

Assessment Heuristics

Report

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About the Centre for Work and Learning, IAL

The Centre for Work and Learning undertakes research that seeks to understand better the processes and practices of learning design, teaching, learning and assessment in and across different settings and the implications for practice and policy. The changing nature of work offers different kinds of opportunities for learning and development, thus our research includes the study of work and work environments and learning and development within these settings.

In brief, our research employs a range of methodologies designed to deepen understanding of the ways in which contexts enhance and limit learning and development opportunities. Our approach is to engage practitioners in the research process and thus develop a community of practitioner researchers.

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Executive summary

This project builds on the “six dimensions of assessment” model from the research project entitled “Assessment for the changing nature of work” (Bound, Chia, & Karmel, 2016). In this project, we seek to develop this six dimensions of assessment model into assessment heuristics for practitioners, to enable them reflect on their thinking, approaches and assumptions about assessment in the contexts of work, and work-based and/or work-place learning.

The assessment heuristics adopt a “practice-based” approach to assessment, which views assessment as being intertwined with learning, situated within work and workplaces, and a process of making judgements. The assessment heuristics seek to enable practitioners to review and renew their understanding of assessment vis-à-vis work and workplaces, learners and learning from a practice-based perspective. The assessment heuristics also aim to create dialogue among stakeholders about the writing of standards, accreditation processes, and curriculum and assessment design. Two tools have been developed as follows:

1. a profiling tool to identify practitioners’ approaches to assessment and learning;
2. a six-dimension descriptor tool that enables practitioners to reflect on their experiences, thinking and assumptions about assessment, and to review curriculum and assessment design vis-à-vis the six-dimension assessment model.

The purposes of these tools are to enable practitioners to identify the purposes of assessment; see the interconnections between assessment, learning and work; and be able to ask critical questions about assessment and learning. This is a step towards developing potential applications, including curriculum development and the use of tools for learning, and enabling broader conversations with various stakeholders. The assessment heuristics prompt thinking and dialogue about the purposes of assessment in different contexts, the relationship between learning and assessment, and what is required to support learning that enables individuals not only to be competent but to successfully navigate the constantly changing landscape of work and learning.

Through one workshop and two focus group discussions (FGDs), participants in this project tested and validated the assessment heuristics. These activities generated insights into assessment of, for and as learning, highlighting opportunities for intervention and change in key areas of assessment, and provisions for the further development of the assessment heuristics.

Chapter 1 Introducing the assessment heuristics

In this report, the Institute for Adult Learning (IAL) six-dimension assessment model (Bound et al., 2016) is developed into a tool for instructors and developers of assessment. The purpose of the tool is to enable practitioners to reflect on their assumptions about assessment in the contexts of work, and work-based and/or work-place learning. Assessment in these complex contexts is difficult to understand and it is further compounded by the changing nature of work (Bound et al., 2016); the urgency to up-skill, innovate and improve productivity; hollowing out of the middle (Brown, Lauder, & Ashton, 2011); growth of non-permanent work (Bound, Sadik, & Karmel, 2015); and technological change. The emphasis on workplace/work-based learning goes beyond “formal learning” educational models, and its reach extends beyond adult educators, training providers and the training market, which now includes industry practitioners, and concerns about enterprise or organisational development. There are different perspectives, multiple priorities, competing interests and driving forces, which require some theoretical framing and/or approaches that interrogate taken-for-granted understandings of assessment and learning, and propose new ones.

With the SkillsFuture Leadership Development Initiative emphasising workplace/work-based learning targeted at individuals, as well as enterprise developments (e.g. Industry Transformation Map), Singapore is set to move in a new strategic direction towards greater integration in education, workforce development and industrialisation. While the policy provides affordances for workplace learning, this is not the only consideration, as “affordances are also created by other aspects of context from national cultural discourses to the culture of the work setting and the organisation and design of work, and indeed, the nature of the work” (Bound & Rushbrook, 2015, p. 5). To some extent, these other affordances are embedded in IAL’s future programmes, which focus on the worker (Singapore Workforce Qualifications System Graduate Diploma in Blended Learning), work (IAL Certificate in Job Design & Quality) and the workplace (IAL Certificate in Organisation Performance).

Hence, it is pertinent that continuing education and training (CET) practitioners take the opportunity to re-evaluate their own practices and understandings, and reflect on their assumptions about work, learning and assessment, even as they prepare learners to be “work-ready” now and for the unknown future, for performance and for life-long learning.

The assessment heuristics adopt a “practice” approach to assessment, which views assessment as being intertwined with learning, situated within work and workplaces, and a process of making judgements. The assessment heuristics seek to enable practitioners to review and renew their understanding of assessment vis-à-vis work and workplaces, learners and learning. The heuristics also aim to create dialogue amongst stakeholders about the writing of standards, accreditation processes, and curriculum and assessment design.

1.1 Background and objective of this project

This project aims to operationalise the six-dimension assessment model by encouraging practitioners to use and respond to the model. Their responses were analysed to develop further thinking about assessment, learning and work in the Singapore context.

The research project “Assessment and the changing nature of work” (Bound et al., 2016), from which the assessment heuristics are drawn, sought to address the question of how assessment design and practices can be shaped and/or enhanced to meet changing policy directions and workforce

development needs. The research project describes and examines the ways in which assessment has been designed, experienced and put into practice across the six cases. Based on the data collected and the analysis carried out, the team has been able to identify specific challenges that reveal the often tacit systems of forms of knowing and of outcomes to be achieved, which require abilities such as reflecting, evaluating, problem-solving, analysing and hypothesising/theorising (often referred to as skills) needed in most professions today and will also be needed in the future. Such challenges present an opportunity for interventions that expand understanding of assessment, namely assessment of, for, and as learning.

