

The benefits of situated assessment for school education

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Abstract : *This article reconceptualises assessment tasks in schools as existing on a continuum from less to more 'situated'. A situated assessment task is one positioned in a circumstance related to our world: the more realistic or true-to-life the circumstance, the more situated a task is. A narrative review of recent research on the benefits of situated tasks including project tasks in schools is presented. Situated assessments can motivate and engage students, and students can acquire knowledge and skills by completing them. Key characteristics of some situated assessment tasks include complexity, cross-curricularity, and audience. Challenges to school teachers' implementation of situated tasks are discussed, and it is suggested that balanced combinations of non-situated and situated tasks could be the most effective way to not only assess but also foster young people's learning and growth.*

Keywords: *Authentic assessment, situated assessment, primary education, secondary education, motivation*

I. Introduction

In Education in recent years there has been increasing value placed on so-called 'authentic' assessment because of claims that it can *educate or prepare* students well for life and/or work [1] or a 'changing world' [2]. Koh et al. [3] even go so far as to claim that schools in Singapore will fulfil that country's, 'Thinking Schools, Learning Nation' vision for education, only when teachers use authentic assessment.

In the most abstract sense, an authentic assessment task focuses to some degree on 'real life' [4] or real-life things, i.e., things that exist or have existed; it *samples* life [2]. There have been several reviews of research on the benefits of authentic assessment in higher education [5], [6], [7], but almost none in secondary [1] or primary education.

In higher education authentic assessment is typically defined as assessment focussing on 'real-world' settings, particularly students' potential future career or workplace settings. For example, while Fox et al. [5] broadly define authentic assessment in universities as "real-world tasks", and Wiewiora and Kowalkiewicz [8] claim that it replicates "problems faced in 'the real world'" (p. 1), the latter authors then qualify their definition as "[assessment that] challenges [students'] abilities to solve complex and often ambiguous problems with direct application to the workplace" (p. 2). Villarroel et al. [6] state specifically that authentic assessment "aims to integrate what happens in the classroom with employment, replicating the tasks and performance standards typically faced by professionals in the world of work" (p. 841). For Villarroel et al. [7] authentic assessment "is a way to relate learning and work, creating a correspondence between what is assessed in the university and what graduates do in settings in the outside world" (p. 39); and finally, Ashford-Rowe et al. [9] argue that "relevance to the work environment determines [an] assessment's authenticity" (p. 207).

In their reviews of the benefits of authentic assessment in higher education Fox et al. [5] and Villarroel et al. [6] found that it improves students' motivation for, commitment to, and engagement and autonomy in learning, and facilitates students' development of higher-order cognitive skills, including metacognition, self-regulation, problem-solving, critical and reflective thinking, and communication [5], [6], [7]. It enables greater engagement with peers and the community [5] and helps students develop confidence [7]. Villarroel et al. [6] conclude that as a result, authentic assessment 'appears' to "enhance employability because it promote[s] abilities needed in the workplace" (p. 841).

However, while authentic assessment may be highly applicable in higher education, it is less clear whether using authentic assessment tasks in schools can produce the same benefits for students as it is claimed they do in universities. There is in fact evidence of the benefits of *project tasks*, which typically focus to some degree on real life, in primary and secondary education. As Kokotsaki et al. [10] argue, projects address "authentic questions and problems within real-world practices" (p. 268). In a project students can collaborate in working to create a shared 'end' product or outcome, such as a children's picture book; infographic; mini documentary; or promotion program, e.g., about health and wellbeing [10]. Projects can also be completed

individually, and teachers can personalise them for students by supporting students' choices and creativity in developing a product or outcome [11].

In their review of the benefits of project tasks in schools Kokotsaki et al. [10] found that primary students who completed tasks in science and social science developed both literacy skills and subject area knowledge, group-work skills, and motivation. Secondary students who completed project assessment tasks (e.g., mini documentaries) in environmental science, science, technology, and history also developed their subject area knowledge, as well as thinking or 'process' skills, and had enhanced motivation and engagement, and higher levels of achievement than students who experienced 'traditional' assessment methods (e.g., tests focussed mainly on recall of knowledge).

In terms of the applicability of authentic assessment in schools, there is also an issue of language usage in that naming and classifying some assessment tasks as 'authentic' may imply in a general sense that other purely 'academic' tasks are somehow 'unauthentic', or not acceptable or trustworthy, which is plainly not the case. Wiggins [12] originally pointed out that some commentators "regret or resent the use of the word *authentic*" (p. 22).

This article, therefore, in addition to reviewing the benefits of authentic assessment tasks in schools aims to refine the concept to make it more inclusive and proposes a change in nomenclature (for a review of the wide range of definitions of authentic assessment in education, see Palm [4]). The proposed change in nomenclature is also intended to make the concept of *situated assessment* more usable for teachers and other educational practitioners.

