



Read On

Paired Reading and Thinking

EXTENDING INTO PAIRED THINKING

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Paired Reading and Thinking

Roots in the Scottish 5-14 Curriculum:

5-14 English Language

The 5-14 English Language curriculum is composed of Listening, Talking, Reading and Writing. All of these except Writing are emphasised in Paired Reading and Thinking, although it can lead to writing if the teacher and pupils wish.

The 5-14 English Language national guidelines (SOED, 1991) emphasise the importance of Thinking, Feeling and Communicating. **Thinking** is taken to include: speculating, hypothesising, discovering, reflecting, generalising, synthesising, classifying, ordering, clarifying and evaluating. **Feeling** is taken to include: reflection on one's own ideas and those of others, dealing with conflicts between values and feelings, achieving resolutions and dealing with emotional complexities. **Communicating** is taken to include: understanding and expressing ideas and information, reformulating these, arguing, debating and persuading, and reporting.

The guidelines also emphasise the importance of pupils' developing an understanding of audience, purpose, context and genre. Additionally, activities are required to develop appreciation of and empathy with the views and values of others through interaction, as well as developing positive attitudes to the language development of oneself and of others, with a concern for tolerance, co-operation and sharing.

Paired Reading and Thinking can do all this - for both tutors and tutees.

5-14 Personal & Social Development

The 5-14 Personal and Social Development curriculum (SOED, 1993) has among its main aims to help pupils to identify, review and evaluate the values they and others hold and recognise how these affect thoughts and actions. Another aim is to develop tolerance and respect and a willingness to share and co-operate with others.

Main skills to be developed include the ability to participate effectively in a group and the ability to make one's own decisions. In the learning context of Interpersonal Relationships, important skills to be developed include: making and maintaining relationships, listening and responding, communicating one's own views and needs, respecting the views of others, maintaining personal stances, challenging and confronting, and reflecting on one's own attitudes to others.

Paired Reading and Thinking can do all this, too - for both tutors and tutees.

Similar considerations will be found in the English National Curriculum, and in the guidance on curriculum in many countries.

Paired Reading and Thinking

Roots in the research literature:

In addition to close links to national curriculum guidelines, Paired Reading and Thinking has roots in the research literature on reading comprehension and thinking skills.

Probably the most widely known reading and thinking "method" is SQ3R: Survey (title, pictures and other structural features of the book), Question (develop a question about each chapter), Read, Recite (provisional answers to the questions), and Review (check). The strategies were first described under this acronym by Francis Robinson in 1946, and have thus been in use for over a half century. However, the ideas were not new even then, and can be traced back at least as far as 1924.

Reviews of studies of the effectiveness of SQ3R (Kopfstein, 1982; Gustafson & Pederson, 1985) have found generally positive but somewhat mixed results, with SQ3R sometimes found to be no better than simple things like underlining key words. However, the method has been implemented in very various ways, sometimes only sketchily described in reports, so making sweeping overall conclusions is difficult. Details of training procedures were often insufficient to enable exact replication, and most of the studies were conducted with college students rather than primary school pupils. Additionally, evidence on generalisation to other reading across the curriculum and out of school is very hard to find, as is evidence on maintenance of effects over longer time periods.

SQ3R then spawned sundry adaptations, such as R3SW (Read, Search, Select, Study, Write), PQ4R (Preview, Question, Read, Reflect, Recite, Review), SQ5R (Survey, Question, Record, Reduce, Recite, Reflect, Review) and even SQ10R (Shaughnessy, 1994). A tidal wave of acronymic adaptations followed, including K-W-L (what do we Know? what do we Want to know? what have we Learned?), RARE (Review, Answer, Read, Express), PORPE (Predict, Organise, Rehearse, Practice, Evaluate), RESPONSE, LETME, ReQUEST, PReP, REAP and MURDER, as well as the more prosaically named "Multipass" and "Structured Comprehension". However, evaluation evidence on these tends to be even more limited.

Much other early work is still useful today, as with Louis Rath's book "Teaching For Thinking" (1967). In 1974, Samuels devised his "Hypothesis-Test" approach to reading comprehension.

In the early eighties, Taffy Raphael (1980, 1982, 1984) developed her QAR approach in the USA: Question - Answer- Relationships. In four training sessions, children learned to use four kinds of self-questions: Right There (literal detail in immediate text), Think and Search (interpretative/inferential), On My Own (critical and evaluative), and Author and Me. However, subsequent evaluation research was limited. In 1984 Scott Paris developed the ISL (Informed Strategies for Learning) method. In the same year came the first report of the "Reciprocal Teaching" method from Annemarie Palincsar and Ann Brown (1984, 1986, 1988), with Prediction, Questioning, Summarising and Clarifying as the key strategies. Rosenshine and Meister (1994) later published an excellent review of many studies of this method, which has been deployed in Scotland by Cummings and Woolfson (1993) and Currie (1998).

A number of methods with rather similar labels emerged over the years: Directed Reading Activity, Directed Reading and Thinking Activity, and DARTS (Directed Activities in Relation to Texts). These were all strongly teacher-controlled, with more or less standardised questions issues by the teacher for specified books. DRTA emphasised prediction and verification. DARTS focused on keywords, labelling, extracting, and assembly - i.e. text analysis and reconstruction (Davis & Greene, 1981, in the UK). Again, research on outcomes is of variable quality and rather limited.

