

Inclusive formative assessment in work-integrated learning from the perspectives of students with disabilities

ASA AHMED JOSEPH

CHRISTINE WINBERG¹

Cape Peninsula University of Technology, Cape Town, South Africa

The experiences of students with disabilities are the focus of the study, guided by the research question: What can we learn about inclusive formative assessment in work-integrated learning (WIL) from the experiences of students with disabilities? The capability approach was drawn on to theorize how inclusive formative assessment in WIL could contribute to students' success and well-being. Five narrative interviews with six students were conducted over the course of their first year. The study found that students valued formative assessment tasks that combined engaged learning with preparation for working life. Formative assessment provided opportunities to showcase strengths and develop areas of weakness in a safe space. Above all, students appreciated lecturers who adapted assessment tasks to their needs. The study contributes to an understanding of inclusive formative assessment from the perspectives of students with disabilities and diverse learning needs.

Keywords: Formative assessment, formative feedback, students with disabilities, inclusive education, capability approach, universal design

At the heart of this study are students with disabilities in a business field of study. The South African government has developed many policies, in line with international good practices, to ensure equity of access to education and to open the way for all to engage in non-discriminatory vocational and higher education. In South Africa, as internationally, efforts to promote equity and social justice have tended to focus on students' access to education, rather than on their support in education (Ajjawi et al., 2022; Musengi, 2020). In contexts where resources are limited, once accepted onto a particular program, students with disabilities are expected to participate in mainstream classroom and work-integrated learning (WIL) activities, often without basic accommodations, facilitated by academic staff who might not be adequately prepared to support them (Yaraya et al., 2018). The acceptance of diverse students into vocational and professional programs places moral obligations on institutions, not only to avoid discrimination, but to value the contributions of all students to the richness of academic life (Burke et al., 2016). This paper addresses the issue of equitable access and participation through a focus on the formative assessment experiences of students with disabilities, for the purpose of enhancing participation and outcomes in a business course of study.

WHY FORMATIVE ASSESSMENT

The study focuses on first year students' experiences of formative assessment in a business program. We drew on Oliver's definition of WIL, as it is germane to forms of WIL in a first-year context: "work-integrated learning occurs at various levels across a range of tasks that are authentic (the task resembles those required in professional life) or proximal (the setting resembles professional contexts)" (2015, p. 62).

For WIL to be effective, Oliver (2015) argues that the key components of authenticity and proximity are required. WIL in this study refers to those elements within a course, such as computer applications in a business program, that orientate novice students towards the world of work. Formative assessment is essential in WIL, as it is key to how performance is improved (Boud & Molloy, 2013). Formative

¹ Corresponding author: Christine Winberg winbergc@cput.ac.za

assessment is the focus of this study as a central WIL pedagogy, and as a way for students to reflect on their progress in, and beyond, the classroom. The guiding research question for the study is: What can we learn about inclusive formative assessment in work-integrated learning (WIL) from the experiences of students with disabilities?

REVIEW OF THE LITERATURE: FORMATIVE ASSESSMENT WIL AND INCLUSION

The research literature on assessment has been dominated by studies of summative assessment and the measurement of attainment (Dixson & Worrell, 2016). Summative assessment, such as the formal examinations required by professional bodies, is a high stakes practice in vocational and professional education because failure can exclude students from the field of practice (Richard et al., 2013). Students clearly need to meet the standards specified by professional bodies and the academic institution; consequently summative assessment is necessary in WIL to ensure that students' performance complies with these requirements.

The literature on assessment in WIL, however, shows shifts towards more formative and holistic assessment practices, because of the many benefits such assessment practices offer (e.g., Irons & Elkington, 2021; Winstone & Boud, 2022). Boud and colleagues (2008) claim that formative feedback has potential for innovative practice, due to its inherent responsiveness to local conditions (Boud et al., 2008). Formative assessment in the form of peer- and self-assessment tasks has been shown to help students internalize assessment criteria (Peters et al., 2018). Tai et al. (2018) argue that formative assessment develops students' evaluative judgment, which enables them "to improve their work and to meet their future learning needs – a necessary capability of graduates" (p. 467). Formative assessment has the additional benefit of helping teachers to understand students' strengths and weakness, as well as to review the effectiveness of the pedagogies that they are using (Irons & Elkington, 2021). Furthermore, formative feedback plays an integral role in reflective practice, which is central to learning for and from work, or work-like, practices (Tigelaar & Sins, 2021). Winstone and Boud (2022) propose that the kind of feedback given to students to justify the award of a grade is not conducive to student learning, and argue instead for feedback that promotes a more student-centred approach to learning, where the focus is on the development of skills and knowledge rather than achieving a certain grade. Oliver (2015) points out that the expectations placed on students in the complex environment of WIL are constantly changing, and formative (and summative) assessment practices, therefore, need to be flexible and constantly updated.

There is a limited literature on inclusive formative assessment practices in vocational and professional education that views "the whole curriculum differently through considering what may promote inclusion, equity, and participation" (Tai et al., 2022, p. 16). This literature suggests that an inclusive orientation to enhancing students' confidence and career knowledge through formative feedback enables students with disabilities to successfully transition to employment (Jili, 2022; Musengi, 2020). Tai et al. (2018) propose that students with disabilities need to understand assessment within the context of participation in practice, and use their knowledge of "self-assessment, peer assessment, feedback, rubrics, and use of exemplars [to develop] evaluative judgement" (p. 467). In this regard, inclusive formative assessment, could be understood as a form of pedagogical universal design (Fornauf & Erickson, 2020) that can improve the benefits of formative assessment of all students.

