

Children's Understanding of the Wider World Through News Items: Can exposure to the news enrich learning through the role of critical thinking and curiosity at Key Stage 2?

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Abstract

Increasingly, international research literature (Facione, 1990; Halpern, 1998; Lipman, 1988; Paul, 1992; Willingham, 2007; Ku, 2009; Kennedy et al.1991; Koenig and Harris, 2005; Silva, 2008) has sought to explore a range of factors that potentially combine and contribute to enriching the education of children. The pivotal point of significance appears to lie at the intersection of critical thinking, metacognition, creativity, emotional intelligence and self-regulation. In view of the wider empirical research that confirms the appetite of children for news, the potential to deepen academic learning and enrich critical thinking is acknowledged.

Whilst there is a wealth of literature regarding the challenges experienced by children in the period of transition to secondary school that identifies a decline in cognitive functioning, and given the significant connections between metacognition and critical thinking alongside self-regulation (Schraw et al., 2006), this study offers an insight into ways in which this transition might be addressed (although this study does not limit itself to this age-range). This small-scale study utilises questionnaires and semi-structured interviews to explore the views of children, parents and teachers and seeks to understand the role of curiosity, creativity and critical thinking in relation to news events.

Although this study was limited in duration and scope, the results clearly support earlier research regarding the wider cognitive and developmental benefits of high quality news content. Essentially, the study raises questions about the use of real world news items as a way of encouraging children to engage in critical thinking.

Introduction and study aims

This small-scale study explores the role of critical thinking and curiosity in relation to real-world events for primary school children. Importantly, it seeks to acknowledge the voice of the child and better understand how children in Key Stage 2/3, and specifically in Year 6 (10 and 11 year old), make links between real world events in the news and their own learning. Furthermore, the study draws upon parental perceptions of the same and encompasses the views of teachers in seeking to meet the educational and emotional needs of children in this age range.

Cross-cultural comparisons demonstrate that concepts of childhood education are not universal or inevitable (Aries, Pollock and Hendrick cited in Tisdall, Davis & Gallagher, 2010) and the modest objectives of the *Times Weekly Junior (TWJ)* study are to probe the complex role of critical thinking, curiosity, emotional intelligence and resilience, and metacognition, together with the function of creativity and imagination, in the enrichment of children's education through stimuli such as artefacts relating to news items about the world around them.

Furthermore, it aims to better comprehend parents, children and teachers' awareness of the real world, to examine the role of critical thinking, curiosity, creativity and imagination, resilience and metacognition during periods of transition, and, finally, the study aims to identify any correlation between the above-mentioned aspects.

Methodology

Data was obtained from children, teachers and parents with a national geographical reach together with consideration of socio-economic factors.

Different perspectives were provided through the use of two methods for comprehensive data collection and triangulation (Bell, 2005). 'Real examples in real situations' (semi-structured interviews in two schools) were provided to enable the reader to make links with real life (Cohen, Manion & Morrison, 2011: 289). These methodological options were considered best suited to meeting the objectives within a limited budget. In agreement with Hansen and Machin (2013), it was clear right from the start of this research that the study must be theory and policy-driven and not method-driven in order that any recommendations made as a result of the findings might bridge any policy–research gap. Quantitative data was collected through closed (binary) questions and open-ended questionnaires, while questions were screened for suitability. Qualitative data was obtained through semi-structured interviews in two locations which were filmed, transcribed and analysed.

The interviews with the children and the analysis of the data collected were used to explore the following four themes: Critical Thinking, Curiosity, Creativity and Resilience. The children who were filmed for the semi-structured interviews, were chosen by their schools. It is the researcher's understanding that the children were selected according to their willingness to express their opinions.

Ethical Considerations

Confidentiality and anonymity were maintained throughout the process (Cohen et al, 2011). All information was secured on a password-protected computer by the Dennis Publishing team (Tisdall, et al 2010), as specified by the Data Protection Act (1998). According to legal definitions, consent for children's participation must be given via gatekeepers (e.g. teachers or carers). Therefore, consent for the semi-structured interviews were obtained through the schools and anonymous survey questionnaires through *The Week Junior* Website and One Poll via appropriate gatekeepers.

Children were briefed carefully using language that matched their understanding at the start of the semi-structured interviews and given the option to withdraw or discontinue the interview at any time. The process did not pose harm to the participants, whether physical, emotional, psychological or social, nor was there a threat regarding influencing their opinions. During interviews the researcher did at times request that the answer be repeated for the sake of clarity.