More recently in the UK, Chambers (1985) and Davies, Karavis and Monk (1993) described their "Book Talk" process, although evaluative evidence is largely descriptive. Jane Oakhill (1988, 1998) developed Inference Awareness Training, requiring children to make inferences, generate questions and check comprehension. Outcomes were positive with small numbers of children, but not much better than from more traditional comprehension exercises.

More recently in the USA, Michael Pressley (1992, 1996) has developed TSI (Transactional Strategies Instruction). The area has been addressed generally by a number of books in the USA, including "Responses to Literature" by Macon, Bewell and Vogt (1990), and more recently "Lively Discussions! Fostering Engaged Reading" by Gambrell and Alamasi (1996), "Questioning The Author" by Beck, McKeown, Hamilton and Kucan (1997), and "Peer Talk in the Classroom" by Paratore and McCormack (1997). Linda Hoyt's (1998) book on "Strategies for Improving Reading Comprehension", has as its main title "Revisit, Reflect, Retell", perhaps suggesting that not all that much has changed in the world of reading and thinking strategy development.

Over the years, many of these methods have included different constellations of a similar or common core of strategies. Prediction, Questioning and Summarising are particularly common features. However, almost all the methods have been mainly delivered directly by professional teachers. There are relatively few reports of reading and thinking projects delivered through peer tutoring. One early example was that of Sindelar (1982) in the USA, who operated cross-age tutoring based on the Hypothesis-Test procedure of Samuels. Results indicated gains as good as a comparison group using the same method delivered by professional teachers, although the experimental children did show their best gains on a cloze measure which was similar to cloze materials used within the project activities. In New Zealand, Pickens and McNaughton (1988) reported same-age peer tutoring of simple comprehension strategies with low achieving 11-12 year olds. Tutors were only six months more able in reading comprehension than tutees. Positive results were again found on cloze measures, but numbers involved were quite small.

In Holland, the Stap Door programme was designed specifically for peer (and parent) tutoring (Fukkink, Van der Linden, Vosse & Vaessen, 1997), and is said to be based on the work of Cooper (1993), Dole, Duffy, Roehler and Pearson (1991) and Pearson and Fielding (1991). With respect to reading comprehension, it has five key strategy components: Activating prior knowledge, Word study, Predicting, Checking understanding and Identifying main ideas. However, the programme is heavily dependent on structured reading materials (available only in Dutch), and the evaluation results currently available do not indicate the specific impact of the comprehension strategy components.

Given these many different approaches, yet another elaborate and idiosyncratic "method" is probably the last thing a busy teacher needs. Therefore, Paired Reading and Thinking seeks to distil many of the most important features of previous methods into a practical and flexible package which can be easily used in diverse classrooms.

Paired Reading and Thinking

(Read - Think - Feel - Talk - Listen)

Asking each other intelligent questions about what we have read together

3 Stages
13 Activities
4 Levels
21 Sub-categories
21 Tips for Tutors
Lots of Questions (Prompts)

BEFORE READING

(Priming)

Structure "What do the parts of the book tell us?"

Type "What kind of book is it?"

Difficulty "How hard is it?"

Reader Aims "What do you want from the book?"

DURING READING

(Formative)

Author Aims "What does the writer want?"

Meaning "What does it mean?"

Truth "Is it true?"

Prediction "What might happen next?"
Links "What does it remind us of?"

AFTER READING

(Formative & Summative)

Summarise "What are the main ideas?"
Evaluate "How do you feel about it?"

Revisit "What did you remember about it?" **Extend** "Have you questioned anything else?"

Paired Reading and Thinking - Level 1

BEFORE READING

"What do the parts of the book tell us?" (Structure)

"What kind of book is it?" (Type)

"How hard is it?" (Difficulty)

"What do you want from the book?" (Reader Aims)

DURING READING

"What does the writer want?" (Author Aims)

"What does it mean?" (Meaning)

"Is it true?" (Truth)

"What might happen next?" (Prediction)

"What does it remind us of?" (Links)

AFTER READING

"What are the main ideas?" (Summarise)

"How do you feel about it?" (Evaluate)

"What did you remember about it?" (Revisit)

"Have you questioned anything else?" (Extend)

Paired Reading and Thinking - Level 2

BEFORE READING

"What do the parts of the book tell us?" (Structure)

- * Have you looked at the title and the author? The cover and the pictures?
- * What do you think the book is going to be about?

"What kind of book is it?" (Type)

- * What kind of writing is this? Any special kind?
- * Is it fact (real, information), or fiction (made up, imagination), or something in between?

"How hard is it?" (Difficulty)

- * Is this book too easy for the tutee?
- * Is this book too hard for the tutor?
- * Can we do the "Five Finger test"? (see Tips for Tutors)

"What do you want from the book?" (Reader Aims)

- * Is this book really interesting to the tutee? Why?
- * Is it interesting to the tutor?
- * Are we sure we want to go ahead and read it?