Critiques of formative assessment include concerns that foregrounding learning processes and the role of the learner, has marginalized the role of the teacher (Tigelaar & Sins, 2021). Equally there are concerns that feedback should not constitute a one-way flow of information from a knowledgeable

teacher to a less knowledgeable student, particularly when inclusive practices are introduced (Yaraya et al., 2018). There are also warnings against over-assessment and over-specification that could lead to fragmented knowledge-building (Knight & Yorke, 2003), a focus on narrow, behavioral approaches, that encourage minimalist responses by learners (Davies & Ecclestone, 2008), or practices that improve rates of achievement whilst “encouraging instrumental and limiting forms of motivation and autonomy” (Ecclestone, 2007, p. 315). Students tend to complain that they do not receive enough constructive feedback, and educators resent that although they put considerable time into generating feedback, students take little notice of the feedback (Knight & Yorke, 2003). In seeking an approach to inclusive formative assessment, it is necessary to recognize that students need to be actively involved in seeking, generating and using feedback through “engaging students in the active development of their knowledge in conjunction with others” (Tai et al., 2022, p. 79).

Conceptual Framework

A number of key concepts emerged from the review of the literature. Formative assessment is guided by foundational concepts such as the purpose of the assessment and the principles underpinning assessment; these underpinning concepts have implications for practice. The conceptual framework, drawn from the literature, is summarized in Table 1.

TABLE 1: A conceptual framework for formative assessment.

Elements of formative assessment	Good practices (from the literature)
Purposes of formative assessment	1. Student engagement and learning (Boud & Molloy, 2013). 2. Feedback on understanding, process, and performance (Boud et al., 2008). 3. Metacognition (Knight & Yorke, 2003).
Principles of formative assessment in WIL	4. Authenticity and proximity (Oliver, 2015). 5. Timeous and ‘knowledge rich’ feedback (Tai et al., 2022). 6. Confidence building (Jili, 2022). 7. Creativity, innovation, critical thinking (Davies & Ecclestone, 2008). 8. Targeting difficulties (Ajjawi et al., 2022). 9. Flexibility and accommodation (Fornauf & Erickson, 2020). 10. Reflection on practice (Tigelaar & Sins, 2021). 11. Alignment with/preparation for summative assessment (Richard et al., 2013).

General implications for practice from the literature are thus that formative assessment tasks should: 1) promote learning and understanding, 2) include feedback on concepts, processes and performance, 3) include metacognitive elements (i.e., learning about assessment), 4) be authentic and proximal, 5) build students’ confidence, 6) be timeous and knowledge rich, 7) promote creativity, innovation and critical thinking, 8) target difficulties in diverse ways, 9) be flexible and accommodate diverse learning needs, 10) promote reflection on practice; and 11) align with summative formats.

A THEORETICAL FRAMEWORK FOR INCLUSIVE FORMATIVE ASSESSMENT

Very few studies on formative assessment in WIL have a focus on inclusivity. Inclusive education draws its inspiration from a rights-based model of education that has potential for both individual and social transformation. The capability approach provides “a renewed ethical approach by highlighting inequalities and the conceptual resources to re-examine issues in the disability and education field” (Norwich, 2014, p. 20). In order to ensure that students with disabilities are not disadvantaged through assessment practices, and with the understanding that all students would benefit from inclusion (see, e.g., Fornauf & Erickson, 2020), the study drew on Amartya Sen’s (2009) capability approach, and its specific adaptation to vocational education (e.g., Musengi, 2020; Powell & McGrath, 2019; Terzi, 2014) to underpin considerations of inclusive formative assessment for student success and well-being in career-oriented education. Sen’s capability approach understands education to be a process of enhancing students’ capabilities by expanding their freedoms. Inclusive education is fundamentally grounded on the social justice principle that social and institutional arrangements should be designed to give equal consideration to all students (Tikly & Barrett, 2011). Tikly and Barrett argue that the capability approach “has the potential to develop and extend existing approaches, while addressing some of their limitations” (2011, p. 3). The dominant human capital approach in vocational and professional education foregrounds skills development for economic productivity, as well as enhanced social, cultural, psychological and identity capitals to ensure students’ career readiness and their ability to contribute to the economy and society more broadly (Tomlinson & Nghia, 2020); in contrast, the capability approach addresses the issue of how all might benefit from a more equitable distribution and enhancement of these skills and abilities. Sen’s (2009) capability approach was developed into the Capability Theory of Justice by the philosopher Martha Nussbaum (2017). Nussbaum (2017) argues that the requirements of human dignity derive from capabilities. Her central human capabilities include ten freedoms, that are linked to human rights, namely the right to: 1) life, 2) bodily health, 3) bodily integrity, 4) senses, imagination, and thought, 5) emotions, 6) practical reason, 7) affiliation, 8) other species, 9) play, and 10) control over one’s environment (Nussbaum, 2017). While all these capabilities and freedoms are important in education, the following have been highlighted in the adaptation of capability theory to vocational education:

1. Mental wellbeing,
2. Participation,
3. Enjoyment,
4. Safety,
5. Respect,
6. Autonomy (especially time-autonomy), and
7. Mobility (Chiappero-Martinetti et al., 2015, p. 160-162).

Chiappero-Martinetti et al. (2015) developed their matrix of factors through participatory research with students (p. 153). Capability theory predicts that students will be able to achieve desired functionings, namely successful completion of the qualification and an enhanced sense of well-being, if key capabilities are addressed. Terzi explains that “the capability approach helps substantially in conceptualizing educational equality by focusing on the fundamental functionings, promoted by education, that are essential prerequisites for an equal participation in society” (2007, p. 758). While following good practices in formative assessment, it is also possible to further enhance these practices by considering how academic lecturers and external partners might promote students’ participation, engagement, wellbeing, enjoyment, autonomy, and mobility (in the sense of transferring their learning to other contexts, such as to workplaces tasks).

There is considerable synergy between the capability approach and universal design, which is usually understood as ways in which the environment (particularly the built environment) can be improved for the benefit of all: “Universal Design is the design and composition of an environment so that it can be accessed, understood and used to the greatest extent possible by all people regardless of their age, size, ability or disability” (National Disability Authority, 2020).

Universal design has seven principles: 1) equitable use, 2) flexibility in use, 3) simple and intuitive use, 4) perceptible information, 5) tolerance for error, 6) low physical effort, and 7) size and space for approach and use. Fornauf and Erickson (2020) argue that the seven principles of universal design can be incorporated into inclusive pedagogies. The potential exists, then, for inclusive formative assessment, as an element of inclusive pedagogy, to be modified or improved, drawing on both the social justice principles of the capability approach and the principles of universal design, for the purpose of enhancing learning and well-being amongst all students.

