

# ADAPTIVE TEACHING

<https://www.geography.org.uk/Adaptive-teaching#1>

## INTRODUCTION: WHAT IS ADAPTIVE TEACHING?

Every individual student learns differently and this is affected by a range of factors, including prior knowledge, ability and motivation. Students are very diverse and all, to a greater or lesser extent, have special needs. They learn at different rates and require different levels of support from teachers to succeed.

Adaptive teaching means that teachers adapt their teaching to make it appropriate for all students in their classroom. This has replaced the term 'differentiation' quite recently which implied that teachers should create distinct tasks for different groups of students within the classroom. Adaptive teaching focuses on the whole class. It is important that you learn from experienced teachers ways in which you can adapt your teaching to respond to different students' needs.

## HOW TO APPROACH ADAPTIVE TEACHING

Before you begin to plan lessons, find out about the range of learning needs and different groups that are in your geography classroom. You can only adapt your teaching successfully if you understand the needs of the individual learners in your lessons.

- Refer to *Students' diverse learning needs* and *Teaching students with different learning needs*.

Your approach should be to have high expectations of every student, and always to look for ways to support each of them to achieve the learning objectives. It is your professional responsibility, as a teacher, to ensure that all students have the opportunity to achieve at their highest possible level. In every lesson you teach, aim for every student to be able to access the geography content and, at the same time, to provide work that challenges them all.

Do not 'label' individual students according to 'ability'; this is not helpful and only masks their different learning aptitudes.

- Refer to Bromley (2021).

## LESSON OBSERVATIONS WITH A FOCUS ON ADAPTIVE TEACHING

Identify with your mentor some lessons/teachers that you can observe with a focus on adaptive teaching. It is best to observe a range of different teachers and classes in different year groups. Before the lesson, discuss with the class teacher the different needs of some of the students. Observe the geography lesson/s and consider how the teaching is adapted for different student needs. Think about the questions in the text box – you may want to focus on a different sub-set in different lessons according to the context. After your observations, discuss the different aspects of adaptive teaching you have observed with the teacher. Be prepared to ask plenty of questions.

*Questions to focus lesson observations on adaptive teaching*

*Diagnosing students' needs*

Before you can adapt practice, you must have some understanding of what the students bring to the classroom, i.e. their prior knowledge and their motivation to succeed. To find this out requires some form of diagnostic assessment. This does not necessarily mean a 'test' although it could do. It is more

likely to be through questions and talk that the teacher elicits the starting points of their students and their learning needs.

As a result of diagnosis, the teacher should be aware of how ready students are to encounter new knowledge and adapt their teaching accordingly. They can set the level of challenge and the level of support that students are likely to require. In some cases, the teacher may decide that some additional pre-teaching is needed when a student lacks critical knowledge.

Diagnostic assessment will be ongoing. It is the basis for small changes to the teacher's practice when they address students' errors or misconceptions and set them targets. It also guides teachers as to the appropriate level of support or scaffolding they should provide for a student or how to employ flexible grouping. Effective teachers are constantly diagnosing students' understanding in order to make appropriate adaptations for their needs.

## APPROACHES FOR ADAPTIVE TEACHING

The Ofsted Research Review (2021) makes it clear that all students in mainstream schools should share the same curriculum, with the same level of ambition and expectation of the geographical knowledge that students should know. It will be the exception to modify the curriculum for some students with the most complex learning needs.

Good geography teaching for students with SEND is basically the same as for all students. The Education Endowment Foundation (2020) found strong evidence that improving high quality teaching for all students will improve outcomes for students with SEND. Therefore, their advice is that all teachers should develop a repertoire of strategies and use these flexibly in response to individual needs, including those with SEND. The strategies include:

- *scaffolding*, which offers temporary supports, such as a writing frame, that is gradually removed as the student becomes increasingly independent (see [Scaffolding geographical learning](#))
- *explicit instruction*, such as teacher demonstration followed by guided practice and independent practice (see [Explicit teaching and instruction](#))
- *technology*, which can assist teachers to model processes and present ideas visually, and can also provide technical aids for students, such as speech generating apps to enable note-taking and extended writing
- *cognitive strategies*, such as chunking or memorisation techniques, can support students with SEND, but they may need smaller 'steps' to cater for cognition and learning needs. Metacognitive strategies can help students plan, organise, monitor and evaluate their learning.
- *flexible grouping*, where groups are formed for an explicit purpose allow teachers to set up opportunities for collaborative learning and to allocate different tasks to group members.