II. Situated assessment in schools

It is proposed that so-called 'authentic' assessment in schools be thought of as a continuum of valid tasks from less to more *situated* tasks. Wiggins [12] originally also proposed a 'continuum' of "inauthentic to authentic" (p. 27) tasks and suggested that "authenticity is a matter of degree" (p. 27). By 'situated' is meant, simply, *placed or positioned in a circumstance related to the world* (similarly, Svinicki [13] refers to a task being placed in a 'context'). The more realistic or true-to-life the circumstance, the more situated a task is. Within the literature on authentic assessment the 'world' is defined mainly as the world outside a physical school (or university) (e.g., [14], [15], [16]) but in a situated assessment it can also mean a part of the world within a school, e.g., a playground [17]. Ketelhut et al. [18] also refer to 'situating' assessments of students' scientific inquiry skills and knowledge by 'contextualising' (i.e., placing) 'test' questions in an immersive virtual environment that is designed to simulate the 'real world' (e.g., a simulated farm). As with any other assessment task, a situated task has validity if it corresponds well with what it is intended to assess [19].

Teachers' and students' perceptions of the circumstance of a task and how situated it is are dependent on their backgrounds and life experiences; for students in particular, their perception of how realistic a task is may also depend on their ages or developmental levels. Hence situatedness is always relative (or 'subjective' [1]) and not absolute. If the circumstance of a task is well within students' life experiences (e.g., game play in a school playground), then they will be more likely to perceive the task as realistic. For example, to assess Year 1 (6-7 year-old) or Year 2 (7-8 year-old) students' success in learning to plan and create a text, using their knowledge of vocabulary, text features, and sentence structure, they could be set a situated task of writing a set of rules for their favourite game that they play with their friends in the playground at break or lunch time. Note that children may not normally write down their game-play rules at school – instead simply sharing them verbally and negotiating them as they play – and so such a task could be said to be 'unrealistic' or 'not authentic'; however, it is *situated* or positioned to an extent in a circumstance related to the world (a school game) and hence has a degree of relevance or realism for students.

The type or 'nature' [13] of a task can also be less or more situated, e.g., in another type of writing task, students in Years 5 or 6 could write an email or letter to the editor of a newspaper or their member of parliament about a current issue. This is a highly situated (true-to-life) task that people who live in a parliamentary democracy may perform (e.g., see Oxfam Australia [20]).

A mathematics test that simply contains a series of algebraic equations to solve is not situated. Such a *non-situated* test can still be valid [12] (i.e., it measures students' success in learning algebraic problem-solving skills) but is "uncommon in the world outside educational institutions" (p. 44) [7]. While the type of task (e.g., a test or an essay) may also be performed in few circumstances outside a school, some of its elements may be situated. An example is a mathematics test that contains questions about possible everyday problems, such as a question that asks a student to calculate savings that could be made by taking advantage of discounts offered in a clothing store.

The time that students need for completion of situated tasks can also vary along a continuum. For example, whereas students may be given and only need 30 minutes to complete a short, situated test, they may need a week to produce a final draft of a letter to an editor, and several weeks to complete a project report, such as an evidence-informed report for a potential government organisation about caring for and preserving a local, natural environment. Note that if arrangements were made to 'place' or *situate* students *themselves* in the actual

workplace of the government organisation for several weeks for them to complete their project report, then this would be defined as *work-integrated learning* [21] or assessment, which is a common feature of professional degree programs in higher education. When students are placed in a workplace to learn (and be assessed) then they engage in what Lave and Wenger [22] called *situated learning* through *legitimate peripheral participation*: students learn by genuinely participating in the sociocultural practices of the community of practitioners in the workplace, initially in a ‘peripheral’ or partial way, until they are knowledgeable and skillful enough to participate (and practice) fully.

In a similar sense, students completing a range of less to more situated assessment tasks in schools can ‘participate’ in ‘peripheral’ to ‘central’ ways in true-to-life circumstances. Logically, students’ participation can then help to prepare them for actual life. The proposed new nomenclature of situated assessment and examples of tasks are illustrated in Fig. 1.

