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**An Action Research Investigation into the Effects of Reflective Goal  
Journaling on Pupils' Self-Regulation and Metacognition in Upper  
Key Stage Two**

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The candidate confirms that the work submitted is her own and that appropriate credit has been given where reference has been made to the work of others.

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## 1 Introduction

This small-scale action research project explores the impact of regular reflection and goal-setting in journals to support pupils' metacognition and self-regulation. The research was conducted in a mixed Year 5/6 class of 13 pupils during a third-year teaching placement. The focus emerged from a professional interest in promoting learner independence and reflection, areas increasingly prioritised in policy and practice.

This project was also inspired by research from the Education Endowment Foundation (EEF) (2021a), which identifies metacognition and self-regulation as among the most effective, evidence-informed approaches for improving pupil progress. However, practical tools to embed these skills in everyday classroom practice remain limited, especially for Upper Key Stage Two.

This study addresses the question: How does individual reflection and goal setting impact pupils' self-regulation and metacognition in Upper Key Stage Two? Sub-questions explore pupils' ability to plan, monitor, and evaluate their learning; the role of journaling in motivation and emotional regulation; barriers to engagement; and perceptions of this intervention's usefulness.

An action research methodology was chosen to enable a cyclical, reflective approach, embedded within real classroom practice. Each week, pupils used journals containing

SMART goal-setting templates, daily reflection prompts, and end-of-cycle evaluative questionnaires (see Appendix A). These journals were refined over three action research cycles in response to pupil feedback and practitioner reflection.

## 2 Literature Review

This review contextualises pupil-set SMART goals and reflective journals as tools to enhance metacognition and self-regulation in Upper Key Stage Two (UKS2).

Organised into three interconnected themes:

- Metacognition as Awareness,
- Self-regulation as Management,
- Reflection as Review, and Goal Setting as Direction, via Journals.

### 2.1 *Metacognition as Awareness*

Metacognitive awareness develops through recognising and reflecting on thinking processes and is a critical foundation for autonomous, self-regulated learning (Quigley *et al.*, 2018). Originally introduced by Flavell (1976), metacognition was broadly defined as *thinking about thinking*. Since, the term has been extensively researched across psychology, neuroscience, computer science, and education (Pena-Ayala & Cardenas, 2015), leading to a broad range of conceptualisations (Chen & McDunn, 2022).

Contemporary definitions describe metacognition as the cognitive awareness to plan, monitor, and evaluate learning (Rhodes, 2019; Quigley *et al.*, 2018; Nelson & Narens, 1990).

While Flavell's (1976) foundational definition is widely cited, some argue that it oversimplifies the complex construct when separated from its theoretical framework (Chen & McDunn, 2022; Mahdavi, 2014). Nevertheless, it remains common within educational discourse (Tarrant & Holt, 2016; Hogan *et al.*, 2015). This study adopts Flavell's (1979) full model, as conflicting definitions and ambiguous concepts can limit generalisability and interpretations (Hart, 2018). Flavell (1979) proposed metacognition includes *metacognitive knowledge*, as awareness of tasks, strategies, and oneself; and *metacognitive regulation*, as monitoring and controlling cognitive activity. This framework connects metacognition and self-regulation through cognitive self-awareness, the foundation of many higher-order learning processes (Hogan *et al.*, 2015; Schraw & Gutierrez, 2015; Mahdavi, 2014; Martinez, 2006; Fisher, 1998).

In recent years, metacognition and self-regulation have become prominent within educational research (Gascoine *et al.*, 2022; Chen & McDunn, 2022; Muijs & Bokhove, 2020; Quigley *et al.*, 2018; Ohtani & Hisasaka, 2018). Perry *et al.* (2018) systematically evaluated 51 studies on school effectiveness, which consistently affirmed strong evidence for metacognition improving outcomes across education. Similarly, the EEF (2021a) reports that metacognitive and self-regulatory strategies have a potential impact of eight months' additional progress for primary pupils; framed as a high-impact, low-cost approach, helping to address disparities in attainment. Funded by the Department for Education (DfE) (2018), this EEF (2021a) large-scale meta-analysis of 246 studies is considered robust, though some lack independent evaluation, which could affect reliability (Slavin, 2002). Furthermore, reliance on randomised control trials and quantitative data excludes qualitative insights, potentially introducing biases (Perry

*et al.*, 2018; Katsipataki & Higgins, 2016). To address this limitation, this study adopts a mixed-methods approach, enabling triangulation and a more nuanced understanding of metacognitive impact.

Despite growing evidence for improving outcomes and empowering learners, explicit metacognitive instruction receives limited recognition within policy and appears inconsistently embedded in practice (Perry *et al.*, 2018). Quigley *et al.* (2018) highlight a gap in teacher training, which may explain why some interventions yield limited effects (Gascoine *et al.*, 2022). The EEF (2021a) suggests that outcomes are influenced by both teachers' understanding of cultivating pupils' metacognition and pupils' readiness to reflect and self-regulate. Translating this abstract theory into practice can present challenges (Sternberg, 2009; Vos, 2001). There is also debate over whether metacognitive awareness and skills develop naturally (Mahdavi, 2014; Hogan *et al.*, 2015; Pena-Ayala & Cardenas, 2015); although Fisher (1995) argues that experience, rather than age, is the determining factor, reinforcing the importance of teacher guidance (Branigan & Donaldson, 2020; Tarrant & Holt, 2016).

Various strategies have been researched to encourage pupils' metacognition development (Quigley *et al.*, 2018). Notably, teachers can model and verbalise their thinking processes (EEF, 2021a; Tarrant & Holt, 2016) and use dialogic talk and the language of learning processes with pupils to deepen their metacognitive awareness and autonomy of thought and learning (Tarrant & Holt, 2016; Alexander, 2004; Mercer, 1995). Metacognitive regulation skills can be developed by scaffolding support for pupils to plan, monitor, evaluate, and adapt strategies to achieve goals, as skills for lifelong learning (EEF, 2021a; Quigley *et al.*, 2018). In addition, Tarrant and Holt (2016)

emphasise the value of reflection and opportunities for pupils to articulate their awareness using metacognitive knowledge to engage in metacognitive regulation. Whilst metacognition becomes increasingly important during UKS2, as pupils progress towards the transition into secondary education and mature cognitively (Sammons *et al.*, 2011; Galton, Gray & Rudduck, 2003), there remains a gap in intervention-based studies engaging pupils at this phase (Oliver, 2020; Gascoine, 2016), with most prioritising earlier developmental phases or focusing on narrow subject-specific approaches (Rowe, 2018; Davey, 2016).

## 2.2 *Self-regulation as Management*

Self-regulation is the ability to manage behaviour, emotions, attention, and cognitive strategies in response to internal goals and external demands (EEF, 2023; McClelland *et al.*, 2018; Baumeister & Vohs, 2004). As a multifaceted construct, it encompasses both conscious and automatic processes and has been linked to adaptive outcomes, including academic achievement, social-emotional development, and long-term well-being (Pandey *et al.*, 2018; McClelland *et al.*, 2018).