Background information

1,146 responses were received between February and April 2017. A total of 565 children (slight predominance of males 56%) were involved in the study: 500 children (One Poll respondents), 53 children (*TWJ* respondents). Furthermore, 141 parents and 440 teachers responded and via this method. Twelve semi-structured interviews were filmed in two schools (two different socio-economic areas) and a primary school assistant Head Teacher was also filmed. Ages of children surveyed and filmed ranged from 9-15 with the majority between 10-12 years. Teachers were predominately from Key Stage 2/3, with the majority from Key Stage 2 (60%). Parents surveyed had children between 9 and 12 years old (83%), 57% of whom had male children. Of course, it is necessary to acknowledge that 96.5% of parents surveyed purchase *The Week Junior* and perhaps are more likely to be predisposed towards a belief that there is a connection between real events and education, or that indeed they might be persuaded to see the relevance due to the experience of sharing the magazine with their child.

Findings, analysis and discussion

The findings and analysis are presented according to the aforementioned themes. The conceptual normative lens of the research sought to expose the values, ethos, and attitudes that might reveal a better understanding of the possible role of news items in enriching learning through engaging in critical thinking.

Theme 1

Teachers' responses to questions about critical thinking revealed a useful theme that can be broadly described as: 'linking everything (in the curriculum) to real world/life skills.' Teachers were typically keen to offer solutions to enable this to happen, particularly by 'reducing time spent on testing/SATs/exams'.

Interestingly, teachers frequently expressed the need for guidance regarding the integration of critical thinking into the curriculum:

Q: What is the role of critical thinking?
 'To solve the problems of today and tomorrow we need to develop as critical thinkers – we need to question everything we are doing and not accept that this is how it has been done for several years and must be done. It has to be a question of how can we improve it? And, we need an education ... to give our children – time – time to reflect – time to talk – time to question. As a year 6 child, you are in the best place for developing critical thinking – they get joy out of it – so I think it is really important to give them opportunities (and into year 7) to give them opportunities to do that – to challenge.'
 TWJ Study: Assistant Head Teacher
 Primary

Box 1: Extract from transcribed filmed data

Solutions

Amongst other solutions offered to strengthen this area (which teachers undoubtedly believed to be of significance) were greater flexibility in the curriculum; increased use of digital literacy programmes; and deeper involvement of the arts in teaching. Teachers identified a strong link between enhancing creativity in the curriculum and an emphasis on emotional resilience and ideological stances regarding mastery approaches.

Although recent research confirms there is widespread support amongst educators for the promotion of critical thinking as a desirable educational outcome (Ku, 2009), and despite agreed recognition of its importance, there is no consensus regarding its definition. Existing

literature on critical thinking has roots in philosophy and psychology (Lewis & Smith, 1993). Sternberg (1986) has also proposed a further strand within the field of education. Two approaches are used to define critical thinking: Philosophical and Cognitive Psychological. The work of Matthew Lipman (1988) and Richard Paul (1992) typifies the philosophical approach, emphasising the characteristics of a critical thinker rather than the behaviours. The cognitive psychological approach meanwhile focuses on how people actually think (Sternberg, 1986). There are, of course, criticisms of both approaches.

Q: How could the curriculum be improved to better support students in their critical thinking skills?

'Provide less emphasis on literacy and numeracy and more on subjects such as PSHE and Critical Thinking – these subjects are often only given an hour a week (if that) and most teachers and schools think of them as secondary subjects.'

Teacher

Box 2: Extract from open-ended survey answers

Whilst the above quote is fairly typical of the views held by teachers in the *TWJ* study, there was an appreciable minority that responded with either disinterest or uncertainty: 'Not sure', 'don't know' and 'that is a big question.' However, in support of the majority of the *TWJ* study teachers' opinions, it is interesting to note that Kennedy et al. (1991) discuss empirical research that suggests there are far-ranging benefits to critical thinking teaching for all students regardless of ability. Many researchers working in the area of critical thinking, such as, Halpern (1998) note the lack of critical thinking as a deficiency in children. Paul (1992) posits that schools focusing on the memorising of content are to blame. Indeed, teachers in the *TWJ* study frequently lamented the pressure to focus teaching on tests, commenting: 'Stop SATS', 'Remove SATs from end of KS2 or make them less high stakes.'

The link

The educational approach to critical thinking is of utmost interest to scholars such as Benjamin Bloom (1956), who provide a taxonomy for information processing skills. Bloom's work is hierarchical with its highest position equating to critical thinking (Kenney et al., 1991). A significant number of teachers identified the link between critical thinking skills and real life:

Q: How could the curriculum be improved to better support students in their critical thinking skills?