The orientation towards assessment supports what may be described as an “interpretive” approach to learning, where “learners are often considered dialogic learning partners in the construction and implementation of curriculum. They are privileged over other stakeholders as the end-recipients of the learning programme” (Bound & Lin, 2013, pp. 403–420). The interpretive approach acknowledges the different learning autobiographies of the learner, and his/her varied learning experiences and what he/she takes away from these learning experiences. Thus, curriculum and assessment evolve dynamically as learning unfolds over a period of time. Assessment supports and enables the curriculum, whose “intent” is to encourage creative, critical and innovative thinking, a cornerstone of quality curriculum-making (Bound & Lin, 2013).

Findings from the Bound et al. (2016) report also show that factors, such as the nature of work and the requirements of professional practice and/or vocation, as well as possibilities (for performance, responsiveness to change and adoption of assessment “best practices”), affect assessment, and how assessment should be viewed as a kind of social practice and analysed through a “practice-based” theoretical lens. A practice approach views assessment as taking place within particular work and/or learning contexts, and as something that practitioners do *with* learners and other stakeholders, rather than *on* learners. It focuses on the analysis of how assessment coheres through the “sayings” and “doings” of various stakeholders involved; on the tools and artefacts used; and on the context in which assessment occurs. This is in contrast to the view of assessment as a task performed at the end of a course; a yardstick to measure learners’ abilities and competencies, and an activity distinct or separate from learning.

The research findings presented a complex and dynamic picture of assessment and the “entwinement of learning at, and for work, context, and individual engagement” (Bound & Rushbrook, 2015, p. 1). All these observations are factored into what we have termed the “six dimensions of assessment” that identify key features and values of assessment, as well as their relationships. These dimensions are: “alignment”, “authenticity”, “judgement”, “feedback”, “holism” and “future-orientedness”. The “six dimensions of assessment” challenge “traditional” understandings of learning, which include transfer of knowledge and assessment as merely the testing of knowledge, and offer suggestions on how to think about and design assessment practices for work and learning.

The objective of the assessment heuristics project is to develop an approach from the six dimensions model that would guide practitioners in ways of thinking about and developing assessment of/for/as learning. Two tools were developed:

1. a profiling tool to identify practitioners’ approaches to assessment and learning;
2. a six-dimension descriptor tool that enables practitioners to reflect on their experiences, thinking and assumptions about assessment, and review their curriculum and assessment vis-à-vis the six-dimension assessment model.

The purposes of these tools are to enable practitioners to identify the purposes of assessment (see the interconnections between assessment, learning and work) and to be able to ask critical questions about assessment and learning. This is a step towards developing potential applications, including

curriculum design, development and the use of tools for learning, and enabling broader conversations with various stakeholders. The latter includes, for example, relations between educational institutions and workplaces, specific arrangements, and the use of tools to enable learning and for multiple stakeholders (including learners) to make judgements about performance and to develop further. Importantly, the heuristics prompt dialogue between stakeholders about the purposes of various assessment tools and assessment regimes, as well as the relationship between learning and assessment, and what is required to support learning that enables individuals to not only be competent but to successfully navigate the constantly changing landscape of work and learning.

This project also complements the IDeA model project entitled “Whose IDeA is this: Facilitating professional reflection and communication through the IAL Design Approach (IDeA) Model” (Bound & Choy, 2016). From the “Whose IDeA is this” report and this project, we can see overlapping issues and concerns, as well as shared ideas and positions about learning. Similar to the IDeA model study, the assessment heuristics are also seen as a tool for instructors and developers of assessment and learning to reflect on their assumptions about assessment, learning and work. Likewise, the analysis here reveals challenges, as well as “invisible” assumptions, behind assessment: “It is through such visibility or transparency ... that curriculum writers are able to reveal and subsequently interrogate their own and stakeholders’ core ideas, values and intentions before enacting curriculum writing projects that clearly articulate shared purposes and outcomes.” (Bound et al., 2013, p. 1.)

1.2 Defining “assessment”: what is assessment?

Assessment is conventionally thought of as a “measurement of learning” and as being “objective”. We take a much broader perspective than this, because research on assessment has shown that assessment is a complicated business; it is more than testing and certifying learners, it also enables learners to recognise, know and work on how they are learning. Current assessment practices focus strongly on testing and certifying, and the pervasive high-stakes examinations in Singapore’s education system testify to this. Testing and certifying serve important functions but need not be the be-all and end-all of assessment. An overemphasis on testing and certifying does not necessarily contribute to learning and professional development, nor do testing and certifying always align with work practices or reflect realities of the workplace. Hence, we argue that:

1. Assessment is entwined with learning: it is more than testing and certifying learners. Assessment needs to enable learners to recognise, know and work on how they are learning.
2. Assessment is about “judgement” and/or the making of judgements: it leads to an understanding of what quality work is, and what the performance criteria and standards really are, and it provides opportunities for improvement in learning.
3. Assessment involves multiple stakeholders: they include learners, peers, programme or training managers, workplace colleagues, employers, professional bodies and policy makers.
4. Assessment purposes are multiple: these include credentialing, preparation for life, preparation for performance, and learning to be and become (focusing on capabilities), including becoming professional.

Assessment is defined as a process of making judgements; assessment is done with learners, not of learners. Like learning and processes intertwined with learning, assessment is not a precise science but a process with intentional goals. Assessment draws on a diverse and multifaceted range of activities, systems and stakeholders working within and across multiple contexts, which contribute to learners' constant process of "becoming" (Bound, Chia & Karmel 2016) – a process that never ends. Be it summative, formative or sustainable, assessment signals to learners what is valued, and it directs learners' attention and time to specific activities, concepts, values and principles. In this way, it can be seen as a core learning enabler or disabler, depending on how the assessment is designed, delivered and experienced.