RESEARCH DESIGN AND METHODOLOGY: A NARRATIVE STUDY

Site Selection

The site of the study is a college offering postschool programs in business and management sciences. The college issues certificate and diploma qualifications that are accredited by the South African Department of Higher Education and Training. The college is not authorized to offer degree-level qualifications, however, college graduates can transfer to a university program in a cognate field or enter industry. Students enrolled in the college are mainly from poor or working-class families with little access to computers in their homes. Most students own cellular phones and all students have access to computer laboratories that are dedicated to the business program, but no computers at the site were modified for students with disabilities, and the study was not able to address the role that assistive technologies could have played in supporting formative assessment. Students thus received almost no accommodations to support their learning.

Subject Selection

A first-year subject, which we have given the generic name of Computer Applications, was chosen for the study as a program that potentially met the requirements of authenticity and proximity (Oliver, 2015). The subject introduced students to information and communication technology and provided practical training in the basics of word processing, spreadsheet programs, presentation software, email, and internet. Minimal guidelines on formative assessment were offered in the in-house assessment guide for the Computer Applications course, for example: “Formative assessment monitors and supports teaching and learning. It determines student strengths and weaknesses and provides feedback on progress. It determines if a student is ready for summative assessment.”

A formative test was required at the end of each section of work, which had to be practical (hands on). Lecturers were required to complete an observation checklist, while students had to submit a portfolio of evidence, which contained formative assessment tasks. At the end of the module a summative, end-of-year examination was written. Lecturers were not offered any training in inclusive practices or supporting students with disabilities.

Student Selection

Lecturers teaching Computer Applications were informed that 10 of the student cohort were identified as having disabilities and/or other learning needs. All these students were invited to participate in the study, and six students in the 2022 Computer Applications cohort, as shown in Table 2, agreed to their participation. All names in Table 2 are pseudonyms.

TABLE 2: Participants.

Student	Age	Sex	Pronouns	Home language	Challenge
Andile	23	Male	He, him	isiXhosa	Hearing impairment
Bongi	19	Transgender	She/her	isiXhosa	Gender transition
Cebo	21	Male	He/him	isiZulu	Paralysis of hand
Danie	20	Male	He/him	Afrikaans	Hearing impairment
Essie	21	Female	She/her	isiXhosa	Paralysis of hand
Freda	21	Female	She/her	Afrikaans	Heart condition

All participants identified as black South Africans, four spoke indigenous African languages as their home language, and two came from ethnically diverse backgrounds. The challenges faced by students with disabilities are exacerbated in the South African context by the fault lines of race and socio-economic disadvantage. In this context there is the danger of magnifying the inequalities that are starkly evident in South African society (Musengi, 2020). Students were asked about their language preference, and most chose to be interviewed in English, although there was code-switching between English and participants' home languages. While Bongi's gender transition is not a disability, what created a learning need was her social isolation and lack of acceptance by classmates; she requested to be a participant on the study in order to contribute to making the college a more inclusive place for all students.

Data Collection

Narrative interviews are a form of semi-structured interview that provides participants with opportunities to go "on narrative tangents and to fully convey their internal narratives" (Bruce et al., 2016, p. 5). Narrative interviews that elicited students' experiences of formative assessment comprised the main data of the study. Following Reissman (1993), two types of narrative data, namely topical stories and personal narratives, were collected. Topical stories are told about a specific issue, which in this study, was formative assessment. Personal narratives provide extended accounts of experiences (Reissman, 1993, p. 58), and thus require researchers to spend considerable time with the research participants, "gathering their stories through multiples types of information" (Clandinin & Connelly, 2000, p. 79). Accordingly, five in-depth narrative interviews on formative assessment experiences were conducted with individual students over the period of an academic year. This enabled the students and researchers to develop trust, while facilitating the process of students' reflections on formative assessment events as they occurred over the academic year.

Methods of Analysis

The narrative interviews were audio-recorded and transcribed by a professional transcriber. Two rounds of analysis were conducted on the interview data. In the first iteration, emerging themes across the narratives were identified and analyzed, using the tools of narrative analysis, including narrative elements (Reissman, 1993), challenges encountered (Strömquist & Verhoeven, 2004), critical incidents

(Clandinin & Connelly, 2000), and metaphorical language (Coles, 1989). In the second round, the themes were synthesized and categorized by drawing on key concepts in formative assessment and in capability theory.

Ethical Considerations

It was important that the privacy and dignity of the students were considered at all times, and for this reason individual interviews were conducted in a small meeting room that was familiar to the students. The interviews took place as soon as possible after a formative assessment exercise. The students were informed about the study and their right to withdraw without penalty. All the participating students supported the study and provided informed consent. The transcriptions were anonymized, for example, all statements that could identify the students, their classmates, lecturers, businesses, and so on were removed. Member checks were conducted in which the students and researchers discussed the cleaned transcripts and checked them for accuracy. Ethics clearance for the study was awarded by Cape Peninsula University of Technology's Health and Wellness Sciences Research Ethics Committee, Approval Reference No: CPUT/HWS-REC 2022/S4.

RESEARCH FINDINGS: NARRATIVES OF SUCCESS AND CHALLENGE

The students told their own stories as first-person narrators. They were invited to share their experiences of assessment through open-ended questions such as: "Please tell me about your experience of assessment at your previous school." Additional prompts, such as "How did you feel before the test?" shifted the participants from more formal descriptions into "storytelling" mode. Each narrator had a different style of storytelling. Some, like Danie, were more action-orientated, others, like Essie, were more descriptive. Students, like Andile, focused on the sequence of events; he explained: "this problem started back in 2008 and 2009. Before that, from the early 2000s in my life to 2005, 6 and 7, I was really a clever child at school ..." Some students, like Freda and Bongi, took the opportunity to reflect on their assessment journeys. Bongi's journey took her from "nervousness," to "relief," and finally to actual enjoyment of formative assessment; she even enjoyed the task of "talking in front of the teacher and the students" (something that not many students enjoy). Some students chose a "confessional" style, taking the interviewer into their confidence, such as Cebo, who regretted that he "didn't study enough..."

