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Effective pedagogy in social sciences

*by Claire Sinnema
and Graeme Aitken*



EDUCATIONAL PRACTICES SERIES-23

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Series Preface

The booklet about “Effective pedagogy in the social sciences” has been prepared for inclusion in the Educational Practices Series by Claire Sinnema and Graeme Aitken. The Educational Practices Series is developed by the International Academy of Education and distributed by the International Bureau of Education and the Academy. As part of its mission, the Academy provides timely syntheses of research on educational topics of international importance. This is the twenty-third in a series of booklets on educational practices to improve learning.

The contents of the present booklet are based on a synthesis of research evidence produced for the New Zealand Ministry of Education’s Iterative Best Evidence Synthesis (BES) programme under the title “Effective pedagogy in social sciences/tikanga â iwi best evidence synthesis iteration (BES)”. The synthesis is electronically available at: www.educationcounts.govt.nz/goto/BES.

“Effective pedagogy in social sciences/tikanga â iwi” is an analysis of 383 studies of social sciences teaching that led to improved outcomes for diverse students from early childhood through to senior secondary education. Associate Professor Graeme Aitken and Dr Claire Sinnema were the lead writers. Associate Professor Graeme Aitken is Dean of Education at The University of Auckland. Dr Claire Sinnema is a senior lecturer in the Faculty of Education at The University of Auckland. The late Professor Jere Brophy, and Professors Janet Alleman, Keith Barton and Erik De Corte provided valued advice on this research summary.

Suggestions or guidelines for practice must be responsive to the educational and cultural context in which they are applied, and they must be open to continuing evaluation. The inquiry model presented in this summary provides a tool to help teachers and teacher educators adapt and build upon the findings of this synthesis in their own contexts.

STELLA VOSNIADOU
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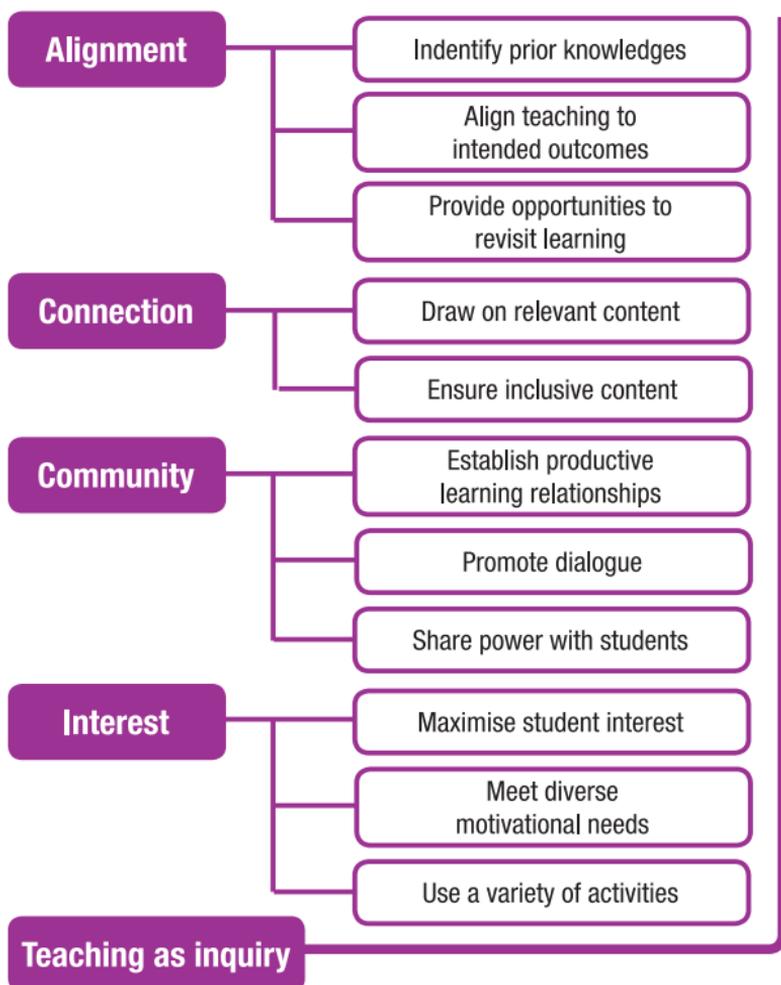
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Introduction