Table 1.1 Types of assessment

Summative assessment	Sometimes referred to as "assessment of learning", summative assessment is what most people think of when they say "assessment". There is no doubt that this is because its purpose is to certify achievement or progress in learning. It is typically conducted at the end of a course or a programme. Summative assessment has a long history of being "what counts" in gaining a qualification or some kind of certification.
Formative assessment	Formative assessment, or assessment for learning, focuses on participants' learning, helping them to know how to improve (Gardner, 2012). Learners need continuous information from a variety of sources about their learning; information that informs them about what they are succeeding at and where they should focus their efforts to improve, and strategies for moving forward (Berry, 2008). Assessment for learning does not necessarily include grading, assigning marks or noting whether or not the learner is competent. Feedback is a critical aspect of assessment for learning. In more recent work on feedback, the focus has been on "the contribution of others to learning through assessment, and repositioning the notion of feedback not as an act of information giving to learners, but as a co-productive process in which both learners and others have key roles to play" (Boud & Soler, 2016, p. 403). Learners therefore need to be able to give and receive feedback, and be given opportunities to do so. Feedback is after all "a process whereby learners obtain information about their work in order to appreciate the similarities and differences between the appropriate standards for any given work, and the qualities of the work itself, in order to generate improved work" (Boud & Molloy, 2013, p. 701).
Sustainable assessment	Sustainable assessment (Boud & Soler, 2016) equips learners and prepares them for what might be required in the future, after graduation. Sustainable assessment takes a long-term perspective, emphasising "lifelong learning" including "habits of mind", "metacognitive skills" and so on (Beck, Skinner, & Schwabrow, 2013, p. 326). It aims to "equip learners to learn beyond the academy once the infrastructure of teachers, courses, and formal assessment is no longer available" (Beck et al., 2013). In essence, sustainable assessment is learner-centric and focuses on the development of long-term learning capabilities. Practices, such as peer assessment, can be designed to enable sustainable assessment goals. Sustainable assessment involves "the capacity to evaluate evidence, appraise situations and circumstances astutely, to draw sound conclusions and act in

	<p>accordance with this analysis” (Boud & Soler, 2016, p. 409). Key elements of developing informed judgement from the perspective of the learner include: (1) identifying oneself as an active learner; (2) identifying one’s own level of knowledge and the gaps within this; (3) practising testing and judging; (4) developing these skills over time; and (5) embodying reflexivity and commitment. Sustainable assessment demands that learners make conscious comparisons between self-assessments and assessments by teachers, peers and other stakeholders, and that responsibility for the assessment process must gradually shift from the teacher to the students, because, after graduation, the latter will need to drive their own learning (Boud & Soler, 2016).</p>
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Source: Bound et al. (2016), p. 11.

1.3 Methodology

The objective of this project is to operationalise the six-dimension assessment model; it aims to determine whether or not practitioners find it a useful tool and what changes are needed to make it readily accessible and useable.

We undertook this project using a simple qualitative design, whereby participants were asked to use the assessment heuristics to review and reflect on their own approaches, practices and experiences of assessment. They were engaged in facilitated group discussions on the results, and their thoughts and responses to the six dimensions of assessment. One workshop on assessment and two focus group discussions on the assessment heuristics were conducted. There were 27 participants in the workshop, 20 participants in the first FGD and 19 participants in the second FGD. This is a total of 66 respondents who are adult educators, instructors, lecturers, curriculum developers, training managers and learners in the CET sector. Data from the workshop and focus group discussions and artefacts (the completed heuristics and activity sheets) were analysed iteratively. A simple thematic analysis was used to identify responses to the six-dimension model and the assessment heuristics.

1.4 The six-dimension assessment model

This section explains the different dimensions of the six-dimension assessment model in some detail, and the assessment heuristics that operationalise the model. Table 1.2 gives a brief description of each dimension of the assessment model and Figure 1.1 illustrates how these dimensions could be configured for formative, sustainable and summative assessment.

Table 1.2 Six dimensions of assessment

Dimension	Description
Authenticity	Authentic assessment reflects the demands of real practice and the real nature of work and/or the profession. The design of assessment activities draws on real work practices. Such assessment activities do not necessarily need to be situated in a workplace. However, there needs to be purposeful engagement with the context of work/professional/vocational practice.
Alignment	Components and intents of the learning system (be it through an educational institution or workplace) need to be aligned with each other: curriculum and intended outcomes, learning activities and assessment purposes and tasks.
Feedback	Information is not feedback. Feedback has a positive impact on learners' learning and/or outcomes. Feedback is not an input but a process which is judged on its effects. It is a dialogue focused on improving performance.
Judgement	Assessment is a process of making judgements. Judgement embodies an understanding of what quality work is, and what the performance criteria and standards really are, and it enables improvement and progress in learning. Judgement entails thinking critically about knowledge and learning (Hager, 2001) in the design of the assessment task(s) and the criteria against which judgements are made.
Holistic	Holistic assessment emphasises the “authentic wholeness” and embodiment of real work, knowing and being. Craft/vocational/professional capabilities are integrated with learning-to-learn, meta-cognitive and generic/entrepreneurial capabilities. Holistic assessment not only contributes to the development of the learner as a professional, but it also plays a role in socialising the learner into a community of practice.
Future-Oriented-ness	Assessment can be developed to equip learners and prepare them for what might be required in the future (after graduation). It is learner-centric and offers multiple opportunities for learners to demonstrate their growth in long-term learning capabilities.