AFTER READING

"What are the main ideas?" (Summarise)

- * What were the most important points to you?
- * Can we make a list or map or chart of the main ideas, to help us?
- * Can we tell another pair the most important points?
- * Can we think up some questions to make a quiz for other pairs?

"How do you feel about it?" (Evaluate)

- * Was it any good? What bits did we like best? What bits did we not like at all? Why?
- * What bits made us think the hardest? What bits seemed most useful or exciting?
- * Would we tell others in our class to read this?
- * Would we look for other books of this kind or by this author?
- * How well did we read and think together on this book? How could we do better?

"What did you remember about it?" (Revisit)

- * Thinking back to this book, what DID we remember?
- * What do we think and feel about it now?

"Have you questioned anything else?" (Extend)

* Have we thought about the Paired Thinking Questions when doing any other reading?

DURING READING

"What does the writer want?" (Author Aims)

- * What country, place and time is the book set in?
- * Who are the main characters and events?
- * What kind of people do you think the author was writing for?
- * What do you think the author was trying to do in this book?

"What does it mean?" (Meaning)

- * What words are especially hard to understand? What sentences?
- * Can we work it out, or should we look it up, or ask our teacher?
- * Is there something you need to know, which we don't know?
- * Are you sure you haven't missed it? Should we check?

"Is it true?" (Truth)

- * Did the book make sense all the way through?
- * Did anything puzzle or surprise you?
- * Where is it hard to decide what is fact and what is fiction or opinion?
- * What do you think is true? How do you know that?

"What might happen next?" (Prediction)

- * What do you think might happen next?
- * What might make this happen? How likely is this?
- * Can you imagine or picture in your head what it would look like?
- * Did the book end as you expected? How else might it have ended?

"What does it remind us of?" (Links)

- * Does this bit remind you of any bits you have already read? Why?
- * Does this remind you of anything you already know, or have done yourself?
- * Does this remind you of any feelings you have had before?
- * In the future, will having read this be of any use?

Paired Reading and Thinking - Level 3

DURING READING

"What does the writer want?" (Author Aims)

Context

- * What country and place is the book set in?
- * Is it about times gone past, what is happening now in the present, or the future?
- * Who are the main characters?
- * What do you think the main events are?

Audience

* What kind of people do you think the author was writing for? for example: young or old, clever or ordinary, serious or fun-loving,?

Purpose

- * What do you think the author was trying to do in this book?
- * Is there a mission or a quest?
- * Does the book have a theme or moral?

"What does it mean?" (Meaning)

Word Study

- * What words does the tutee not understand?
- * What words do neither of us really understand?
- * Can we work it out, or should we look it up, or ask our teacher?

Sentence Study

- * What sentences are especially hard to understand?
- * Can we work out what it means together, or should we ask someone to help?

Gaps

- * Was the book hard to read? Why?
- * Is there something you need to know, which we don't yet know?
- * Are you sure you haven't missed it? Should we check?
- * Do the pictures suggest something different or extra to the words?
- * Is there anything else you would like to know more about?

"Is it true?" (Truth)

Conflicts & Problems

- * Did the book make sense all the way through?
- * Did anything puzzle or surprise you?
- * Are there ideas or events in the book which just don't fit together?
- * What did the people in the book **feel** about what was happening?
- * Are there feelings (or values) which just don't fit?

Evidence & Credibility

- * Can you decide what is fact and what is fiction or opinion?
- * Where is this hardest?
- * Where is the evidence for what is said to be fact?
- * Is there evidence both for and against?
- * What do you think the author wants you to believe?
- * Do you believe this?

Solutions

- * What would your solution to the conflict or problem be?
- * What would your conclusions or decisions be?
- * How certain could you be about this?

"What might happen next?" (Prediction)

- * What do the people in the book want or expect to happen next?
- * What have you learnt about them which helps you to guess what they might do next?
- * What do you think might happen next?
- * How likely is this?
- * What might cause this to happen?
- * Might it depend on something else happening? What?
- * Can you imagine or picture in your head what it would look like?
- * Did the book end or conclude as you expected?
- * How else might it have ended?

"What does it remind us of?" (Links)

Link in Text

- * Does this bit remind us of any bits you have already read?
- * Why?

Link Back

- * Does this remind us of anything you already know?
- * Does this remind you of any feelings you have had before?
- * Does this remind us of anything you have done or seen in our own life, at school or home or anywhere?
- * Does this remind you of anything else?

Link Forward

* In the future, how might this apply to or be useful in your own life (home, school, or anywhere)?

"What do the parts of the book tell us?" (Structure)

- **BEFORE READING**
- * Have you looked to see what is the title and who is the author?
- * Have you looked at the cover and the pictures?
- * Have you looked at the date and contents page?
- * What do you think the book is going to be about?
- * Have you read anything like this before?

"What kind of book is it?" (Type)

- * What kind of writing is this?
- * Is it fact (real, information), or fiction (made up, imagination), or something in between?
- * Is it a real life story (biography), science, poem, recipe, news, or other special kind of writing?