Adaptive teaching involves setting the same ambitious goals for all students, but providing different levels of support. This should be targeted depending on their starting point and when students are struggling. However, you should try to avoid creating distinct tasks for different students as this could create a heavy workload for you and it also risks lowering your expectations for those students. Keep your expectations high for all students. Use formative assessment to identify students who need further support and intervene within lessons with individuals and small groups to provide this.

Through your interventions you should identify the critical knowledge that the students need to learn to achieve the next steps in an area of the curriculum. Once this is in place you can carefully sequence the rest of the learning so you can gradually withdraw any scaffolding you put in place.

Adaptive teaching is about skilful teacher questioning, purposeful interventions and quality discussions with students. It recognises that some learners need more support than others to reach their learning goals while others need to be stretched. A good way to consider adaptive teaching is that you set your

learning objectives for students for a sequence of lessons, but you will need to plan different ways and different degrees of support to enable all students to achieve the goals, or to exceed them.

- Refer to Bromley (2017 and 2021), which provides practical advice for getting the best from all students.
- Study carefully Figure 2: *Approaches to differentiation* in Ferretti (2017) p. 170.

Ferretti clearly sets out a range of different approaches that you should explore. Do not try to use everything at once! Focus on a specific approach and try to perfect it in different contexts. Then try another. In this way you will build up your repertoire and will be able to select the best approach for particular students and particular lessons.

The idea behind 'differentiation' is that students require different levels of support and scaffolding to reach learning goals. This should be focused for individual needs, so it is important to have as full an understanding of any student's difficulties and their potential. This requires careful [diagnostic assessment](#).

Draw from as wide a teaching repertoire as possible for adaptive teaching and vary your style to cater for different student needs. Adaptive teaching requires teachers to be responsive to the students in class. This cannot always be planned in advance and you must be prepared to be flexible. That is why adaptive teaching can be challenging for new teachers. Success will come with experience. Do not become overwhelmed with your own, or others, expectations of you, but think how you can adapt your teaching methodically.

If you provide rich and challenging geography lessons it will stimulate all students to fulfil their potential, whether they are more able, or have difficulties in geography. What you should avoid is trying to provide a multitude of differentiated resources and tasks for the same learning activity. This time-consuming to prepare, complex to manage in the classroom and often counterproductive. You might find a model of core tasks with reinforcement or extension for particular students is appropriate for many lessons; you might also find that using open-ended tasks can help you adapt lessons more easily.

- Read Ferretti, J. (2017), Harris, M. (2017) chapter 6 and Evans and Smith (2006).

These readings should give you a feel for what you should strive to achieve to adapt your teaching for different student needs. It should also make you realise that adaptive teaching is challenging and complex, so do not be disheartened if you find it difficult. The key is to set yourself goals in small steps and honestly evaluate, with your mentor or ITE tutor, what you have achieved and what you need to continue to work on.

Continue to discuss adaptive teaching with your mentor and experienced geography teachers throughout your training and induction. It is not easy to implement adaptive teaching effectively when you are a trainee teacher who spends limited time with a class because it is difficult to get to know all the students sufficiently well to identify their needs. But it is a priority to develop your adaptive teaching during induction when you have classes of your own. Find out how different teachers adapt their lessons to be responsive to different student needs. Also bear in mind that if you cater for different students' *interests*, as well as their needs, students are much more likely to be motivated to learn.

## **WHAT ARE YOU LOOKING TO ACHIEVE?**

Consider this guidance written by Ofsted for geography inspectors when they were making judgements on geography lessons in 2013. This should give you some goals to aim for:

*use effective teaching strategies, including setting appropriate homework, and appropriately targeted support and intervention that are matched well to most students' individual needs, including those most*

*and least able, so that students learn well in lessons. As a result of good teaching most students and groups of students, including disabled students, those with special educational needs, and those for whom the Student Premium provides support, make good progress and achieve well over time.*

## REVIEWING YOUR ADAPTIVE TEACHING

### *Pre-teaching, pace and scaffolding*

There are three key aspects to consider carefully when you are teaching a lesson to a class containing different groups with contrasting needs.

One way to support students who lack the necessary prior knowledge to allow them to benefit from the content of a lesson is by **pre-teaching**. The aim of any pre-teaching session is to teach key information that will help students to access the material being taught.

