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Concepts of difficulty – a child's eye view

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CONCEPTS OF DIFFICULTY - A CHILD'S EYE VIEW

Introduction

Following a Qualifications and Curriculum Authority (QCA)¹ review of national assessment arrangements a number of changes have been implemented for the national tests in key stages one, two and three² for 2003. Although changes have taken place in all of the core curriculum subjects (English, mathematics and science), it is those changes that affect English, and more specifically writing, which concern this study.

Since the introduction of statutory writing tests in 1995 children have been offered a choice of topics to write about. Non-narrative topics have included writing to persuade, inform, explain and describe. Furthermore, children have been offered the chance to fulfil these purposes in a range of text types, including letters, leaflets, reports, articles and newsletters. Within the narrative genre a variety of 'generic forms' (Wray & Lewis, 1997) or 'sub-genres' were also offered. Children have had the opportunity to write stories based around the sub-genres of fantasy, mystery and traditional tales. In the tests taken in 2003 children will have no choice about the genre, sub-genre or text type in which their performance will be assessed. Instead they will be required to write two pieces, one longer and one shorter, in response to given prompts.

According to QCA 'the changes to the tests have been introduced to reflect more accurately current teaching and learning practices' (QCA, 2002, p.2), perhaps taking into account changes in practice such as the introduction of the National Literacy Strategy (NLS) (DfEE, 1998) into most English primary schools in 1998. A concern of this study is that when children have no choice about which writing they do in their test, then it is more important that the writing stimuli provided facilitate children equally.

In attempting to understand the effects of stimuli on children, this project follows from recent studies into children's perceptions of task stimuli (Johnson, 2002; Green, Hamnett & Green, 2001). These studies have suggested that children are very aware of a variety of stimulus features and that their motivation is linked to their levels of interest. Johnson also found that

¹The QCA is the government agency that regulates assessment in England ²Key stage 1: 5-7 year-olds; key stage 2: 7-11 year-olds; key stage 3: 11-14 year-olds the concept of difficulty affected children's perceptions of a task. This project explores what children mean when they talk about difficulty and which stimulus features contribute to this concept, leading to a greater understanding of what makes a 'good' writing stimulus from the perspective of a child.

Phase 1

Methodology:

Phase 1 of the study used a questionnaire to survey the views of 11-year-old children regarding writing stimuli. The findings of that survey (Johnson, 2002) found that children were very aware of the features of stimuli presented to them. 192 ten and eleven year-old children (98 girls, 94 boys) from four schools took part in the survey. The sample consisted of children of different abilities based on teacher assessment of writing. The children were shown three writing stimuli and they were asked which one they would choose and why. They were also asked which one was their least favoured option, and why (see Appendix 1, p.21).

The stimuli were copied or adapted from already published national test materials and, apart from their genre, they differed in a variety of ways. The word count for each stimulus varied, one stimulus had no illustration whilst one required the reader to use given illustrations to answer the question. Organisational support prompts were not included in one stimulus whilst varying degrees of support were given in the other stimuli. The purpose and audience of tasks varied in the degree of definition provided.

This survey was designed in two stages. At the first stage, children's preferences were counted. At the second stage children's open responses about preferences were coded and grouped, allowing an analysis of the factors that influenced their decisions.

Findings:

	All	Girls	Boys
	(n 192)	(n 98)	(n 94)
What was that? (explanatory)	36	33	39
A door opens (narrative)	28	25	31
Spider supporter (persuasive)	36	42	30

 Table 1
 Percentage of pupils who chose the stimulus as their favoured option

The survey results (Table 1) showed that the narrative option was the least popular choice overall, especially so with girls. The coded data suggested that this was related to perceptions of difficulty which may have been connected to the lack of support that the stimulus offered.