'Allow freedom to develop own curriculum which links to real life.'

Teacher D

Box 3: Extract from open-ended survey answers

Below, we can see that Child C articulated a clear link between the news, real world events and their learning within school:

Q: Do you think it is important to learn about the news?

'I feel a connection (with real world events) when I do PSHE but not other things.'

Child C

Box 4: Extract from transcribed filmed data

Developmental understanding of critical skills

For Kuhn (1999), the initial steps in critical thinking typically begin around 9-11 years, at a point when the mental strategies are sufficiently developed. Interestingly, many critical thinking researchers, such as Halpern (1998), maintain that such skills can be taught in relation to real world events.

In agreement with the above research, the majority of teachers in the *TWJ* study (predominantly Key Stage 2 & 3) reported that many had witnessed an increase in children's levels of interest in real world events: 'about the same' (30%), and 'greater' (61%) believed that teaching real world events or news sometimes or always increases motivation to learn.

Cognition and real world events

The in-depth semi-structured interview with the Assistant Head Teacher further supported this view:

'Children learn best when they care about what they are doing. They learn best when it is real and meaningful to them and most likely that will be real life events. When it's dry and discreet, they don't care.'

Assistant Head Teacher

Box 5: Extract from transcribed filmed data

Care for the world and Specific benefits of 'real world learning' and critical thinking
91% of children were overwhelmingly positive about the benefits of joining up real world events with school subjects as a preparation for when they leave school. Children also reported that they are 'sometimes' (64%) or 'always' (29%) interested in real world events. And, perhaps contrary to popular belief, 93% of the children care (always/sometimes) about what is happening in the world. Children also expressed a clear understanding of the benefits of real world learning:

Q: Do you like learning about real world events?

'Yes, we do PSHE and she teaches us about living in a wider world and we learn about immigrants and refugees and we went to the Houses of Parliament to learn more about that – I like that kind of thing...'

Child A

Box 6: Extract from transcribed filmed data

Critical thinking and working with others

Perhaps surprisingly, 97% of parents believed that critical thinking was highly valuable (extremely or very important), and problem solving was regarded as similarly important. Parents also reported that 'working through a challenge' or problem solving/critical thinking (and it should be noted that parents appeared to use the three terms interchangeably) for their child was best undertaken with others. Recent Scholars (Facione, 1990; Halpern, 1998; Lipman, 1988; Paul, 1992; Willingham, 2007) mostly agree on the specific abilities related to critical thinking: analyzing arguments, claims, or evidence and explaining; reasoning verbally, especially in relation to concepts of likelihood and uncertainty; and seeing both sides of an issue.

97% of teachers in the *TWJ* study, overwhelmingly believed that pupils perform better in critical thinking and problem solving activities when working with others. Furthermore, 89% parents were committed to the view that learning about real world events is beneficial to their child's education.

Real world relevance

Indeed, 99% of parents were optimistic about the possible relevance of real world events/news to their child's education. Of course, it is necessary to acknowledge that 96.5% of parents surveyed (via the *TWJ* forum) purchase the *TWJ* and are, perhaps, more likely to believe that there is a connection between real events and education (this is the direct purpose of the magazine), or they might be persuaded to see the relevance due to the experience of sharing the magazine with their child. These aspects were not explored in this study. Nevertheless, 99% of teachers also agreed that pupils are better motivated to learn about topics outside the curriculum when introduced to real world events and news.

Problem solving

Just over 97% of *TWJ* children surveyed between the ages of 8-15 reported that they 'always' or 'sometimes' derive satisfaction from solving problems, and approximately the same percentage believed that using their imagination, creativity and problem solving skills enabled them to learn better at school. During a semi-structured interview, Child J provided insight into why

she believed problem solving/critical thinking is important in school: 'It gives you two options and in the future you need serious thinking and that leads to problem solving.'

Indeed, Child J's process of thinking provides a point of interest in relation to the work of Kuhn (1999) in *A Developmental Model of Critical Thinking*, who suggests the need to draw on contemporary empirical research in cognitive development as a potential resource for understanding critical/problem thinking. The developmental model of critical thinking outlined in his work discusses second-order cognition (meta-knowing) – metacognitive, metastrategic and epistemological – all of which are necessary for cognitive development (in order to engender critical thinking).