Figure 1.1 Six-dimension assessment model

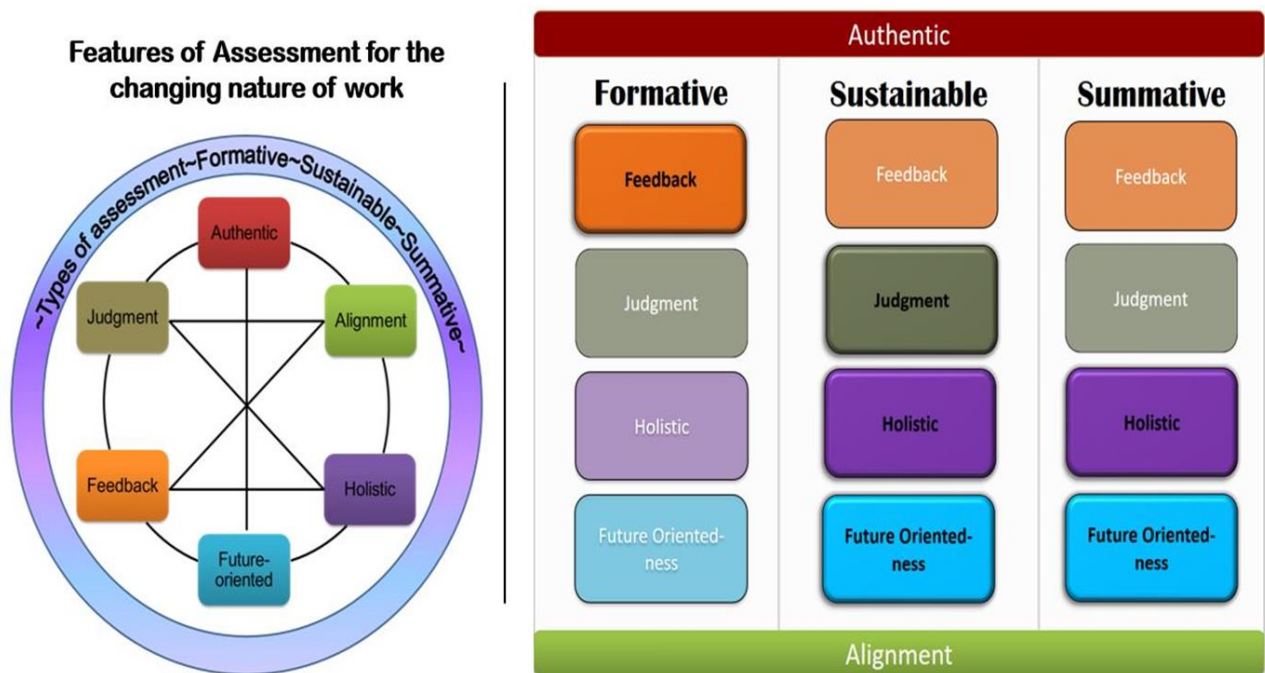


Figure 1.1 above highlights the fundamental features to consider when designing assessment. The findings from the research project demonstrated that the boundaries between formative, sustainable and summative assessment are blurred in practice. But we maintain the distinction for the purposes of analysis and design. Hence, the diagram in Figure 1.1 illustrates “feedback” and “judgement” as strong or key features of formative assessment; “feedback”, “judgement”, “future-orientatedness” and “holistic” as important in sustainable assessment; and “future-orientation” and “holistic” as important in summative assessment. “Authenticity” and “alignment” are of overarching importance in formative, sustainable and summative assessment. Taken as a whole, the diagram represents an iterative design process and functions as a prototype of assessment design, which needs to be refined, evaluated and tested with new data and further research. For more details on the six-dimension assessment model, please see Chapter 5 “Designing assessment: six dimensions of assessment as a pedagogical intervention” in the IAL research report entitled “Assessment for the changing nature of work” (Bound et al., 2016).

1.5 Assessment heuristics

The assessment heuristics aim to:

- invoke thinking about assessment possibilities and purposes;
- enable the design of assessment that addresses learning needs and other purposes;
- engage users (of the assessment heuristics) in critical inquiry, reflexivity and dialogue.

The heuristics also aim to be a tool for surfacing assumptions on decisions and asking questions about assessment including:

- What are the purposes of assessment?
- What are the interconnections between assessment, learning, work/profession and the site of learning, e.g. the workplace?
- Who are the stakeholders involved?

- How do my beliefs about learning influence what I develop as assessment?

1.5.1 Do some dimensions become more important in certain contexts than in others?

All six dimensions are important in assessment, but they differ in significance depending on the purposes/nature of assessment (formative, sustainable or summative). No single feature in the diagram is of greater significance than any other, or has priority, and all are necessary in assessment. The six-dimension assessment model attempts to put together formative, sustainable and summative assessment approaches based on the dimensions briefly described in Table 1.2. The ways in which these dimensions are applied, organised and/or arranged affect the assessment (approach) to be designed.

1.5.2 What about alignment between learning outcomes and assessment? How can that be achieved?

This six-dimension model invites curriculum designers to start the curriculum and assessment design by asking the question “What do I want my learners to ‘be’?”, rather than by addressing what these learners need to “know” and “do”. Consequently, the qualities required of a vocation/profession/job are captured in the learning outcomes that are written holistically and are future-oriented. Alignment between learning outcomes and learning activities requires building in structured opportunities for feedback, as well as making judgements built on authentic problems/issues. In this way, alignment is achieved across learning outcomes, learning activities and assessment.

The model and the assessment heuristics propose an understanding of and approach to assessment which is relational, i.e. intertwined with learning, situated and developmental. The model and heuristics aim to help users/practitioners expand their understanding of assessment through dimensions, namely “future-orientedness”, “authenticity”, etc. The assessment heuristics were “trialled” at a focus group discussion where practitioners were invited to think about and re-define “learning outcomes” in terms of capacities (for exercising judgement), and critique conventional knowledge of service as performance of sets of (desirable) behaviours expressed as service standards. The importance of agency, sense of ownership and collective responsibility were highlighted – all these characteristics are reflected in the curriculum and assessment design.

1.6 Structure of the report

Chapter 1 introduces the purpose of the project, defines key terms and the concept of assessment, and provides a brief outline of the methodology used. Chapter 2 gives an overview of the assessment heuristics and discusses the findings from the workshop and focus groups. Chapter 3 shows how the assessment heuristics have been applied in the context of the “SkillsFuture Skills Framework”, and Chapter 4 concludes the report and provides suggestions on improving the assessment heuristics.