"How hard is it?" (Difficulty)

- * Is this book too easy for the tutee?
- * Is this book too hard for the tutor?
- * Can we do the "five finger test"? (see Tips for Tutors)

"What do you want from the book?" (Reader Aims)

- * Is this book really interesting to the tutee? Why?
- * Is it interesting to the tutor? Why?
- * What do you want or need from this book?
- * Are we sure we want to go ahead and read it?

"What are the main ideas?" (Summarise)

AFTER READING

Find Main Ideas

- * What were the most important points to you?
- * What were some key words?
- * Do we need to read any bits again?

Clarify Main Ideas

* Can you say the most important points of the book more clearly?

Sequence Main Ideas

- * Do we have the most important points in the best order?
- * Can we make a map or chart of the main ideas to help us?

Re-Tell Main Ideas

- * Can we tell another pair the most important points?
- * Or should we write it down for the whole class?

Quiz on Main Ideas

- * Can we think up some questions about the most important points to make a quiz for other pairs?
- * Can we write it down for the whole class?

"How do you feel about it?" (Evaluate)

Analysis

- * Was it any good? What bits did we like best? What bits did we not like at all?
- * What bits made us think the hardest?
- * What bits did we feel most strongly about?
- * Did the book turn out to be a good choice for us in the end?
- * If not, what should we be more careful about next time?

Response

- * What bits seemed most useful or exciting?
- * What are we likely to remember best?

Recommendation

- * Would we tell others in our class to read this?
- * Would we look for other books of this kind or by this author?

Self-Assessment

- * How well did we read and think together on this book?
- * How could we do better on another book?

"What did you remember about it?" (Revisit)

- * Thinking back to this book, what DID we remember?
- * What do we think and feel about it now?

"Have you questioned anything else?" (Extend)

* Have we thought about the Paired Thinking Questions when reading any other books?

Paired Reading and Thinking - Level 4

BEFORE READING

"What do the parts of the book tell us?" (Structure)

- * Have you looked to see what is the title and who is the author?
- * Have you looked at the cover and the pictures?
- * Have you looked at the date and contents page?
- * Have you looked at the foreword, introduction, chapter titles, headings, index?
- * What do they tell you about the book?
- * What do you think the book is going to be about?
- * Do they make you want to read the book?
- * Have you read anything like this before?

"What kind of book is it?" (Type) (Genre)

- * What kind of writing is this?
- * How do you know?
- * Is it fact (real, information), or fiction (made up, imagination), or something in between?
- * Is it a real life story (biography), science, poem, recipe, news, or other special kind of writing?
- * Have you read anything like this before?

"How hard is it?" (Difficulty) (Readability)

- * Is this book too easy for the tutee?
- * Is this book too hard for the tutor?
- * Can we do the "five finger test"? (see Tips for Tutors)
- * Can we read the first page together without difficulty?

"What do you want from the book?" (Reader Aims) (Reader Purpose)

- * Is this book really interesting to the tutee? Why?
- * Is it interesting to the tutor? Why?
- * What do you want or need from this book?
- * What do you expect from this book?
- * What do you know already that this book might help with?
- * Are we sure we want to go ahead and read it?

DURING READING

"What does the writer want?" (Author Aims)

Context

- * What country and place is the book set in?
- * Is it about times gone past, what is happening now in the present, or the future?
- * Who are the main characters?
- * What do you think the main events are?
- * Do you think the author has really known places and people like them?
- * If not, what sort of time and place did the author come from?

Audience

* What kind of people do you think the author was writing for? for example: young or old, clever or ordinary, serious or fun-loving,?

Purpose

- * What do you think the author was trying to do in this book?
- * Is there a mission or a quest?
- * Does the book have a theme or moral?
- * What effect do you think the author was trying to achieve?
- * What do you think the author wants you to believe?

"What does it mean?" (Meaning) (Literal)

Word Study (Vocabulary & Semantics)

- * What words does the tutee not understand?
- * What words do neither of us really understand?
- * Are there any especially interesting or exciting of effective words?
- * Can we work it out together?
- * Or should we look it up in the dictionary, or ask our teacher?

Sentence Study (Syntax & Semantics, Confusions)

- * What sentences are especially hard to understand?
- * Can we work out what it means together?
- * Or should we ask someone to help? Now or later?
- * Can we think of a better way of saying it?

Gaps (Comprehension Checking, Elaboration)

- * Was the book hard to read? Why?
- * Is there something you need to know, which we don't yet know?
- * Might the author think you know or believe something when you don't?
- * Are you sure you haven't missed them?
- * Should we look back to check?
- * If they are not there, can we imagine them or make them up?
- * Do the pictures suggest something different or extra to the words?
- * Is there anything else you would like to know more about?
- * Does anything mean or imply more than it says on the surface?

"Is it true?" (Truth) (Critical Judgement)

Conflicts & Problems

- * Did the book make sense all the way through?
- * Did anything puzzle or surprise you?
- * Are there ideas or events in the book which just don't fit together? (Conflict & Contradiction)
- * What did the people in the book feel about what was happening?
- * Are there feelings (or values) which just don't fit? (Conflict & Contradiction)
- * Are there sudden changes in the book, or surprises? (Constancy and Change)
- * Does the book have or pose any problems or puzzles?
- * What is the main one?