Pre-teaching should be seen as preparation for a teaching sequence. It usually consists of key vocabulary, substantive information or specific skills that will be required during the lesson. The content should be broken down into small steps for the pre-teaching session.

Pre-teaching needs to be organised carefully, to make use of opportunities for teaching a small group. If available, a teaching assistant could provide pre-teaching support.

- Discuss the principle and practice of pre-teaching for SEND students with the SENCo and your mentor and identify any existing geography resources that are available in the department.

The **pace** of a lesson is important. If you teach a lesson at a uniform pace, it might be beyond the comprehension of some students while, at the same time, it may be too pedantic and slow for the more able students who become bored. Therefore, you should consider how you can *vary* pace through a lesson. Carefully balance the time you spend on whole-class teaching, whether exposition or discussion, with the time when students are working independently or collaboratively.

Take time to periodically bring the class together and use whole-class discussion to reinforce, clarify or record (on the whiteboard) the key points. This is particularly helpful for students with poor short-term retention, but it can also be used to give the more able a chance to articulate to share their ideas and understanding. In such a way your lessons can be beneficial to all learners.

Consider the pace of *learning* as well as the pace of *teaching*. Students need time to think if they are to understand concepts and work things through for themselves. Take care not to limit thinking time in an attempt to maximize the pace of teaching.

**Scaffolding** refers to the different support strategies that teachers provide to help students learn. It aims to provide students with temporary support that is gradually removed as students become increasingly independent.

Scaffolding for SEND students is often in a form of intervention. Most direct is when a teacher corrects students and provides them with answers, but this does not involve students in any independent thinking so it should be avoided whenever possible. It is better to model examples for students they can actively watch and listen; or to provide prompts and clues to help students to work through a problem they are facing. If a teacher provides hints, it encourages a student to draw on their own knowledge rather than purely relying on the teacher.

A teacher can employ what is sometimes described as a self-scaffolding technique by asking students, for example, what they need to do first, and then encouraging them to think through a plan step-by-step. With enough encouragement this can often be successful.

The important question for adaptive teaching is *when* should scaffolds be removed? If you leave a support structure in place for too long, students develop a dependency and become over-reliant on the support. This can happen in a one-to-one relationship with a teaching assistant. The ultimate goal is for learners to be autonomous and self-scaffold so they plan for themselves how to approach a task and problem-solve as they work.

- Refer to [Scaffolding geographical learning](#) and Roberts (2013) page 30.

## THE COMPLEXITIES OF ADAPTIVE TEACHING IN THE CLASSROOM

From your reading and observations, you will see that there are many student differences in classes in the amount and quality of work they complete, how they approach tasks and learning, and in the way they employ learning skills such as writing, listening and questioning. A teacher has to be thinking all the time about matching their questions, interventions and learning activities to the needs of the students in front of them.

Biddulph et al (2021) discuss the importance of a teacher's monitoring skills, which they describe as 'active assessment' of learning. You will have seen from your observations, the different ways teachers use to constantly monitor the classroom and the learning that is occurring, so they can analyse student's progress and intervene where needed. To do this effectively teachers must know and understand their students well.

Teachers must carefully observe students at work, listen to their learning conversations and ask questions to find out about their learning. Interventions and feedback from the teacher must have a positive impact on learning and not distract from it – Biddulph et al (2021) talk about 'consequential validity' so that the impact is successful in task completion or the promotion of thinking. They discuss the importance of adopting a flexible approach that might not always be 'hands on'.

- Read Biddulph et al (2021) pp. 145-50.

It takes time to reach the level of familiarity required with a class to achieve effective adaptive teaching. You cannot expect to achieve this at a high level when you are a trainee teacher with a class you only teach for a short time. It important to set this as your goal when you have your own classes.

You should have observed that teachers adjust their expectations of what students can achieve as they monitor their progress in the lesson. This is something to discuss with the teachers whose lessons you observe. Ask whether any student response surprised them – and why – and how did they change what they had intended?

You will also have noticed that an important factor in achieving effective adaptive teaching is a positive classroom atmosphere, where all students' contributions are valued and the teacher promotes every student's self-esteem.

## PLANNING ADAPTIVE TEACHING IN YOUR LESSONS

Remember, for successful adaptive teaching you should:

- always focus on the **quality** of the learning experience for all students
- value and challenge individual students so that they achieve the *highest levels of attainment* whatever their starting point.
- Look at Figure 5.1 on p. 146 in Biddulph et al (2021).