Chapter 2 Findings

The assessment heuristics adopt a practice-based approach towards assessment to enable practitioners to “see” the complexities of assessment in the context of work and the workplace, with a view to either applying or challenging their own understanding when designing and/or reviewing assessment and curriculum. It also aims to be a dialogue tool for practitioners to carry out conversations with other stakeholders in the CET sector, and contribute to the meaningful development of assessment of, for and as learning.

In this chapter, we share the observations that formed recurring themes during the workshop and focus group discussions. These observations have bearings on various stakeholders in the CET sector, ranging from the individual practitioner to training organisations, educational institutions and regulators. This chapter begins with a description of the process used in each of the workshop and focus group discussions. Each description is followed by a general overview of the participants’ responses to the assessment heuristics, followed by the issues that were highlighted. For each of the findings, we analyse what the use of the assessment heuristics reveals about assessment in practice, and, in the final section, we discuss suggestions to improve the assessment heuristics.

2.1 Workshop on assessment at a polytechnic

The aims of the workshop on assessment were to enable faculty staff to identify and explain how they think about assessment, to introduce new ways of thinking about assessment in relation to learning, and to consider some assessment practices for the changing nature of work. Workshop participants walked through a series of stations, discussed assessment practices among themselves, and responded to the questions and/or activities at each station. We used the Ecology Room concept, comprising eight activities.

Two activities (7 and 8) were based on the assessment heuristics. In Activity 7, participants read a “simulated” assessment plan and they reviewed it using the six-dimension assessment model. Activity 8 sought to “profile” participants’ approach to assessment and learning through a series of questions, which required participants to evaluate their current practice (please see Appendix 1 for details of the activities).

2.1.1 Findings: *intertwinement of assessment of, for and as learning*

Participants demonstrated an understanding of assessment of, for and as learning, and they agreed that assessment could and ought to do more than just “testing”. Qualities of assessment, such as enabling learning beyond the course/module, the giving of qualitative feedback to learners, and assessment that reflects learning activities and outcomes were deemed to be priorities. Other qualities, such as enabling growth and development of professional judgement, were also deemed to be important for assessment.

Twenty-two out of 27 participants suggested that they had combined summative with formative assessment in their practice, and regarded each as complementary to the other rather than oppositional. They demonstrated that their approach towards assessment and learning are intertwined rather than separate. They also wrote:

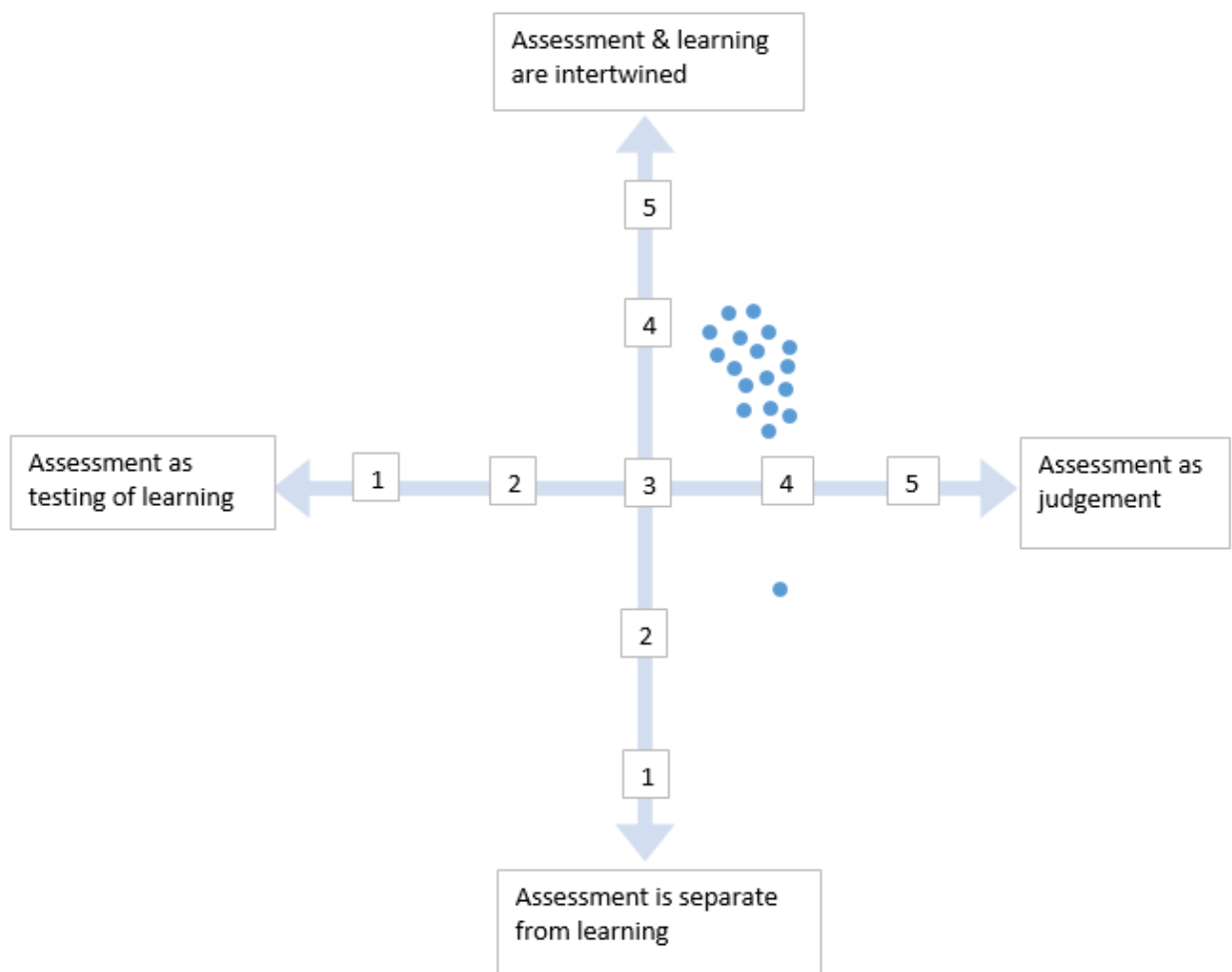
“Formative assessment coupled with summative gives a better understanding on what can be improved on [by the learner].”