The first interviews focused on the students' backstories, that is, on their prior experiences of assessment. Each student told a different kind of backstory. Some, like Andile, had experienced considerable challenges: "I can tell you I really struggled there at school. Not even there at school but in my whole life, I've always struggled..." Others, such as Cebo, "never struggled at school," even though he was not "committed in [his] academics." Danie also "did very well in school," while Freda wrote about uncaring teachers:

At my previous school, I didn't really have that much help from the teachers. The teachers were absent or they would kick us out of class, and when we used to get our assessments, we weren't explained properly, fully about the assessment, so we basically had to run around on our own and figure things out.

This backstory established the theme of Freda's narrative, which was about neglectful and uncaring teachers and how this made her more self-reliant. In this regard, formative assessment was particularly valuable: "I found out more about myself, my strengths, my weaknesses..." Danie, on the other hand, had experienced "helpful teachers," who had assisted him:

The school I was with ... I felt very comfortable with the teacher, the way she taught us. She always had to wear a mask, but she didn't wear a mask because of my hearing so I could read her lips to understand what she was teaching.

For some students, assessment had been a bad experience, which affected them deeply, such as Essie's experience that "exams were tough, it was rough, but to get through it, I tried my best in every exam ... assessment, nothing was worse, nothing at all was worse..."

The students faced the challenge of overcoming the limitations placed on them by their disability, learning new skills, and understanding formative and summative assessment requirements, often in a context where adequate resources for their study were not available. As a result, each student had his or her own perspective on formative assessment; however, it was expected that there would be more similarities in the students' experiences on the Computer Applications course than in their prior experiences, as all students had tackled the same formative assessment tasks. Individuals' experiences were thus likely to share what Strömqvist and Verhoeven describe as "details of the thwarted attempts along the way, with some commentary on the inner states that motivate and respond to some of the events" (2004, p.15).

It was pointed out above that Bonggi welcomed the challenge of making a presentation in front of the class. In fact, most of the students preferred an oral to a written mode of formative assessment, such as Essie, who had good language skills, but because she could only use one hand, found writing and typing difficult, as she explained: "It would have been easier if you were talking, like speech, like you give a speech."

Much of potential enjoyment of formative assessment tasks were thwarted by insufficient accommodations, and by students' financial constraints, as Cebo explained: "I'm very creative but I didn't have finances to buy the proper equipment." Similarly, Danie enjoyed practical formative assessment exercises, but lacked the resources "to make it perfect." For Essie, who also enjoyed practical assignments: "The worst thing is to find material, looking all over for material, asking people for material, so that was difficult." Each student had their own unique challenges, for example Danie described himself as "a hands-on guy" but was determined to "work harder and focus" on theory and reading tasks. Many of the students found that their lecturers helped them to overcome the challenges by providing resources, and by preparing them adequately for the task, giving them additional time, and by providing useful feedback on the formative task in progress.

In qualitative research, critical incidents are events that have an important impact on participants' growth or development (Clandinin & Connelly, 2000). In this study, critical incidents refer to events that changed students' attitudes towards formative assessment. Most of the students had not had particularly good experiences with assessment generally in the past, yet most had changed their attitudes towards formative assessment over the course of their first year of study. The students' narratives were studied with a view to understanding how critical incidents might have changed their understanding of formative assessment from something to be feared, towards an understanding of formative assessment as something useful, even enjoyable, that supported their learning and development. Andile's description provides an example of a critical incident: "What [the lecturer] is telling us is something that is really getting up to my mind and then when something gets up to my mind, you really even change whatever that was in your mind." In Freda's case, receiving positive feedback on a creative task represented a critical incident in which she "found out that we actually are quite talented." For Bonggi, a critical incident involved writing an examination and realizing that she could answer the questions, thanks to the insights provided by formative assessment:

Maybe in the exam, something happened, something that made you realize, oh wow, this is easy, because as you say you're nervous before the exam, so maybe now you start writing your exam ... and now you realize, oh my gosh, it's something that was discussed in class, so you really see that whatever happens in class is beneficial or not beneficial or something like that, something in that line.

For Danie, who liked to work with his hands, a critical incident involved designing a poster as a formative assessment task, during which he discovered that he could combine working with his hands while expressing his thoughts and understanding. Thus, hand work and head work could be connected, and he found that he was able to do both.

Metaphors are usually important in narrative analysis, but the students did not use many metaphors or figures of speech in their interviews (perhaps because English was not their home language). Metaphorical language did, however, emerge when a student felt strongly about a topic or when the idea that the student was trying to express was very complex. The metaphors provided insights into affective aspects of the students' experiences as well as into their aspirations. For example, Andile was passionate about sport and tried to explain why he loved sport so much:

...exercising because first, before anything else, you have to have your mind be in control, so before your mind gets in control, we have to exercise and teach your body which then destroys and then the mind will start to focus.

Because of his disability, Andile felt that his body was in control. His studies were completely dominated by the state of his health and wellbeing. Exercise helped him to control his body; he used the strong metaphor "destroys" which provided an insight into his frustration. Once his body was under control, his mind could take over and he could engage more fully in a formative assessment task. Although enrolled for business studies, Andile was passionate about sport. He talked about rare opportunities "to dream [his] sports dreams." One of the researchers facilitated Andile's access to career counselling.

Freda expressed delight at receiving a workbook with formative assessment exercises to work through; she described the workbook as being "like a textbook in the textbook ... it's shorter than the textbook but easier to read through." Cebo described the excitement of working on a collaborative creative formative assessment task "the ideas were popping" and "you were giving your all." Bongi described a breakthrough moment in her computer studies as follows "computers are just like cell phones!" Danie described a teamwork formative assessment task to which students could contribute different skills, as: "we can build each other up as peers." Cebo used alliteration to emphasize how much he disliked studying for examinations, it was a lonely time "being alone working alone." Bongi expressed her displeasure when given a formative assessment test "out of the blue." Her choice of metaphor to describe her computer studies showed that she understood there to be something of a competition between herself and the computer "I'm gaining ... with my computer."