This shows that four elements that are important – planning, teaching, resources and, above all, students' needs. Use this diagram to help you plan your adaptive teaching strategies and also to evaluate how well you are doing. Start with these points in each of the four areas.

### *Planning*

- Be clear on the core objectives for a lesson. Try to avoid using 'all, most, some' or 'must, should, could' for different objectives. This can lead to low expectations as students aim for the lowest level they can.
- Make your expectations clear to students and help them to measure their own progress and achievement.
- Consider how to organise groups to enable differentiation; sometimes place students in groups of similar ability – at other times mix abilities.
- Look for opportunities to use 'active assessment' and intervention to monitor and support.
- Purposefully plan the use of any learning support assistants that are available.

### *Teaching*

- Create a positive working environment; expect all students to get involved and encourage them to achieve and do their best.
- Avoid excessive exposition. This tends to be pitched at the middle, so it fails to stretch the most able and can be incomprehensible for some.
- Directed questioning is a vital tool. Use searching questions that are pitched to different students' needs.
- Consider *pace* and *scaffolding*.
- Open-ended tasks can successfully engage students of different abilities – but this cannot be guaranteed. Be wary of relying on 'differentiation by outcome'.
- Structured tasks with an 'incline of difficulty' can be effective, but avoid the pitfall of expecting all students, especially the more able, to work through too many low-level tasks.

### *Resources*

- Students can often use the same resource material, e.g. a photograph, with a task/activity tailored for their needs.
- Consider how you can use language and expectations to remove barriers to learning for lower attainers. Also consider how to stretch the most able with more demanding vocabulary, expecting a longer written response and setting tasks with more cognitive challenge.
- Employ differentiated use of technologies so that calculators, spell-checkers, dictaphone, etc. support those that need them.
- The tasks in textbooks rarely match the full ability range, so consider how to adapt them.

Do not feel pressured to produce a lot of different resources and tasks. This will take your focus away from effective interactive teaching that is the bedrock of good adaptation. Heed the advice of Jane Ferretti, *'In general, you will find it more manageable and less time consuming to use the same lesson resources for all students and to differentiate through the questions you ask and the tasks you devise.'*

However, in some instances you should consider the provision of different learning activities, for example within a geographical enquiry, to provide different levels of challenge. These should be planned in advance. However, avoid routinely creating distinct tasks for different groups – look instead to adapting materials and give targeted support to those who need it.

There are also instances where you need to consider adapting resources to enable students to gain access to them. For example:

- Look at [Geography teaching resources for poor readers](#).

- Dunn and Darlington (2016) for the visually impaired and Pook (2017) for students with complex learning needs.
- Look at the resources *SEND Connections – How do students with special educational needs connect with the world?* These are found on page 19 of the 2016 *Making connections* theme for WorldWise Week. You can download the resource from the [WorldWise Week resource packs webpage](#).

### *Students' different needs*

- Find out about any specific needs of students in the class.
- Break lessons down into episodes with recap points to consolidate learning.
- Intervene with individuals to make judgements about their understanding, diagnose difficulties (or need for extension) and set new goals.
- Use feedback, both written and oral, as an opportunity to set different goals as to what they have to do to improve.
- Do not think that all students in a class must always work on the same type of activity or at the same pace.

### **TEACHERS' ADVICE FOR ADAPTIVE TEACHING**

Here is some recent, practical advice offered by teachers about adaptive learning that you may find helpful. Discuss each of these points with your geography mentor.

- Think about [Bloom's taxonomy](#) with its hierarchy of difficulty when you are planning student tasks. (Some schools refer to this as a *learning ladder* and break down tasks to allow all students to climb the ladder to success.)
- Be wary of the approach that ascribes 'must do', 'could do', 'should do' (or all, some, most) to classroom tasks or homework to direct the type and length of activities different students might complete. There is an inherent danger that students will use this as an opportunity to coast and not set their goals high enough. It is better to make your expectations very clear to individuals.
- Choose well-designed and appropriate resources for all students.
- Look out for students who lack the critical knowledge that is essential for a task. Be flexible so that you can provide additional support to them when they are struggling. This is most likely to bring success.
- Focus your use of *help sheets* or *writing frames*, and make it clear who should work without such support.
- Make assessment criteria clear and explicit for all tasks.

### **READING**

- Biddulph, M., Lambert, D. and Balderstone, D. (2021) *Learning to Teach Geography in the Secondary School: A Companion to School Experience*, 4th edition. Abingdon: Routledge.
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