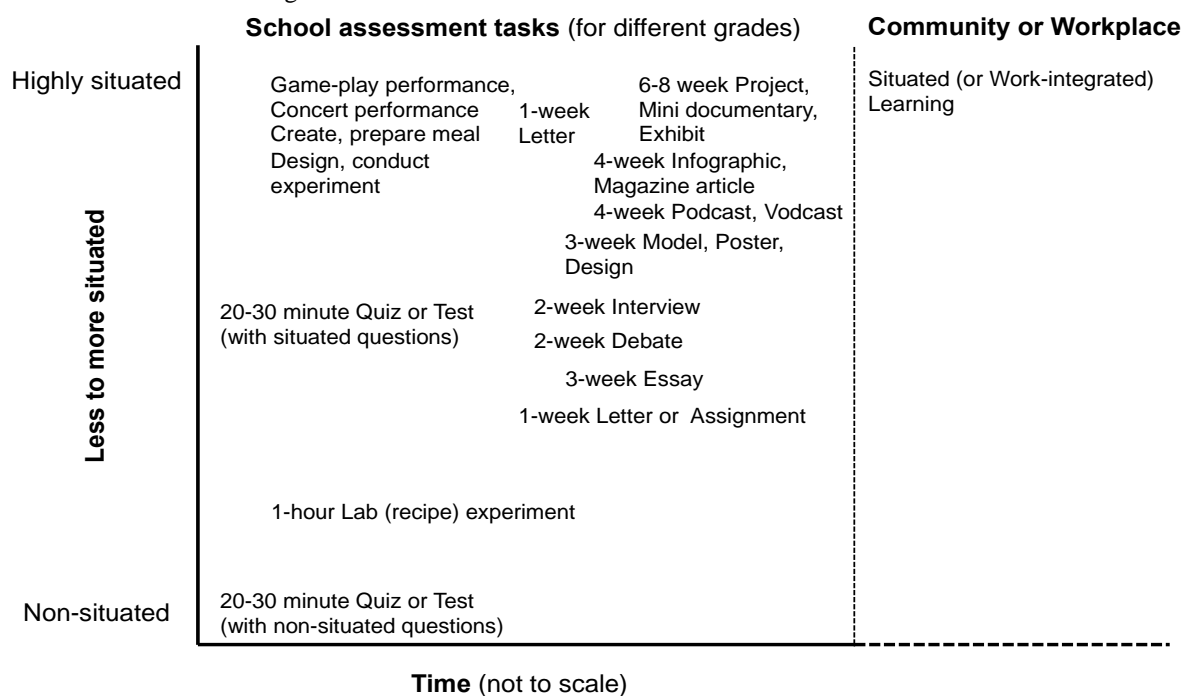


Fig. 1. Continuum of situated assessment tasks in schools.

The purpose of this Figure is to show, albeit in an abridged way, how the concept of situated assessment is inclusive of all assessment by organising some of the key concepts in this section, such as a continuum of situated tasks.

In the following sections, a narrative review [23], [24] of recent research on the benefits of types of situated assessment tasks (including projects) used in primary and secondary education is presented. A narrative review “summarises different primary studies from which conclusions may be drawn into an integrated interpretation ... results are of a qualitative rather than a quantitative nature” (p. 5) [23]. Only peer-reviewed journal articles that were evaluated as providing evidence of benefits are included in the review. These benefits of situated assessment and challenges to its implementation in schools are discussed in the final section. Throughout the review section of the article, the term ‘situated assessment’ is used because it is more inclusive, even though studies reviewed use terms such as ‘authentic’ or ‘project-based’, etc. The key question the review aims to answer is ‘What are the benefits of situated assessment tasks in schools?’.

III. Method

A literature search was conducted in the following databases: A+ Education, EBSCOhost, ERIC, and PsycINFO using a combination of the following keywords: “situated assessment”, “authentic assessment”, “school”, “primary education”, “secondary education”. The time frame for the search was approximately the last 25 years, from 2000 to the present. Articles were selected only if they were empirical (in the sense of reporting from experience or experimentation) and reported benefits of situated assessment (for students and/or teachers) and were published in a peer-reviewed journal in the English language. Articles that did not meet these criteria were excluded.

IV. Results

A total of 44 articles were identified in the search and only eight met all the criteria for selection. For simplicity, these articles and evidence of the benefits of situated assessment tasks are grouped under primary and secondary learning areas (subjects) in the Australian curriculum [25] and are listed below in alphabetical order of the areas.

Primary Mathematics

Begg and Cavagna [26] report the use of an assessment task in which Year 5 and 6 students were asked to draw shapes using isometric paper (the paper is printed with dots that can be connected at angles and vertically). This task assessed students' success in having acquired knowledge of perspective and proportion. Initially the task was not situated, and children were asked to draw shapes that could be made with four cubes. Then the authors situated the task by asking children "to draw their own choice of objects from their home or classroom environment" (p. 17). That is, the authors re-positioned the task *in a circumstance related to the world*, in this case, the circumstance of the immediate classroom or the circumstance of children's own homes. They found that children were more motivated by this task, and it allowed the teacher to "identify the variance in skills within the classroom" and provide "meaningful immediate extension work" (p. 17).