Connelly and Clandinin explain that "a person is at once engaged in living, telling, retelling, and reliving stories" (1990, p. 4). This was particularly the case in this study as students were telling their stories about formative assessment, but also experiencing formative assessment tasks and reliving prior assessment events. Coles explains that stories create images, myths, and metaphors that "carry moral resonance and contribute to our knowing and being known" (Coles, 1989, p. 192).

The last interview provided the conclusion to students' stories. The narratives ended with challenges overcome, and with hope for future success. The students' journeys had focused on learning new knowledge and embracing new ideas, and there was progress on these fronts. In the first interview, for example, Andile explained: "I failed [Grade 12] so many times, so I struggled..." but by the last interview he could see that "there's a lot of change." Reflecting back on her progress, Bongi said: "I didn't know a lot of things ... now I am happy ... I know a lot of things ... I know how to quickly type." "I learnt more, I learnt really more," said Essie. Freda saw herself on a trajectory towards success: "I went from 60s right up to 80s." Students felt "more confident" (Andile), "more accepted" (Bongi) or "at home" (Cebo). In the first interview Cebo confessed to not being "committed in my academics" but by the final interview felt that formative assessment had motivated him "to work more extra hard in my academics and be confident to write my final exams." For Freda, formative assessment was a journey of self-discovery: "my strengths, my weaknesses and what I need to do to better myself as a person." The need to "better" herself was a pervasive theme in her narrative, at the end of which she was able to link formative assessment with self-assessment:

We did a formative assessment task that we had to find out about the qualifications that we would need [for employment at a particular company] ... I found it helpful because I could see ... that there's a lot of things I need to better about myself. (Freda)

WHAT STUDENTS' EXPERIENCES TELL US ABOUT INCLUSIVE FORMATIVE ASSESSMENT

The students had different challenges, and different prior experiences, but despite these differences, common threads emerged across their narratives. In this section themes across the narratives are synthesized with key concepts in formative assessment, capability theory, and universal design.

Many formative assessment tasks required adaptation before students could fully engage with them. The students would have liked more flexibility in the assessment requirements – for some this meant presenting their knowledge orally, for others including a practical element in an assessment task, also providing extra time, or sharing the workload through a group task. Cebo explained that being given a formative assessment task adapted to his needs made him feel confident, motivated and "at home."

Students valued respectful and thorough formative feedback, as Freda explained: "I've improved because the lecturer explains very thoroughly and it's very helpful ... and if we do not understand, we could always ask, and she'll explain over and over." Andile similarly explained that when lecturers gave him "attention", he was motivated to work harder and improve, but he needed to receive formative feedback in a respectful way: "...when you talk to me you must not shout at me because that confuses me ... here I've never been shouted at, it's always good, even if I'm wrong, lecturers talk nicely." Imagining herself as a lecturer in a context of diversity, Freda offered the following suggestion:

I would give [the class] an assessment where they would work in groups and find out more about each other's circumstances, so that they can have experience of each other's lives and they could understand and respect others' cultures and religions.

The students were only able to address formative assessment tasks, or tackle similar tasks in other contexts, when they understood the requirements. Students thus needed to develop a metacognitive understanding of assessment, expressed by Bongi as: "I learned how questions are asked and answered."

Seeing the connection between a formative assessment task and the kinds of work they were being prepared for, such as a task such that required them to interview an office manager, linked them to the world of work. Students requested more tasks that were aligned with the world of work, and that brought industry-based lecturers into the classroom – or took them into the workplace – so they could benefit from these perspectives. Further, students enjoyed formative assessment tasks that included creativity and innovation as they felt that these tasks prepared them for the world of work, and for entrepreneurial activities. As Cebo explained: “we live in a world that we do need money. So we can start businesses ... so teach us more about it.”

Students explained that, because of their specific challenges, having an assessment task (even a formative assessment that did not count towards marks) sprung on them was highly stressful. The students were often given extra time to complete assessment tasks, which they greatly appreciated; however, they also felt that they needed sufficient time to prepare for formative assessments. Students valued timeous feedback so that they could learn from the task effectively.

All students welcomed opportunities to improve their skills and to tackle difficult tasks, particularly when, as mentioned, they saw the link between the formative assessment task and workplace practices. For the students, hard work did not conflict with enjoyment, particularly when teamwork was involved, as Cebo put it, formative assessment “gives me confidence in fact it boosts my motivation to work more extra hard in my academics and be confident to write my final exams.”

Students welcomed challenges and, by the end of the academic year, saw formative assessment as a safe space. While easier tasks had built their confidence, they wanted tasks that challenged them and gave them opportunities to practice the kinds of skills that they knew would be desirable in employment, as Essie explained: “they can give me more time to practice in the computer lab for more research to do, I need more time or if they can arrange a study group for the learners.” Formative assessment was an opportunity to reflect on the progress that they had made over the course of their studies, sometimes by increases in the marks awarded, growing confidence, or by helping others. Andile, for example, reflected on how he had progressed sufficiently to assist his classmates: “people there were getting help from me and they did pass.”

The students had been given old exam papers to work through in preparation for the final examination. Several students found this useful, although the literature suggests that dependency on having the answers provided could encourage rote-learning, as Freda implied when she stated that “the worst thing was the answers weren’t quite clear in the text book so we did have to do some research because not all the answers were in the text book...that was the worst part of it.” Davies and Ecclestone point out that the culture of providing old examination papers, and other readymade answers, can foster formative assessment that leads to instrumental learning in place of “deeper forms of learning” (2008, p. 75). Not all the students welcomed rote learning:

Sometimes – for I will just speak for myself – sometimes, revisions – I find the revision very boring because the reason why I’m saying it’s boring is you might find that you’re doing well and again you are given the same questions ... I find it boring to do the same thing over and over again. (Cebo)

Rethinking Inclusive Formative Assessment

These reflections invite a rethinking of formative assessment through the experiences of students with disabilities. Students' perspectives revealed the challenges of their disabilities, but also made explicit the confluence of their disability with their race, socioeconomic status, and gender identity, and how such intersectionality profoundly impacted their experience of formative assessment in their context. The study thus offers an understanding of the multifaceted experiences of students with disabilities in within a specific context. What emerges from the analysis of students' narratives are concepts, grounded on well-established principles of formative assessment, capability theory's understanding of human "functionings" (Nussbaum, 2017; Sen, 2009), and universal design's approach to inclusivity (Fornauf & Erickson, 2020). Ajjawi et al., (2022) points out that while a generic model of good-practices in inclusive formative assessment is useful, not all students should be assessed "in the same ways or in the same circumstances," neither should they "be penalized for reasons beyond their ability to do so" (p. 1).