This booklet is a synthesis of research on social sciences teaching that has been shown to have a positive effect on a range of desirable student outcomes: cognitive, skills, participatory and affective outcomes. Education in the social sciences plays an important role in developing students' sense of identity and influencing the ways in which they understand, participate in and contribute to local, national and global communities.

The twelve principles of effective pedagogy highlighted in this booklet are organized around five major findings from the evidence concerning effective teaching in the social sciences (including social studies, history, geography, economics, classical studies and other social sciences). The first four findings are that alignment, connection, community and interest offer broad explanations for how teaching can support the achievement of valued outcomes for students. While



these findings are associated with principles of effective teaching generally, their particular usefulness arises from their origin in the source articles drawn from the social sciences. Teacher content knowledge in specific social sciences is critical to success, but the focus of this summary is on the “how” of effective teaching across the social sciences.

The fifth finding—teaching as inquiry—concerns a model of inquiry that can help teachers apply research-based strategies in ways that are responsive to their own diverse groups of learners. The model is also important because it can mitigate against the risk that (as has been found) teaching practices may have unintended negative effects on students.

This booklet

This booklet is primarily for those who are involved in teaching and learning in the social sciences, but it should also be useful for anyone who is interested in helping students to learn. For those who want more, the best-evidence synthesis on which it is based provides examples, vignettes and cases of effective teaching that bring the principles to life in social sciences subjects. These have been taken from numerous different countries and concern a broad range of outcomes:

- an understanding of important social science concepts or ideas.
- an awareness of and an understanding of personal identity and its multi-layered nature.
- skilled use of methods and techniques necessary for the development and expression of an understanding of the social sciences.
- the ability to participate, interact, engage in dialogue and contribute.
- the disposition to learn and an emotional response to learning.
- the ability to explore and analyse their own and other people's values.
- commitment to values such as social justice and equity.

Suggested readings: Aitken & Sinnema, 2008; Brophy, 2001.

1. Alignment— Identify prior knowledge

If the value of learning time is to be maximized, it is important to build on what students already know and understand.

Research findings

Learners make sense of new information by relating it to concepts and ideas stored in their long-term memory, and through a complex process of selecting, sorting and integrating it with prior knowledge. To support this sense-making process, teachers need to identify and understand what prior knowledge their students, and particular groups of students, possess. By distinguishing new learning from existing learning, teachers become aware of understandings that can be used as a resource for further learning and also misunderstandings that could get in the way of further learning.

Application in practice

- Use research-based information about how students progress in terms of conceptual understandings and skills. Research information cannot replace teachers' own careful assessment of what a particular student knows and can do, but it can indicate understandings and misunderstanding that they should be aware of. Research can also provide examples of strategies that other teachers have used to find out what students know—for example using visual images as stimuli for discussion (Barton & Levstik, 1996) or a funnel interview technique (Brophy & Alleman, 2002) involving a sequence of broad, then in-depth, then specific questions.
- Use a variety of techniques for accessing prior knowledge (for example, conversations, interviews, pre-tests, questionnaires, surveys and image-based tasks) as different techniques will reveal different information and understandings.
- Consider whether the techniques used emphasize recognition or recall. This is important since recognition techniques (such as multi-choice assessments that remind students of key ideas) reveal quite different information about what students know than recall techniques (such as open-ended questions).
- Use understandings of what students know when designing tasks, so that students are not inadvertently subjected to embarrassment.