Lowrie and Smith [27] report their experience of giving Year 6 students a project task of designing an underground sprinkler system for new turf to be laid in their school grounds. These authors designed this task to assess students' success in having learned to apply measurement concepts such as length, perimeter, and area. Students also had to estimate the cost of their design and consider other factors such as ease of use of their system. Students worked in small groups or individually and were allowed three weeks to complete their project. Lowrie and Smith found that students used "a variety of methods ... to solve the task" (p. 17) and their "motivation remained high throughout the activity" (p. 17). The task also accommodated the "differing ability levels of students" (p. 17) and the amount of 'scaffolding' or guidance provided by the teacher to each group or individual "varied considerably" (p. 21). The authors conclude that students had the opportunity to direct, and reflect on, their paths of learning *during* the project, although these aspects were not directly measured; and while they reported on the successful completion of projects by three students (and their groups), they did not provide information on the achievement of all students.

Primary Science and Humanities and Social Sciences

Bolat & Karakuş [28] interviewed grade four students in Türkiye about their experiences of completing cross-curricular ('inter-disciplinary') situated tasks on the success of their learning in areas related to the broad topic of 'Environment'. Tasks included "[completing] semantic analysis tables, making classifications and asking classification questions, [and] making models" (p. 40). Results were that while students thought that some 'activities' or tasks were difficult, they also thought "that these activities were more enjoyable, more informative, and they would like these activities to be used in other courses" (p. 45).

Secondary English, Mathematics, Science, and Humanities and Social Sciences

Moon et al. [15] implemented five situated assessments across four learning areas for seventh and eighth grade or 'middle school' students in the United States. These tasks involved students in writing a "fable or folktale within the context of a storytelling festival" (p. 124) or preparing "persuasive speeches" (p. 125) (in English); justifying their "decisions about [presumably mock] stock purchases" and explaining "changes in the stock market" (p. 124) (in Mathematics); "developing classification systems for biological organisms" (p. 126) (in Science); and creating a visual presentation ('display') "of key cultural elements of countries and regions around the world" (p. 126) (in Humanities and Social Sciences). Moon et al. found that students and teachers "generally expressed positive responses" (p. 127) about the tasks, even though most teachers "required the bulk of [students'] work to be done *outside of class time*" (emphasis added) so that teachers did not have "to change [their] instructional and classroom routines" (p. 127). A rubric was provided for each task and students used the rubric to guide them in planning, completing, and checking their work. This study was unique in that prior to implementation, the validity of each task was evaluated against "learning objectives it was intended to measure" (p. 123) by panels comprising curriculum specialists, teachers, and academics. Results were that panels thought the tasks were valid and recommended changes only to the wording of some rubrics to make them "more student-friendly" (p. 123). However, no information is provided about how much time students had to complete the tasks, and students' achievement levels related to the learning objectives are also not reported, so it is unclear, e.g., whether all students had been successful in learning specific knowledge and skills, such as 'rate of change' (measured by the stock market task) or 'expressiveness' (measured by the folktale task).

Ketelhut et al. [18] report a more rigorous qualitative study in the United States of the assessment or 'test' of 14 seventh grade students' understanding of scientific inquiry and content using a task 'situated' in an immersive virtual environment that simulated a sheep farm. The task lasted for 20 minutes and involved students in interacting with a farmer character and virtual sheep to solve the problem of why a recently acquired

new flock were suffering from poor health. Through their observations of the students' actions the researchers found that students were active and engaged or 'engrossed' during the task, and students reported that they found the task interesting and enjoyable. As reported by Ketelhut et al.: "Students made use of the science inquiry methods they learned through regular classroom instruction prior to the module to gather information by measuring the sheep, exploring, and talking with the [farmer]. They then used their gathered data to make an inference about the problem to the farmer at the end of the assessment. Automatically collected data indicated that all students gathered data before reaching [their] conclusions" (p. 186). The authors conclude that the 'contextualisation' (i.e., the situatedness) of the task (or its placement in a circumstance in the world) "was helpful for students in showing us what they knew" (p. 188).

Secondary Health and Physical Education, and Technologies

Mintah [29] surveyed secondary physical education teachers in the United States who used a range of assessment tasks of varying situatedness such as self- and peer observation, demonstrations, individual and group projects, and videos, to assess students' physical skills and found that most teachers thought that these assessments had a positive influence on students' motivation, self-concepts, and achievement. However, it is unclear from this study to what extent assessments of students' skills were conducted in the context of game play (and hence could have been more situated [16], [30]) and whether, for example, videos were performance-capture videos only, or were also intended to educate an audience (other than the teacher) [31].

Williams and Penney [32] developed a situated external examination task in Physical Education consisting of four parts for Year 11 students in Western Australia. Students' work in each part was stored in a digital portfolio. In part one students used a computer to answer questions "relating to a tactical problem in a specific activity context [e.g., Netball]. They could use text and drawing tools in their response, with graphics of court/field situations available to annotate" (p. 36). In part two students were videoed in the field performing specific skills "pertinent to the tactical problem" (p. 36). In part three students were videoed in the field performing skills in a dynamic context, in "modified game/competition situations designed to simulate the tactical problem" (p. 36), and finally, in part four, students used text and drawing tools to reflect on the quality of their performances in all their videos [32].

