What makes a difference? How measuring the non-academic outcomes of schooling can help guide school practice

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Abstract

The paper uses examples from the *Melbourne Declaration on the Educational Goals for Young Australians* (2008) as well as from work completed by ACER to reflect on, explore and make recommendations to mediate the challenges of measuring and improving the non-academic outcomes of schooling. The paper outlines common difficulties encountered when defining non-academic outcomes and establishing mechanisms to measure outcomes within schools, and the paper explores some of the misconceptions that are commonly associated with attempts to improve non-academic outcomes of schooling. In each case the challenges and misconceptions are accompanied by recommendations for approaches and strategies that can be used to address them.

Introduction

This paper reflects on what the process of measuring the non-academic outcomes of schooling has taught us about the ways in which these essential outcomes of schooling can be conceptualised and managed in schools. The paper includes both reflections on the challenges that we face when attempting to define, measure and improve non-academic outcomes, and recommendations for actions (in very general terms) that schools can take to better measure and influence the non-academic outcomes of schooling.

The challenges

The overarching challenge: Is there such a thing as a 'non-academic outcome'?

A consistent challenge in measuring the non-academic outcomes of schooling has been the step of deciding what they are and whether they are actually 'non-academic' at all. This is both a grossly simple and deeply complex problem that can, for example, be illustrated by considering aspects of the most recent formal statement on Australia's national goals of schooling, *The Melbourne Declaration on Educational Goals for Young Australians* (2008)[1].

Goal 2 of the Melbourne Declaration states that:

All young Australians become successful learners, confident and creative individuals, and active and informed citizens.

Included in the articulation of this goal are, for example, the development of:

successful learners who

- are able to plan activities independently, collaborate, work in teams and communicate ideas

confident and creative individuals who

- have a sense of optimism about their lives and the future

and *active and informed citizens* who

- act with moral and ethical integrity. (Melbourne Declaration, 2008)

Each of these examples is arguably a combination of both academic and non-academic outcomes of schooling. Planning, collaboration, teamwork and communication all require the motivation to engage, some cognitive understanding of the tasks and the cognitive and emotional capacity to self-monitor and regulate behaviour. Similarly, optimism and moral and ethical actions can require a complex combination of cognitive interpretation of context as well as motivation to think and act positively. Optimism, for example, is a desirable attribute,

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1 Note that any vision or explicit document on schooling could have been used for this example, but the Melbourne Declaration has been selected because of its currency and national profile.

but not if it is so high as to restrict students' capacity to critically appraise information in context – we may hope our students feel positively about the future of Australia as a country united in diversity, but we would also hope that students would understand that such positive outcomes are not naturally inevitable and may require effort and commitment. One lesson we have learned over time is that the development of non-academic outcomes requires thought and self-reflection (both of which have an academic element) and that this has an important influence on the way schools should conceptualise their approach to them. This will be further discussed under Challenge 3.

Challenge 1: Defining the outcome

The academic outcomes of schooling are typically defined and explicated in curriculum documents and supporting materials both at a system and school level. By contrast, the non-academic outcomes of schooling are typically less well-described and, even in cases where they are extremely welldefined such as by the *Values Education for Australian Schooling* project, or in some State and Territory curriculum documents, there is still the expectation that schools will largely be responsible for refining and operationalising the defined concepts in their own local settings. The second example from the Melbourne Declaration, *'confident and creative individuals'*, can be used to illustrate some of the challenges schools have in measuring non-academic outcomes. Firstly it is necessary to define what it means to be confident and creative. In doing this questions may arise such as:

Should confidence and creativity be considered separately? (Most likely of course the answer is 'yes'.) How can we define confidence and creativity? Is

there a continuum of confidence and creativity? If there is:

* what does low confidence (or creativity) look like?;

* what does high confidence (or creativity) look like?, and,

* Is the continuum age-related? (i.e. How do confidence or creativity develop or change with age?)