“Summative assessment makes clear what the learning goals or next steps are, and formative assessment enables learners to know how to improve.”

“Students would be more willing to explore and take risks with formative assessment.”

Activity 8 generated a small “controversy” amongst participants. Seventeen out of the 18 participants self-identified or rated their approach as “assessment & learning are intertwined” and “assessment as judgement”. The only participant whose approach was in the quadrant where “assessment is separate from learning” questioned whether the other participants were being “truthful” about their practices (see Figure 2.1).

Figure 2.1 Activity 8



The ensuing discussion suggests differences in the purposes of assessment. Participants highlighted that combining summative and formative assessment would encourage learners to adopt a mind-set of growth, exploration and risk-taking in learning. But they also had concerns regarding the “fairness”

and “measurability” of assessment. These are the administrative functions of assessment, which they considered to be essential features of summative assessment. These concerns reflect the fact that teachers/educators/instructors also perform an important administrative role that supports the institution of learning as a mechanism of sorting and categorising people, and allocating or distributing resources, rewards and recognition according to sets of institutional rules and requirements. These are functions of the credentialing process.

There was a deep ambivalence towards assessment as “measurement”. Seventeen out of the 27 participants disagreed that “assessment has to be measured” with clear statements as follows:

“Must everything be measured? Is it always appropriate? Does it measure what it measures?”

“How do we ‘measure’ things like developing ways of thinking, motivation or passions that are derived from the learning experience?”

“Learning is not measured; learning specifically, learning deeply – both are important.”

“Learning takes place over a period of time and not at a point of assessment. Learning is often cumulative, especially for affective domains of learning.”

Whereas 10 out of the 27 participants said that the use of assessment to identify and distinguish learners, to rank and to “encourage” learners to improve are supported by assessment as measurement (of learning).

Figure 2.1 Activity 8 suggests that those who complete the activity are interpreting assessment as judgement and the entwining of learning and assessment differently from their intended meanings. Therefore, it will be important, when rolling out the assessment heuristics tool, to pay particular attention to engaging participants in actively understanding the concepts of assessment as judgement (rather than measurement) and learning and assessment as entwined rather than separate activities.

2.2 Focus group discussions with practitioners in the CET sector

Participants in this focus group discussion were asked to read and review a standard curriculum (SC) and standard assessment plan (SAP) of a WSQ module on “service excellence” using the assessment heuristics. They were broken up into small groups of five and asked to focus their discussion on the WSQ module around the six dimensions of assessment. This was followed by a facilitated class discussion of the review using the assessment heuristics, which invited participants to work on the (six) dimensions, talk about the design of the curriculum and assessment, and think critically about “service excellence” (see Appendix 2).

2.2.1. Findings

In this focus group discussion, the assessment heuristics prompted in-depth and highly reflective conversations about assessment. The 22 participants in this focus group comprised adult educators, instructors, managers and course developers from various training institutes. All are training professionals registered as members of IAL’s Adult Education Network (AEN). The participants were broken up into groups of five and asked to use the assessment heuristics to review a SC and a SAP for the WSQ “Going the Extra Mile Service” (GEMS) module (see Appendix 2). They arrived at these conclusions:

1. The assessment in the WSQ GEMS module serves summative and formative purposes. It (the assessment) encompasses several aspects of the six dimensions, mainly across summative and formative assessment. The strongest dimensions in the WSQ GEMS module assessment are “authenticity”, “feedback” and “alignment”, and therefore could be considered highly formative in its design and purpose.
2. Feedback designed as instructor-driven, providing information to learners about their skills and knowledge with respect to performance criteria, comes across as a strong feature of the assessment. But it could be improved by increasing opportunities for learners to make inquiries on their own. Participants were invited to think about how learners could generate and solicit their own feedback, and thereby position themselves as key drivers of learning.
3. The assessment does not necessarily reflect or feature “holistic” development. It could have enabled greater integration between professional capabilities and learning-to-learn capabilities.
4. Challenges need not be punitive, i.e. lead to “Not Yet Competent” (NYC), but should enable feedback and opportunities for correction.

One of the groups comprising adult educators reviewed Advanced Certificate in Training and Assessment (ACTA) v5 CU4A, and they arrived at the following evaluation:

“On ACTA v5, authenticity is strong; alignment is half-achieved; there is a lot more room for improvement in feedback because although AEs do it by themselves, it is not formalised and made part of the assessment plan, so it happens, but it can happen much better. Formative assessment is not being tracked as much as it could be at this point – we give learners a checklist, but we cannot assess learners on how well they have provided feedback to the whole class – we can do that better. If we look at feedback not as input but as process then the AE should be assessed for his/her ability to apply feedback in the class, then we could design that into the curriculum and assessment. Judgement is not bad because ACTA v5 ‘reflection’ allows the AE to judge themselves and not just pat their own back but say how they could have done better upon review of their own video – that is good. Future-

orientedness is OK; holistic not OK. So, ACTA v5 is strong in some places but can be stronger in the rest.”

By working with the assessment heuristics, the focus shifted from a discussion about “strengths”, “weaknesses” and/or “content” of curriculum towards asking fundamental and critical questions about learning and assessment. For example, one participant noted this about the assessment heuristics:

“This is the real take-off of adult learning. It is not about the content [of the curriculum] per say but the development of the self with regards to how one is learning, and the increased self-awareness of how – how I as a learner am developing myself, how I am growing and changing, what works and what does not, and how I track my own learning. It is also about learning to learn better – identifying my learning style, and after each assessment whether I tend to improve myself.”