'At the moment our world is experiencing huge problems and there is only one way that is going to be solved – through education – our children need to be problem solvers'

Primary Assistant Head

Box 7: Extract from transcribed filmed data

Q: Do you like problem solving?

'Yes, problem solving makes me happy because it sometimes...it's difficult but when you get to the answer...it's a relief – like, phew I did it!'

Child I

Box 8: Extract from transcribed filmed data

Knowledge of the world/news and the curriculum

Children in the *TWJ* study were able to articulate the benefits of linking the news with subjects in schools:

Q: Can you see how the news and what you learn in school through subjects such as geography are linked?

'Yes, I can see how they are linked and they develop on each other, and it [aids] my learning inside and outside.'

Child B

Box 9: Extract from transcribed filmed data

Real world link

Children in the study were also consistently committed to the view that there should be a link between real world news/events and the curriculum. For example, Child A, when questioned if there was a link between real world events and what she learns in school, commented: 'A small connection...not as much as there should be.'

At the start of the semi-structured interview, Child D swiftly made the connection between learning about real world events and his preferred future, where he sees he has a role to play in world events. He responded: 'Because I really like it when I learn something new – like the

current situation about things in the world because in the future I can maybe help with it.'

Linking real world events to the curriculum

95% of Key Stage 2 teachers believed that linking real world events to the curriculum is 'very possible' in PSHE, geography, science, history and design and technology (all achieving a score of over 50%), with other subjects following close behind. One exception to this was foreign languages, which was not regarded as a subject in which the curriculum could easily be linked to real world events.

Q: What do you care about?

I care quite a lot about politics because if something goes wrong it's probably down to our generation to fix it.'

Child G

Box 10: Extract from transcribed filmed data

Theme 2

Predominantly, teachers in the study were keen to 'focus on skills not knowledge' and would value increased time to encourage children to be curious in relation to real world events, which they believe encourages deep thinking in learning. Teachers refer to changes in the curriculum which are likely to render it 'relevant, current, interesting' by providing 'opportunities to develop reasoning skills', and suggest that the integration of philosophical topics into the curriculum would be beneficial.

According to widespread research, curiosity (particularly when described as deep interest or engagement) empowers children with the kinds of skills necessary for active engagement with the world around them, although few studies have been conducted in this area. For example:

Critical literacy is an active engagement with the world as well as with text and requires the ability to think critically. (Pescatore, 2007:326)

Curiosity and the link to future life

There is general consensus amongst educators that young adults need to become informed citizens, and an interesting study by Kevin Barnhurst & Ellen Wartelle – 'Newspapers and citizenship: Young adults' subjective experience of newspapers' in *Critical Studies in Mass Communication* 1991 Vol 8/2 – describes the progressive nature of exposure to print media as one whereby...young adults who are introduced to newspapers as children, interact with them in the school years, and eventually become regular users. There appears to be a link between curiosity in the world, appetite for news and real world events, and motivation to learn. This

will be explored further in the next theme.

91% of children in the *TWJ* study were overwhelmingly positive about the role of curiosity in school and were clearly curious about their world and frequently made useful links to their future learning or adult life:

'I like finding out facts because it makes me feel curious and think about what do I want to be when I am older ...what I can do to make my country better...I think it's really important to be curious because you really need it to dig into deep conversations and find out more facts.'

Child A

Box 11: Extract from transcribed filmed data

In the following excerpt, child C eloquently describes why curiosity is important and how it relates to inventions, providing precise examples: 'I think curiosity is important because like the person who created electricity wouldn't have experimented and created electricity and... also the light bulb and everything in the world has been created by the curiosity of others.'

Other children also identified times of 'curiosity':

Q: When are you curious?

'I feel curious when there's something that I don't know quite yet and I feel like I can know it if I try.'

Child G

Q: When do you feel curious?

'When I read something in the newspaper or learn something in school that grabs my attention and makes me want to learn about it more.'

Child H

Box 12 Extracts from transcribed filmed data

Critical thinking, curiosity and engaging content

A focus on critical thinking combined with constant exposure to relevant and engaging content appear to be key factors for children in determining interest in the world around them. The *Newspaper Federation of America* report (2002, NAA Foundation) found that children who frequently read newspapers are more likely than non-readers to be reading other things in daily life.

In the following excerpt, Child B in the *TWJ* study appeared to disengage with her role as a child/pupil and identify with the role of observer, describing how her generation need to be aware of everyday news: 'I think it is very important because many children don't really get to

know what happens in this world, and with this generation, they need to think more and learn more about what it happening in the world.'

Q: How does problem solving make you feel?