Suggested readings: Hamman & Stevens, 2003; Harnett, 1993; Kaomea, 2005; Nuthall & Alton-Lee, 1993.

2. Alignment—Align teaching to desired outcomes

Effective teachers carefully and deliberately align teaching activities and resources to support students in achieving the desired outcomes.

Research findings

The extent to which the activities that students encounter align with what they are supposed to be learning has a significant impact on their success.

Alignment of activities and resources has been found to be important for various social sciences outcomes, including the development of conceptual knowledge, changed attitudes and behaviours, and the development of social skills. What students learn is also influenced by the language, discourse and approach used by their teacher. For example, language that is inclusive of diverse perspectives is more likely to support appreciation of diversity than language that privileges the dominant group. Similarly, approaches to learning activities that demonstrate the value of collaboration are likely to influence students' views of collaboration beyond the classroom.

Application in practice

- Scrutinize activities and resources to establish if they align with desired learning outcomes.
- Model desirable outcomes through teachers' language/s, focus, thinking, questions and comments. For example, if teachers want to see curiosity, critical thinking or empathy in their students, then their own language, articulation of thinking, questions and comments should focus on these matters.
- Make the purpose of tasks clear to students and help them to focus on the important learning; in other words, talk not only about what they are doing, but what they are learning and why.
- Align assessment with teaching and learning—students assume that if something is assessed it is important.
- Revise resources to better align them with intended learning. For example, if the goal is for students to become more skilful at comparing and contrasting between two social contexts, then

materials and activities should be selected with this particular purpose in mind—and revised if necessary.

Suggested readings: Buford & Stegelin, 2003; Connelly & Hosken, 2006; Kellett et al., 2004; Rubin, 2003; Wall & Higgins, 2006.

3. Alignment—Provide opportunities to revisit learning

Students need sufficient, related opportunities to revisit learning through a variety of activities that will embed that learning in their memories.

Research findings

The number and timing of learning experiences are both critical. The likelihood of students learning and remembering new ideas and concepts is increased when they encounter those ideas several times in close succession. For example, it has been found that students who have encountered information three to five times over two to three days tend to recall it, while those who have not had this exposure to the information are likely to forget it (Nuthall, 1999). The implication is that when important new ideas or concepts are introduced students need to encounter those ideas or concepts sufficiently frequently and intensively if they are to become part of their long-term memory.

Also, giving students multiple opportunities to practise supports the development of other kinds of outcomes—skills and competencies such as constructing generalizations, interacting socially and participating effectively in groups. To provide multiple opportunities, teachers must prioritize learning and, quite possibly, reduce coverage—the focus needs to be on the most important ideas and processes.

Revisiting learning is not the same as repetition. While repetition has its uses, it is not enough to simply provide students with the same experience on several occasions. Rather, students need opportunities to practise and apply learning (aligned to curriculum goals) in activities of different kinds. When they revisit the same learning in different situations, they are better able to distinguish between the experiences and hence remember the learning.

Application in practice

- Ensure that important understandings are developed not through one-off encounters but through multiple opportunities to revisit and practice the same ideas or concepts.
- Provide a variety of different kinds of activities.
- Ensure that the gaps between learning encounters are short so that the students link the experiences in ways that consolidate their learning.

Suggested readings: Gersten et al., 2006; Hodkinson, 2004; Kohlmeier, 2006; Nuthall, 1999.

4. Connection— Draw on relevant content

Effective teachers encourage students to use their own experiences as a point of comparison when learning about other people's experiences in different times, places and cultures.

Research findings

Embedding students' own cultural knowledge and experiences in learning content provides a useful point of comparison for them. And connecting to what is familiar to students makes it easier for them to access new learning. It also provides continuity between home and school experiences, which is important for learning. Continuity is strengthened when learning is based on content that students find relevant, and that connects to their families' experiences, expertise and interests. This does not mean, however, that learning must always begin with the students' experience—sometimes the connections can be made subsequently. Further, learning does not always require obvious, practical application to students' current or future lives—it can be relevant simply because it arouses curiosity or sparks interest.