This heterogeneous concept is often understood in relation to self-regulated learning (SRL), where metacognition, cognition and motivation are inextricably linked and interact throughout learning processes (Quigley *et al.*, 2018). However, the broader concept also comprises impulse and behavioural control, attention, and emotional regulation (Schlesier *et al.*, 2019), aspects often underemphasised in research focusing on cognitive outcomes. For example, using impulse control to delay

gratification and persist with goals is associated with long-term academic, social and emotional successes (Mischel *et al.*, 1989). Similarly, sustaining attention in distracting environments is crucial, particularly for children with ADHD (Carlson *et al.*, 2013). Emotional control helps children cope with frustration and form positive relationships (Thompson, 2011). These findings highlight the need for holistic self-regulation approaches to support pupils with diverse needs to thrive inside and beyond the classroom (Carroll *et al.*, 2017; Duckworth & Schoon, 2010). This is especially relevant for UKS2 pupils who are increasingly expected to take responsibility for their learning and behaviour (Rhodes & Long, 2019).

Zimmerman's (2002) cyclical model conceptualises SRL in three phases: *forethought* – task analysis as goal setting and strategic planning, and self-motivational beliefs; *performance* – self-control and monitoring through self-observation; and *self-reflection* – evaluating goal outcomes, leading to adaptations, self-satisfaction and self-efficacy. This framework extends to general self-regulation, offering a developmental pathway through which pupils progress from external guidance to independent management of behaviour and learning. Despite its age, Zimmerman's (2002) model remains seminal and useful for intervention design.

From a sociocultural perspective, Vygotsky (1978) argued that self-regulatory skills emerge through social interactions before being internalised. Co-regulation plays a key role in this developmental process, as scaffolded support helps learners manage emotions, behaviour, and metacognitive strategies through connection with others (Moreno *et al.*, 2016). This view also aligns with theory of mind, where recognising others' mental states supports self-awareness, reflection and metacognition (Wellman,

2014; Perner & Roessler, 2012; Apperley, 2010). Moreover, self-regulation closely relates to executive function, as higher-order cognitive skills including working memory, cognitive flexibility, and inhibitory control (Roebbers, 2017; Follmer & Sperling, 2016; Diamond, 2013). These ideas support the rationale for scaffolding self-regulation through guided classroom interventions.

Measuring improvements in self-regulation and metacognition over a short time presents challenges (McClelland *et al.*, 2018). Most studies rely on self-report tools, which may lack reliability and be open to bias (Pickerell, 2022; Muijs & Bokhove, 2020; Whitebread *et al.*, 2008). However, pupil reflections and questionnaires still offer valuable insights into self-regulatory and metacognitive awareness (Torrington *et al.*, 2023; Pickerell *et al.*, 2023; Coskun, 2019). These tools align with meta-metacognition, where pupils begin to make second-order judgements about their reflective thinking (Berger & Karabenick, 2016; Buratti & Allwood, 2015). Research indicates that structured strategies such as goal setting, progress monitoring, and reflective dialogue support pupils' regulation of behaviour and learning. In particular, reflective journaling provides a practical, classroom-based tool enabling pupils to articulate goals, regulate responses, and reflect on progress as they move through Zimmerman's (2002) phases of SRL.

### *2.3 Reflection as Review, and Goal Setting as Direction, via Journals*

Central to effective self-regulation is the ability to set goals and self-reflect, enabling growth and learning through experience (Muijs & Bokhove, 2020; Dewey, 1933). Self-

reflection has been defined in various ways (Kilminster *et al.*, 2010; Philip, 2006; Hinett, 2002; Biggs, 1999); here it is understood as a conscious skill involving critical analysis and evaluation of knowledge, understanding, actions, and experiences as a review guiding improvement (Thompson & Wolstencroft, 2024; Boud *et al.*, 1985). In this sense, reflection requires metacognitive awareness and a goal or direction to be impactful (Peters & Kitsantas, 2010). Multiple frameworks for reflection exist (Driscoll, 2007; Driscoll, 1994; Gibbs, 1988; Kolb, 1984; Schön, 1983), yet most have been applied in adult-focused research (Guo, 2022; Beauchamp, 2014).

Reflective practice is recognised as essential for teachers and pupils (Kilminster *et al.*, 2010; Philip, 2006). However, children are less often the focus of empirical studies, perhaps due to limited life experience (Flavell, 1979; Zimmerman, 1990). Despite this, pupils' self-reflection is widely encouraged from early years to promote deeper understanding of concepts, behaviours, and emotions, academically and socially (EEF, 2024; DfE, 2024; EEF, 2023). This suggests that with scaffolding, children can engage in meaningful reflection (EEF, 2023). Yet large-scale trials such as the EEF's (2016; 2020) ReflectED projects show mixed outcomes. While the first trial (EEF, 2016) reported some benefit from regular reflection in maths attainment, the second trial (EEF, 2020) yielded a negative overall impact in maths and reading, raising concerns about implementation and pupil engagement (Motteram *et al.*, 2016). Thus, without clear goals, reflection may lack purpose and impact (Yang *et al.*, 2017).

Goal-setting is key in the forethought phase of SRL (Zimmerman, 2002), as learners plan and prepare strategies to meet outcomes. Locke and Latham (1990; 2019) established that specific, challenging, self-set goals lead to greater motivation and

achievement than vague or easy targets. This underpins the SMART framework, used widely to ensure goals are Specific, Measurable, Achievable, Relevant, and Timely (Doran, 1981; Locke & Latham, 1990). Recent research by Martin-Denham (2023) suggests that goal-setting is most effective when pupils are involved in creating them, rather than receiving teacher-assigned targets. Personalised goals foster ownership, strengthen self-efficacy, and help pupils view progress as self-directed (Phelps & Lewis, 2023; Rauen, 2019; Traverse et al., 2014). Furthermore, Zimmerman (2002) describes effective self-regulated learners as those who use personal goals and task strategies to guide and monitor learning.

While goal setting supports perseverance and self-concept (Roebbers et al., 2009; Ryan & Deci, 2000), critics argue that it underplays emotional factors (Mahdavi, 2014). Growth mindset theory (Dweck, 2006) promotes effort-based improvement but requires emotional resilience through feedback and reflection (Martinez, 2006). Autonomy-enhancing feedback strengthens motivation (Tolli & Schmidt, 2008). However, some research shows that goal-setting alone correlates less strongly with attainment than when embedded in broader self-regulation strategies (Dent & Koenka, 2016; de Boer et al., 2014).

Journals provide an effective space to facilitate written reflections, allowing expression of feelings and articulation of learning experiences (Walker, 2006). They can also help metacognitively monitor and evaluate choices in learning and behaviour, aligning with the self-reflection phase of Zimmerman's (2002) SRL model. Journals can integrate goal setting, as this study does, for dual practice. Combining forward-looking direction of goals with inward, metacognitive reflection can create a continuous self-regulatory

loop. This reflective review helps pupils consider personal strengths, weaknesses, opportunities and threats (SWOTs) in achieving SMART goals. This process is both metacognitive and motivational, nurturing learner autonomy and self-efficacy, and incorporating social-emotional strategies to support wider self-regulation (Grassinger & Dresel, 2017).

Overall, metacognition and self-regulation underpin active reflection and goal setting in the classroom, promoting pupil autonomy and self-concept. Across the literature, these elements appear critical but are often fragmented in research. While many studies affirm their individual benefits, few combine them into sustained, pupil-led interventions, and fewer still focus on UKS2 as a key transitional stage. The limited success of ReflectED (EEF, 2016; 2020) suggests frequency, emotional engagement, and teacher input matter. This study responds to those gaps by designing a reflective journaling intervention that integrates SMART goals, metacognitive reflection, and self-regulatory strategies as a practical and holistic model, grounded in theory, which addresses the developmental and pedagogical needs of UKS2 learners.