'It makes me feel more excited about things and...it makes you want to answer more of those questions.'

Child H

Box 13: Extract from transcribed filmed data

Curiosity and thinking

In Rob Fisher's (2005), notable work *Teaching to Think*, there is a discussion of the necessary skills for a post-industrialised society that includes principles for thinking: critical thinking, creativity and curiosity about the world. Interestingly, 82% of parents in the *TWJ* study reported that children are curious about real world events with just over 48% of parents claiming that they talk to their children daily about news and world events, while just over 34% do so weekly. This view was also supported by teachers:

Q: Does curiosity play a role in schools?

'We want them to be curious and say, but couldn't we do it differently? Potentially, Year 6 is the year that care the most. They are starting to understand the world around them care and want to be a part of it.'

Assistant Head Teacher

Box 14: Extract from transcribed filmed data

Theme 3

It is clear that children in the *TWJ* study (45% sometimes, and 50% always) were able to identify a tangible link between the use of imagination, creativity and problem solving skills and enrichment in their learning at school.

Q: How could the curriculum be improved to better support students in their critical thinking skills?

'Provide less emphasis on literacy and numeracy and more on subjects such as PSHE and Critical Thinking – these subjects are often only given an hour a week (if that) and most teachers and schools think of them as secondary subjects.'

Teacher

Box 15: Extract from transcribed filmed data

Critical thinking and creativity

A common theme emerged from the *TWJ* study that clearly marked out the need for imagination in relation to critical thinking. Many researchers, such as Bailin (2002) and Paul and Elder (2006), make useful links between critical thinking and creativity in terms

of its emphasis upon useful thinking. My own work in the area of creativity (Harding and Chaudhuri, 2008) identified the impact of creativity upon academic and social performance. We conducted our research with 7 year olds, in two schools, over an eighteen-month period in a disadvantaged area in Essex. The human nervous system is a complex structure that is open to the world via the senses and is dynamically influenced by its environment. Creativity, therefore involves a complex series of paradoxes. It is firmly biologically individual and yet environmentally influenced by a multitude of factors, including the education system, family, society and culture.

According to neuroscientists, such as Nancy Andreasen (2005), creativity occurs during unconscious mental states which permit free associations where thoughts become disrupted and disorganised, and then readjusted and self-organised. At this point, the formation of a new idea occurs. The result is creativity. Although not strictly observable or measurable, the sense of 'flow' enjoyed as a result of this inner 'work' can be described as creative (Csikszentimihalyi, 1991).

Of course, it was fascinating to observe children in the *TWJ* study who demonstrated such depth of insight regarding the nature of problem solving and its impact on their brain:

Q: How does problem solving help children in school?

'Problem solving is making your brain work and helps children imagine what it's about instead of learning it and forgetting about it and being really confused.'

Child L

Box 16: Extract from transcribed filmed data

Stress relief and problem solving

Q: Does being creative help you with your learning?

'Yes, I really love being creative – you can imagine stuff.'

Child E

Box 17: Extract from transcribed filmed data

Q: Creativity and imagination? Is there a place for it in school?

'I think you can be imaginative and creative even in English. Even if it's not story writing you can still be creative.'

Child H

Box 18: Extract from transcribed filmed data

Q: How important is imagination to your learning?

'I think it is very important – imagination and creativity makes me very curious about learning – engage with my learning.'

Child A

Box 19: Extract from transcribed filmed data

Brain development in relation to creativity and critical thought

Between the ages of 5 and 11 years, deep emotional needs must continue to be satisfied in order to gain full potential from cognitive skills whilst continuing to develop in a creative way (Harding, 2013). Children's brains are hardwired to look for new and original information presented in rich and stimulating ways and, in this case, it appears that the stimulation of real world events is satisfying to the developing brain. The harder the brain works, the more connections are forged within it, enabling more effective signalling (Harding and Chaudhuri, 2008).

The key is to form these connections and this is dependent on the degree and quality of stimulation from the environment, and critical thinking in relation to real world events is particularly relevant. The argument for proper consideration of critical thinking as a valuable tool in academic learning is perhaps gaining momentum.

Brain development and resilience

During this age range, we (Harding and Chaudhuri) found that children relish the opportunity to try out their new skills and demonstrate their developing competence in a range of areas. Persistence is a measure of how long a child will be lost in concentration during the creative activity. Children who are really involved do not let go of the activity easily. As we will see in the next theme, the ability to preserve and be resilient impacts the transition between from year 6 to year 7.