In their efforts to connect learning to students' lives, teachers do need to be careful that they don't probe for personal or family information in ways that students might find inappropriate or intrusive.

Application in practice

- Intentionally and explicitly include diverse cultural perspectives on content—perspectives that reflect the diversity of students in the class and of people beyond.
- Ensure that all students come into contact with learning about issues of relevance to them.
- Search for resources that learners will relate to, and also those that challenge dominant points of view.
- Relate learning closely to students' life experiences.
- Use similarities-and-differences strategies effectively to make connections, being aware that such strategies can unintentionally reinforce “them and us” attitudes and simplistic generalizations.

Suggested readings: Bishop & Berryman, 2006; Brophy & Alleman, 2006; Kanu, 2006.

5. Connection— Ensure inclusive content

Effective teachers use language that is inclusive of all learners and their experiences, select resources that make diversity visible, and avoid biased and stereotypical representations.

Research findings

Student understanding of social sciences ideas and processes is increased when classroom language and resources make diversity visible. Conversely, if language and resources ignore diversity, students are likely to acquire biased attitudes and understandings. This does not mean that every individual resource must meet the diversity criterion; rather, that the different resources used in a sequence or unit of work should collectively offer a variety of perspectives.

Similarly, use of the term “inclusive content” does not imply that all opinions and views are to be accepted uncritically and treated as equally valuable; rather, that diverse perspectives and experiences should be used to promote discussion and dialogue.

Application in practice

- Review lesson content and resources to ensure that they make diversity visible.
- Review lesson content and resources to ensure that they don't reinforce stereotypes or offer biased representations.
- Ensure that the language used is inclusive of, and embraces, diversity.
- Challenge language that alienates or excludes a particular student or group of students.

Suggested readings: Levstik & Groth, 2002; Nairn, 1997.

6. Community— Establish productive learning relationships

Student learning is promoted by respectful and productive teacher/student and student/student relationships.

Research findings

Respectful relationships provide a platform for learning and for learning communities, where both teachers and students have a sense of belonging, and where they learn with and from each other. Relationships are productive when, through their interactions with students, teachers consistently display a focus on learning. Productive learning relationships not only support cognitive outcomes; they are also crucial for motivational, affective and participatory outcomes, and they positively influence students' identities.

Research shows that it is also important to encourage inclusive relationships between students, since the extent to which students feel included or excluded has an influence on other learning. It also highlights the risk of teacher or teacher-aide support inadvertently having a negative impact on relationships between special needs students and their peers. For example, efforts by an adult to “help” a special needs student (through constant close support, for example) may unintentionally serve to distance that student from their peers.

Application in practice

- Focus simultaneously on relationships and learning.
- Demonstrate effective learning behaviours.
- Establish and maintain productive teacher-student and student-student learning relationships—the basis of a positive learning environment.
- Build a learning community in which participants learn with and from each other.
- Ensure that adult support does not inadvertently inhibit positive student-student interactions.

Suggested readings: Alton-Lee, Nuthall & Patrick, 1995; Anderson, Hamilton & Hattie, 2004; Byer, 2000; Causton-Theoharis & Malmgren, 2005; Nuthall, 2007; Sewell, 2006.

7. Community— Promote dialogue

Effective teachers develop in students the ability to dialogue with each other so that they can access the diverse expertise, experiences and perspectives of the group members.

Research findings

Students develop their understandings and capabilities through discussion with their peers—but only if they have the necessary dialogue and group co-operation skills. Explicit teaching and modelling of these skills is crucial, as is feedback. Involving students in developing the norms for group work can lead to improved group functioning and a greater contribution to dialogue.

The design of group tasks influences student interactions. Tasks that can only be accomplished collaboratively are more likely to lead to quality dialogue and learning than routine tasks that students could complete just as easily on their own.

