responses as you might see on a survey (Cresswell, 2013). When conducting research into writing, where there are no two pieces of work the same, the use of qualitative data can be hugely beneficial (Nielsen, 2012). However, a qualitative approach is incredibly time consuming (Cresswell, 2013). Using a sample size of six, however, ensured the time aspect was manageable. There is contrasting research to that of Cohen (1970) and Rossi (1990) to suggest that sample sizes greater than five can be subjected to statistical test (de Winter, 2013). Although my sample size is only marginally above this number and the number five is realistically used as a guideline, I will quantify engagement using the Leuven scale (Appendix A) and use the results of this to support my qualitative data. The use of the Leuven scale for active engagement will involve me measuring and scaling each child's engagement with the writing on four occasions during each lesson. The first observation will be five minutes into the writing task. Observations thereafter will be in fifteen-minute increments. Again, the small sample size will limit the statistical accuracy of this data, however the results will be of use in helping reach an overall conclusion as in regards to the effectiveness of the structured organiser in improving engagement.

Although a significantly larger sample size would have led to greater accuracy of data (Cohen, 1970; Rossi, 1990), it would have been much less manageable whilst I was also actively involved in each lesson. To increase the statistical accuracy of this small-scale research project, I have used the whole class of 29 children as a sample to note how many times children asked for my attention (this included hands up or getting out of seats to ask

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for help) during each of the four one hour lessons. Fewer interruptions indicates increased self-evaluation, due to the fact that I have had to ask children to change work on fewer occasions, and thus increased engagement with the success criteria (Nielsen, 2012). Again, a sample size of four lessons is not enough to ensure accuracy in the eyes of many methodologists (Cohen, 1970; Rossi, 1990). However, the nature of this small-scale professional enquiry is personal. The empirical data collected details how *my* use of resources can improve *my* P2 class's engagement with the success criteria in writing. Having considered a range of methodological perspectives (Cohen, 1970; Cresswell, 2013; de Winter, 2013; Rossi, 1990), I concluded that a sample size of six (taken from a possible twenty-nine children), measured over the course of four lessons would ensure useable data for my purpose, whilst remaining manageable.

When creating the structured organiser, it was important to note that regulation of cognition refers to how well students control their learning mechanism and is made up of three essential parts: planning, monitoring and evaluating (Chatzipanteli et al., 2014). My role within this study was to provide support during the planning process, to help my group of primary two children monitor and evaluate their performance in the task. Pupil engagement with the organisers, in turn, provides support with the monitoring and evaluating parts. Scaffolding the learning (Wood, Bruner & Ross, 1976) by providing a structured organiser first meant that I needed to measure the children's ability to self-regulate without the aid of structured organisers.

Week one of the enquiry involved looking at how the children engaged with the success criteria without the influence of any organisers. The writing task was explained and success criteria shared verbally before the children completed the piece of writing. Week two involved using simple advanced organisers at the beginning of the text. One prompt and three short questions were included at the beginning of the writing resource with the view that the child would first see and read the question before moving on to the main body of work, in turn providing reason for completing the work (Dickenson, 1996).

Weeks three and four involved the introduction of the 'structured organiser' to help structure children's thoughts with the view to improving self-regulated learning. In place of the starting questions from week two was a breakdown of the success criteria in the form of short summaries and questions. These notes were placed around the edge of the work on 'post-it' notes. The children were talked through how to use the structured organiser before undertaking the writing. Emphasis was placed on the use of the organiser as a starting point, reference point throughout and as a tool for evaluation at the end of the writing. Once the children believed they had finished writing, they could remove the organisers one-by-one, provided that their self-evaluation led them to conclude that each element of the success criteria had been included in the writing. The initial idea behind construction of the organiser came from observing the class successfully complete an independent reading comprehension exercise, which utilised a 'tick-chart' as an evaluation tool. With clear explanation, the majority of the class engaged well with the chart and used it to independently improve their work.

