

Active Student Responding: Supporting Student Learning and Engagement

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Ms. Walsh closed her classroom door at 3pm. Looking at the empty chairs, she reflected on the day. She smiled as she thought of the pupils who had spent the day eagerly answering all of her questions. She paused and recalled the others – those pupils that regularly became passive observers in the classroom, sitting back and watching the action. What did they learn today? Were they actively engaged in the lessons?

Research highlights that the most common strategies used by teachers in whole-class lessons include direct instruction and individual pupil responses (Maheady, Michielli-Pendl, Harper & Mallette, 2006). However, studies show that such strategies can lead to diminished opportunities for individual pupil participation, whereby pupils can become passive observers rather than active participants in their own learning (e.g. Cooper & Robinson, 2000a). In addition, calling on individual children in class often results in more frequent participation by higher achieving pupils, with lower achieving pupils displaying reduced participatory levels (e.g. Lambert, Cartledge, Heward & Lo, 2006).

What is Active Student Responding (ASR)?

Active Student Responding (ASR) encompasses a series of strategies that promote active participation of students in their own learning (Jerome & Barbetta, 2005). ASR places focus on the participation of *all* children to actively respond to teacher questions at the same time. By using ASR at a whole-class or group level, pupils' opportunities to respond in class are maximised, thereby supporting pupil learning, engagement and assessment.

On a practical level, ASR involves six discrete steps:

- (1) The teacher poses a question to the class
- (2) The pupils are provided with 'thinking time' to formulate an answer
- (3) All pupils respond at the same time in an active manner, with each pupil required to respond on an individual basis
- (4) The teacher reviews the pupils' answers by scanning individual pupil responses. This provides the teacher with direct insight into each pupil's learning
- (5) Based on pupil responses, the teacher provides feedback to the class
- (6) Teaching is adjusted, where required.

Please see overleaf for a host of practical strategies for applying ASR in the classroom.

What are the benefits of using ASR strategies?

Research illustrates the positive impact of ASR strategies on teaching, learning and pupil behaviour. In particular, studies have shown the positive effect of ASR on improving student knowledge and achievement scores in curricular areas when compared with more traditional question and answer lesson formats (e.g. Lambert et al., 2006; Whitney, Cooper & Lingo, 2015). In addition, results have shown an increase in pupil on-task behaviour, active pupil response rates and student accuracy, as well as pupil engagement and self-regulation of learning (e.g. Haydon et al., 2010). Research also highlights the applicability of ASR strategies across mainstream and special education settings (e.g. Cakiroglu, 2014).

ASR and Assessment

ASR strategies provide an effective means of supporting individual pupil assessment, particularly in whole-class settings. Pre-instruction, ASR strategies can serve to assess prior learning in an area. Mid-instruction, such strategies can be used to instantly gauge pupils' levels of learning and understanding, providing immediate assessment feedback to the teacher (Maheady et al., 2006). In addition, immediate corrective feedback has been shown to have a significant impact on student learning, whereby additional information can be used to modify instruction or re-teach key concepts, as well as clarify any points of confusion for pupils (Cakiroglu, 2014). Finally, ASR can be used post-instruction, to assess learning and pupils' relative mastery of concepts (Whitney et al., 2015).

Tips to Remember!

- When materials are used to support ASR, establish a classroom routine for distribution and collection of materials.
- Ensure all children are given 'thinking time' prior to making an individual response. Research illustrates that increasing wait time to 3 - 5 seconds can result in improvements in the quality of pupil responses (Sadker & Sadker, 2003).
- Provide clear cues on when students are to actively respond (e.g. "1, 2, 3, Respond!").
- Maintain an active pace during question-answer sessions to sustain pupil attention and engagement. Research illustrates how ASR strategies are likely to be more effective when used within a short time period (Blackwell & McLaughlin, 2005).
- Provide pupil feedback based on the majority class response.
- If a significant portion of the class provides the incorrect answer, provide whole-class corrective feedback and ensure to repeat this item within a short time-frame to reinforce learning (Heward et al., 1996).
- When providing individual feedback, do so in a discrete manner so that individual pupil errors are not highlighted.
- Be aware of the classroom atmosphere created. Peer-competition can be highly motivating for some children but counter-productive for others. Ensure that the focus is placed on self-improvement and personal pupil progress.