### 3 Methodology

#### 3.1 *Research Approach*

This study adopted an action research approach to investigate the impact of a pupil-led goal setting and reflection intervention on self-regulation and metacognition in an UKS2 classroom. While this formed the focus of the main research question, a set of sub-questions was also explored:

- ◇ How does reflection and goal setting improve pupils' ability to plan, monitor and evaluate their learning?
- ◇ How does reflective journaling influence pupils' emotional regulation and motivation?
- ◇ What are the barriers to successful engagement with journals for reflection, goal setting, and goal achievement?
- ◇ How is the usefulness of journaling for learning and regulation perceived?

Initially, an exploratory case study approach (Thomas, 2022; Kumar, 2019) was considered, as the project began with an open-ended interest in self-regulation skills and the classroom's reflective practices. However, the design evolved into an action research model due to the intervention focus, which I aimed to embed as a practitioner researcher. This shift was also influenced by the inclusion of SMART goal setting as a target of a previous development plan of the school; baseline assessment data identifying self-regulation as an area for improvement in the class; and regular use of the ELSA (Emotional Literacy Support Assistant) by several pupils; all of which highlighted practical priorities requiring responsive intervention. Action research was therefore better suited to this project because of its principles of active participation, real-world practice and enacting discovery and positive change through a cyclical feedback loop (Denscombe, 2021). This action research involved cyclical data collection, reflection, development of the intervention as action, evaluation, and further modification to enact a new direction of change (McNiff, 2016).

To strengthen validity and provide methodological rigour, a mixed methods design was applied, combining the strengths of both qualitative and quantitative data collection (Kumar, 2019; Walliman, 2011). Within this study, a baseline data collection was conducted with pupil questionnaires, observation and class teacher interview, which informed the first of three cycles of intervention. Journals were the main tool within this intervention, used as a guided space for prompting pupils' thinking and articulation of written reflections and SMART goals. These practitioner-researcher-made journals (see Appendix A for an example), along with an introductory modelling lesson, evolved at each new cycle based on the findings of the previous (Clark *et al.*, 2020).

This research aligns with the constructivist worldview, which assumes that knowledge is socially constructed and shaped by meanings individuals assign to their experiences (Creswell & Creswell, 2018). A practitioner researcher embedded within the classroom, I adopted an interpretivist stance (Nicholas & Foote, 2021), recognising the importance of pupil voice, subjectivity, and context in shaping the research process and outcomes (McNiff, 2017). The research design reflected this paradigm through its collaborative, cyclical process, allowing the intervention to evolve based on pupils' journal responses and reflections (Burns, 2005). Rather than seeking generalisable truths, the study aimed to understand how pupils engaged with reflective goal setting in their specific classroom context (Cohen *et al.*, 2018).

### *3.2 Participants*

Participants were drawn from a convenience sample (Kumar, 2019) within a half-form entry, rural primary school. This consisted of a Year 5/6 class of 13 children. Non-probability sampling can affect generalisability and bias (Cohen *et al.*, 2018); therefore,

the whole class participated in the intervention to broaden the richness of data and insight from the small available sample and enhance the validity and reliability of findings (Stratton, 2021). Four pupils also took part in the focus group, which used random sampling to avoid selection bias (Carter, 2018). Additionally, the class teacher and the ELSA tutor were purposefully selected to gather qualitative baseline data, triangulate findings, and offer another professional perspective (Kumar, 2019).

### *3.3 Data Collection*

During this study, data was collected from every participant to ensure all voices could be heard (Clough & Nutbrown, 2012). This involved using and analysing multiple methods to triangulate data, offering depth, validity, and reduced researcher bias, while developing consistency of evidence to aid the investigation (Clark *et al.*, 2020). This triangulation aligns with the mixed methods approach (Creswell & Creswell, 2018), utilised to combat the limitations of quantitative data, such as the time taken to analyse large quantities of numerical data, and more applicable use with larger-scale studies (Denscombe, 2021); and those of qualitative data, such as their lack of specific structure and validity, and the possibility for researcher bias (Kumar, 2019).

Pre and post-intervention questionnaires were carried out, although the questions were not repeated identically, making it slightly harder to determine the changes which may have occurred over time (Clark *et al.*, 2020). These group-administered questionnaires gathered quantitative and qualitative data from all participants at the same time, adding depth to the results (Denscombe, 2021). Further depth was achieved through a focused group interview with a set of four pupils, allowing a truer insight into the children's experience of the intervention (Cohen *et al.*, 2018). Each of the three

reflective goal-setting journals was also analysed from this group of pupils, providing a primary source of document data to triangulate interview responses (Thomas, 2022). A practitioner-researcher field diary was used to support strategic planning between cycles, allowing findings to be translated into an actionable plan and aid the development of the intervention to help instigate change (Denscombe, 2021). Finally, to ensure reliability and gather insight from professional voices, a post-intervention class teacher interview and ELSA questionnaire were conducted, helping to further validate findings and reduce potential bias in children's self-reports by offering triangulated insights (Thomas, 2022; Kumar, 2019).

### *3.4 Ethical Considerations*

This research was conducted following the York St. John University Research Ethics Policy (2025) to ensure security, integrity, and protection from harm for all involved. The research ethics proposal was approved, then shared with the headteacher of the participating school, as gatekeeper, who gave written informed consent (see Appendix B), before the collection of data. No additional requirements were noted, however, this ethical approval formed part of an initial interview carried out with the class teacher to collect a baseline set of data about the pupil participants. As children are considered vulnerable participants (Carter, 2018), further ethical guidance was followed diligently throughout (NSPCC, 2023; BERA, 2024). The purpose of this project was shared openly and honestly with all involved, enabling pupils to give their assent and remain informed of their right to withdraw (Carter, 2018). Furthermore, to protect all participants and their data, this research has been fully anonymised, and data has

been kept confidential throughout the project, with identifiable data being destroyed post-analysis (Data Protection Act, 2018; Nutbrown, 2011).

### 3.5 Limitations

As a first-time action researcher and working student-teacher, time constraints and the short-term nature of the study limited the depth to which each research cycle could evaluate long-term outcomes. While the reflective goal-setting journal intervention, coupled with explicit lessons at each cycle, did follow the EEF's (2024) structured implementation guidance to ensure it was contextually grounded, implementation ideally unfolds over a longer period. A longitudinal approach would have allowed for greater understanding of how pupils sustain self-regulatory behaviours over time (Denscombe, 2021). Moreover, this small sample size is less representative and therefore limits the generalisability of findings to broader school populations (Cohen *et al.*, 2018). Although a mixed methods approach was used to strengthen validity measures, the quantitative data was not gathered using standardised or scaled measures, and self-reports may be subject to social desirability or misinterpretation (Kumar, 2019). In hindsight, allowing participants to review or clarify their qualitative responses in interviews could have helped to reduce the potential for researcher bias by increasing accuracy and validity (Coe *et al.*, 2021). Nevertheless, triangulating data from multiple sources and participants supported the reliability of findings and provided a consistent, robust foundation for evaluating the intervention's impact within this specific context (Thomas, 2022).

