

## Skills are more important than content knowledge

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### Introduction

Whether skills or knowledge deserve more prominence in teaching has important ramifications. A teacher's instructional time is a finite resource and it needs to be used efficiently. This article first examines definitional issues regarding epistemology and teaching. Second, the proposition that both skills and knowledge are equally important in teaching is discussed. Third, the claim that content is more important than skills is rejected. A final section contends that skills are indeed more important than knowledge, looking at how skills create and give meaning to content, and are more transferrable than content knowledge.

### Definitions

The debate over whether to prioritise skill development or knowledge uptake is one that many

believe can be ended by defining knowledge in a way that incorporates both skills and content. Levesque (2008) avoids the problematic dichotomy by stating that content can be split into substantive and procedural elements. The boiling point of water is substantial content whereas the ability to devise an experiment testing what this temperature is, is procedural content. Others make similar distinctions but use different terms: first and second order concepts (Lee & Shemilt, 2003); or substantive, procedural and conceptual knowledge (Lund, 2009). For the purposes of this article, 'knowledge' here is contrasted with 'skills' by ascribing to it a meaning similar to 'content'.

Theorists siding with a socially constructed view of knowledge would see the prominence of content knowledge as both elitist and self-defeating (Pondiscio, 2010). As Clark (2003) has shown, process and

skill-based understandings can be more objective because they allow for falsification. Thus, teaching skills rather than just knowledge enables students to update their understandings as new information comes to light.

### **The Australian Curriculum**

The Australian Curriculum has a much stronger focus on skills than content knowledge in comparison to earlier curriculum documents. For example, the history curriculum lists four aims for history learning: acquire an interest in history learning, gain knowledge of history, understand and use historical concepts, and develop historical skills by undertaking historical enquiry (VCAA, 2017). The curriculum writers may appear to give prominence to both knowledge and skills, but compared to earlier Australian history curriculum documents, a much stronger focus on skill and conceptual development is evident (Clark, 2006). In the recent SOSE curriculum, students were also taught values such as social justice, democracy and sustainability as part of their humanities education (Hoepper, 2004). These developments suggest that those managing the ever-changing Australian curriculum consider skill development and value awareness more important than ever before.

### **Are skills and knowledge equally important?**

Many educational theorists believe there is no need to decide whether skills or knowledge are more important (Pondiscio, 2010). Senechal (2010) states that teachers ought to teach the student, and match *either* skills *or* content to their needs, placing this third element above the two in question. Those behind the new Australian curriculum appear to be of a similar mind, stating, “There should not be an artificial separation of content and process” (National Curriculum Board, 2009, p. 16). This statement by the Curriculum Board more closely resembles a related point, common in the literature, that knowledge and skills cannot be ranked against each other because they rely so much *on* each other. However, while both are obviously important, in classroom situations one will always be favoured over the other. Which is it to be?

### **Is content knowledge more important than skill acquisition?**

Good inquiry will always involve a degree of interpretation, thus one cannot divorce process (interpretation) from content (Hoepper, 2011a). Moreover, without content knowledge as material, skill acquisition is impossible; skills cannot be taught in a vacuum (Shulman, 1986). Seixas’s (2006) well-known historical thinking concepts (used in the new Australian history curriculum) tie thinking to competencies in literacy. Thus, perhaps skills and knowledge are equally important in history teaching.

Some claim that teaching knowledge is more important than developing skills. Senechal (2010) claims that the purpose of skills is primarily to process content. While this may be true, it does not follow that content should be prioritised over skills. There seems to be a number of educators who are frightened of the idea that skill development comes above delivering content (Pondiscio, 2010; Senechal, 2010). This may be because many teachers have a love for certain areas of content knowledge, rather than the potentially more difficult task of teaching skills. To some extent, teaching content above skills in itself makes a judgement call on skill development – it ranks the skill of memorisation above potentially more valuable subject-specific skills. Teaching that focuses primarily on comprehension and memorisation centres on lower-order thinking (Hoepper, 2011b). As Seixas (1996, 2006) points out, it is incorrect to assume that learning more facts results in increased understanding. Memorising algebraic formulae, easily stored in an advanced calculator, is of less educational use than an understanding of when to use different formulae. Therefore, content knowledge is not more important than improving skills.

### **Is skill acquisition more important than content knowledge?**

If a decision between prioritising skill development or knowledge acquisition must be made, the weight of evidence suggests teaching skills is more important in pedagogy.

First, content lacks significant meaning without the accompanying skill base. Historical knowledge, for example, must always be an interpretation of source material from the past (Hoepper, 2011a). Experience without narrative organisation is incoherent to us (Carr, 1986). The implication of these claims is that if teachers wish to make their students truly information literate they would do best to foster skill development.

Second, without the existence of skills, it is unlikely that teachers would have a body of knowledge to explore with students. The pre-academic knowledge people acquire, from memory traces and second-hand accounts, is less useful at, for instance, explaining continuity and change, or offering interpretations of the present, than knowledge mediated by skills (Seixas, 1996). Husbands (1996, p. 14) summarises this point by stating that “interpretations constitute the basis for [...] knowledge”.

To give an example of how skills play a crucial role in creating knowledge, consider two of Seixas’s (2006) types of understandings: using evidence and establishing significance. The ability to use primary sources as evidence to create knowledge is an important skill, without which there would be little content for learners to engage with. Without the capacity to establish significance, it is unclear what

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selection of information about the past, from the almost endless supply that exists, it would be most useful for teachers to discuss in their classrooms. The new Australian Curriculum mirrors Seixas's use of historical understandings to guide teachers, further noting that knowledge is reflected in the concepts used and can only be acquired with skills (National Curriculum Board, 2009). The National Curriculum Board's (2009, p. 6) opinion on this topic is clear when it states, "Knowledge and understanding requires mastery of the procedures, tools and methods of thinking that constitute the discipline."

Third, skills are more important than knowledge in teaching because they are transferable to other subjects and to life outside educational institutions. It is literacy and critical thinking skills, which ought to be part of a successful classroom, that employers wish to see in secondary school graduates (Willingham, 2008). There is little mention made in the education literature about whether skills or knowledge are more important based on their relevance to the world of work and life beyond education. However, there cannot be much doubt as to which element is more relevant. It is unlikely that many students from the average classroom will go on to become academics where their content knowledge is of central importance in their future lives. In the rare instances where this is true, academics revisit and study the same knowledge again at a much greater depth if it is to be part of their professional specialisation.

Fourth, we live in a digital age where access to vast stores of content knowledge are available online simply by glancing at our smartphone. Why should teachers devote more of their time to teaching things students can find out in seconds than to skills which require a lifetime to master? We live in an age where learners have access to the sum of all human knowledge at the touch of a button and will do so for their entire lives. Our education system needs to change to reflect that fact.

Fifth, when teachers are asked to justify the relevance of their subject, they are inclined to state that developing transferable skills is one of the major benefits of education. Students graduating in 2030 are likely to have 17 different jobs in five different fields (Coady, 2017). Developing skills and capabilities and the ability to learn are much more important in this environment than static knowledge.

## Conclusion

To conclude, skills and knowledge are both vital elements in teaching. Without knowledge, skills have no material for their application. Without skills, knowledge is mere words on a page, stripped of meaning. Yet skills create knowledge, and if the two must be ranked against each other, skills should be positioned above knowledge. Teachers have limited time with their students, so if they must prioritise

one element above the other, it ought to be skill development. Skills not only create and give meaning to knowledge, they are also transferrable across curricular areas and into students' future lives, both vocationally and educationally.

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