Evidence & Credibility

- * Can you decide what is fact and what is fiction or opinion?
- * Where is this hardest?
- * What about the bits which are somewhere in between fact and fiction?
- * Where is the evidence for what is said to be fact?
- * How do you know that?
- * Is there evidence both for and against?
- * Can you think of any exceptions?
- * What do you think the author wants you to believe?
- * Do you believe this?
- * If so, why? If not, why not?

Solutions

- * What would your solution to the conflict or problem be?
- * What would your conclusions or decisions be?
- * How certain could you be about this? (Probability)
- * Would this solution or conclusion apply to all people, times and places, or only some?
- * Which? (Universality vs. Limitation)

"What might happen next?" (Prediction) (Inference & Deduction)

- * What do the people in the book want or expect to happen next? (Intentionality)
- * What have you learnt about them which helps you to guess what they might do next? (Characterisation)
- * What do **you** think might happen next? (Prediction)
- * How likely is this? (Probability, Uncertainty)
- * What might cause this to happen? (Causality)
- * One cause or more? (Multiple, Complex, Interdependent Causality)
- * How would you know what had really caused it? (Evidence)
- * Might it depend on something else happening? What? (Conditionality)
- * Will it only happen if something else happens?
- * One thing or more than one? (Multiple, Complex, Interdependent Conditionality)
- * Might there be a biggest or major cause? (Critical Factor or Incident)
- * If this doesn't happens, what else might? (Alternatives)
- * Can you imagine or picture in your head what it would look like? (Visual Imagery)
- * Did the book end or conclude as you expected?
- * How else might it have ended?

"What does it remind us of?" (Links)

(Association, Comparison, Discrimination, Analogy, Classification)

Link in Text

- * Does this bit remind us of any bits you have already read?
- * Why?

Link Back

- * Does this remind us of anything you already know?
- * Does this remind you of any feelings you have had before?
- * Does this remind us of anything you have done in our own life, at school or home or anywhere?
- * Does this remind you of anything anyone has told you before (children or adults)?
- * Does this remind you of anything in another book, on TV or in a film, or anywhere else?
- * Does this remind you of anything else?
- * Can you think of any other examples of this kind of thing?
- * How is what we are reading now similar to these other things?
- * How is it different?

Link Forward

* In the future, how might this apply to or be useful in your own life (home, school, or anywhere)?

AFTER READING

"What are the main ideas?" (Summarise)

Find Main Ideas (Focus, Prioritise)

- * Who?, Do?, What?, Where?, Why?, To?, How?, With?, Then?
- * What were the most important points to you?
- * What were some key words?
- * Do we need to read any bits again?

Clarify Main Ideas (Reformulation, Reconstruction)

* Can you say the most important points of the book more clearly?

Sequence Main Ideas (Reformulation, Reconstruction)

- * Do we have the most important points in the best order?
- * Can we make a map or chart of the main ideas to help us?

Re-Tell Main Ideas (Communicate)

- * Can we tell another pair the most important points?
- * Or should we write it down for the whole class?
- * Should we read our writing to each other before we give it to anybody else?

Quiz on Main Ideas (Interrogate)

- * Can we think up some questions about the most important points to make a quiz for other pairs?
- * Can we write it down for the whole class?
- * Should we read it to each other before we give it to anybody else?

"How do you feel about it?" (Evaluate)

Analysis

- * Was it any good? What bits did we like best? What bits did we not like at all?
- * Was it important? What bits made us think the hardest?
- * What bits did we feel most strongly about?
- * How could the author improve the book? How would you improve it?
- * How far apart were what WE wanted and what the AUTHOR wanted?
- * Did the book turn out to be a good choice for us in the end?
- * If not, what should we be more careful about next time?

Response (Application, Generalisation, Maintenance)

- * What bits seemed most useful or exciting?
- * What are we likely to remember best?
- * What might we DO with what we have learned?

Recommendation

- * Would we tell others in our class to read this?
- * Would it be good for any other sort of people?
- * Would we look for other books of this kind or by this author?

Self-Assessment

- * How well did we read and think together on this book?
- * How could we do better on another book?

"What did you remember about it?" (Revisit) (Recall, Reflect)

- * Thinking back to this book, what DID we remember?
- * What do we think and feel about it now?
- * What use has it been, so far?

"Have you questioned anything else?" (Extend)

(Application, Generalisation, Maintenance)

- * Have we thought about the Paired Thinking Questions when reading any other books?
- * In school or out of school? On books read with someone or on your own?
- * On books read with a better reader, or someone as good as you are?