Explanatory	Narrative	Persuasive
Theme	Text type	Theme
Demand	Theme	Text type
Text type	Demand	Demand
Purpose	Stimulus length	Purpose
Activity length	Freedom of thought	Stimulus length
Prior knowledge	Activity length	Activity length
Stimulus length		
Stimulus options		

Table 2 Salient features of the different stimuli listed in descending order of frequency

Analysis of the coded data made it possible to identify the stimulus features that the children considered to be salient. The three most important features mentioned in each of the different stimuli were theme, difficulty and text type (Table 2). The relative importance of each varied by genre. Length of the stimulus and activity were also mentioned in all three genres. Children more often preferred longer stimuli and shorter activities than vice versa. Purpose was a salient feature in the non-narrative tasks, but not in the narrative. The opportunity to write freely beyond constraints established by the stimulus was an important feature for a significant minority of children in the narrative.

The findings of the writing stimulus survey led to further questions and hypotheses which the questionnaire methodology could not address.

- Do children perceive some text types and themes as more difficult than others?
- Do purpose and audience influence perceived task demand, and do children perceive narratives as having no other purpose than just being 'creative acts' (Littlefair, 1992)?
- Why do many children prefer a long stimulus and a short activity?
- Has the exposure of children to a wider variety of genres through the NLS affected their choices?
- Do children necessarily choose options that they think are easier?

Phase 2

Methodology:

Since the underlying premise of this project was that children possess a great deal of insight and their ideas need to be acknowledged, the methodology required to elicit these ideas needed to be carefully planned in order to avoid making assumptions, as adult researchers, about children's ideas.

Donaldson (1992) suggests that the particular nature of children's thought, differentiating it from adult thought patterns, is linked to children's engagement in the process of making sense of the world around them. This process of understanding is in turn heavily linked to their experiences. She argues that 'children scarcely beyond infancy have the ability to modify their own ways of conceiving of reality [and] there is little doubt that they do' (1992, p.65). Eliciting children's ideas, which are based on such highly individualistic processes of meaning construction, has implications for methodology.

Butler & Green (1988) suggest that traditional forms of information gathering have tended to lead to descriptions of children's behaviour rather than an understanding of it. Rote questioning using a list of prepared questions and interrogation fail to allow the child's voice to be heard. Arguing for a methodology that allows the inside to look out rather than the outside to look in, they suggest that Kelly's Personal Construct Theory (PCT) supports a methodology flexible enough to accommodate the specific issues related to working with children, whilst being rigid enough to elicit meaningful information. For phase two, Kelly's repertory grid technique (Fransella & Bannister, 1977) was modified leading to the use of semi-structured interviews to elicit children's ideas relating to 18 stimuli. 'Repertory Grid' techniques are designed to elicit personal constructs since Kelly's psychological theory suggests that the basic unit of analysis, by which individuals access the world, is the 'personal construct'. The act of construing, whereby a child discriminates and perceives similarities, themes and repetitions in events in their own experience, leads to anticipation for the future.

Repertory Grid techniques usually achieve this by presenting an individual with triads of objects or 'elements' and asking them to identify any important ways in which two elements are viewed as similar to each other but different from the third. An individual's responses, based on the salient features and patterns that they perceive, anchor ends of a bi-polar construct along which the rating of different elements can be made.

Ravanette (1977) argues that it is important that the structure of elicitation should make it easy for children to respond. Caputi & Reddy 1999) suggest that using dyads of elements instead of triads is a way of simplifying the elicitation process with children. Bearing in mind the age of the children in this study, the 18 stimuli were organised into nine pairs. Four pairs compared non-narrative stimuli, three pairs compared narrative stimuli and two pairs compared a narrative and non-narrative stimulus. In this way, stimuli which contained features that we wanted to explore were compared directly. Although each stimulus was not repeated more than once, the features included in them were crossed so that they appeared in both narrative and non-narrative contexts. Children were shown the stimuli pairs and asked how they were different, how they were similar and which they preferred and why. This process allowed the children to consider the salient features of the stimuli before attempting to explain their reasons for liking particular stimuli.

Findings:

Salient features

While it is accepted that Kelly's theory was primarily interested in gaining an insight into the mind of individuals, given a representative sample of children some generalisations can be sought. In order to do this we looked at which features were more important to the children based on frequency in interviews.

The features which children most frequently mentioned as differences or similarities were, in order of frequency:

- Text type (form of writing: e.g. letter, leaflet)
- Illustration
- Theme
- Purpose (e.g. persuading, explaining)

During the analysis it became apparent that the stimulus features that children mentioned fell into two categories (Table 3).