In terms of knowledge, attitudes, efficacy and participation, high-quality, whole-class discussion can also have a significant impact on student learning. Whole-class discussion enables students to experience social sciences in action; through it, they develop skills and dispositions that are key to their future participation as citizens. But discussion requires skilful direction to ensure that misconceptions are not left unaddressed.

The use by teachers of statements rather than questions has been found to be effective. Teacher statements that, for example, acknowledge, summarize, reflect on or indicate interest in a student's talk (for example “I'm interested to hear more about that” or “You're suggesting there are three main issues”) can promote high-quality dialogue. Questions have an important place in teaching, but when it comes to promoting quality dialogue, fewer can be better.

Application in practice

- Involve students in developing group work norms.
- Explicitly teach dialogue and group work skills.
- Design complex rather than routine tasks for groups.
- Ensure that tasks require the skills of all group members and publicly reinforce the importance and value of each person's contribution.

- Teach not just *with* but *for* discussion: teach deliberately to improve the quality of discussion and use discussion deliberately to improve the quality of learning.
- Try using fewer teacher questions and more teacher statements (“That’s interesting [...] tell us more”, “So you’re saying [...]”, “An example would help us understand that better”, “I see”, “Fine”) to promote dialogue among students.

Suggested readings: Boykin, Lilja & Tyler, 2004; Cohen, 1994; Cohen & Lotan, 1995; Dillon, 1985; Gillies & Boyle, 2005; Hess & Posselt, 2002; Rojas-Drummond et al., 2003.

8. Community— Share power with students

Approaches that deliberately give students power to make decisions about their own learning encourage participation in and ownership of learning.

Research findings

Sharing power means deliberately giving students authority to make decisions about learning processes and content. When they are involved in decisions that touch on their own learning, students feel their interests are respected. As a result, their participation is greater, their motivation to learn is increased and they are more inclined to become active citizens and purposeful members of their various communities. Approaches that promote joint (rather than one-sided) participation in learning are particularly important, given the social and participatory goals of social sciences subjects.

Students can handle delegated decision-making authority only if they are not reliant on the teacher. When teachers are not clear about the desired outcomes of a task, their students have to depend on them for further guidance; conversely, when they make thinking processes transparent, they promote independence in their students. Teaching thinking processes simultaneously with content has been found to be effective in building students' capacity to learn independently.

Sharing power is not the same as relinquishing all authority or abdicating all responsibility; rather, it is about reducing dependency on the teacher and increasing student participation and agency in learning.

Application in practice

- Involve students in decisions about learning processes and content.
- Consider the impact of adult involvement or supervision on peer-peer interactions.
- Create group-learning contexts that require students to interact because they have to rely on each other's strengths to complete the group task; opportunities for students to learn from each other by, for example, talking together, questioning each other, summarizing for each other, or engaging in joint problem-solving.

- Simultaneously teach content and strategies so that students become able to learn independently.
- Regularly engage students in structured reflective activities.

Suggested readings: Aulls, 2002; Cohen, Lotan & Holthuis, 1995; Ladson-Billing, 1995; Swan & White, 1994.

9. Interest—

Maximize student interest

Effective teachers design activities that arouse students' interest, increase their engagement and, as a result, generate learning that is memorable.

Research findings

Student interest is often used to explain why particular approaches work in terms of social sciences learning: an activity arouses student interest, interest leads to engagement, engagement leads to learning. A substantial amount of literature describes generic motivational strategies (for example, use of rewards, stressing how engagement in activities might lead to other positive consequences, and various forms of competition); evidence from across the social sciences points to the motivational efficacy of a number of specific strategies.

“Real experience” is likely to generate interest and engagement that supports learning. “Real” experiences can be genuinely real (that is, completely authentic), or they may match or directly replicate reality, or they may involve participation in social situations beyond the classroom, or they may be in-class experiences with a recognizably authentic purpose. Real experiences generate interest because they focus on issues that are real and relevant to students' lives, or because they give students first-hand experience of social, cultural, economic or political situations. Debriefing following such experiences is critical so that the important learning can be drawn out and new understandings constructed.