The concepts that emerged from the study suggest a universal design approach (Fornauf & Erickson, 2020) to inclusive formative assessment for the purpose of enhancing learning and well-being amongst all students. Drawing on Fornauf and Erickson's (2020) application of universal design to education, inclusive formative assessment would: 1) serve all students equally, 2) offer accommodations for a variety of learning needs, 3) be straightforward and intuitive, 4) be understandable to all students regardless of their sensory abilities, 5) would see making mistakes as a part of learning, 6) would not make demands on students beyond their capacities or resources, and 7) the learning environment in which formative assessment takes place would accommodate all students' needs. While in some countries, inclusive education is thought of as an approach that serves learners with disabilities within a general education setting, inclusive education is increasingly seen more broadly as a reform that supports and welcomes diversity amongst all learners (Ainscow & César, 2006, p. 231). In this study, the students had practically no accommodations and limited access to resources, in addition they had to deal with attitudinal barriers while their learning was facilitated by lectures who, although well-intentioned, had limited knowledge on disability or accommodations. Considering the progress made by the students over the course of the year, we can only imagine what they might have attained with proper accommodations, accessible learning, and adequate resources.

CONCLUSION: AN EMERGING PEDAGOGY OF INCLUSIVE FORMATIVE ASSESSMENT

We set out to address the research question: What can we learn about inclusive formative assessment in WIL from the experiences of students with disabilities? Students' experiences of assessment practices were elicited through narrative interviews which were studied for the purpose of enhancing their educational success and work-preparedness. Students' narratives assisted us to reframe formative assessment for educational well-being and work-preparedness in more inclusive ways. It is intended that the study could assist and inspire faculty and their business or industry partners in conceptualizing and operationalizing inclusive formative assessment in career-oriented education. Based on empirical evidence from students with disabilities (whose voices are too seldom heard in educational research), reputable literature, and the lens of capability theory, the emerging concepts for inclusive formative assessment have the potential to assist WIL academic and support staff, and company-based trainers, to reconsider formative assessment processes and activities for the benefit all students in colleges, and beyond. Using an inclusive formative assessment approach in vocational education programs will help to safeguard students with disabilities from being disadvantaged by assessment practices.

ACKNOWLEDGEMENT

Funding for the study was provided by the South African National Research Foundation, under the South African Research Chairs Initiative, Grant number: SARCI221202668078.

REFERENCES

- Ainscow, M., & César, M. (2006). Inclusive education ten years after Salamanca: Setting the agenda. *European Journal of Psychology of Education*, 21(3), 231-238.
- Ajjawi, R., Tai, J., Boud, D., & Jorre de St Jorre, T. (2022). *Assessment for inclusion in higher education: Promoting equity and social justice in assessment*. Routledge. <https://doi.org/10.4324/9781003293101>
- Boud, D., Hawke, G., & Falchikov, N. (2008). Changing pedagogy: Vocational learning and assessment. In P. Murphy & R. McCormick (Eds.), *Knowledge and practice: Representations and identities* (pp. 125-137). Sage.
- Boud, D., & Molloy, E. (2013). Rethinking models of feedback for learning: The challenge of design. *Assessment & Evaluation in Higher Education*, 38(6), 698-712. <https://doi.org/10.1080/02602938.2012.691462>
- Bruce, A., Beuthin, R., Shields, L., Molzahn, A., & Schick-Makaroff, K. (2016). Narrative research evolving: Evolving through narrative research. *International Journal of Qualitative Methods*, 15(1). <https://doi.org/10.1177/1609406916659292>.
- Burke, P. J., Bennett, A., Burgess, C., Gray, K., & Southgate, E. (2016). *Capability, belonging and equity in higher education: Developing inclusive approaches*. Centre of Excellence for Equity in Higher Education.
- Chiappero-Martinetti, E., Egdell, V., Hollywood, E., & McQuaid, R. (2015). Operationalisation of the capability approach: Facing trajectories from school to work. In H.U. Otto (Ed.), *Facing trajectories from school to work. Towards a capability-friendly youth policy in Europe* (pp. 115-139). Springer. https://doi.org/10.1007/978-3-319-11436-1_7
- Clandinin, D. J., & Connelly, F. M. (2000). *Narrative inquiry: Experience and story in qualitative research*. Jossey-Bass.
- Coles, R. (1989). *The call of stories: Teaching and the moral imagination*. Houghton Mifflin Harcourt.
- Connelly, F. M., & Clandinin, D. J. (1990). Stories of experience and narrative inquiry. *Educational Researcher*, 19(5), 2-14. <https://doi.org/10.3102/0013189X01900500>
- Davies, J., & Ecclestone, K. (2008). 'Straitjacket' or 'springboard for sustainable learning'? The implications of formative assessment practices in vocational learning cultures. *The Curriculum Journal*, 19(2), 71-86. <https://doi.org/10.1080/09585170802079447>
- Dixon, D. D., & Worrell, F. C. (2016). Formative and summative assessment in the classroom. *Theory into Practice*, 55(2), 153-159. <https://doi.org/10.1080/00405841.2016.1148989>
- Ecclestone, K. (2007). Commitment, compliance, and comfort zones: The effects of formative assessment on vocational education students' learning careers. *Assessment in Education*, 14(3), 315-333. <https://doi.org/10.1080/09695940701591925>
- Fornauf, B. S., & Erickson, J. D. (2020). Toward an inclusive pedagogy through universal design for learning in higher education: A review of the literature. *Journal of Postsecondary Education and Disability*, 33(2), 183-199.
- Irons, A., & Elkington, S. (2021). *Enhancing learning through formative assessment and feedback*. Routledge.
- Jili, N. N. (2022). Responsive assessment tools in an inclusive education setting. In M. O. Maguvhe & M. M. Masuku (Eds.), *Handbook of research on creating spaces for African epistemologies in the inclusive education discourse* (pp. 195-206). IGI Global.
- Knight, P. T., & Yorke, M. (2003). *Assessment, learning and employability*. Open University Press.
- Musengi, M. (2020). Special educational needs and academic professionalism for inclusive higher education in Africa. In A. Ndofirepi & M. Musengi (Eds.), *Inclusion as social justice: Theory and practice in African higher education* (pp. 128-140). Brill.
- National Disability Authority. (2020). *What is Universal Design?* <https://universaldesign.ie/what-is-universal-design>
- Norwich, B. (2014). How does the capability approach address current issues in special educational needs, disability and inclusive education field? *Journal of Research in Special Educational Needs*, 14(1), 16-21.
- Nussbaum, M. C. (2017). Capabilities, entitlements, rights: Supplementation and critique. In T. Brooks (Ed.), *Justice and the capabilities approach* (pp. 173-187). Routledge.
- Oliver, B. (2015). Redefining graduate employability and work-integrated learning: Proposals for effective higher education in disrupted economies. *Journal of Teaching and Learning for Graduate Employability*, 6(1), 56-65.
- Peters, O., Körndle, H., & Narciss, S. (2018). Effects of a formative assessment script on how vocational students generate formative feedback to a peer's or their own performance. *European Journal of Psychology of Education*, 33, 117-143. <https://doi.org/10.1007/s10212-017-0344-y>
- Powell, L. J., & McGrath, S. (2019). *Skills for human development: Transforming vocational education and training*. Routledge. <https://doi.org/10.4324/9781315657592>
- Reissman, C. K. (1993). *Narrative analysis*. Sage.
- Richard, E., Walter, R., & Yoder, E. (2013). The effect of capstone cooperative education experiences, and related factors, on career and technical education secondary student summative assessment scores. *Career and Technical Education Research*, 1, 19-37. <https://doi.org/10.5328/cter38.1.19>.