21 TIPS FOR TUTORS - REMINDERS

1	Aim to improve quality of thinking by asking helpful and intelligent questions which give clues.
2	Encourage tutees - it will be hard for them.
3	Pause at any natural break during reading to think and talk
4	Don't expect too much
5	Encourage tutees to "think aloud"
6	Sometimes try to "brainstorm" answers together
7	Never say "No" or "That's wrong" - always ask another question to give a clue
8	It is not a "test" - often there is no one "right" answer
9	Tutees can ask questions, too!
10	It's OK to say you "don't know" - but how you might find out?
11	Give some time to think - but not too long
12	Praise - like "Good, I can tell you thought hard about that"
13	Think up your own questions
14	Read bits of the book again if you need to
15	Leave out questions which don't apply
16	A good question: "How do you know that?"
17	If tutees don't remember, it does not always mean they never did understand
18	In the "BEFORE" Stage, the "Five Finger Test" for difficulty of book means you: * choose any page of the book and spread out 5 fingers on one hand, * put the 5 fingers down on the text and see if you can read all 5 words correctly, * repeat on another 3 pages. If the tutor struggles to read more than one or two of the 20 "fingered" words, the book is probably too hard for the tutor.
19	In "DURING READING", work through the Activities in any order
20	In "AFTER READING", it is usually easier if the tutor does any writing

Praise again at the end!

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PAIRED READING AND THINKING - TIPS FOR TUTORS

Your **aim** is to **improve** the tutee's **quality of thinking** by asking helpful and **intelligent questions** which give clues. This is not as easy as you might think! Tutors have to think hard, too - they do not just work through a list of given questions.

You need to put tutees at their ease, boost their confidence, and **encourage** them to trust you - or they will be afraid to let you know what they are thinking.

During reading, pause quite often at any **natural break** in the reading to think and talk about what you have read.

Remember tutees are not as old as you and don't know as much as you do, so **don't expect too much** or push them too hard.

Encourage tutees to **"think aloud"**, so you can hear HOW they are thinking and really understand them - if they think alone then just give you their final answer, you will not understand how they got there. You might "think aloud" yourself sometimes, to show them how to do it.

Sometimes you can also try to **"brainstorm"** answers - this is where both of you say every possible answer that comes into your head, even if it seems silly or weird. Then choose the best.

Never say "No" or "That's wrong" - always ask another question to give a clue.

Although there are many questions, **it is not a "test"** for the tutee. Indeed, often **there is no one "right" answer**, only many "better" or "worse" answers. Work toward getting more "better" answers. But even the tutor need not know the answer to the question at the beginning - you can work it out together.

Tutees can ask tutors questions, too! Keep each other thinking!

It's OK for both tutors and tutees to say they "don't know" - but be clear about what you need to know and think about how you might find out.

Give the tutees some **time to think** - they will not usually be able to answer straight away. But if they think for more than half a minute without success, maybe they need a clue in another question.

Praise the tutee for all thoughtful responses - for example: "Good, I can tell you thought hard about that".

The questions listed are only examples to get you started - please do **think up your own questions** as well. Your own questions should encourage the tutee to say whatever they really think, not push them towards one "right answer".

Tutors can say what they think, too - but be careful not let tutees assume that must be the "right answer" - ask the tutee what they think as well.

You might need to go back to **read bits** of the book **again** at any time to check on things or answer questions. When you do, you might want to read the difficult bit TO the tutee, so they can think about it.

Some of the listed questions apply only to story books, some apply only to information books. Just **leave out the questions which don't apply** to the book you are reading.

When you are stuck trying to think of a question quickly, "How do you know that?" is often a good one.

When you are reading a longer book, you might find the tutee has trouble **remembering** everything, even if they did understand it in the first place. If they don't remember, it does not always mean they never did **understand**.

You might find tutees remember the beginning or end of a book better than the middle - but they do need to think about the middle as well!

In the "BEFORE" Stage, the **"Five Finger Test"** for difficulty of book means you:

- * spread out 5 fingers on one hand
 - * choose any page of the book
- * put the 5 fingers down on the text
- * see if you can read all 5 words correctly
 - * repeat on another 3 pages.

If the tutor struggles to read more than one or two of the 20 "fingered" words, the book is probably too hard for the tutor.

In the "DURING READING" Stage, the five Activities (Author Aims, Meaning, Truth, Prediction, Links) can be worked through in **any order**. Choose any relevant questions from any Activity at any time.

In the "AFTER READING" Stage when you are finding the main ideas or "Summarising", and choose to write down some keywords and/or write a summary for your classmates, it is usually **easier** if the **tutor does any writing** - but the tutor must not do all the thinking!

In the "AFTER READING" Stage when you are doing "Self-Assessment", this is a good time to really **praise** each other - AGAIN!

Paired Reading and Thinking

EXTENDING INTO PAIRED THINKING

MATERIALS, TRAINING & MONITORING

Materials

For the training sessions and for subsequent regular class sessions, all pairs start with a Level 1 Prompt Sheet. All tutors also have the Tips for Tutors Reminder sheet.

As pairs progress in subsequent sessions, you can issue pairs with Level 2, 3 and 4 Prompt sheets as you judge appropriate. Level 2 is intended to be a relatively small step from Level 1 (to encourage all concerned), so all pairs should eventually progress to Level 2. However, progression to Levels 3 and 4 will be much more dependent upon the different abilities of individual pairs.

The Levels are intended to enable you to progressively differentiate and individualise the "reading and thinking" activities for different pairs, adding layers of complexity and sophistication bit by bit, without making too much work for you.

To help you see at a glance which pairs are doing what in the classroom, the Prompt sheets for the different Levels should be copied on to different coloured paper (or card if you have it), so the levels are colour coded.