Learning opportunities involving visiting speakers, drama, hands-on activities and narratives can all arouse interest and promote engagement. Stories, for example, stimulate and challenge the imagination; they have, therefore, an important affective dimension and the power to motivate.

Resources and activities such as illustrations, diagrams, videos and animations, multimedia tools, simulations and games often appeal to student interest and support engagement. It is important, however, that they are designed in a way that makes important ideas easily understandable. For example, students are more likely to use and learn from maps that effectively integrate illustration and text than maps that require them to do the integrating themselves. At times, teachers may need to modify published resources to align them more closely with prior knowledge and/or learning intentions.

Teachers also need to take care when using any activity or resource that it does not reinforce stereotypes, misunderstandings or bias or have other negative impacts on student learning.

Application in practice

- Make use of real experiences, both in and beyond the classroom.
- Provide learning opportunities that relate to authentic issues and contexts.
- Select resources and activities that students find appealing.
- Consider how resource design will affect interest and engagement.
- Ensure that, as well as creating interest, activities lead to important outcomes.
- Debrief students following real experiences to draw out the important learning.

Suggested readings: Alton-Lee et al., 1997; Ballantyne & Packer, 2002; Beaumont et al., 2006; Jackson & Rees Leahy, 2005; Laney, 1993; Laney, 2001; Lynott & Merola, 2007; Nairn, 1999; Nuthall, 2000; Otten et al., 2004; Schultz, 2007; Tyson, 2002.

10. Interest— Satisfy diverse motivational needs

Because the sources of individual motivation differ, a variety of motivational strategies need to be employed.

Research findings

Learning activities (experiences) play a crucial role in motivating students to learn. It is through these experiences that they encounter the knowledge, understandings, skills, values and opportunities for participation that are important in the social sciences. But activities first need to capture the interest of students. While the social sciences have high potential to be motivating because, at their heart, they tap into young people's curiosity about the wider world, not all students are motivated by the same things. What is interesting and engaging for one may be boring for another; what has cultural and emotional significance for one may have no meaning for another. Individual differences in students' interests, experiences and background knowledge influence their engagement and, therefore, their learning.

Teachers can be mistaken when it comes to predicting what will interest their students, so they need to find out. There can be considerable variation between students and also between groups of students (for example, boys and girls) in their attitudes towards different types of resources, learning activities and the content of learning. Teachers sometimes assume that their own favourite activity will also motivate the students. This is often not the case.

Application in practice

- Find out what motivates students.
- Be responsive to what students say about their interests, and listen to their questions.
- Seek feedback from students on how interested they are in the content of current learning, and on how the selected approach is working for them.
- Provide opportunities for students to contribute to decisions that relate to their own learning.

Suggested readings: Levstik, 2000; Hootstein, 1995; Milson, 2002.

11. Interest—

Use a variety of activities

Using a variety of activities helps students recall the content embedded in those experiences.

Research findings

How successfully students learn from and remember the content of a sequence of learning activities depends to some extent on the combination and variety of experiences offered. Even an activity that was very successful in terms of generating student interest cannot be used over and over again to the same effect. The evidence supports what teachers understand intuitively: students need to experience a variety of activities of different types (for example written, oral, visual or dramatic).

Variety is important because students use their memory of specific activities when trying to recall their learning. If they can differentiate between those activities, they have a better chance of remembering the learning.

This does not mean that every single activity has to be novel, just that students need memorable anchors to help them recall their learning.

Application in practice

- Use a sufficient variety of task types, resources and interaction opportunities to advance valued learner outcomes.
- Ensure that variety in activities and resources makes learning memorable.
- Employ varied activities in ways that help students to recall relevant content embedded in their learning experiences.
- Use inquiry to optimize students' interest and engagement in learning experiences.