## 4 Findings

The data collected for this research investigates the impact of goal-setting and reflection in journals on pupils' self-regulation and metacognition in UKS2. From thematic analysis of the data, three themes emerged:

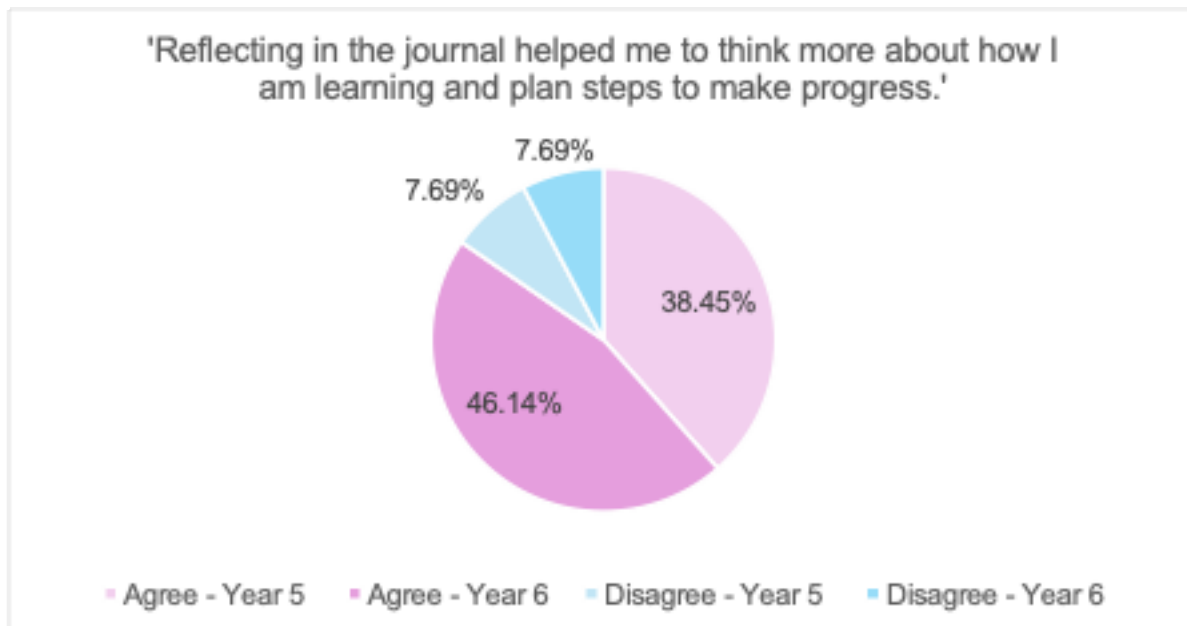
- ◇ Developing Metacognitive Awareness
- ◇ Emotional Regulation and Motivation
- ◇ Perceptions of Intervention

### *4.1 Developing Metacognitive Awareness*

These findings relate to the sub-question: *To what extent does reflection and goal-setting improve pupils' ability to plan, monitor and evaluate metacognitively?*

Pupils' metacognitive awareness developed steadily across the three cycles. In Cycle One, 7 out of 13 pupils reported that journaling supported self-regulation capacities. While six pupils used the full SMART framework, many initial goals were vague ("get better at spelling"). Some began identifying strategies and SWOTs, suggesting reflective evaluation encouraged behaviour-focused awareness.

Figure 1 – Cycle 2 – Metacognitive Reflection & Awareness



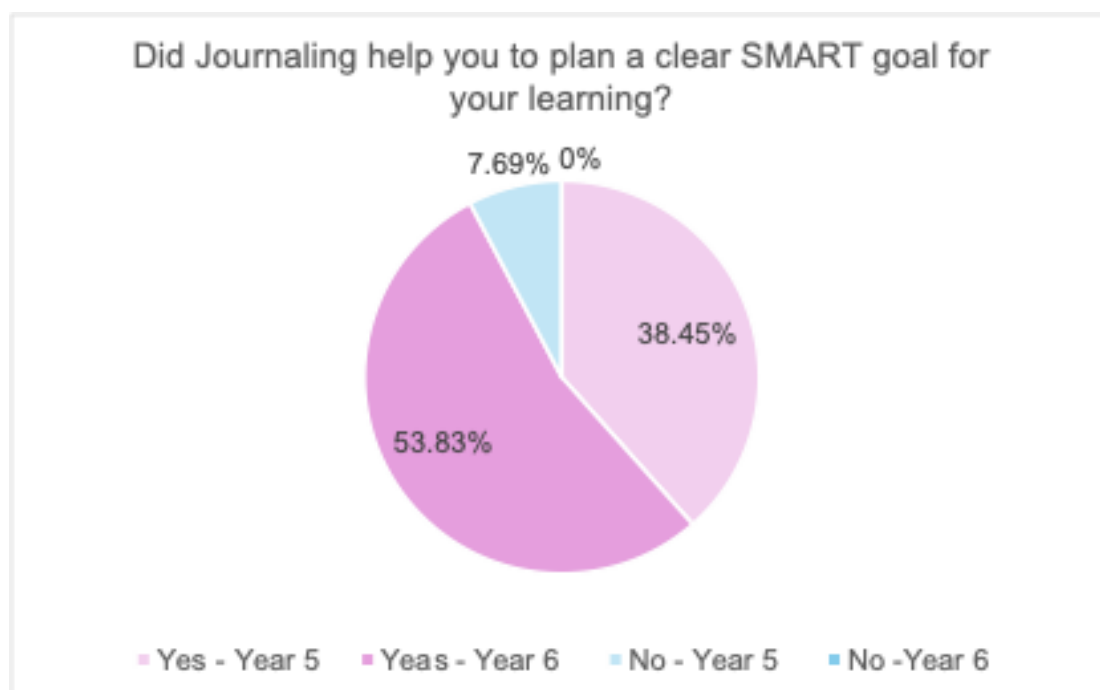
By Cycle Two, all pupils planned specific, relevant, and time-bound goals. Although a few still lacked measurable or achievable elements, structured templates and teacher modelling scaffolded more goal-focused reflection. This was supported by pupil responses in the Cycle Two questionnaire (Figure 1), where 84.59% agreed that journaling helped them reflect on their learning and plan next steps. Planning became more focused and strategic, indicating that reflection prompts helped pupils to make clearer links between goals and learning behaviour.

By the end of Cycle Three, almost all pupils applied the full SMART framework. Many planned multiple steps and anticipated potential obstacles. This shift is reflected in Figure 2, where 92.3% of pupils stated journaling helped them to set a clear goal, with responses particularly positive across Year 6. Evolving from pupil feedback, Cycle Three incorporated a tracker, allowing pupils to visually monitor effort by colouring a

square for each day they progressed towards this goal (see Appendix C). 7 out of 13 pupils stated that tracking goal progress was one of the most useful elements of journaling. As pupils improved at planning and monitoring goals, they also became more motivated and self-aware, suggesting that these metacognitive skills reinforced each other over the intervention.

Qualitative data reinforced these patterns. One Year 6 pupil noted, “I used to get 5s and 6s in spellings, but then I planned a goal and practised it, and I got 10s”. Another Year 6 pupil showed emerging meta-metacognition, asking, “Have I actually tried with this goal... is it going to help me?”. The class teacher also observed increased pupil awareness of strengths and areas for improvement.