'c	ore features'	'additional features'		atures'	
٠	Purpose	٠	Bullet points where prompts are	٠	Content given as a support for
•	Theme		expected to be used		writing
•	Text type	•	Audience	•	Title which carries information
		•	Bold font		about the task
		•	Illustration	•	Optional supports within the
		•	Cue to task length		stimulus

 Table 3
 Categories of stimulus features

I have called the first group 'core features' which are necessary in any task, including purpose, theme and text type. The second group, 'additional features', are those features which may or may not be included. Some are presentational features (e.g. bullet points, bold font), and others support by providing additional information (e.g. content given, illustration, optional supports). These features can be manipulated between tasks.

The model in Figure 1 illustrates how the core and additional features relate to each other.





There were two other categories of children's responses, relating to imagination and experience, which stood apart from comments about stimulus features.

The way children respond to a topic is affected by the extent to which their imagination is stimulated and the extent to which their experience can be brought to the task. Children approach the task with an expectation about what the task will involve. This expectation is informed by the core features of the task and their own experience of writing for similar tasks. A child's past experience provides them with a schema which builds a representation of the task in their heads. If the child's expectations are corroborated by the additional stimulus features that they find, then their imagination and ideas for writing will be facilitated. Where there is a mismatch between expectations and the additional features provided, imaginative flow will be interrupted because the schema is inadequate in its present state to fulfil the task.

Reasons for preferences

The children compared nine pairs of stimuli. Presented below are three pairs which typified their responses. The reasons children gave for their preferences varied according to whether they were comparing narratives, non-narratives or cross-genre comparisons.

Popular features of narrative stimuli

Narrative stimulus 1

Narrative stimulus 2



12 preferred stimulus 2, 6 preferred stimulus 1.

Reasons for preferring stimulus 1

- Options given
- No start given/more 'open'
- Less content given/more 'open'
- Looks less 'formal'
- Layout/circles

* denotes strong reasons for preferences. Popular features of non-narrative stimuli

Reasons for preferring stimulus 2

- Theme more interesting*
- Given content (start) creates atmosphere*
- Less detail given about events that must be included/more room for ideas*
- Less 'restrictive'
- Given content hints at *following events*
- Bullet points





14 preferred stimulus 1, 4 preferred stimulus 2.

Reasons for preferring stimulus 1

- Illustration gives support/information*
- Having 'options' is liked and gives more ideas for writing*
- Can adapt own experiences to the theme*
- Opportunity to draw in leaflets
- Leaflets a familiar text type
- Leaflets are more permanent than articles
- More support given in stimulus
- Audience is immediate
- Activity would be shorter

* denotes strong reasons for preferences.

Reasons for preferring stimulus 2

Non-narrative stimulus 2

- School theme is familiar
- Articles preferred to leaflets
- Audience is large

Popular features of cross-genre stimuli

Narrative stimulus	Non-narrative stimulus		
Home at Last At last they were home. After all that had happened, they had never been so happy to see their own house.	Save The Grove The Grove is an area of open land. It is in danger of being spoilt because people are careless when they visit it. Your school is writing a leaflet to persuade people to look after <i>The Grove</i> . Your job is to produce the writing that will go into the leaflet.		
Write a story using these sentences to help you.	Here are some ideas that you may choose to use or you may use any other ideas of your own.		
what had happened;	You would like an end to: You would like a chance to have:		
 who was involved; why they were so glad to be back home. 	 litter; information about plants and wildlife; damage to plants; noise frightening animals; dogs off the lead. nesting boxes. 		

13 preferred the non-narrative stimulus, 5 preferred the narrative stimulus.

Reasons for preferring the narrative stimulus

- Prefer writing stories
- Prefer using imagination
- Less information to include than nonnarrative
- Layout more white space, easier to read
- 'Scary' theme
- End is provided

Reasons for preferring the non-narrative stimulus

- Theme more interesting*
- 'Wildlife'/'conservation' purpose*
- Persuasive purpose*
- Dislike story writing
- Content given
- Activity can be laid out interestingly
- Bullet points

* denotes strong reasons for preferences.

Discussion

The findings from phase one of the study (Johnson, 2002) raised a number of questions which phase two has attempted to address.