Perceived value of creativity and imagination

Although parents and children in the study clearly valued creativity and imagination, if a little less so than literacy or numeracy, teachers were adamant that its value should be central to the school experience:

Q: Should schools value creativity and imagination in schools?

'I think our children are most enthused in their learning when they have opportunities to be imaginative. Our children could do better than they are already doing in their SATS if they have opportunities to be imaginative so if we provide boring dry rote learning with no real meaning to it, they won't do as well as they could do as when we provide rich imaginative opportunities where they can really express themselves.'

Assistant Head Teacher

*Box 20: Extract from
transcribed filmed
data*

Q: Is imagination and creativity important in schools?

'I think that imagination and creativity has a place in school, and we have different things that we do and many different ways we can do them.'

Child D

Box 21: Extract from transcribed filmed data

The way in which critical thinking, curiosity, creativity and emotional intelligence can be expressed within educational environments is much debated (Andreason, 2005; Robinson, K., and Aronica, L., 2015) and, it is, of course, essential to recognize the curriculum foundation on which any aspirations can be built (Department for Education, 2013).

Q: Do you think there is a place for imagination and creativity in schools?

'Yes, so our learning isn't just about boring things. It's kind of makes it – imagination and creativity – makes it go higher.'

Child L

Box 22: Extract from transcribed filmed data

Creativity and measurement

Most often, educational environments are predicated upon the need for children to achieve and to have attainment quantified. However, as it is impossible to measure creativity in the same way as, for example, mathematical ability, its value can vary. During the middle years and emerging into the teenage stage, greater personal freedom and autonomy is generally offered. It is also often a period of personal search for meaning in life. Quantum physicist David Bohm (1991), an avid supporter of the creative arts, speaks of a creative urge to uncover hidden meaning and patterns in the midst of the apparent randomness of life. Certainly, creative moments are when 'it all makes sense', when the original and profound simultaneously dawn (Harding and Chaudhuri, 2008).

Teachers in the *TWJ* study (over 90%), consistently lamented the lack of time for more problem solving activities (critical thinking) or creative experiences in relation to real life within lessons: responses such as 'More time for cross curricular problem solving' and 'Making them think outside the box' speak to this fact. The majority of teachers and parents identified problem solving as a highly valuable skill: 'Problem solving tasks – e.g. this is often used at University level but rarely in KS2 or KS3.'

Theme 4

Transition from Year 6 to 7 presents various challenges (Simmons and Blyth, 1987) and it is well established (Vinson and Harrison, 2006) that there are a range of emotional complexities faced by Year 6 pupils transferring to Year 7 in secondary school. Research funded by the

Department for Education (2003) found that up to two out of five pupils struggle at this period (Galton et al., 2003) and other researchers, such as Eccles et al. (1993) have posited that the transition from the primary to the secondary school environment coincides with a decline in a pupils' academic achievement. Andrews and Wilding (2004) also noted that these challenges might further cause a decline in cognitive functioning. As such, children in this particular age range are vulnerable, and it could be suggested that more useful thinking strategies, such as creativity and critical thinking skills (in relation to real world events and undertaken through discussion with others), have a significant part to play in prevention of potential academic decline. 91% of children in the study claimed that they learn best when talking about school subjects with friends.

Critical thinking and discussion

As can be seen below, Child A, in particular, appeared to be referring to critical thinking, and in general, the children were keen to communicate the need to generate different perspectives through discussion and come to a shared understanding.

Q: Do you learn best on your own or with friends?

'I learn best on my own, but I can learn with my friends because they can develop on my learning and they can tell me when I am right. We can both work together about which one is correct.'

Child A

'I prefer learning with my friends because it gives me another point of view.'

Child G

Box 23: Extract from transcribed filmed data

Critical thinking and metacognition

Indeed, these findings draw on significant previous research studies that demonstrate how thinking about thinking is the domain of metacognition, or in other words the way in which children are able to manipulate their own thoughts is essential to understanding critical thinking (Cross and Paris, 1988). Interestingly, there are significant connections between metacognition and critical thinking alongside self-regulation (Schraw et al., 2006). Furthermore, a consideration of the role of self-regulation brings this investigation into the area of Emotional Intelligence (EI). Goleman (1995) in his notable work *Emotional Intelligence* describes how the social and emotional skills of children are intimately linked with cognitive development. Furthermore, Chinowsky and Brown (2004) have recently identified Emotional Intelligence as a critical factor impacting pupils' academic achievement. Interestingly, researchers such as Qualter et al. (2012) and Izard (2002) have also demonstrated that students with high EI perform well academically and are better equipped for social interactions.