*Figure 2 – Cycle 3 – Metacognitive Planning*



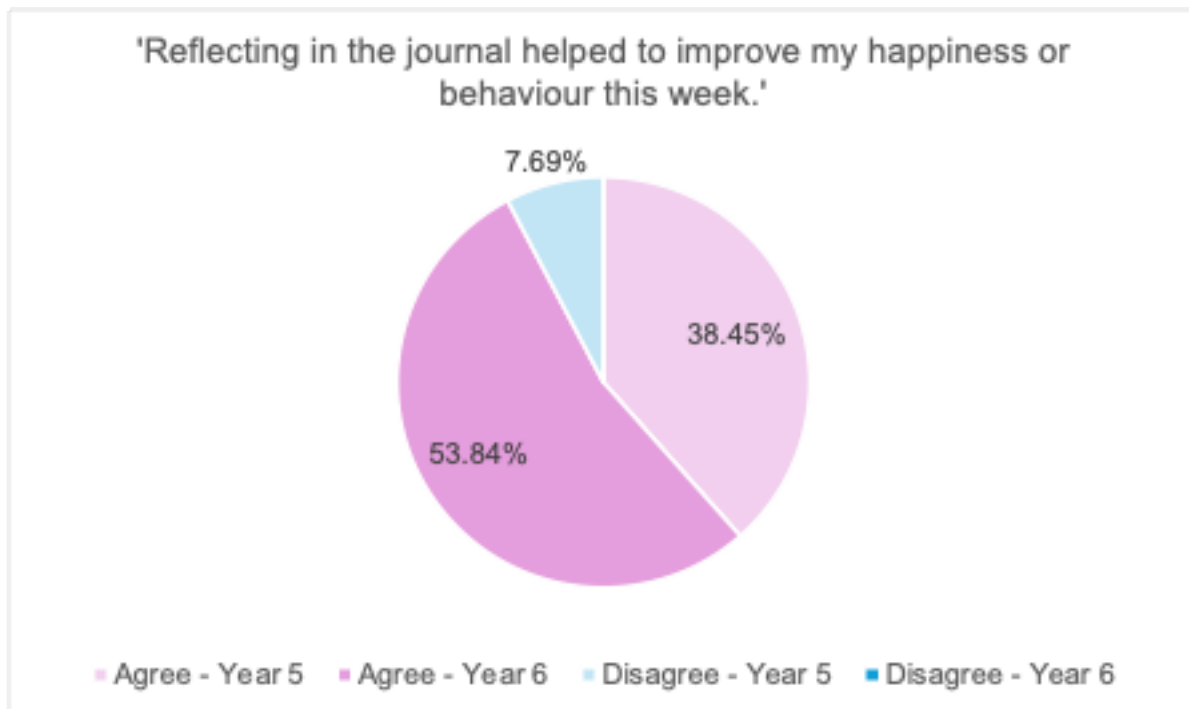
These findings suggest that journaling supports the development of metacognitive planning, monitoring, and reflective evaluation, especially when scaffolded with prompts and explicit modelling. While most pupils benefited, one pupil still struggled to focus their goal, indicating a need for further differentiation. Overall, metacognitive growth was evident, particularly in older pupils, though not measured systematically.

#### *4.2 Emotional Regulation and Motivation*

These findings relate to the sub-question: *How does reflection and goal setting impact pupils' emotional regulation and motivation to learn?*

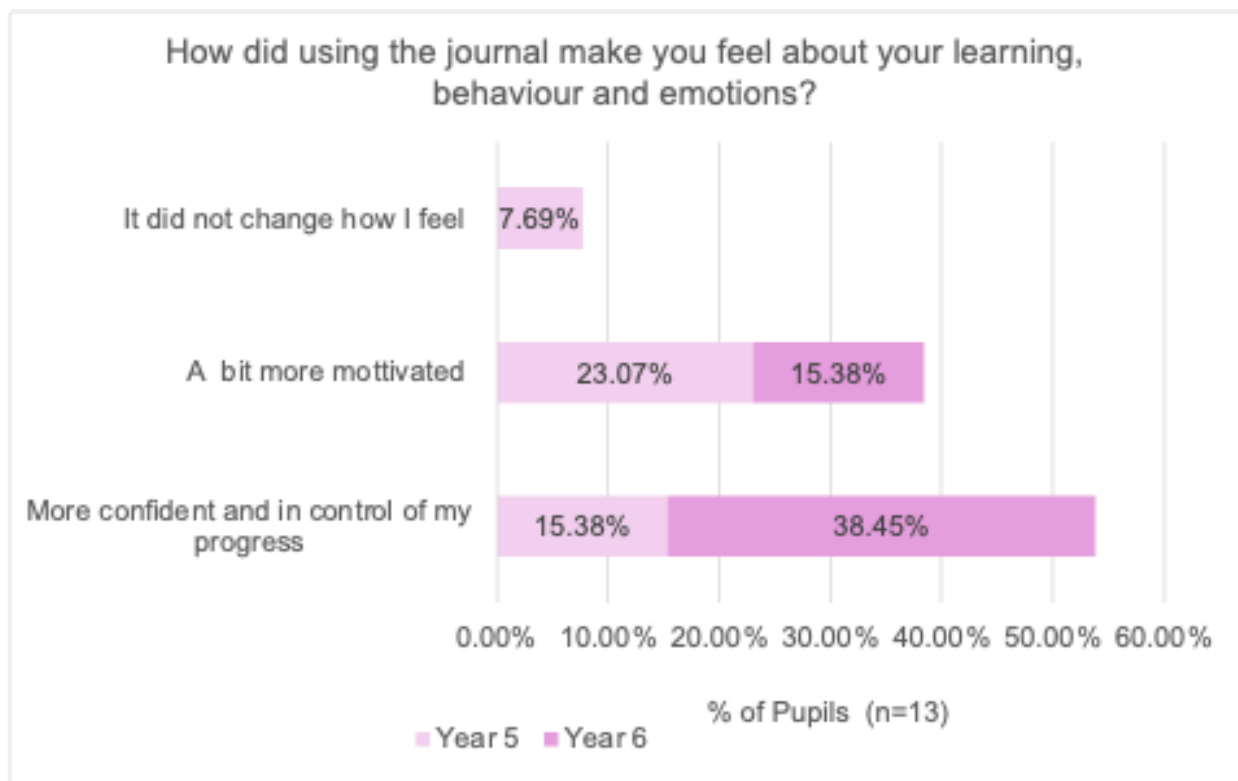
Quantitative data from Cycle Two indicated a shift toward improved emotional regulation from baseline findings. As Figure 3 illustrates, 12 out of 13 pupils agreed that journaling helped improve their happiness or behaviour that week. The overall pattern was positive, with Year 6 pupils describing the greatest emotional advances. In Figure 4, for example, nearly 40% of pupils said they felt more confident and in control due to journaling, with the rest of the Year 6 group noting a boost in motivation. Only one Year 5 pupil said that journaling did not change how they felt. This suggests that most pupils experienced some emotional benefit, though their reflections varied. Subtle differences possibly linked to age, emotional development, or confidence in expressing feelings could be explored in future research.

Figure 3 – Cycle 2 – Improved Self-Regulation



While SMART goals in Cycles Two and Three moved away from being social, behavioural, and emotional related, the journals retained their value as a space for reflective emotional regulation (see Appendix D). Multiple pupils described these journals as “a safe place to write and reflect”, with 7 out of 13 reporting ‘recognising personal achievements’ was one of the most positive aspects. One pupil reflected that journaling “made me remember that I am good at something”. This motivational function links to self-regulatory management and developing self-efficacy.

Figure 4 – Cycle 3 – Self-Regulatory Outcomes of Journaling



Journaling also contributed to emotional support beyond the classroom. Professionals highlighted that journaling could be combined with ELSA sessions to help pupils reflect on and deepen their personal, social and emotional understanding. They also noted that some pupils had reported using a similar reflective technique at home to support emotional self-regulation and anxiety, since the project began. Future practice may benefit from combining SMART goals with emotion-specific prompts to help pupils link feelings to action.