The authors also developed a situated examination task for Year 11 students studying an Engineering subject. The task consisted of a series of steps in designing "a product that would enable someone stranded on a beach with no drinking water to use the power of the sun to produce drinkable water from sea water using a limited range of available materials" (p. 33). Students "also reflected on their design in a video; devised evaluation criteria in a table; discussed a mass production application and evaluated the impacts of large-scale desalination plants" (p. 33).

The examination task formats in both subjects were "well received by students and teachers working in a range of schools" (p. 38). Students' work in both subjects was marked by external examiners using a rubric and by the method of comparative pairs using an overall judgement, and Williams and Penney found a "good spread of scores" in Physical Education, and medium to strong correlations between the two methods of marking for both subjects. Assessors were positive about their marking experience [32]. These results suggest that digitally supported, situated external examinations can be a viable alternative to the more familiar "written, paper and pen, supervised mass examinations held on a designated day and time" (p. 32).

Secondary Languages

Huang and Jiang [1] interviewed 11 volunteer English language teachers about their use of situated assessment in their classrooms at two schools in China. Following analysis of teachers' actual tasks, they found that only four teachers used a situated task: two teachers gave students a task of writing (in English) a 'response' letter to a newspaper article, and two teachers asked students to write a letter (in English) to the mayor of their city regarding their concerns about the construction of a skywalk near their school. These two teachers also arranged for students to discuss their ideas and assess each other's draft letters in groups. From classroom observations it was clear that "students were engaged with brainstorming, group discussion, individual presentation of initial ideas and peer feedback ... [and] were actively and meaningfully engaged in listening and commenting on their peers' writing about the pros and cons regarding the skywalk construction" (p. 640). Overall, students enjoyed working (expending their time and effort) on this task and succeeded in mailing their "finalised letters with [their] signatures to the mayor's office" (p. 640). If teachers thought it was appropriate to mail students' letters, then presumably the task was a valid assessment of students' success in learning English vocabulary and grammar. However, it is unclear whether students developed their linguistic knowledge as a result of completing this task; it is also not clear how students' enjoyment was measured.

V. Discussion

This review builds on reviews of the benefits of situated assessment in higher education, which found that, among other things, it engages and motivates students; this review also builds on a review of project tasks

in schools [10], which found that students have enhanced motivation and develop their subject knowledge and thinking skills by completing these tasks. When projects are completed in groups, students may also develop group-work skills [10].

From the present review of a small number of studies of project assessment tasks and other types of situated assessment tasks in schools, the main result is that situated assessment engages (actively occupies) and motivates students, enabling them to actively show what they know and can do. All teachers wish for their students to be motivated by the experiences that they arrange for them, and so implementing situated assessment is an evident way to achieve this aim.

Primary and secondary students' motivation to work on a situated assessment task, particularly over days or weeks, seems to originate from the value that they give to and interest they have in such a task because they perceive it as being related to them personally and/or "connected" or "relevant" to their lives [14], [33]. They see such a task as meaningful or important, and hence worthy of their time and effort. Although, students' perceptions of the meaningfulness of a task need not depend on how situated it is; students may also perceive tasks as being meaningful in terms of their school-based mastery or performance goals. In project tasks, students may also be motivated by the realistic challenge and experiential aspects of the task; and in group projects they may also be motivated by the social, collaborative experience of working with their peers [10]. In a task embedded in an immersive virtual environment students may also be motivated by the game-like features of the simulation [18].

It seems that students can also be motivated by a situated task from realising that the result or outcome of their work *matters* to people other than just their teacher (or themselves). For example, in the task of designing an underground sprinkler system for a grassed area students were producing a solution valuable to their whole school, including the 'parents and friends' committee [27].

In situated assessment tasks of longer duration, teachers can make judgements about students' success and progress in their learning *during* the task and decide to explicitly instruct or guide students at different junctures [30]. Teachers can also tailor or *differentiate* their instruction during a task for individual students or their groups, including by providing resources [34]. This differentiation was noted in the studies in Mathematics by Begg and Cavagna [26] and Lowrie and Smith [27]. It means that instruction and the assessment task are 'intertwined' [30] or *constructively* aligned, in the sense that students experience consistency between their learning in the task, how they are being assessed, and how (and what) they are being taught. Teachers can also offer students ongoing social support. That is, teachers can scaffold students' work or exertion, helping them to be autonomous (by allowing them more ownership and control of their learning) [10] and interacting with students in ways that show care, respect, and trust [33]. When students receive this type of support from their teacher, they develop positive attitudes toward learning and higher self-efficacy [35]. As Prestidge and Glaser [36] note (referring to projects that involve students creating a multimedia product), situated assessment tasks provide "opportunities for teachers to note subtle changes [in learning]" (p. 181) and to "evaluate individual students' [achievement]" (p. 181) even as they work in groups.