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Strategy	Resources Required	How to use?
Response Boards	<ul style="list-style-type: none"> • Individual whiteboards • Felt marker • Eraser 	<ul style="list-style-type: none"> • Teacher poses question. • Pupils write response on individual whiteboard. • On cue, all pupils display their responses together. • Teacher provides feedback.
Response Cards	<ul style="list-style-type: none"> • Pre-printed response cards • Visual responses include: smiley faces, red/orange/green, ticks/x's. • Printed responses include: true/false, yes/no, agree/disagree/maybe etc. 	<ul style="list-style-type: none"> • Teacher poses question. • On cue, pupils respond by holding up their pre-printed response cards. • Teacher provides feedback.
Number/Letter Fans	<ul style="list-style-type: none"> • Pre-printed number/letter fans 	<ul style="list-style-type: none"> • Teacher poses question. • Pupils select the number/letter from their fan to represent their answer. • On cue, all pupils respond by holding up their chosen number/letter. • Teacher provides feedback.
Action Response	<ul style="list-style-type: none"> • No materials required <p>Examples include thumbs up/down/sideways; standing/crouching/sitting; hands up/hands down etc.</p>	<ul style="list-style-type: none"> • Teacher poses question, requiring a true/false or agree/disagree format. • On cue, pupils signal response using an action/gesture.
Think-Write-Pair-Share	<ul style="list-style-type: none"> • Individual whiteboards • Felt marker • Eraser 	<ul style="list-style-type: none"> • Teacher arranges pupils in pairs. • Teacher poses question. • On cue, pupils write an individual response on their whiteboard. • Pairs share written responses and create a collaborative response. • Teacher calls on pairs to share with the whole group. •
Talk-About!	<ul style="list-style-type: none"> • No materials required 	<ul style="list-style-type: none"> • Teacher arranges pupils in pairs. • Teacher poses a question (e.g. Tell me everything you know about 'The Normans'). • Partner 'A' begins talking. • Teacher monitors time and signals when 'B' should begin talking.

Think and Move!	<ul style="list-style-type: none"> • Pre-printed response cards placed in different locations around the classroom. 	<ul style="list-style-type: none"> • Teacher labels different locations in the classroom with relevant words. • Teacher poses debate-style question. • On cue, pupils move to the location that best represents their response or viewpoint.
Pass it On!	<ul style="list-style-type: none"> • One page and pen per pair/group • Alternatively, one whiteboard and marker per pair/group 	<ul style="list-style-type: none"> • Teacher arranges class in pairs or small groups. • Teacher poses question. • Pupil 'A' writes response. • On signal, the paper/whiteboard is passed to pupil 'B' who then adds to or replies to this response. • Continue this process around the table.
Concept Maps	<ul style="list-style-type: none"> • One page and pen per pupil • Pre-printed concept map templates may be used 	<ul style="list-style-type: none"> • Pupils are provided with a limited time-frame to create a concept map on a topic. • This can be used to elicit prior knowledge on a topic, to consolidate learning mid-lesson or as a form of assessment post-instruction.
Loop Game	<ul style="list-style-type: none"> • Prepared loop cards, comprising one question and a non-corresponding answer. • The answer must correspond with a question on another card. • Best used as a timed activity to develop fluency rates! 	<ul style="list-style-type: none"> • Every pupil is given one pre-printed loop card. • Starting with the teacher, the first loop card is read aloud. • Pupils must listen carefully to hear the question that corresponds to their answer. • Each pupil reads out his/her loop card at the appropriate time until the end card is reached.