Although this resource was of my own design and not taken directly from previous research, Thijs & van den Akker (2009) state that curricular products that are developed at micro level by schools and teachers are often indispensable tool to support day-to-day teaching. Furthermore, to test the many theories of the effect of self-assessment on student writing outcomes, Nielsen (2012) states that additional studies of self-assessment practices using experimental methods need to be conducted. The structured organiser is developed with

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the aim of providing a bridge between the content-specific aspect of writing instruction and my desired metacognitive learning outcome (Thijs & van den Akker, 2009). In the design of my project, research into metacognition in the classroom dictated that certain factors must remain consistent to avoid data inaccuracies. Work by Kramarski & Mevarech (2003) into ways of developing metacognition in children has highlighted the importance of modelling metacognitive skills during instruction, through the use of metacognitive questions (Kramarski & Mevarech, 2003) and strategies such as imaging, focusing attention, executing, and evaluating (Lidor, 2004) as ways of promoting high-order thinking. Therefore, each input was carefully planned in line with this research, to avoid such inaccuracies. Despite this careful planning, the nature of writing means that each input will be at least slightly different. This variable is clearly a limitation to the accuracy of my data. Further limitations to the accuracy of the qualitative data lie within the fact that the week two writing was a creative piece, unlike weeks one, three and four, which were functional. Changing the lesson to a functional piece was not possible due to school policy dictating that a creative piece of writing had to be completed in the writing slot in week two.

Results and Possible Implications

Data in this study has been analysed and grouped by week number. Week one involved analysing the data collected when no organisers were used for a piece of functional writing. The success criteria were related to the use of full sentences and capital letters. The first figure to note is in relation to how many times I was interrupted during the lesson by children (Figure 1) who 'weren't sure what to write,' 'needed help,' 'had finished,' or who wanted me to 'check something.' There were eighty-three interruptions over the course of the one-hour lesson. Further to this, Figure 2 shows the median level of engagement over the course of the lesson was 2.2. Without any organisers in place, the quality of the written work produced was low. With the exception of child A, all children struggled to engage with the success criteria and required my help to show them the aspects of their work that needed revision.

Week	Number of interruptions
1	83
2	74
3	49
4	36

Figure 1. Number of pupil interruptions during a one hour writing lesson.

Week two saw the introduction of an advanced organiser at the beginning of the text, similar to what the class had previously used to support writing. The success criteria were creative in nature. Figure 1 shows that the number of interruptions dropped to 74 whilst the median engagement level (Figure 2) increased to 2.4. Although the figures indicate an improvement in engagement, they are closer to the week one figures than I would have anticipated and thus too close to draw any accurate conclusions. My assessments showed a greater improvement in the quality of the more able children's written work. The lower ability children did not make use of the advanced organiser as a tool to support writing. Informal discussion with these children as to whether they had made use of the questions led to one 'yes' and two 'no' responses. Reasons for not using the organisers were, 'I couldn't read them,' and 'I forgot.' Therefore, in this case, this type of organiser had a

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greater impact on improving the more able children's engagement with the success criteria. Of course, it would be unwise to assume that advanced organisers are better suited to the needs of more academically able children with this size of sample (Cohen, 1970; Rossi, 1990).

Week three saw the introduction of the 'structured-organiser.' With it, interruption numbers dropped to 49 (Figure 1) whilst median engagement level increased to 3.1 (Figure 2). With the exception of child D, all children engaged with the structured organisers to some degree. My observations and assessments showed me that despite explanation during the input, all of the children (except child D) in my sample were still trying to tick the organiser, instead of physically moving it off the page. The quantitative data suggested an improvement in engagement with the success criteria. However, when observing the group, I saw two of the children (C and E) tick all of the organisers as soon as the writing had been completed, with no sign of engagement. Child A, Child E and Child F all used the structured organisers in line with their design intention. Assessment of the written work showed a significant improvement in engagement with the success criteria in all three cases.

After the misuse of the organisers in week 3, I modelled how I wanted the structured organisers to be used in the week 4 input. Median engagement level increased to 3.6 (Figure 2) whilst interruptions dropped to 36 (Figure 1). The written work showed further evidence of improvement in quality, with the independent inclusion of more aspects of the success criteria. This, combined with the quantitative data, particularly in relation to the number of interruptions, suggests that the use of structured organisers can be very beneficial in improving children's self-regulation, ultimately leading to improved engagement with the success criteria.

		Child						Median Engagement Level
		A	B	C	D	E	F	
Week Number	1	3,3,2,3	2,2,3,1	2,3,2,1	2,1,1,2	2,2,2,1	2,4,3,3	2.2
	2	2,3,3,3	3,3,2,2	2,2,3,2	1,1,2,2	2,2,2,2	3,4,4,3	2.4
	3	3,4,4,3	3,4,3,4	3,2,3,3	2,3,2,2	3,2,3,3	4,4,4,4	3.1
	4	4,5,4,4	4,4,3,4	3,4,3,3	3,3,3,2	3,4,4,3	5,4,4,4	3.6

Figure 2. Observation of pupil engagement with the writing task over a one hour period using the Leuven Scale for Active Engagement.