Apart from a situated task's realism, or how true-to-life its circumstance is, other key characteristics of situated tasks that can vary continuously include a task's *complexity* [34], defined as the amount of interconnected parts, steps, or sub-tasks that it has; and its *cross-curricularity* [37] or the degree to which it is a valid, simultaneous assessment of the success of students' learning in two or more subjects. For example, a complex project that students complete in classes in both Science and Humanities and Social Sciences on the topic of soil or river conservation, which comprises several sub-tasks (including fieldwork), has cross-curricularity. Situated tasks with high cross-curricularity could be used productively in integrated curricula or interdisciplinary approaches to instruction [28].

A third key characteristic of some situated tasks is *audience* [4], [13], [15], [36], [38], [39], [40] defined as the range of people *other than a teacher*, which the product or outcome of the task is intended to *reach* or communicate with and *benefit* in some way. For example, for a task in which students create an infographic or website on a topic, the audience may be peers; younger students; parents or carers; a particular group in the community (e.g., the elderly); the general public; or any combination of these. The benefit to an audience may be that students' task products entertain, and/or inform, and/or educate; and with their work students may aim to persuade people, e.g., to make safer or healthier choices. In this case, students may also be motivated by a feeling of *responsibility* to provide their audience with sincere and accurate advice, and so teachers may need to be particularly vigilant in supporting students to overcome any difficult or potentially stressful challenges in completing their task.

Despite the apparent benefits of situated assessment, there is scant research evidence on which to base deliberate professional practice in schools. The few studies in this review are quasi-experimental and vary in their rigour, and there are no studies in which students have been randomised to different groups that receive or do not receive situated assessments, and students' levels of achievement are compared. Only three out of eight studies attempted to address measurement of the validity of situated tasks. These same shortcomings are noted by Kokotsaki et al. [10] in their review. There is clearly a great need for more research on the use of situated

assessment in schools; we do not know to what extent primary and secondary teachers across both the public and private education sectors in Australia and other countries already successfully implement situated assessment in their classrooms. For example, in a study involving Year 5 and 6 students in *three* regional Catholic Education primary schools in Australia, Wurf and Povey [41] found that “students reported that *sometimes* the assessments they completed were authentic” (p. 1168) (emphasis added). Authentic assessments were defined as “real-world tasks that were relevant to the students” (p. 1164-1165). There is also a need for more rigorous investigations to compare how successful and motivated students are in their learning by completing different combinations of valid, less, and more situated tasks. For key learning areas, there may be ideal, *balanced* combinations of less and more situated tasks that enable students to learn effectively. More research is also needed to explore the extent to which situated tasks in schools enable students to develop higher-order skills, such as problem-solving and reflective thinking, as occurs with situated assessment in higher education.

Challenges to teachers’ implementation of situated assessments in primary and secondary education include the inherent challenge of creating a situated task. The creative process includes imagining and/or choosing an appropriate circumstance related to the world that is culturally responsive [42] and constructing a type of task for this circumstance that is not too complex for students’ developmental levels, which measures students’ achievement of learning intentions (curricula objectives) and enables them to meet success criteria. A culturally responsive task is one that is situated in “the cultural characteristics, experiences, and perspectives of ... diverse students” (p. 106) [42]. Exley [43] gives an example of a situated task (which is part of an external assessment for primary students) that is *not* culturally responsive: students must write a thank-you text to a person who had found their lost pet puppy. However, while this circumstance may appeal to urbanised, ‘mainstream’ students, for students in schools in far Northern Australia puppies are not ‘pets’ and are highly unlikely to become ‘lost’ in their community [43].

The design and trial of a new situated task (and its rubric) may also be time-consuming for teachers, particularly when the design work involves collaborating with colleagues and/or community members [10], and/or construction of the task rubric is done in consultation with students [44]. In using situated assessments with high cross-curricularly teachers could conceivably make more effective use of their time by co-designing a task, co-planning their instruction, and co-grading or marking students’ work [45]. Situated project tasks do “foster teacher collaboration” [46], however, teachers often find it difficult, in managing crowded school timetables, to find time even just to meet let alone plan together [47]. To help teachers implement situated assessment, school leaders and administrators may need to arrange timetables so that teachers have sufficient flexible, designated ‘common time’ for the ‘common purposes’ of sharing experiences and ideas, and planning and designing collaboratively [47].

VI. Conclusion

If, as the evidence to date suggests, situated assessment tasks do motivate primary and secondary students, enabling them to actively show what they know and can do, then we might need to question whether students must complete substantial numbers of ‘foundational’ non-situated assessments before they can be allowed to tackle more situated tasks [1], [48]. It could be that the most effective way to educate students is to nurture them with the best-balanced combination of non-situated and situated tasks that are constructively aligned with instruction for every learning area (subject) and Year (developmental) level in the curriculum. Any other approach may be limiting young people’s potential for growth. As Race et al. [49] earnestly remind us: “nothing that we do to, or for, our students is more important than our assessment of their work and the feedback we give them on it. The results of our assessment influence our students for the rest of their lives and careers – fine if we get it right, but unthinkable when we get it wrong” (p. ix). We must endeavour to continue the development of school assessment so that we educate and prepare young people in the best possible ways for life and the world.