Do children perceive some text types and themes as more difficult than others?

Although text type was the most salient feature mentioned when children compared stimuli it was not stated as a reason for preference to the same extent. The evidence suggests that text types had relatively little influence on children's preferences (see Table 4).

•	5 5	
Narrative	Non-narrative	Mixed-genre
Content support	Illustration	Purpose
Theme	Theme	Theme
Freedom	Options	

Table 4	Main reasons f	for preference	ces according	to genre
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This is not to say that the data have little to add to our understanding of the effect of text types. Although their overall effect was limited in comparison to other features, children's comments tell us that there is a hierarchy of difficulty associated with text types. Letters appear to be more popular than leaflets - with letters of reply easier than initial letters. Leaflets are considered to be easier than articles, and overall, non-narrative forms are felt to be easier than narrative forms.

Theme did have a clear effect on choices. In non-narrative stimuli it appears that themes which related directly to children were most popular. Reading related themes (bookweek/authors) were considered to be good, although this effect was most marked in the responses of more able writers. After-school issues (relating to leisure activities and conservation issues), where there was space for children to relate their own interests, were more popular than themes which asked children to write about their school. Specific themes related to a given place (e.g. 'Sea World') were liked more than vague 'open' themes (e.g. 'School Trip') which expected the children to 'think up' a location to write about.

Narrative themes that were most popular were active, imaginative ones. Mundane, 'everyday' issues based around domestic situations were less popular than 'adventurous', 'strange', 'scary' and 'magical' themes. Many children felt that adventurous and scary themes related to their own interests in reading, e.g. one child said '*it relates to something I have read*', whilst

another suggested that they would 'probably have ideas from books'. One child generalised the relationship between story writing and reading by saying 'a story is based on reading'.

Do purpose and audience influence perceived demand, and do children perceive narratives as having no other purpose than just being 'creative acts' (Littlefair, 1992)?

The data suggest that the effect of purpose was more apparent when children chose between narrative and non-narrative stimuli. Children liked non-narrative stimuli which tied a 'good' theme to a 'helpful' or 'informative' purpose (e.g. 'helping' someone to understand why spiders can be useful insects and liking the 'moral purpose' related to conservation issues and informing others about it). On the other hand, it appears that Littlefair's observation holds true since many children saw narrative purpose as an act of creativity. Many children in the study explained narrative purpose in terms of 'using my imagination' or 'it doesn't have to be true', and being about 'not just everyday life'.

Turner & Paris (1995) argue that tasks that use writing for 'authentic' purposes are most successful in motivating children. Findings from this study suggest that children recognise the purpose in non-narrative tasks more easily than they do in narrative tasks and that this may be why non-narrative activities are more popular than narrative activities.

A number of children understood the purpose of the narrative stimuli as being the kind of subgenre that they would write, e.g. 'scary' or 'mysterious' This often relied on a certain amount of inference from the stimuli. Narrative purpose within stimuli tends not to be clearly stated with instructions relying on general phrases (e.g. 'write a story with the title...' or 'write a story using this idea to help you'). The 'purpose' of non-narrative stimuli is often more visible in stimuli. The intention to be 'persuasive' or 'informative' is usually clearly stated within the text of the stimulus, sometimes in bold font. Since children appear to find it difficult to recognise narrative purpose, perhaps their purpose should be made more visible by being stated more clearly within stimuli. If motivation and purpose do have a clear link, as Turner & Paris (1995) suggest, this may lead to more children engaging with narrative writing.

Interestingly, audience had a limited effect on preferences. A number of children commented on the relative difficulty of writing to less familiar and larger audiences but the most interesting contrast related to differences between narrative and non-narrative stimuli. One of the narrative stimuli provided an audience for the story (your class) and this had a negative impact on children who liked the task overall. Some children who liked writing stories expressed concern at this saying 'I wouldn't like it read to the class - it's embarrassing' or 'I

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don't like having to share my work'. It appears that the essentially 'personal' nature of narrative writing marks it out as being different from non-narrative genres which are clearly based on communicating messages to others.

Why is the combination of a long stimulus and short activity considered to be good, when is it not, and by whom?