Assessing progress across a breadth of learning, in challenging aspects and when applying learning in different and unfamiliar contexts, can help teachers to plan, track progress, summarise achievements in a rounded way and better prepare children and young people for the next stage in learning (Scottish Government, 2011). Assessing metacognitive progress has helped me get a better insight into how the six children in my sample study think, giving me an insight into their individual cognitive needs (Nielsen, 2012). The resource design in this study will be taken into future practice, starting in my next placement. I have

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constructed a SMART Target to plan how I will take what I have learned from this process and develop next steps in my practice.

I also noted how much less teacher time was spent asking children to revise their work. This might allow for more time to help individuals who would benefit from one-to-one support. Alternatively, this extra time could be spent continuing my professional development in this area, in line with HMIE (2009) requirements. Indeed, the materials have been developed with specific attention paid to ensure they can be adapted to suit a range of writing purposes, a prerequisite of any exemplary lesson material (Thijs and van den Akker, 2009). Exemplary lesson materials require a careful design approach and are characterised by an iterative cycle of analysis, design, development, and evaluation (Thijs and van den Akker, 2009). Each of these stages have been engaged with during this research project. However, adaption or improvement will involve returning to the beginning of the cycle to ensure that the material is beneficial to children's learning (Thijs and van den Akker, 2009).

Discussion

Over the past two decades, a large knowledge base has been developed regarding the primary functions and effective features of exemplary lesson materials (Thijs and van den Akker, 2009). This knowledge, however, has never been systematically applied (Thijs and van den Akker, 2009). Reflecting on the function and features of exemplary lesson materials highlighted in these works, along with works on metacognition, success criteria and engagement led me to the development of the 'structured organiser.' The aim of the structured organiser was to help improve children's self-regulated learning abilities, thus improve engagement with the success criteria. Although the project's scale was too small to make any definite assumptions about the educational effectiveness of using structured organisers in wider terms, they have been of great benefit to my writing instruction.

Conclusion

Overall, the positive results of this enquiry have shown me that it is important that children have the opportunity to develop metacognition (Larkin, 2006). Research has shown that metacognitive ability develops with age (Flavell, 2000) and practice (Doran & Cameron, 1995) and thus, developing metacognitive abilities in young learners is a challenge for teachers (Nielsen, 2012). How educators of young learners apply this knowledge to their practice, then, involves both reflecting on research and having the courage to make professional judgements (Larkin, 2009; Thijs and van den Akker, 2009). However this enquiry has found that the use of structured organisers have the potential to be an effective way of scaffolding (Wood, Bruner and Ross, 1976) children's metacognitive development, particularly in relation to their intended function of improving young learners' engagement with the success criteria in writing. Through continued practice (Doran & Cameron, 1995), using the structured organisers to support self-regulated learning, metacognitive abilities should be improved. Further large-scale research, however, is needed to validate this claim.

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Appendix A
Leuven Scale

Level	Engagement	Examples
1	Extremely low: the child shows hardly any activity	No concentration: staring, daydreaming; An absent, passive attitude; No goal-oriented activity, aimless actions, not producing anything; No signs of exploration and interest; Not taking anything in, no mental activity
2	Low: the child shows some degree of activity which is often interrupted	Limited concentration; looks away during the activity, fiddles, dreams; Is easily distracted; Action only leads to limited results.
3	Moderate: the child is busy the whole time, but without real concentration	Routine actions, attention is superficial; Is not absorbed in the activity, activities are short lived; Limited motivation, no real dedication, does not feel challenged; The child does not gain deep-level experiences; Does not use his/her capabilities to full extent; The activity does not address the child's imagination.
4	High: there are clear signs of involvement, but these are not always present to their full extent	The child is engaged in the activity without interruption; Most of the time there is real concentration, but during some brief moments the attention is more superficial; The child feels challenged, there is a certain degree of motivation; The child's capabilities and its imagination to a certain extent are addressed in the activity.
5	Extremely High: during the observation of learning the child is continually engaged in the activity and completely absorbed in it.	Is absolutely focussed, concentrated without interruption; Is highly motivated, feels strongly appealed by the activity; Even strong stimuli cannot distract him/her; Is alert, has attention for details, shows precision; Its mental activity and experience are intense; The child constantly addresses all its capabilities: imagination and mental capacity are in top gear; Obviously enjoys being engrossed in the activity.

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