Emotional resilience and identification of themes

Opinions of the parents in the *TWJ* study regarding the best way to educate children that enables them to be emotionally strong and learn effectively were categorized under three prevalent themes that emerged from this data:

1. Use of critical thinking and confidence
2. Encourage curiosity
3. Debating and discussion of real world events

Parent responses typically include:

- Teach them to think critically as well encouraging them follow their interests and develop their talents at a speed that is just above comfortable to be challenging but not stressful.
- Give them confidence and foster a sense of curiosity to explore.
- A mixture of casual discussions over meals and the children researching on their own.
- Teach critical thinking skills.
- Talk and to listen and to teach them how to do the same. Being interested in what they're interested in teaches them that their interests and opinions have validity and give them the confidence to express an opinion and to listen to, and take on board, those of others.
- They need to have time to talk about things and their impact, often they need to be encouraged to think more deeply about the impact/ consequences of events /actions.

Box 24: Extract from open-ended survey answers

Confidence, transition issues and emotional resilience

The issue of confidence (raised by parents above) appears significant as a 'lack of confidence' identified in children (83%) was seen as a potential threat to future success. Notably, the teachers in the *TWJ* study indicated the need for confidence as the most important factor closely followed by literacy and problem solving skills.

Teachers were also overwhelmingly (96%) convinced that emotional resilience is linked to transition success from Year 6 to 7. Problem solving was identified as a source as satisfaction by 96% of children in the *TWJ* study. Furthermore, when teachers in the *TWJ* study were questioned about the best way to educate students in a way that promotes emotional resilience, four themes emerged:

1. Critical thinking and independent thought
2. Social interaction and debating

3. Challenges and problem solving
4. Flexibility in the curriculum to teach emotional literacy

Examples from teachers typically include:

- Giving them real choices and encouraging them to critically think.
- Learning from real life situations.
- Less reliance on 'core subjects' and a wider curriculum where the arts, PE and subjects needing a lot of social interaction play a much more significant role.
- Have a balance of academic and emotional literacy lessons. Learning behaviours are crucial: resilience, resourcefulness, teamwork and perseverance.

Box 25: Extract from open-ended survey answers

Strategies to combat stress

In terms of strategies for inoculating children against the possible stress posed by the transition from Year 6 to 7, those surveyed were equally keen to acknowledge their belief in social connection as a way of supporting children through these challenges. Their views were clearly expressed:

Q: The transition for Year 6 to 7 is often considered to be a challenging time for pupils – how can they be helped?

'The transition from Year 6 to 7 is incredibly difficult. The emotional challenges of moving to a different environment where you are potentially a small fish in a big pond and resilience is a key word. We need to build mental and emotional resilience – even physical reliance. Our children need to leave primary school confident in themselves and we need to give them opportunities to talk about what they are worried about and to give them opportunities to work with each other to build that resilience.'

Assistant Head Teacher

Box 26: Extract from transcribed filmed data

Q: How does learning about the news help you in school?

'Sometimes it helps me understand things better.'

Child H

Box 27: Extract from transcribed filmed data

Q: How does their emotional resilience impact their cognitive framework of the world? Any link between emotional resilience and cognitive growth?

'In our learning in school, we also like to start lessons with a challenge which most children probably can't solve. We want them to say this is too difficult and then not give up. If children have these opportunities regularly, they develop that resilience. So, if it's a maths problem and they can't do it, rather than saying 'I can't do it – help', they have another look. They have another go. They think ways around it and are flexible. They use their critical thinking skills and if they have those skills they can do better in their maths, but more importantly, we can transfer these skills to life, for solving the problems today and tomorrow.'

Assistant Head Teacher

Box 28: Extract from transcribed filmed data

Concluding remarks

Despite perhaps its ambitious remit, this small-scale study poses some interesting questions about the relationship between real world events; curiosity, critical thinking, cognition and resilience. The findings can be seen to confirm, or go some way to building on, previous larger scale projects that explore similar issues.

Although this small-scale research does not attempt to show that a lack of critical thinking can be seen as a 'deficiency in children' as described by some scholars, it nonetheless confirms the belief that teaching real world events or news sometimes or always increases motivation to learn. Markedly, children in the *TWJ* study were consistently committed to the view that there should be a link between real world news/events and the curriculum, with teachers and parents equally stating its perceived value. Moreover, the majority of participants acknowledged the benefits of children working together through discussion and debate when it comes to problem solving and critical thinking, with time to rehearse critical thinking skills in various domains unanimously recommended by teachers.