Academic continua reasonably assume that increasing proficiency is a good thing. Reading proficiency, for example, is an academic outcome of schooling, and increasing proficiency reflects increasing skills, insight and depths of understanding, all of which are clearly desirable. But, is more necessarily better on the continuum of a non-academic outcome? Ever-increasing levels of confidence may suggest overwhelming self-interest or self-aggrandisement. Extreme creativity without reference to context (such as time, resources or the needs of others) can be counter-productive.

Unlike academic outcomes, the notional model of what is desirable is moderated by a sense of context-related balance across the different outcomes. The model of a see-saw, comprised of multiple planks splayed out in different directions with the fulcrum or point of balance of each plank being the optimum position, may better apply to our conception of non-academic outcomes. In this model, each plank represents the continuum for a substantive non-academic outcome. It is still important to understand the scope of the continuum from low to high in order to decide where the optimum point of balance is. It is also important to consider the planks in relation to each other. For example, useful creativity is also about intense self-discipline. Conceptualising what you are measuring in a non-academic outcome and what improvment looks like is critical because this drives

your teaching. If a multi-dimensional balance model fits your school then the approach you take to educating your students about non-academic outcomes may be more about raising their awareness of the breadth of possibilities along each of the non-academic continua, how the continua interact, and how to make good choices to achieve an overall sense of balance, rather than about raising the bar of expectations from one year to the next.

The type of discourse suggested above is routine in the measurement of academic outcomes of schooling but regrettably lacking in consideration of many non-academic outcomes. Unfortunately, time, resources and the desire to move forward to address the more immediate concerns of measuring these non-academic outcomes frequently prevent them from properly being defined in the first place.

Challenge 1: The recommendation

Before devoting time and energy to measuring the non-academic outcomes of schooling, it is essential that the outcomes are clearly defined in a way that makes sense to all those who use them. Commonly used terms such as 'wellbeing' and 'resilience' often are poorly defined which can significantly diminish their usefulness in schools. At an individual school level, it is important that all members of the community can share a common understanding of the way the non-academic outcomes of schooling are defined and conceptualised. Similarly, time and energy should be devoted to consideration of what 'model' of non-academic outcomes fits within a given school context. What profiles of student non-academic outcomes are seen as desirable and why? Only when these decisions have been clearly articulated can the tasks of measuring and addressing the outcomes begin to be properly addressed within a school.

Challenge 2: Measuring the outcome

The three examples from the Melbourne Declaration provide some insights into the challenges of measuring the non-academic outcomes of schooling. Firstly, it is clear that the three examples lend themselves naturally to different types of assessment. In each case, the non-academic outcomes suggest both some form of external (e.g. teacher-centred) assessment, such as through observation of student responses to or behaviours during outcome-related activities, and some form of internal (i.e. student-centred) assessment such as student self-reflection. A critical difference between measuring the non-academic outcomes and academic outcomes of schooling is the role of self-reflection in the outcome measure. In the non-academic outcomes both the external and internal reflections on student development are clearly intrinsic to the outcome itself. In the academic outcomes, student self-reflection may (or may not) give an accurate sense of student learning achievement; however the process of self-reflection is typically used as a pedagogical tool to support student learning growth and understanding of the learning area. In mathematics, for example, students may be asked to identify areas of strength or weakness on a given topic for the purpose of helping them develop better understanding of the topic. The metacognitive process itself is a teaching and learning tool rather than a discipline-based outcome, whereas in considering collaboration, confidence, creativity or moral integrity, the metacognitive processes are both intrinsic to the outcomes as well as supporting student learning of them. That is, it may be possible to improve your academic skills without a well-developed capacity to self-reflect, but the capacity to self-reflect with increasing sophistication is integral to development of non-academic outcomes.

There are four main issues in meeting the challenge of measuring non-academic outcomes. The first is to determine the most feasible, valid and reliable ways of collecting information about student outcomes as you have defined them. This provides both conceptual and practical challenges for schools. The conceptual challenge is to confirm that what is being measured is actually the non-academic outcome that you have defined. The practical challenge is of course to devise modes of assessment that can be used seamlessly and with relative ease by teachers. Ideally they are embedded within the students' normal school experiences.