(Alternatively, you could copy the Before, During and After stages on to three different colours, especially for Levels 3 and 4. Even more complicated would be having each question on a separate card, so you could make up individual packs for different pairs.)

The Level 4 version of the questions is obviously very elaborate and over-inclusive - indeed perhaps better suited to high school or even college students.

All four Levels are also provided as electronic files, and using these you might want to produce further abbreviated and/or adapted versions for your children, perhaps expressing the questions in much simpler language or the local vernacular. You might also want to use the electronic files to produce versions in larger or more compressed print, or in a different layout, to suit your children.

Training

We suggest that training should be scheduled for one session of half an hour and another of one hour within the same week. This is only a little more than the time you would in any event be allocating to regular Paired Reading during a week.

First Training Session

In the first introductory training session, make clear that this is an extension to Paired Reading, not something completely new or different.

Explain how Paired Thinking has 3 Stages, 13 Activities, lots of Questions, 4 Levels and 21 Tips for Tutors.

Give the pairs the Level 1 Prompt Sheets and talk them through the main points.

Then give out the Tips for Tutors Reminder document and talk both tutors and tutees through all the points (you can use the longer Tips for Tutors document as a script if you wish).

Leave the tutors with the materials to think about and say you will be revisiting them later in the week.

Second Training Session

At the second training session of one hour, spend the first 30 minutes (or less) reading a short story to all the assembled pairs, telling them that they will be practising "Paired Thinking" on the story when you have finished.

Obviously it is difficult to demonstrate the "BEFORE" questions on a book you have just unilaterally chosen to read to the whole group, but do the best you can.

Pretend to be a tutor in relation to the story - model asking some of the questions, treating the whole class as your "tutees". Solicit answers from any child - from as many different children as will offer answers. Be sure you model developing a gentle and encouraging demeanour while questioning, and model the process of always responding with further questions which give clues, and/or with praise, but never with "yes" or "no" or "that's right".

Then play the part of a tutee, and encourage the children all to pretend to be your tutor and to ask **you** some of the questions.

It is important you also model a "think-aloud", so tutors and tutees understand what is meant by this. If you have a supporter present, they can act as a stooge "tutee" and fill in any gaps.

Tell the pairs they will start doing this for themselves on whatever book they choose at their next scheduled session of Paired Reading and Thinking.

Compared to Paired Reading by itself, Paired Reading and Thinking will obviously involve more discussion, and therefore the pair will not progress through the book as fast as they might expect. Reassure them that this is what **you** expect and will encourage - provided they are actually talking about something relevant to their reading, of course. They "need to take more time so they can think better."

The "During" questions can be raised by either member of the pair at any time during any reading session. However, especially to start with, you might want to give all pairs a reminder five minutes before the session is due to end, so they can "get some thinking in at the end of the session if they have forgotten to do any during the earlier part of the session".

Put great emphasis on the tutors' "active listening" and striving to support and develop (or "scaffold") the tutee's response by asking further detailed questions or giving clues or prompts - but never just giving what the tutor thinks is the "right" answer. Acknowledge that this is not easy, and will make the tutor think hard, as well!

Most of the questions (in all Levels) are about what the tutee thinks. You might feel that questions about feelings (emotional responses to the book) are too few. You can either insert some more, or if you find that this is difficult because "feeling" questions tend to relate closely to the content of the particular book, issue general encouragement to pairs about this in training and monitoring.

Remember all of this will be especially difficult for your least able **tutors**.

If you feel this is too much for your children to absorb in the training format outlined above, you might think about introducing the "Stages" on different days in sequence - cover "Before Reading" first, then "During Reading" another day a little later, then "After Reading" a day or two later still.

Also, you will need to think about how the least able pairs can do Paired Reading and Thinking with a book which might only have a word or two on each page, and watch them closely.

You will also need to think about how this might work if the original tutor is away from school and you have a "supply" tutor working with the tutee - who will be completely reliant on the tutee's interpretation of the book because they probably will not have read it themselves.

Monitoring

Close monitoring of what the children are actually doing in their pairs is crucial to the success of this approach. You must circulate to see how the pairs are coping. This is not an opportunity to get on with something else, however tempting that might be.

If you can obtain some help from your supporter or within school for these early scheduled sessions, the extra monitoring and coaching capacity will prove invaluable.

Make sure each pair have the appropriate Level Prompt Sheet **and are referring to it**. Make sure the tutor is referring to the Tips Reminder sheet. Point out to each pair what they are doing well and what they need to do better (the Tips are numbered to help with this). Model the required behaviour for the tutor with the tutee if necessary.

Watch carefully for the quality of active listening and "scaffolding" by the tutors - asking further detailed questions or giving clues or prompts - but never just giving what the tutor thinks is the "right" answer.

You might want to give all pairs a reminder five minutes before the session is due to end, so they can get some thinking in at the end of the session if they have forgotten to do any during the earlier part of the session. But encourage discussion during the whole session as well.

The DURING activities are obviously the most complex and demanding, and most at risk of not being done well. Take especial care to support the quality of DURING activity with your pairs. Watch out for pairs mechanically chanting through the given questions. Do not get drawn into debates about content and giving the "right answer" - your mission is to help them ask intelligent questions.