Suggested readings: Catterall, 2007; Nuthall, 2000; Mercer, Wegerif & Dawes, 1999; Nuthall, 1999; Nuthall & Alton-Lee, 1993.

12. Teaching as inquiry

Effective pedagogy requires teachers to inquire into their priorities for learning, into interventions that might enhance student outcomes, and into the impact of their actions on their students. Such inquiry increases the likelihood of student success and of teachers making a bigger difference.

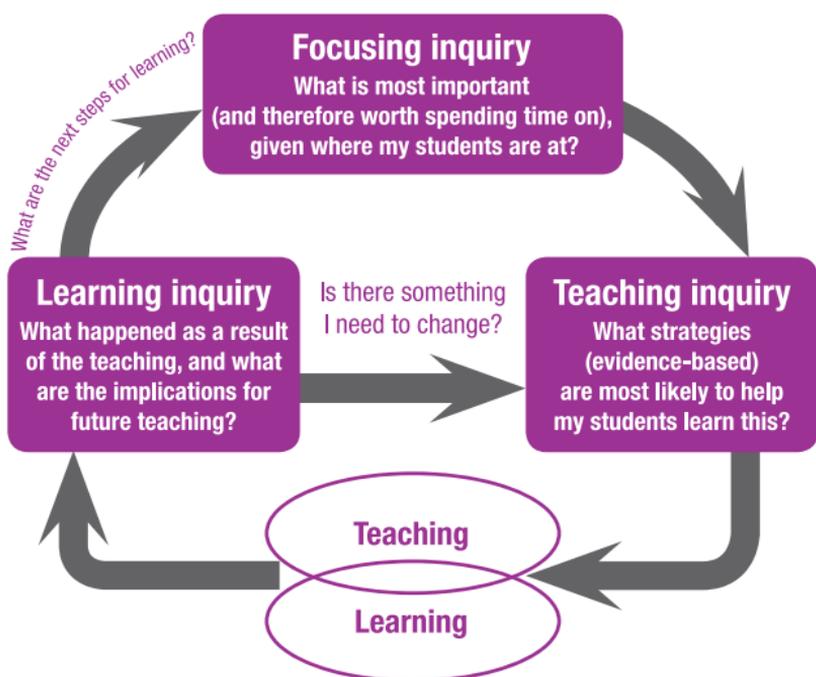
Research findings

Research findings about strategies (such as questioning or using stories) show that what worked in one context, or for one learner/group of learners, or in relation to one outcome, often did not work in another context, or for another learner/group of learners or in relation to a different outcome. Apparently contradictory findings for seemingly similar strategies indicate that it is important for teachers to be curious rather than presumptive about how any particular strategy will work for their students.

This finding is different from the other findings in this booklet in that it is not derived from evidence about the impact on student learning. Rather, it is derived from evidence that there is a need for such an approach when selecting and applying research findings in new contexts.

This need arises precisely because there is no simple answer to the question “What works?” in teaching: “What works” depends on the context. For this reason, a model of pedagogy based on teacher inquiry is required—a model in which teachers inquire into: which outcomes they should prioritize for their students (the focusing inquiry); what teaching actions are most likely to enhance outcomes for their students (the teaching inquiry); and what the actual impact of their actions is on their students (the learning inquiry).

The focusing inquiry helps determine direction. Given that time is limited and that students need multiple opportunities to engage with the content of new learning, it is important to establish priorities; this is the purpose of this phase of the cycle. The focusing inquiry is termed an inquiry because the process of setting priorities draws from a variety of sources: curriculum requirements, community expectations, teacher interests and, most importantly, the learning needs, strengths and experiences of the learners. This is not to say that student and parent expectations about priorities **determine** what is taught, but that those expectations inform teachers’ considerations about priorities **alongside** curriculum statements.