Motivationally, most pupils demonstrated increased resilience, showing greater ability to manage frustrations, overcome challenges, and persist. The class teacher observed improvements in focus, behaviour, and attitudes to learning following the intervention. Motivation, emotional regulation, and achievement appeared to reinforce each other

cyclically, with journaling providing a stable structure for reflection and adjustment. As goals were achieved, pupils appeared more motivated and used independent strategies, with two reflecting on how they handled distractions more intentionally, “I try not to be distracted because I know that (my goal) matters more”.

Overall, these findings indicate that structured reflection and goal setting supported pupils in developing emotional regulation and sustaining motivation over time. Embedding journaling practices in the classroom may therefore enhance both academic self-regulation and emotional well-being, particularly when supported through consistent modelling.

#### *4.3 Perceptions of Intervention*

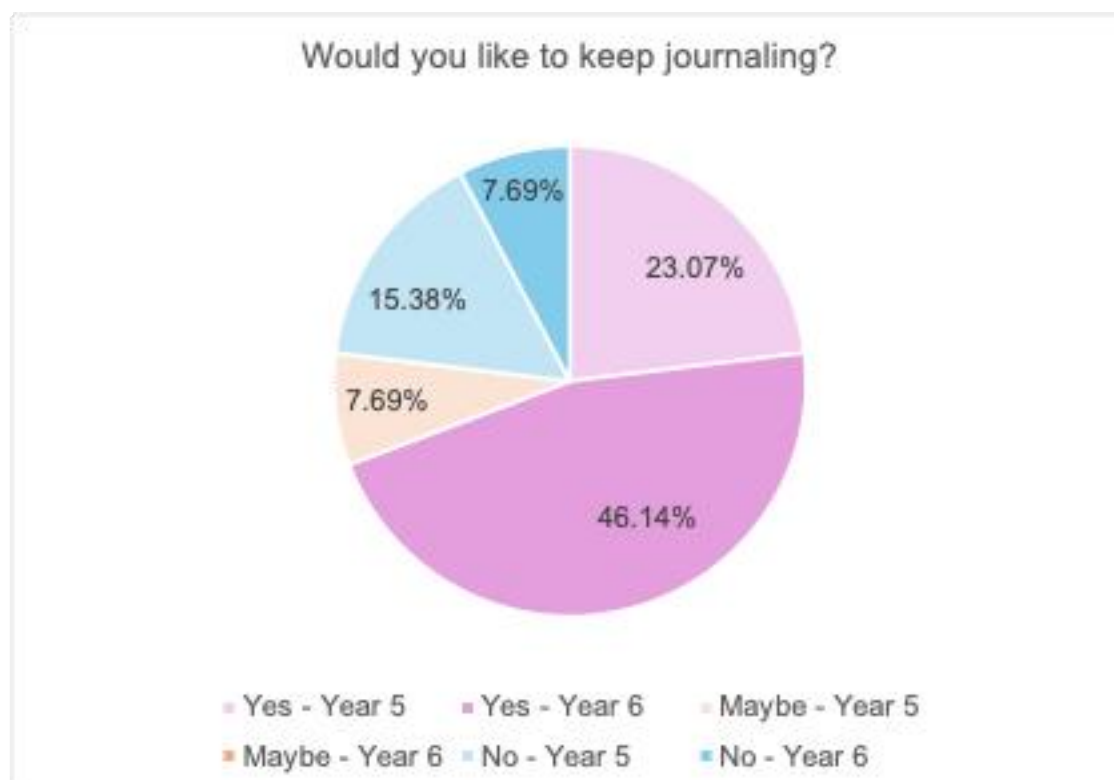
These findings relate to the sub-questions: *What are the barriers to successful engagement? How is the usefulness of journaling for learning and regulation perceived?*

Pupil and professional perceptions of the intervention were largely positive, although several barriers to engagement emerged. Early field diary entries noted some pupils' initial reluctance to engage, particularly in Cycle One. This was often linked to tiredness or dysregulation, likely due to journaling taking place at the start or end of a busy school day. Significant teacher modelling and scaffolding were required to support effective SMART goals and reflection. One pupil with low motivation needed ongoing support to engage, but by Cycle Three, was using the journal to recognise their dysregulation and identified that “more strategies” would help. These findings suggest potential barriers include cognitive overload, writing fatigue, or timings of

reflection, which could be addressed through alternatives such as verbal, peer, or technology-based reflections. The data supports a key theme that journaling is most effective when adapted to the individual needs of the class.

As highlighted in 4.1, pupil-led adaptations, such as visual trackers, were important developments between action research cycles (McNiff, 2016). Other enablers included a more consistent journaling routine and activity-based reflective prompts (see Appendix D). By Cycle Three, 69.21% of pupils expressed positive perceptions of journaling (Figure 5), describing it as “fun and helpful for learning” and wishing to continue. This was echoed in the focus group, where pupils valued the opportunity to “put your thoughts down”, “focus on one thing”, and “reflect on what you’re proud of”.

Figure 5 – Pupil Perceptions of Journaling



However, over a quarter of pupils did not share this view, citing “too much writing” and “hard work” as barriers. These challenges may also stem from low confidence or difficulty sustaining focus, as factors directly affecting engagement. Perceptions of usefulness, therefore, appear closely linked with accessibility. Thus, to remain effective, journaling should be delivered flexibly, with formats and scaffolds that reduce cognitive load and support all learners, ensuring it enables rather than hinders regulation and goal achievement.

Professionally, the class teacher found journaling “really useful”, stating they would “definitely use it again”, and the ELSA also endorsed its integration with emotional literacy support. However, field diary notes highlighted the high demand for printing and preparation, suggesting that digital or verbal formats of reflection may better support long-term sustainability without reducing impact. These findings show that while journaling is perceived as a valuable learning and self-regulation tool, its effectiveness relies on thoughtful adaptation, sustainable delivery, and responsiveness to pupil and teacher needs.

## 5 Discussion

Overall, combining scaffolded pupil reflections with structured SMART goal setting through journals was perceived as a useful tool in developing metacognitive awareness, supporting self-regulation, and enhancing motivation in learning. The

following discussion explores these outcomes thematically, connecting them to literature and addressing limitations and implications for future practice.

### *5.1 Developing Metacognitive Awareness*

Findings suggest that this intervention supported developments in pupils' metacognitive self-awareness and their ability to plan, monitor, and evaluate progress in SMART goals. This aligns with Flavell's (1979) full framework of metacognitive knowledge and regulation, which the intervention appeared to facilitate for most pupils. Early pupil goals were general, which Locke and Latham (1990; 2019) suggest reduces the likelihood of achievement. However, with sessions of reflective journal practice and explicit teaching at each cycle, recommended by the EEF (2021a) and Tarrant and Holt (2016), pupils began to set effective SMART goals for learning, articulating these within their journals against structured planning prompts.

These findings resonate with Quigley *et al.* (2018), who emphasise the value of scaffolded metacognitive strategies and teacher modelling in developing learner autonomy and enhancing metacognition. With this support, pupils shifted from vague to strategic goals. They used the reflection space intentionally to monitor progress (metacognitive regulation), evaluate personal SWOTs (metacognitive knowledge), and recognise achievement (self-regulation and awareness). This happened cyclically within journals and shows a manifestation of all forethought, performance, and self-reflection phases of Zimmerman's (2002) model of SRL. These findings challenge Mahdavi's (2014) argument that metacognitive development may occur naturally with age, instead suggesting that meaningful improvement relies on scaffolded experiences, as presented in these findings and supported by Fisher (1995).