A second issue is to provide sufficiently challenging and appropriate opportunities for students to demonstrate what they can do when you are measuring non-academic outcomes. Our experience suggests that while learning to work in groups is a challenging experience for many students in lower primary, by upper primary most students have learned how to get through group tasks with a minimum of fuss so that they can focus on the academic content of the task. By this level, the academic content of tasks is typically the focus for teachers and students; in classes where group work does not function well then teachers typically avoid it because learning the academic content is implicitly or explicitly more valued than mastering the challenge of group work. Low-key demands of group tasks do not provide much scope for insight or understanding. The group task reflection sheets that students often complete usually generate a list of predictable, shallow comments that are much the same from Year 5 to Year 10. 'We worked quite well together, but we could have tried harder.' 'We took a long time to work out what to do, but we got everything finished in the end.' Unfortunately our experience suggests to us that, where measurement of non-academic outcomes such as working in groups is measured in schools, the bar is typically set very low and, where the choice exists, the ultimate focus of the activities is typically the academic outcome with little opportunity for students to formally consider, meaningfully reflect on and build on the skills and dispositions relating to the non-academic outcomes. This approach to measuring non-academic outcomes is like continually measuring students jumping over 20 centimetre heights – it tells us only the minimum they can achieve and does not challenge them to develop.

Digging deeper into the dynamics of group work in a classroom setting is most likely inappropriate, given the broader context that requires students manage their day-to-day lives together throughout their time at school. The perceptive ones will realise that they cannot afford to be honest about the shortcomings or failings of their peers but must learn to accommodate or resist problematic behaviour while maintaining a veneer of calm and, above all, remaining task focused. Measuring group work skills may require two approaches: an assessment of minimum competency administered in a standard classroom group work context and an assessment of proficiency administered in a context created for the purpose. The minimum competency assessment would be a screening test to identify students who need support to learn how to function in low-key classroom group tasks. The purposeful context would be an occasional situation where students might be given a challenging task that focuses on team skills, rather than the task, with students they do not know well (such as those from another school), so that students are free to reflect more honestly on

the team dynamics. For this to be a useful measurement opportunity, students would need to be prepared so that they were aware of the issues about teamwork that they needed to monitor, and so they had the language to describe and reflect on their experience. This is further discussed under Challenge 3.

The third issue is collecting evidence of student performance that can be used to support teaching. Useful measures identify gaps in student learning and understanding. If most students have achieved what you asked them to do then there is no point in measuring this anymore. If you know students need to learn more but the instruments that you are using mainly elicit superficial responses, you will need to reconsider what you are doing. Is the context provided too simple and lacking in challenge? Is the context you have given so broad that it is only suited to vague generalisations? Is the context too sensitive? Or possibly your instrument lacks depth? It may not be useful to apply the same measurement instrument to everyone. If you have defined minimum standards of behaviour then only students falling below them are usefully measured on a regular basis in relation to these minimum standards. The measurement of more proficient students is better reserved for specialised contexts that provide them with sufficient challenge and opportunity to demonstrate higher level outcomes. If the measures that you take during and after such an event are useful then they should clearly suggest where more teaching needs to be done to help these students to grow.

A fourth issue in measuring the non-academic outcomes of schooling arises from the high level of context dependency in students' demonstration of the outcomes. It is not sufficient to assume that if a student can demonstrate proficiency in an

outcome in a given context that they will naturally transfer this capacity to different contexts. Returning to the examples from the Melbourne Declaration it should be obvious that working in groups, for example, can require students to demonstrate a broad range of different skills depending on the context of their group work (such as how well they know or get on with the other members of their group; how complex the task is; how large the group is). Similarly, the challenges of acting with moral integrity depend greatly on the context of how much risk or reward there is and the degree of complexity of the moral issues involved. In order to develop good understandings of students' development of the non-academic outcomes of schooling it is necessary to challenge students to demonstrate them across a range of contexts.