- Sen, A. K. (2009). *The idea of justice*. Belknap Press.
- Strömqvist, S., & Verhoeven, L. (2004). Typological and contextual perspectives on narrative development. In S. Strömqvist & L. Verhoeven (Eds.), *Relating events in narrative: Typological and contextual perspectives* (pp. 3-14). Psychology Press.
- Tai, J., Ajjawi, R., Boud, D., Dawson, P., & Panadero, E. (2018). Developing evaluative judgement: Enabling students to make decisions about the quality of work. *Higher Education*, 76, 467-481. <https://doi.org/10.1007/s10734-017-0220-3>
- Tai, J., Ajjawi, R., Boud, D., & de St Jorre, T. J. (2022). Promoting equity and social justice through assessment for inclusion. In R. Ajjawi, J. Tai, D. Boud & T. Jorre de St Jorre (Eds.), *Assessment for inclusion in higher education* (pp. 9-18). Routledge.
- Terzi, L. (2007). Capability and educational equality: The just distribution of resources to students with disabilities and special educational needs. *Journal of Philosophy of Education*, 41(4), 757-773. <https://doi.org/10.1111/j.1467-9752.2007.00589.x>
- Terzi, L. (2014). Reframing inclusive education: Educational equality as capability equality. *Cambridge Journal of Education*, 44(4), 479-493. <https://doi.org/10.1080/0305764X.2014.960911>.
- Tigelaar, D., & Sins, P. (2021). Effects of formative assessment programmes on teachers' knowledge about supporting students' reflection. *Journal of Vocational Education & Training*, 73(3), 413-435. <https://doi.org/10.1080/13636820.2020.1726992>
- Tikly, L., & Barrett, A. M. (2011). Social justice, capabilities, and the quality of education in low income countries. *International Journal of Educational Development*, 31(1), 3-14. <https://doi.org/10.1016/j.ijedudev.2010.06.001>
- Tomlinson, M., & Nghia, T. L. H. (2020). An overview of the current policy and conceptual landscape of graduate employability. In T. L. H. Nghia, T. Pham, M. Tomlinson, K. Medica, & C. Thompson (Eds.), *Developing and utilizing employability capitals: Graduates' strategies across labour markets* (pp. 1-17). Routledge.
- Winstone, N. E., & Boud, D. (2022). The need to disentangle assessment and feedback in higher education. *Studies in Higher Education*, 47(3), 656-667. <https://doi.org/10.1080/03075079.2020.1779687>
- Yaraya, T. A., Masalimova, A. R., Vasbieva, D. G., & Grudtsina, L. Y. (2018). The development of a training model for the formation of positive attitudes in teachers towards the inclusion of learners with special educational needs into the educational environment. *South African Journal of Education*, 38(2), 1-9.



About the Journal

The International Journal of Work-Integrated Learning (IJWIL) publishes double-blind peer-reviewed original research and topical issues related to Work-Integrated Learning (WIL). IJWIL first published in 2000 under the name of Asia-Pacific Journal of Cooperative Education (APJCE).

In this Journal, WIL is defined as:

An educational approach involving three parties – the student, educational institution, and an external stakeholder – consisting of authentic work-focused experiences as an intentional component of the curriculum. Students learn through active engagement in purposeful work tasks, which enable the integration of theory with meaningful practice that is relevant to the students' discipline of study and/or professional development (Zegwaard et al., 2023, p. 38^{}).*

Examples of practice include off-campus workplace immersion activities such as work placements, internships, practicum, service learning, and cooperative education (co-op), and on-campus activities such as work-related projects/competitions, entrepreneurship, student-led enterprise, student consultancies, etc. WIL is related to, and overlaps with, the fields of experiential learning, work-based learning, and vocational education and training.