2.2.2. Authenticity

Participants who reviewed ACTA v5 CU4A noted the improvements and new directions in v5. Their discussion centred on the dimension of “authenticity” as they made comparative evaluations between the current and past versions of ACTA. They assumed that the workplace is the most authentic site of assessment but may not be ideal or even practical for learning, and they also noted how simulation is not the same as authenticity. One of the participants said:

“Assessment authenticity is located at the workplace but practically not always possible [to carry out] but we do as much as it is possible. My problem with authenticity is that we swing so much to this side [100% workplace assessment] and then we give ourselves excuses. The question is how well can we do it, to really create the [right] environment? We cannot then say let’s take the processes and assess in class which we are doing now, right? ACTA v4 CU4A was like that – it is very simulated. How close the simulated environment or set-up [in role-play and scenario] is to the workplace is just one definition of authenticity; another definition is how can the learner display all the knowledge, skills and attitude required to do that role. The nature of assessment has changed – right now the m6 is formative, whereas the previous CU6 is summative. So, what does it say in the syllabus and standards, is it continuous or formative?”

They questioned not only the (current) assessment methodology that relies on role play to simulate work and the workplace, but also the practicality of workplace assessment. One of the participants noted:

“I kind of disagree with the notion about how well does assessment environment simulate the workplace because once you simulate, you take away the context. For example, how do you simulate bartending at 3 am? So, assessment should be conducted at the workplace – as far as possible. But what about those who do not have a job or are not yet in a workplace?”

“Role-play is authentic but depends on the scenario given. Role-play doesn’t require learners to justify [their response] and only to demonstrate. Oral questions (OQs) are usually directed at knowledge recall. Role-play scenario and scripts are given in advance, so it is not a new situation but a rehearsed one. But a well-crafted role-play could be powerful. The role-play can be realistic but not necessarily complex for level 1 programs because we also don’t want to kill them.”

In the assessment heuristics, “authenticity” is defined as reflecting the demands of real practice and the real nature of work and/or the profession, drawing on real work practices, which do not necessarily need to be situated in a workplace. Authenticity in assessment means that there is a purposeful engagement with the context of work/professional/vocational practice. The discussions suggest that performance, declarative and tacit knowledge, skills and attitudes are situated, highly contextualised, and therefore discursive. Participants understood how performance, learning and progress are integrated and mutually dependent on the individual, as much as group dynamics, the nature of the situation and organisational as well as social contexts. “Authenticity” underscores the different demands made, in terms of these factors, and the need for instructors and developers to incorporate them in the assessment design.

2.2.3 Feedback

Participants asked important questions about “feedback” vis-à-vis learners’ empowerment that highlight the uneven relationship between instructors and learners, as a result of deeply ingrained notions of (classroom) learning which elevate the authority of teachers/instructors who “transfer” knowledge to students/learners, and facilitate the unilinear trajectory of learning (towards expertise):

“For you to empower learners to give good formative feedback, and improve work processes, etc., you must expect your learners to be of certain level to be able to express themselves. For example this WSQ GEMS module is for level 1, and ACTA is for level 3, and even level 3 learners also struggle to do those things. So notwithstanding that the assessment heuristics is a good method, we must not forget our learners.”

The idea of designing feedback in order to give learners the opportunity to develop their capabilities as judges of their own (and others’) learning is hindered by the deep bias that some learners (at level 1 for example) are perhaps “not qualified”, “not yet ready” and/or “incapable” of generating and soliciting feedback. The bias justifies the authority that teachers/instructors exercise over learners and has been incorporated into the design of the curriculum, which disempowers learners.

Instructors sometimes work around the curriculum:

“There is no avenue for learners to give feedback – do they even know [about the assessment plan]) and say, ‘I don’t like this question’? They can’t. Our learners are not empowered to question. It’s always one way from assessor to learner. We don’t solicit feedback from learners (formally), but I do in practice and in design, and rightfully there should be because in ACTA v5 that is a requirement.”

"I do that for my learners – I tell them that you should be able to give good feedback, and receive feedback like a man. But that is not part of the IAL evaluation – I requested for it five years ago because I want to evaluate the person's contribution to the class, to each other, to discussions. There is no way for us to evaluate the feedback learners give, even though that is what we do in class."

These comments suggest a lack of design for feedback in the past, as well as in the present curriculum, and the impact of feedback on learning has not been adequately addressed from a learning design perspective. The instructor-driven and informational nature of feedback "without providing strategies for improving learning and without searching for and monitoring how performance information subsequently influences the learner" (Boud & Molloy, 2013, p. 699) or feedback as merely "dangling data" (Boud & Molloy, 2013, p. 699) seem to be the norm in most of the participants' curriculum and practices. Participants found the "feedback" dimension in the assessment heuristics useful, that is, to think about feedback as a designed process:

"When does feedback start, in M3? No, no, no, it starts in class in day one when people have comments for each other. It would be much better if it is formally created this way or integrated as described in the assessment heuristics, not like M1 is about the theory, M2 application of theory, and M3 you come back ... because you can't run away from M2 and M3 if you are doing M1. It will be much better if it is integrated."

The discussions about feedback prompted critical questions/observations, for instance in relation to what feedback is; to what extent it works and in what, real-life situations it does not work, revealing a deeply ingrained bias towards learners; weaknesses in the process of designing feedback within the curriculum and in the context of assessment (e.g. Boud & Molloy, 2013); and a deficit in the model of learning, which assessment serves to identify. Poorly designed "feedback" has the effect of labelling individuals as deficient or lacking in certain skills and traits.