Challenge 2: The recommendation

Challenge 1 recommended that schools invest serious effort in defining a manageable selection of non-academic outcomes, paying particular attention to defining development along a continuum and describing desirable outcomes or points of balance. As staff and students discuss these ideas the first measurement instruments should arise naturally, such as a series of probing questions developed to help teachers to define the outcomes and to find out what students already know and understand and what they need to learn next. As long as the initial measures that your school has developed reveal large gaps in students' understanding, they will provide useful evidence to inform learning and measure progress. Rubrics can then be developed which describe development along a continuum for use in the evaluation of observations of student behaviour and student self-reflections. At this point it is worth looking at other rubrics to see if they suit or can be adapted. It might be helpful to identify

minimum standards of behaviour that require regular classroom attention, as distinct from desirable outcomes that may be the focus of occasional specialised activities.

Ultimately, good measures of the non-academic outcomes of schooling will be valid (i.e. provide the type of information you need about the outcomes as you have defined them), as well as easy to use and able to be used and interpreted in similar ways by different teachers in a school. Just as it is often useful to cross-mark (moderate) student academic work, it is essential that schools find ways of developing consistent understandings of student non-academic outcome achievement across the school. The way in which information is being collected must be considered with respect to how the information can inform teaching. If you are not collecting information that teachers can use to inform their teaching, then you need to reconsider what you are doing.

Challenge 3: Improving outcomes

Our work at ACER has consistently demonstrated one essential flaw in the way many schools and systems attempt to improve some non-academic outcomes of schooling. This flaw is the assumption that simply providing students with the opportunity to demonstrate the outcomes will be enough for the students to develop them.

Self-motivation is an example of an outcome that is highly valued in schools (and in the real world) and is most commonly addressed by students being given projects and school work to complete in their own time, as well as opportunities to participate in interschool sports teams, and school drama or music productions outside school hours. Students are generally praised for showing motivation and

their attitude is deplored when it is lacking, but they tend to be left to work out for themselves why they are or are not motivated or how they might influence their own motivation. The assumption is that providing students with opportunities to demonstrate motivation is sufficient for this to develop.

What is frequently lacking in this and equivalent school experiences regarding other non-academic outcomes is the opportunity for students to formally consider the discipline and skills that underpin the outcome. Self-motivation relies on a set of social, emotional and cognitive skills that can be formally considered. Too often in our research we have seen students' reflections on their own achievement of non-academic outcomes simply in terms of qualitative judgements akin to 'well enough' or 'not well enough', without any elaboration or explanation with respect to the skills or dispositions that may underpin the outcome. Students need the language, a clearly defined construct and knowledge of a range of relevant strategies, to be able to reflect on and learn from their experiences. If schools are implementing specialist activities such as a school camp, with the intention that this focus on interpersonal development, autonomy and independence, it is essential that students understand this focus beforehand: what opportunities are being provided, what is expected of them beyond mere participation and superficial reflections, and what kind of strategies they might use to help them to grow. Students will need support from teachers during the camp to help them to monitor their experiences, reflect more thoughtfully on the strategies they are using and to try different approaches. The collection of vast quantities of shallow comments at the end of the camp is more likely to reflect the shallow nature of what is being practised rather than limitations in the capacity to measure non-academic skills with meaning.

The opportunity to consider the skills and dispositions underpinning non-academic outcomes, together with the opportunity to self-reflect in context and to speculate about other contexts, can lead to better internalisation of the outcomes themselves. Brookes (2003a, 2003b, 2003c) argues that the transferability of learning experiences in outdoor adventure programs to everyday life can only take place if students are given explicit support to understand the experience and to reflect on how it may relate to other aspects of their lives. The notion of the context dependence of student demonstrations of achievement of non-academic outcomes extends to the role schools can play in fostering the outcomes. Students need to be provided with the tools to internalise the outcomes as well as the opportunities to use them and generalise beyond local contexts, in order for lasting and transferrable change to take place.

Challenge 3: The recommendation

The message from Challenge 3 is simple. Do not assume that non-academic outcomes necessarily require less formal teaching of content, skills and applications across contexts than are typically devoted to teaching of academic outcomes. There is no question that experiential learning plays a key role in students developing many non-academic outcomes, but without a solid foundation of knowledge and skills and the opportunity to make informed self-reflection it is likely that the experience in itself may not be sufficient to facilitate lasting change in many students.

References

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