A qualitative example of second-order evaluation from a Year 6 pupil illustrates how the intervention promoted higher-order reflective thinking, or meta-metacognition, as theorised by Buratti and Allwood (2015). Although not systematically observed, this reflection shows pupils critically assessing goal value, supporting independent thought and autonomy (Quigley *et al.*, 2018; Tarrant & Holt, 2016). As a practitioner-researcher, this meta-awareness guided adaptations between cycles (Berger & Karabenick, 2016). This informed timely adaptations, such as the introduction of visual goal trackers, which strengthened the alignment between pupil insight and pedagogical response (McNiff, 2016), enhancing the intervention's quality and responsiveness (Denscombe, 2021) and contributing to increased motivation, self-efficacy, and pupil autonomy (Figure 4). Future research and classroom practice should explore visual and co-developed tools to embed meta-reflection and strengthen pupil agency in SRL.

While qualitative findings, such as those from this study, are valued in indicating enhancements in pupils' metacognitive awareness and self-regulatory behaviours (Costa *et al.*, 2024), the lack of a standardised measurement scale limits the ability to quantify these developments with reliability and validity (Kumar, 2019; Gascoine *et al.*, 2017). In contrast, research by Arianto and Hanif (2024) employed validated tools to assess pupils' metacognitive strategies and self-regulated learning, revealing significant positive effects on problem-solving skills and self-efficacy in science learning. This suggests that incorporating validated measures, such as the Junior Metacognitive Awareness Inventory (Sperling *et al.*, 2002), in future studies could provide a more objective evaluation of metacognitive growth and its impact on pupil outcomes.

## 5.2 *Emotional Regulation and Motivation*

Reflective journaling supported both emotional and motivational regulation, aligning with literature that positions self-regulation as a multifaceted construct involving cognitive, behavioural, and affective processes (EEF, 2023; McClelland *et al.*, 2018). Figures 3 and 4 illustrate pupils' reported emotional and motivational benefits, with Year 6 pupils especially highlighting increases in confidence and control. This supports Pickerell *et al.*'s (2023) meta-analysis, which found that structured reflective interventions improved emotional awareness and regulatory skills in pupils aged 7-12.

Qualitative pupil reflections revealed that journaling served as a safe emotional outlet, also playing a role in developing their self-efficacy, a key motivational component within Zimmerman's (2002) SRL model. Even as SMART goals became more learning focused, journals retained emotional significance as a space for reflection and identity development. These are factors which Walker (2006) and Grassinger and Dresel (2017) note as crucial for reinforcing resilience and perseverance. As pupils grew in confidence and emotional control, many seemed more able to reflect and plan effectively. This shows connection between emotional regulation and metacognitive awareness (EEF, 2023; Zimmerman, 2002), suggesting that journaling could develop pupils' long-term self-regulation and contribute to a positive classroom climate. Thus, reflective journaling and goal-setting offer teachers a practical strategy to nurture vital motivation and emotional resilience.

This progress was likely supported by co-regulation, as teacher modelling and emotional prompts helped pupils internalise reflective strategies (Vygotsky, 1978;

Moreno *et al.*, 2016). The class teacher and ELSA both reported that some pupils began to apply reflective techniques outside of the intervention, suggesting that emotional self-regulation was developing into new contexts. Moreover, these findings can be associated with Ryan and Deci's (2000) self-determination theory, linking pupils' sense of competence and autonomy to stronger intrinsic motivation.

However, it is important to recognise that this intervention did not impact all pupils equally, as evidenced by Figures 4 and 5. One male Year 5 pupil reported no emotional benefit, indicating possible variation linked to developmental maturity or engagement. This nuance is supported by Schlesier *et al.* (2019), who argue that pupils' emotional regulation varies significantly and is influenced by a range of factors. Supporting emotional resilience at this age may therefore be especially important given the challenges of transitioning into secondary education, where greater independence and self-regulation are expected (Sammons *et al.*, 2011; Galton *et al.*, 2003).

Overall, these findings should be interpreted carefully. The small-scale nature and short duration reduce the generalisability of results (Cohen *et al.*, 2018); though more consistent longitudinal designs may show greater impact over time, such as Ackermans *et al.* (2025) and Muijs and Bokhove (2020). Furthermore, the developmental trajectory of self-regulation skills, as discussed by McClelland *et al.* (2018), highlights the importance of continuous practice and observing changes over time. The combined use of a scale and consistent observations may have yielded greater self-regulatory and metacognitive gains (Coskun, 2019; Whitebread *et al.*, 2008). Although research in this area remains unclear, as some short-duration (>6

months) interventions have been shown to have long-lasting impacts on SRL (Pandey *et al.*, 2018; Schmitt *et al.*, 2017).

### 5.3 *Perceptions of Intervention*

Findings related to barriers and perceived usefulness indicated that while journaling was valued, its success depended on being flexible, accessible, and responsive.

Disengagement was linked to dysregulation, tiredness, writing fatigue, and cognitive load, suggesting that reflection tools must be pupil-led and adapt to the class's specific needs. This supports Gascoine *et al.* (2022), who identified implementation fidelity and pupil engagement as critical variables in the ReflectED trials' mixed outcomes.

The SMART goal setting aspect of journaling was most effective when guided by pupil voice and teacher feedback, echoing Martin-Denham's (2023) and Phelps and Lewis's (2023) findings on personalised goal setting. This is reaffirmed by research from the EEF (2021b) and Collin and Quigley (2021), which highlights the impact of high-quality teacher feedback on pupil progress. Future research is also underway by Brinkman *et al.* (2025), trialling a student-focused, scaffolded SRL intervention using 'Mental Contrasting with Implementation Intentions', to help primary pupils to reflect on their SWOTs and create specific plans for achieving goals.

Overall, the intervention was endorsed by the class teacher and the ELSA, who considered it a developmentally appropriate tool for UKS2, particularly when integrated with emotional literacy support. Reflection and goal journaling are promising classroom strategies; however, their success depends on flexible delivery, scaffolding, and sustainable integration into practice.

## 6 Conclusions

The use of reflective journals for goal-setting had a positive impact on pupils' self-regulation and metacognition in this UKS2 classroom. Across three cycles, pupils increasingly demonstrated their ability to plan, monitor, and evaluate learning through SMART goals and related strategies. This progress highlights the potential of journaling for enhancing metacognitive awareness and regulation. Journals also supported emotional and motivational development by providing a safe, reflective space to recognise achievements, articulate feelings, and work towards self-set goals, supporting intrinsic motivation and emotional regulation for many pupils.

Furthermore, embedding self-regulatory tools such as journals or reflective prompts may strengthen pupil autonomy. While similar interventions, such as those reviewed by the EEF (2021a), benefit from greater validity and reliability due to robust methodology and independent evaluations, this study's mixed-methods approach offered rich qualitative insights, useful for considering individual pupil impact. However, limitations of this study, including the small, non-representative sample and short duration, mean that findings should be interpreted with caution and are not generalisable to wider populations of primary pupils.

Journaling was most effective when used flexibly, made accessible, and personalised for individual needs, making it a promising strategy for teachers aiming to promote metacognition and self-regulation. Practical barriers, including the time and printing

required for paper journals, could be adapted using digital, verbal, or workbook formats to extend its use across key stages and school contexts.