References

- [1] Huang, R., & Jiang, L. (2021). Authentic assessment in Chinese secondary English classrooms: Teachers’ perception and practice. *Educational Studies*, 47(6), 633-646.
- [2] Vu, T. T., & Dall’Alba, G. (2014). Authentic assessment for student learning: An ontological conceptualisation. *Educational Philosophy and Theory*, 46(7), 778-791.
- [3] Koh, K. H., Tan, C., & Ng, P. T. (2012). Creating thinking schools through authentic assessment: The case in Singapore. *Educational Assessment, Evaluation and Accountability*, 24(2), 135-149.
- [4] Palm, T. (2008). Performance assessment and authentic assessment: A conceptual analysis of the literature. *Practical Assessment, Research & Evaluation*, 13(4), 1-11.

- [5] Fox, J., Freeman, S., Hughes, N., & Murphy, V. (2017). "Keeping it real": A review of the benefits, challenges and steps towards implementing authentic assessment. *All Ireland Journal of Higher Education*, 9(3), 3231-32313.
- [6] Villarroel, V., Bloxham, S., Bruna, D., Bruna, C., & Herrera-Sedad, C. (2018). Authentic assessment: Creating a blueprint for course design. *Assessment & Evaluation in Higher Education*, 43(5), 840-854.
- [7] Villarroel, V., Boud, D., Bloxham, S., Bruna, D., & Bruna, C. (2020). Using principles of authentic assessment to redesign written examinations and tests. *Innovations in Education and Teaching International*, 57(1), 38-49.
- [8] Wiewiora, A., & Kowalkiewicz, A. (2019). The role of authentic assessment in developing authentic leadership identity and competencies. *Assessment & Evaluation in Higher Education*, 44(3), 415-430.
- [9] Ashford-Rowe, K., Herrington, J., & Brown, C. (2014). Establishing the critical elements that determine authentic assessment. *Assessment & Evaluation in Higher Education*, 39(2), 205-222.
- [10] Kokotsaki, D., Menzies, V., & Wiggins, A. (2016). Project-based learning: A review of the literature. *Improving Schools*, 19(3), 267-277.
- [11] DeCastro-Ambrosetti, D., & Cho, G. (2005). Synergism in learning: A critical reflection of authentic assessment. *The High School Journal*, 89(1), 57-62.
- [12] Wiggins, G. (1998). *Educative assessment: Designing assessments to inform and improve student performance*. Jossey-Bass.
- [13] Svinicki, M. D. (2004). Authentic assessment: Testing in reality. *New Directions for Teaching and Learning*, 100, 23-29.
- [14] DelliCarpini, M. (2009). Authentic assessment for ELLs in the ELA classroom. *The English Journal*, 98(5), 116-119.
- [15] Moon, T. R., Brighton, C. M., Callahan, C. M., & Robinson, A. (2005). Development of authentic assessments for the middle school classroom. *The Journal of Secondary Gifted Education*, 16(2/3), 119-133.
- [16] Georgakis, S., Wilson, R., & Evans, J. R. (2015). Authentic assessment in physical education: A case study of game sense pedagogy. *Physical Educator*, 72(1), 67-86.
- [17] Yeo, J. B. W. (2017). Development of a framework to characterise the openness of mathematical tasks. *International Journal of Science and Mathematics Education*, 15, 175-191.
- [18] Ketelhut, D. J., Nelson, B., Schifter, C., & Kim, Y. (2013). Improving science assessments by situating them in a virtual environment. *Education Sciences*, 3, 172-192.
- [19] Harlen, W. (2005). Trusting teachers' judgement: Research evidence of the reliability and validity of teachers' assessment used for summative purposes. *Research Papers in Education*, 20(3), 245-270.
- [20] Oxfam Australia. (n.d.). Writing a letter to the editor. <https://www.oxfam.org.au/get-involved/campaign-with-us/writing-a-letter-to-the-editor/>
- [21] Tertiary Education Quality and Standards Association. (2022). Guidance note: Work-integrated learning. <https://www.teqsa.gov.au/guides-resources/resources/guidance-notes/guidance-note-work-integrated-learning>
- [22] Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge University Press.
- [23] Kitson, A., Marshall, A., Bassett, K., & Zeitz, K. (2013). What are the core elements of patient-centred care? A narrative review and synthesis of the literature from health policy, medicine and nursing. *Journal of Advanced Nursing*, 69(1), 4-15.
- [24] Pautasso, M. (2013). Ten simple rules for writing a literature review. *PLOS Computational Biology*, 9(7), 1-4.
- [25] Australian Curriculum, Assessment and Reporting Authority. (n.d.b). *Learning areas (Version 8.4)*. <https://australiancurriculum.edu.au/f-10-curriculum/learning-areas/>
- [26] Begg, M., & Cavagna, A. (2009). Isometric drawing: Opening up the activity to reveal student learning. *Australian Primary Mathematics Classroom*, 14(2), 16-17.
- [27] Lowrie, T., & Smith, T. (2002). Problem solving by any other name. *Australian Primary Mathematics Classroom*, 7(2), 16-21.
- [28] Bolat, Y., & Karakuş, M. (2017). Design implementation and authentic assessment of a unit according to concept-based interdisciplinary approach. *International Electronic Journal of Elementary Education*, 10(1), 37-47.
- [29] Mintah, J. K. (2003). Authentic assessment in physical education: Prevalence of use and perceived impact on students' self-concept, motivation, and skill achievement. *Measurement in Physical Education and Exercise Science*, 7(3), 161-174.
- [30] Lund, J. (1997). Authentic assessment: Its development and applications. *Journal of Physical Education, Recreation & Dance*, 68(7), 25-28.