The teaching inquiry involves identifying strategies that are most likely to help the students achieve the prioritized outcomes. To do this, teachers must not only locate evidence of effective strategies, but also evaluate its quality. Information is available from informal sources such as the teacher’s own experience as teacher and learner and the experiences of colleagues, prescriptive sources such as curriculum documents and textbooks, and systematic sources such as professional development and research.

The focus of the learning inquiry is the impact of the teacher’s actions on student learning and the implications for future teaching.

This inquiry approach requires that teachers be responsive to their students and their learning, to their own learning communities, to research and, in particular, to outcomes-linked evidence.

Application in practice

- Read about and use research—in particular, outcomes-linked evidence.
- Use research evidence, along with evidence from own experience and that of colleagues, to consider these questions:
 - What is most important for my students and therefore worth spending time on?
 - What strategy might work best? What could I try?
 - What happened for my students as a result of my teaching? Why did it happen?
- Seek quality professional learning opportunities that will provide opportunities to become familiar with research evidence.

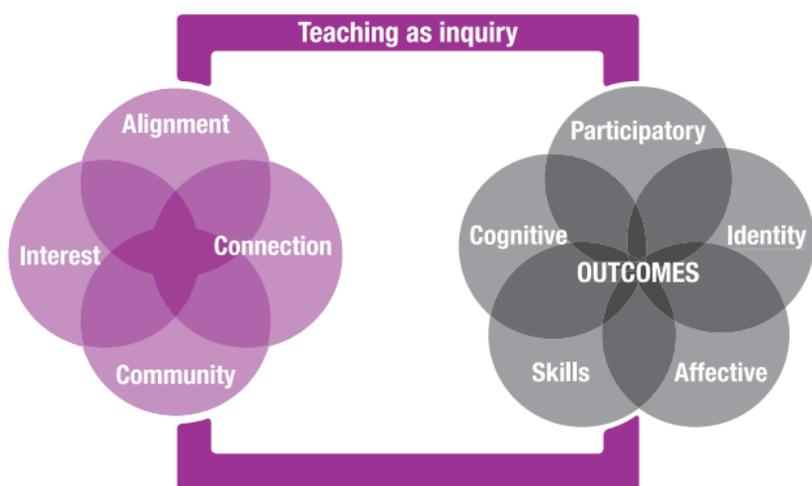
- Be open-minded and prepared to consider teaching approaches that are unfamiliar.
- Be willing to consider approaches that challenge one's beliefs about the best way to teach.
- Treat research findings as informants of decisions about teaching and learning.
- Treat research findings as conjectural—recognizing that what works with one learner or group may have quite a different impact when tried with another learner or group.
- Persist, as strategies may not be immediately successful, and while inquiry can lead to solutions, it may equally well raise further issues.

Suggested readings: Aitken & Sinnema, 2008; Cochran-Smith & Lytle, 2009; Timperley, 2008.

Conclusion

The social sciences is a curriculum area that helps young people understand societies, their identities and what it means to be a contributing member of a community. It also supports learners in developing competencies for participating as informed and responsible citizens. These valued outcomes are the touchstone for all teachers of the social sciences and can support learning across the curriculum.

The four mechanisms for effective teaching in the social sciences—connection, alignment, community and interest—provide a framework that can contribute to teachers' thinking. At the heart of effective pedagogy in the social sciences is an inquiry-oriented approach and mindset. That inquiry should draw on practitioner and research evidence to support decisions about learning priorities, find strategies that are likely to be effective, and contribute to ongoing improvements in teaching the social sciences and citizenship.



The importance and the challenge of social sciences teaching should not be underestimated. Teaching in the social sciences fosters the cognitive, social, cultural and participatory knowledge and skills that shape our communities. However, research reveals that classroom practices can also sometimes have unintended negative impacts on students' identities and interactions. So the quality of social sciences teaching has impacts that extend well beyond the classroom. Improving teaching in the social sciences matters.

Suggested readings: Aitken & Sinnema, 2008.

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