Professional perspectives, triangulated with interviews and a survey, endorsed journals as a scalable tool, which could be integrated with emotional literacy support. As a practitioner-researcher, engaging with the intervention and this reflective research process deepened my own metacognitive awareness and has equipped me with greater insight to apply and refine such approaches in my future classroom practice and postgraduate research.

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# 8 Appendices:

## 8.1 Appendix A – Journal 1 / Cycle 1

# MY REFLECTIVE JOURNAL



**NAME:**

A journal for YOU to understand how you learn best!

1

## WEEK 1

**Reflecting** means thinking carefully about your actions, choices, and learning. It helps you spot what's working and what you might want to do differently.

**Example Reflection:**  
"In maths today, I found fractions tricky, but I'm proud that I didn't give up. Next time, I'll ask for help sooner if I get stuck."

**Reflecting**

This booklet is your personal space to **reflect, set goals, and track your progress**. It will help you to think about how you learn, how you behave in school, and how you can make small, positive changes over time. By using this booklet, you'll become confident in making decisions, managing challenges, and becoming the best learner you can be!

**Setting Goals**

A good goal gives you a clear plan. Use SMART steps to help you:

- S – specific: "I will practice spellings every day."
- M – Measurable: "I can tick off each day I practice."
- A – Achievable: "I know I have time to practice after tea."
- R – Relevant: "This will help me to ace the spelling test."
- T – Timely: "I will try this for the next 5 days."

Types of Short-Term Goals –

- Learning Goals: I will check my answers twice in maths.
- Behaviour Goals: I will use calm-down strategies if I feel frustrated.

**Growth Mindset**

A **growth mindset** means believing that you can get better at anything with effort, practice, and learning from mistakes. It's not about being perfect – it's about improving step by step. When you set goals and reflect, you're training your brain to become stronger, more focused and ready to tackle challenges!

2

### Brainstorm Your Goals...

Think about what you want to improve in school. Use the space below to mind-map ideas for goals in these categories:

- 📖 Learning Goals (e.g., "I want to improve my handwriting.")
- 😊 Behaviour Goals (e.g., "I will focus more during lessons.")
- ❤️ Social & Well-being Goals (e.g., "I will include others at playtime.")



3

## MY INITIAL REFLECTION:

**Let's reflect on where we are starting:**

**Today I noticed I was really good at...**

---

---

**One thing I want to get better at is....**

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---

**I could do this by...**

- 1.
- 2.
- 3.

4

## MY REFLECTIONS:

This week I have felt...

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Some things that I'm proud of are...

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A challenge that I faced was...

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What could I do differently next time?

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5

## MY GOAL:

My goal will be **SMART**:

**Specific** – My goal is clear and focused. I know exactly what I want to achieve.

**Measurable** – I can track my progress. I know when I've completed my goal.

**Achievable** – My goal is realistic. I know I can reach it if I try my best.

**Relevant** – My goal matters to me and will help me to improve in school.

**Timely** – I have set a deadline, so I know when I want to complete my goal.

My goal is...

How will I know I've met my goal?

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When do I aim to achieve my goal by?

**A goal without a plan is just a wish.  
Turn your wishes into actions!**

6

## WEEK 1 GOAL CHECK-IN

Let's check in with how your goal is going:

- Did I work towards my goal yet?  
How do I know?

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- One thing I could do differently is...

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- I felt \_\_\_\_\_ about my progress  
because...

---

---

7

## Amazing!

You have reflected for a whole week 😊

## FINAL REFLECTION:

Let's reflect on how the week went and how journaling helped:

1. What was my biggest achievement this week?  
\_\_\_\_\_
2. Did I stick to my SMART goal?  
 Yes  No  Mostly
3. Did reflecting each day help me?  
 Yes  No  Mostly
4. What will I do differently next week?  
\_\_\_\_\_
5. Did reflecting in the journal improve your happiness, learning, or behaviour this week?  
 Yes  No  A bit  
Why did you answer this way?  
\_\_\_\_\_
6. What do you like about reflecting in the journal?  
\_\_\_\_\_
7. What could make reflecting in the journal better?  
\_\_\_\_\_  
\_\_\_\_\_

8

## 8.2 Appendix B – Headteacher Approval – Ethics

York St John University Application for Ethical Approval for undergraduates  
School of Education, Language and Psychology  
m.jagdev@yorksja.ac.uk  
c.unsworth@yorksja.ac.uk

**QTS6004M Research Project Permission form**

Student name: Milli Joy Hartley-Fish

SE3 School: [REDACTED]

Headteacher permissions:

I have read this student's ethical clearance form and give my permission for the conduct of this small-scale research project.

Additional parental passive consent is not required/[REDACTED]

Headteacher's name: Mr [REDACTED]

Headteacher's signature: [REDACTED]

Date: 27/1/25

**Students:**  
This completed form must be scanned or photographed and uploaded to the permission submission area on Moodle **prior to commencing your research project and by 27 January 2025 at the latest**

## 8.3 Appendix C - Cycle Three Goal Tracker - Metacognitive Monitoring

# MY SMART LEARNING GOAL

**Name:**

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**Start date:**

---

**My SMART goal for learning...**

**S** My specific, learning focused goal is:

**M** I will have completed my goal when I can:

**A** I will achieve my goal by:

**R** My goal will help me to improve in:

**T** I will have achieved my goal by:

**Goal Tracker**

Have you taken any steps to achieve your learning goal?  
Colour in a box each day – red, amber, or green – to track your goal progress.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## 8.4 Appendix D – Positive Prompts for Motivation & Self-Efficacy – Journal / Cycle 3

### Self-Reflection Zone

**1** What two goals have you achieved this year?

**6** How do you look after your emotions and feelings?

When you feel sad, what makes you feel happier? **2**

**7** What has been your greatest achievement so far?

What is the one **3** thing you are not proud of?

**8** What is the most important goal that you will work towards?

**4** If you had to give advice to someone who was worried about trying something new, what would you say to help them?

**9** Share how you are feeling today with someone you trust.

**5** How can you be kind to yourself?

**4**

### Self-Reflection Zone

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**5**

### S.W.O.T TEAM

Strengths – what are you good at?  
Weaknesses – what do you need to improve?  
Opportunities – what resources do you have around you to help you work on your weaknesses?  
Threats – what might stop you achieving these improvements?

<p style="text-align: center;">Strengths</p> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	<p style="text-align: center;">Weaknesses</p> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>
<p style="text-align: center;">Opportunities</p> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	<p style="text-align: center;">Threats</p> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>

**3**

### My Achievements & Motivation

**Reflect on your goal:**

How well have I done so far? (Tick one)

- I have made lots of progress, and I'm ready for a new challenge!
- I'm improving but need more time and practice.
- I need to try a different strategy to reach my goal.

What's my next step? (Circle one or add your own!)

- Keep going and push myself even further! 🚀
- Try a new technique or strategy! 🧠
- Celebrate my progress and set a new goal! 🎉
- 

**Think about your proud moments:**

What is something I am proud of achieving while working towards my goal?

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A positive thing my teacher or a friend said about my progress:

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**🌟 Achievement Stars 🌟**

🎨 Colour in how successful you feel so far!

☆☆☆☆☆

(5 stars = I'm smashing it! 1 star = I'm just getting started!)

**Keep a growth mindset:**

Why am I working on this goal? How will it help me?

---

What was tricky about this goal? How did I push through?

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**🧠 The more you challenge yourself, the stronger your brain gets!**

**7**