- [31] Jorm, C., Roberts, C., Gordon, C., Nisbet, G., & Roper, L. (2019). Time for university educators to embrace student videography. *Cambridge Journal of Education*, 49(6), 673-693.
- [32] Williams, J., & Penney, D. (2011). Authentic assessment in performance-based subjects. *Teachers and Curriculum*, 12(1), 31-39.
- [33] Taylor, L., & Parsons, J. (2011). Improving student engagement. *Current Issues in Education*, 14(1), 1-32.
- [34] Gulikers, J. T. M., Bastiaens, T. J., & Kirschner, P. A. (2004). A five-dimensional framework for authentic assessment. *Educational Technology Research and Development*, 52, 67-86.
- [35] Maulana, R., Opdenakker, M., & Bosker, R. (2016). Teachers' instructional behaviours as important predictors of academic motivation: Changes and links across the school year. *Learning and Individual Differences*, 50, 147-156.
- [36] Prestidge, L. K., & Glaser, C. H. W. (2000). Authentic assessment: Employing appropriate tools for evaluating students' work in 21st-century classrooms. *Intervention in School and Clinic*, 35(3), 178-182.
- [37] Heywood, D., & Solomon, Y. (2012). Policy, theory, and practice in cross-curricular: What 'problems' does a cross-curricular approach aim to solve? *International Journal of Educational Research*, 55, 1-5.
- [38] Grant, L. (2009). 'I DON'T CARE DO UR OWN PAGE!' A case study of using wikis for collaborative work in a UK secondary school. *Learning, Media and Technology*, 34(2), 105-117.
- [39] Iverson, H. L., Lewis, M. A., Talbot, R. M. (2008). Building a framework for determining the authenticity of instructional tasks within teacher education programs. *Teaching and Teacher Education*, 24, 290-302.
- [40] Postholm, M. B. (2006). Assessment during project work. *Teaching and Teacher Education*, 22, 150-163.
- [41] Wurf, G., & Povey, R. (2020). "They show how smart you are": A mixed methods study of primary students' perceptions of assessment tasks. *Issues in Educational Research*, 30(3), 1162-1182.
- [42] Gay, G. (2002). Preparing for culturally responsive teaching. *Journal of Teacher Education*, 53(2), 106-116.
- [43] Exley, B. (2010). A dog of a QCAT: Collateral effects of mandated English assessment in the Torres Strait. *The Australian Journal of Indigenous Education*, 39, 1-10.
- [44] Chitpin, S. (2003). Authentic assessment of student work: The use of portfolios. *Change: Transformations in Education*, 6(1), 70-80.
- [45] Conderman, G., & Hedin, L. (2012). Purposeful assessment practices for co-teachers. *Teaching Exceptional Children*, 44(4), 18-27.
- [46] Hantzopoulos, M., Rivera-McCutchen, R. L., & Tyner-Mullings, A. R. (2021). Reframing school culture through project-based assessment tasks: Cultivating transformative agency and humanising practices in NYC public schools. *Teachers College Record*, 123(4), 1-38.
- [47] Collinson, V., & Cook, T. F. (2000). "I don't have enough time" Teachers' interpretations of time as a key to learning and school change. *Journal of Educational Administration*, 39(3), 266-281.
- [48] Muhayimana, T., Kwizera, L., & Nyirahabimana, M. R. (2022). Using Bloom's taxonomy to evaluate the cognitive levels of primary leaving English exam questions in Rwandan schools. *Curriculum Perspectives*, 42, 51-63.
- [49] Race, P., Brown, S., & Smith, B. (2005). *500 tips on assessment*. Second edition. RoutledgeFalmer.