It is also clear that a significant number of children in the *TWJ* study were able to identify a tangible link between the use of imagination, creativity and problem solving skills that enriched their learning at school. Furthermore, it is well established through previous research that the challenges of the period of transition for children can cause a decline in cognitive functioning. Given the significant connections between metacognition and critical thinking alongside self-regulation (Schraw et al., 2006), the *TWJ* study raises a timely debate about the use of more valuable thinking strategies. Perhaps creativity and critical thinking skills (in relation to real world events and undertaken through discussion with others) can play a significant part in the prevention of potential academic decline.



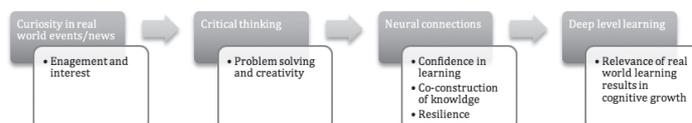
Table 1: Cause and effect

If, then, it can be assumed that the definition of education is broad and that it embraces other skills such as emotional intelligence, resilience, problem solving and critical thinking (as scholars tend to agree), then this small-scale research project indicates that children within Key stage 2 and 3 have much to gain through the consumption of age-appropriate real world activities/news items. Furthermore, it is essential to acknowledge the fact that news events are also the basis for conversation topics and make a contribution to a sense of belonging. However, the way in which critical thinking, curiosity, creativity and emotional intelligence can be expressed within educational environments is much debated. Whilst the literature reviews offered in this study demonstrate that the creative mind is valuable in terms of its ability to offer new insights and to problem solve in ways that would not be possible through more linear thinking, it is, of course, essential to recognize the curricular foundation on which any aspirations can be built, and this research raises questions about pressure on time.

Furthermore, the results of this study appear to demonstrate that when real world news is delivered in a way that stimulates curiosity and critical thinking it has the potential to deepen academic learning and encourage cognitive growth.

Interconnection

Perhaps the interconnection between these values/skills can be usefully correlated and depicted as thus:



*Table 2:
Interconnection*

Children consistently expressed a clear desire to engage in real world news and this was also a view that was supported by teachers who clearly saw the link between critical thinking and exposure to news items.

Wider research, as indicated in this report, confirms that a child's deep emotional needs must continue to be satisfied in order to gain full potential from academic life. This occurs whilst continuing to develop in a creative way, as it is through constant interaction with the world that children become more adept at surviving within it. And, given the close association critical thinking, real life lessons, creativity and cognitive development, issues

regarding protective factors to encourage resilience during times of transition for Year 6 to 7 are important questions to explore.

Limitations of the research and next steps

The study sought to represent the views and opinions of children, parents and teachers. Therefore, the data reflects their perceptions of what is taking place in school. However, there is also value in asking these questions systematically through surveys that are representative of local or national populations. Caution should, of course, be exercised in interpreting patterns, nonetheless, the analysis as it stands, does have a number of implications that have already been raised through previous national studies.

As previously mentioned, it is important to acknowledge that the majority of parents surveyed purchase *The Week Junior* and were perhaps more likely to express a belief in the connection between real events and education. These aspects were not explored in the study. The use of *The Week Junior* database is taken into account during the analysis of the data due to the possibility of contamination of data. It should also be noted that children in the One Poll study (500 children) were not regular subscribers to *The Week Junior*.

Appetite for news

In view of wider significant empirical research that confirms the appetite of children for news, especially when it is delivered in a way that stimulates curiosity and critical thinking in the world around them, the potential to deepen academic learning and encourage cognitive growth must be examined. It was surprisingly clear that children in the study were able to link their present educational experience with future prospects that appeared to be predicated upon the need to help the world become a better place in which to live. In terms of future research in this vital area, the following questions could be considered:

1. Although recent research confirms there is widespread belief amongst educators that critical thinking is a desirable educational outcome, how might real world news be best integrated in to the curriculum at Key stage 2 and 3?
2. In what way can children be co-constructors/creators of this real world learning from the starting point of their own curiosity in the world?
3. How might children be supported to be critical thinkers and problem solvers and enabled through group working?
4. In what ways can children be empowered to be creative and usefully make connections between domains of knowledge that encourage critical thought?
5. How might the transition from primary to the secondary school environment be better supported through targeted development at the intersection of resilience/creativity/

critical thinking and real life events?

6. Could the demand for training that teachers identified as a need be met regarding embedding critical thinking within the context of real life events/news?

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