Exploring the argument: Are generic competencies transferable or not?

Discussion paper

There is debate in schools and universities about the transferability of general competencies and whether it is worth assessing and reporting on them independently of domain expertise.

Some say that these complex general capabilities are not transferable and/or that strong performance in a content domain is a sufficient proxy indicator of any required capacity. Thus, they might argue that a learner who performs well in a mathematics exam, by definition, shows a high level of problem-solving skills and that these skills need not (and probably will not) transfer to performance in, say, history. Or they might argue that doing well in a history exam is, by definition, indicative of having strong critical-thinking skills but that you can't expect these skills to transfer to, say, nursing. They argue that just because you are, for example, a good problem-solver in one domain it does not make you a good problem-solver in another. You would not, for example, send a plumber to diagnose a heart problem with a patient, or expect a person good at solving mathematics problems to be good at solving history arguments.

If this analysis is correct, it would not make sense to have complex competencies as curriculum objects, nor would it make sense to attempt to assess them independently of domain knowledge.

But there are other perspectives.

There is no doubt that complex competencies have to be learned and demonstrated in particular contexts. They are not freestanding. For instance, to show you are a good problem-solver, you have to solve problems within a domain, for example, in mathematics, history, plumbing or nursing. And there is no doubt, either, that to solve any given problem, you are better off when you have deep domain knowledge. For that reason, any person is more likely to ask a plumber to solve a plumbing problem and a mathematician to solve a mathematics problem, regardless of how good their assessed generic problem-solving skills are. Domain knowledge matters.

It does not follow, however, that these competencies are domain-specific. The counterargument is that there are generic aspects to, say, problem-solving that are teachable, learnable, assessable and applicable across contexts. These have to do with the underlying attitudes, values, beliefs, habits of mind and understanding of problem-solving that you carry with you regardless of your context. For instance, when approaching a problem – any problem, in any domain – you will do better if you take the time to think critically about its causes, scope the problem, explore alternative explanations, check with experts about solutions and make a good diagnosis of what might be done. You are better off if you are prepared to trial a solution, even a range of alternative solutions, and test the result before you implement it. Having the habit of being careful not to make things worse is good, and so on. A person can have more or less of the skills, attitudes, values and understanding about solving problems, regardless of the domain in which they develop them, and it is this that transfers from context to context.

Employers, for instance, tend to look for these generic qualities and understand that even if prospective employees do not have knowledge about the specifics of the business, employers are better off if their employees do have these general competencies.

It is also true that some forms of direct instruction are designed to make sure students do not require great expertise in complex competencies. For instance, some students who get top marks in examinations focused on solving mathematics problems or history analyses may have been drilled in the standard techniques so that they are not
really solving problems: they are applying pre-devised, practised techniques. Indeed, much training is, appropriately, focused on developing pre-digested responses to specific instances. However, this is not problem-solving and should not be interpreted as such.

Similarly, a lack of skill in knowing how to learn by yourself can be obscured by a teacher who works hard to pre-digest knowledge so any diligent learner can demonstrate it in written form. This ignores the fact that if not so supported, a learner will flounder because they have not learned how to take responsibility for their own learning or apply it to generate know-how.

It is also true that just because a person has these skills, it does not mean they bother to apply them. Human behaviour is notoriously dependent on motivation and interest in particular domains. A learner who shows brilliant problem-solving skills in mathematics or sport because they are passionate about them might be totally uninterested in applying these skills in other domains. For this reason, good-quality assessment of generic competencies needs to ensure that performance in any of these general transferable competencies is examined across a range of domains – preferably in performances that engage a person’s interest – to ensure that the person being assessed has both the opportunity and interest in demonstrating capability.

This course is based on these arguments, which support the idea that complex competencies learned in one domain can be transferred to another and that having a mastery of these competencies stands any learner in good stead as they chart their progress through the vicissitudes of life.

What are your thoughts?
Do you agree or disagree?
What do you draw on from your experience to form your position?