Reassure pairs that "taking more time so they can think better" is OK, and indeed encouraged - provided they are actually talking about something relevant to their reading. Deal with any frustration any child with rigid expectations might be feeling.

Your observations while monitoring will indicate when each pair is ready to move on to the next Level.

Once they are in the swing of it, if at all possible, you might want to make an audio or video recording of one or two particularly competent pairs at work. This could be very valuable as a demonstration in any subsequent training meetings, as well as interesting in its own right and a valuable tool for self-assessment by the pair. Your supporter might help with this.

Once you have some children who are competent in the method, for further training sessions you could consider a demonstration role play with a (particularly competent and confident) child or pair. But you would still need to demonstrate "Paired Thinking" on a story or book with which all pairs were already recently familiar.

Paired Reading and Thinking

EXTENDING INTO PAIRED THINKING

EVALUATION

The main problem in measuring improvement in reading and thinking abilities is finding some measure which is accessible to young children, reliable and valid, sensitive to short term gains, and also economical in time for administration and scoring and in purchase cost.

Of course, we would only wish to do this in those schools who will be engaged in the extension into "Reading and Thinking" in the summer term. We would hope to find some "control group" children within those schools.

Fortunately, we already have assessment of reading comprehension by national standardised tests in place. The literature suggests reading comprehension and thinking abilities tend to be highly correlated. Therefore, we might expect those children engaged in continuing Paired Reading (PR) and those engaged in Paired Reading and Thinking (PRT) into the summer term to show better gains at follow-up on the reading comprehension test than those who finished Paired Reading at the end of the Spring term. Whether the PR or PRT group will do best is more difficult to predict, since the PR group will have spent more time on reading, while the PRT group will have spent more time discussing and thinking (hopefully).

Possible measures include:

- 1 **Standardised Comprehension Test** reading comprehension test already in place.
- 2 Curriculum-based Reading Comprehension Tests there is evidence in the literature that continuous prose cloze tests on a pre-post basis are particularly sensitive to experimental effects from projects of this kind. Presumably this would apply to norm-referenced and criterion-referenced cloze tests. However, to what extent this extends the evaluation beyond traditional reading comprehension and into thinking is debatable.
- 3 Curriculum-based Reading & Thinking Tests as in #2, except that the assessor would work with children individually, Paired Reading standardised texts then asking them the PRT questions (from the same appropriate Level on both occasions), audio recording the answers, then having these rated for intellectual quality by two separate raters.
- 4 Reading Summarisation Test following from the above, tutors and tutees (together or, more likely, separately) might be asked to summarise standard passages (or even whole short books) (of comparable readability) at pre-test and

post-test (responding orally or in writing or both), and the quality of these rated by an "expert" panel.

- **Knowledge Test** children could be given some kind of test of their superficial knowledge of the strategies encompassed within the PRT method in which they have been trained.
- **Questioning Fluency Assessment** participants could be similarly asked to generate questions (a quiz) about standard passages, (although such a procedure did not yield positive results in studies of the Reciprocal Teaching method).
- **Prediction Fluency Assessment** children could be stopped at a point in a standard story, and asked to make predictions.
- **Standardised Test of Thinking Skills** after an extensive search, the Ross Test of Higher Cognitive Processes (from the US, for ages 10-12 years) was identified as the most relevant to this project. However, it could be for tutors only, requires two hour long sessions for group administration, and is very demanding for the children. As with the Primary Reading Test, the university would score this test and send results back to the school.
- **Reading Interview** children could be interviewed on a pre-post basis (including non-participant control children) and asked what strategies they actually used when reading and to what effect (Goodman, Watson, & Burke, 1987). Analysis of categorical changes using χ^2 could follow.
- **Behaviour Recording** the dialogue between some children could be directly observed and/or audio recorded and/or video recorded during sampled "live" activity sessions, on a pre-post basis before and after "Thinking" training, and changes in their behaviour and the quality of that behaviour assessed. Analysis of categorical changes using χ^2 could follow. However, arguably each of these would be more of a "process" than an "outcome" measure. Also, generalisation to interaction outside the PRT sessions would remain unknown, although this is a difficulty with many of these measures.
- **Think-Aloud Content Analysis** specimen "think-alouds", perhaps in relation to a standard task, could be recorded on a pre-post basis and their (hopefully improving) quality assessed. Tutors and tutees could be separate or together or both.
- **Reading Attitude & Reading Self-Concept o**ther very general measures could include measures of attitudes to reading and measures of self-concept as a reader and a thinker.
- **Group and Individual Feedback Interviews** with tutors and tutees could offer general insights within a semi-structured framework.
- **Circle Time** one school has already proposed conducting a pre and post circle time with participants (presumably tutors in one circle and tutees in another), all to be video recorded (permitting later content analysis if audio quality is satisfactory). Circle Time has the advantage of a trusting and familiar context and empowerment of all children to contribute their opinion.

If you will be engaged in the extension into "Reading and Thinking" in the summer term, please let us know of any thoughts you have on how thinking skills development might be measured in your school - especially within the time and resources available! You could discuss this with your supporter or contact Keith Topping directly (k.j.topping@dundee.ac.uk)