The data reinforce the idea that children generally prefer short activities. This is especially true of non-narrative activities. Non-narrative stimuli that stipulated that the task be 'short' were more popular. Interestingly, the only time that this stipulation had a negative effect was in a narrative stimulus, where some children felt that this detracted from the appeal of the task saying '*I'll overlook the short bit*' or '*I don't like the restriction of the short story*'.

The issue of stimulus length is more complex. A number of elements contribute to stimulus length, largely related to task support, and children often preferred stimuli where content was given for them to work from. In the case of narrative, some children expressed concern that they struggled to find ideas for stories and that stimuli which provided a start helped them overcome this block by taking away what constituted 'the most difficult part' of the story writing process. It was common for children to say things like 'you can continue on [from given text] it gives you more ideas', 'I don't have to think it all up myself', 'you don't have to begin it - having an idea is what's crucial' or 'an end is given - it's hard finishing stories in time [that's why] I usually leave cliff-hangers'. In this sense, short stimuli failed to provide content support that many children liked.

Non-narrative stimuli raised different issues. Since they had to provide a certain amount of information, it appeared that the largest issue related to how this information should be best presented. Illustration had a large effect on choices. It was felt that having an illustration was better than not having one. More importantly, children liked *integral* illustrations that carried information for them to use more than they liked *decorative* illustrations. Children felt that this meant there was 'less to read' and this was better than stimuli that were 'crammed' with too much text and difficult to read. Similarly, the use of bullet points had a positive effect since it helped children to organise their reading and identify important pieces of information. Children of all abilities preferred support contained within longer non-narrative stimuli.

A number of children also responded positively to stimuli which included options about information to use in their writing. Some children claimed that the provision of choice within a stimulus helped them to generate more ideas, and this was 'good'. This reflects conclusions

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made by Flutter, Kerschner and Rudduck (1998) who found that primary pupils valued being offered choice in their work and that a sense of ownership enhanced their motivation.

It is not clear whether the children considered 'writing a lot' to be the same as 'task difficulty'. Although children generally liked 'short' non-narrative activities, many comments showed that children felt comfortable writing more when scaffolded features supported their efforts. When expressing preferences children often used scaffolding features to justify their reasoning, e.g. information carried in illustrations and titles, useful content provided, text organised with bullet points and bold font.

Has the exposure of children to a wider variety of genres through the NLS affected their choices?

Although children did not phrase their responses in terms of the NLS, they did reference their thoughts to their school experiences. It was clear that children were comfortable with a variety of text types and genres, and they used this knowledge to inform their decisions. Children generally liked persuasive writing. They were also familiar with the conventions of leaflets, articles and letters - and their experience allowed them to justify their preferences with phrases such as '*I prefer leaflets to articles*' or '*I prefer articles to stories*'. The obvious connection between experience and preference leads to the suggestion that the NLS could have had an effect on choices.

Do children necessarily choose options that they think are easier?

Most, but not all, of the children chose options that they felt would be easier to do well. This did not mean that the children wanted quick and easy solutions to 'closed' tasks. Many children liked the opportunity to 'think around' a subject, exploring different ways to present their ideas without relying on standard formats. This mirrored the findings of West et al. (1997) who suggested that factors such as success/failure and interest/boredom are crucial in determining whether primary aged children 'liked' or 'disliked' an activity.

The children in the study were able to verbalise their thoughts very clearly. It is important that these ideas are recognised, helping task designers understand the things that motivate and matter to children. The elicitation of children's constructs and observing their reactions can only help to illuminate what is a complex area of assessment.

The findings of this study show that children like a wide variety of features in a writing stimulus and often these can be highly individualistic. If children are given a number of writing stimuli to choose from it is reasonable to assume that more children will have a greater chance of finding features that appeal to them. As one child stated, 'If you like something you have more ideas about it'. But the important issue is not necessarily about 'stimulus choice' it is about 'stimulus quality', since when there is a choice of stimuli they all need to be good so that some are not better than others. Children's opinions in this study show that there are issues which task designers and test constructors need to take into account, regardless of whether there is a choice of stimuli or not.

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Appendix 1

Phase 1: explanatory, narrative and persuasive stimuli