The Journal's aim is to enable specialists working in WIL to disseminate research findings and share knowledge to the benefit of institutions, students, WIL practitioners, curricular designers, and researchers. The Journal encourages quality research and explorative critical discussion that leads to the advancement of quality practices, development of further understanding of WIL, and promote further research.

The Journal is financially supported by the Work-Integrated Learning New Zealand (WILNZ; www.wilnz.nz), and the University of Waikato, New Zealand, and receives periodic sponsorship from the Australian Collaborative Education Network (ACEN), University of Waterloo, and the World Association of Cooperative Education (WACE).

Types of Manuscripts Sought by the Journal

Types of manuscripts sought by IJWIL is of two forms: 1) *research publications* describing research into aspects of work-integrated learning and, 2) *topical discussion* articles that review relevant literature and provide critical explorative discussion around a topical issue. The journal will, on occasions, consider good practice submissions.

Research publications should contain; an introduction that describes relevant literature and sets the context of the inquiry. A detailed description and justification for the methodology employed. A description of the research findings - tabulated as appropriate, a discussion of the importance of the findings including their significance to current established literature, implications for practitioners and researchers, whilst remaining mindful of the limitations of the data, and a conclusion preferably including suggestions for further research.

Topical discussion articles should contain a clear statement of the topic or issue under discussion, reference to relevant literature, critical and scholarly discussion on the importance of the issues, critical insights to how to advance the issue further, and implications for other researchers and practitioners.

Good practice and program description papers. On occasions, the Journal seeks manuscripts describing a practice of WIL as an example of good practice, however, only if it presents a particularly unique or innovative practice or was situated in an unusual context. There must be a clear contribution of new knowledge to the established literature. Manuscripts describing what is essentially 'typical', 'common' or 'known' practices will be encouraged to rewrite the focus of the manuscript to a significant educational issue or will be encouraged to publish their work via another avenue that seeks such content.

By negotiation with the Editor-in-Chief, the Journal also accepts a small number of *Book Reviews* of relevant and recently published books.

^{*} Zegwaard, K. E., Pretti, T. J., Rowe, A. D., & Ferns, S. J. (2023). Defining work-integrated learning. In K. E. Zegwaard & T. J. Pretti (Eds.), *The Routledge international handbook of work-integrated learning* (3rd ed., pp. 29-48). Routledge.



International Journal of Work-Integrated Learning

ISSN: 2538-1032

www.ijwil.org

EDITORIAL BOARD

Editor-in-Chief

Assoc. Prof. Karsten Zegwaard

University of Waikato, New Zealand

Associate Editors

Assoc. Prof. Bonnie Dean

University of Wollongong, Australia

Dr. David Drewery

University of Waterloo, Canada

Assoc. Prof. Jenny Fleming

Auckland University of Technology, New Zealand

Assoc. Prof. Sonia Ferns

Curtin University, Australia

Dr. Judene Pretti

University of Waterloo, Canada

Dr. Anna Rowe

University of New South Wales, Australia

Senior Editorial Board Members

Dr. Craig Cameron

University of the Sunshine Coast, Australia

Assoc. Prof. Bonnie Dean

University of Wollongong, Australia

Dr. Phil Gardner

Michigan State University, United States

Assoc. Prof. Kathryn Hay

Massey University, New Zealand

Prof. Denise Jackson

Edith Cowan University, Australia

Assoc. Prof. Ashly Stirling

University of Toronto, Canada

Emeritus Prof. Janice Orrell

Flinders University, Australia

Emeritus Prof. Neil I. Ward

University of Surrey, United Kingdom

Dr. Theresa Winchester-Seeto

University of New South Wales, Australia

Copy Editor

Diana Bushell

International Journal of Work-Integrated Learning

REVIEW BOARD

Assoc. Prof. Erik Alanson, University of Cincinnati, United States

Assoc. Prof. Philip Rose, Hannam University, South Korea

Prof. Dawn Bennett, Curtin University, Australia

Dr. Leoni Russell, RMIT, Australia

Mr. Matthew Campbell, University of Queensland, Australia

Dr. Jen Ruskin, Macquarie University, Australia

Prof. Leigh Deves, Charles Darwin University, Australia

Dr. Andrea Sator, Simon Fraser University, Canada

Assoc. Prof. Michelle Eady, University of Wollongong, Australia

Dr. David Skelton, Eastern Institute of Technology, New Zealand

Assoc. Prof. Chris Eames, University of Waikato, New Zealand

Assoc. Prof. Calvin Smith, University of Queensland, Australia

Assoc. Prof. Wendy Fox-Turnbull, University of Waikato, New Zealand

Assoc. Prof. Judith Smith, Queensland University of Technology, Australia

Dr. Nigel Gribble, Curtin University, Australia

Dr. Raymond Smith, Griffith University, Australia

Dr. Thomas Groenewald, University of South Africa, South Africa

Prof. Sally Smith, Edinburgh Napier University, United Kingdom

Dr. Lynette Hodges, Massey University, New Zealand

Prof. Roger Strasser, Simon Fraser University, Canada

Dr. Katharine Hoskyn, Auckland University of Technology, New Zealand

Prof. Yasushi Tanaka, Kyoto Sangyo University, Japan

Dr. Nancy Johnston, Simon Fraser University, Canada

Prof. Neil Taylor, University of New England, Australia

Dr. Patricia Lucas, Auckland University of Technology, New Zealand

Dr. Faith Valencia-Forrester, Charles Sturt University, Australia

Dr. Jaqueline Mackaway, Macquarie University, Australia

Dr. Thai Vu, Curtin University, Australia

Prof. Andy Martin, Massey University, New Zealand

Ms. Genevieve Watson, Elysium Associates Pty, Australia

Dr. Norah McRae, University of Waterloo, Canada

Dr. Nick Wempe, Primary Industry Training Organization, New Zealand

Dr. Katheryn Margaret Pascoe, University of Otago, New Zealand

Dr. Karen Young, Deakin University, Australia

Dr. Laura Rook, University of Wollongong, Australia

Publisher: Work-Integrated Learning New Zealand (WILNZ)

www.wilnz.nz

Copyright: CC BY 4.0