2.2.4 Judgement

Participants highlighted "judgement" as an integral aspect of assessment and learning. Developing judgement requires learners to: "(1) identify oneself as an active learner; (2) identify one's own level of knowledge and the gaps in this; (3) practice testing and judging; (4) develop these skills over time; and (5) embody reflexivity and commitment" (Bound et al., 2016, p. 11). They discussed the limitations and problems of the curriculum, such as the WSQ GEMS module, which inhibits the enabling or developing of learners' judgement:

"In this module [WSQ GEM]) there is no judgement but if it involves interaction with a case-study then maybe. This module covers perform, role-play and question-answer. But to be fair in the role-play, it requires learners to be able to respond to situations, so that is the component of the judgement call, and the assessor has the latitude to accept it or not. On multiple sources of judgement including self, peers and workplace supervisor: actually all WSQ [programmes] are NOT like that. It is the assessor who determines, he is the king."

“I only got two of the descriptors on judgement– ‘uses multiple sources’ and ‘transparency’. But we have moderation and it should be formal, which we don’t have it. It is formal in DACE but not in ACTA. We do have moderation meetings. We do it in different ways for different purposes. There are variations depending on individual assessors. But it should be [about] assessment criteria and not individual standards [of the instructor or assessor], and this is where the process happens and to make the point that it is not about the individual’s standards [that should matter].”

Using the assessment heuristics, participants took note of the limited opportunities for learners to exercise and inform their own judgement in the WSQ module under review. One of the participants commented how “all” WSQ courses inhibit the development of a learner’s judgement. The issue is not with “reliability” because participants said that they actively engage in constructive alignment through “moderation meetings”, and try to arrive at a collaborative interpretation of criteria, against which judgements are made.

We argue that the fundamental issue is the conceptual dominance of learning as a highly individual activity of the mind distinct from the other sense organs of the body, and where knowledge is regarded as a “product” that could be “transferred”, which is in contrast to the notion of learning as judgement. Judgement refers to the *capacity* for acting in and on the world (Hager, 2001). The assessment heuristics describe and enable what assessment as the making of judgements entails:

Table 2.1 Assessment as the making of judgements

<ul style="list-style-type: none"> • Clarity of standards and outcomes (Bennett, 1999);
<ul style="list-style-type: none"> • Writing learning outcomes in ways that allow and encourage “unexpected” learning outcomes (McEwen et al., 2010);
<ul style="list-style-type: none"> • Using multiple sources of evidence, including self-assessment (Bennett, 1999; Boud & Soler, 2016);
<ul style="list-style-type: none"> • Using evidence from a range of sources/roles (e.g. learner, peers, educators, work supervisors, etc.) (Bennett, 1999; Boud & Soler, 2016);
<ul style="list-style-type: none"> • Design assessment to address multiple outcomes and aspects (Bennett, 1999; Boud & Soler, 2016);
<ul style="list-style-type: none"> • Develop learners’ ability to make realistic judgements about their own performance (Boud & Soler, 2016).

Source: *Assessment and the changing nature of work: cross-case analysis*. Bound et al., 2016, p. 27.

2.2.5 Reflect, review, prompt and create dialogue

The assessment heuristics view assessment as far more than assessment techniques and assessment plans. Participants recognised that assessment is an important feature of learning, and the discussion highlighted challenges related to the approach that would enable and/or inhibit

assessment of/for/as learning. They deliberated about why assessment is strong in particular modules and silent in others. The assessment heuristics have enabled participants to:

1. reflect on and re-consider their experiences, thinking and assumptions about assessment;
2. review their curriculum and assessment vis-à-vis the six-dimension assessment model;
3. make visible the assumptions, purposes and thought processes that inform assessment;
4. ask questions about the approach, development and evaluation of assessment practices;
5. think about the kinds of dialogue with other stakeholders on writing of standards, accreditation processes, and curriculum and assessment design; a wider dialogue means taking into account the roles, interests and influence of various stakeholders and organisations involved, and the need for engagement with them.

The assessment heuristics have helped to surface the “unspoken” social purposes and assumptions about (WSQ) assessment, and their implications on learning. One participant wrote:

“WSQ tends to have assessment pegged at the lowest bench mark so that workers can have some qualification to find work. ‘NYC’ outcomes penalize candidates and assessors so bottom rung benchmark is win-win. For WSQ assessment, learners do not ‘progress’ but just perform.”

Participants discussed the different learners and their needs, and how best to implement assessment with strong features of authenticity, judgement and holism. One participant said:

“The domain for the assessment heuristics is level 3 or 4. It is very much in the level of higher learning or higher-level skills and knowledge. Maybe for level 1, the assessment plan will need to be carried out at the real work station, which have access to all the resources instead of the classroom set-up”.

Another participant, who works as an instructor with a training provider, considered these features as “ideals”. She worried about imposing more requirements on learners, and how these might become more taxing on her company’s scarce resources. Some of these comments highlight the need to go back to the purposes and intent of learning and assessment, the good design and the need for high levels of professional capability.

2.3 Focus group discussion at the Lifelong Learning Festival

A focus group discussion was conducted as an event in the Lifelong Learning Festival. The event was open to the public and it attracted instructors from polytechnics and training institutes, as well as course developers, adult educators and learners who have had some experiences with WSQ courses. The participants were asked to use the assessment heuristics to review and discuss either the curriculum and assessment that they have developed as an instructor and/or developer, or a curriculum and assessment that they have experienced as a learner. Participants were also broken up into small groups of five for discussions that were guided by the following questions:

1. Which dimensions appeal most strongly to your group? Why?
2. Based on your experience, can you share examples of assessment activities that you thought were well designed and/or poorly designed?
3. Do you see the assessment heuristics as being useful for instructors, assessors and curriculum developers? How would you use them? Who will use them?
4. How could the assessment heuristics be improved?

2.3.1 Holistic assessment

Using the assessment heuristics, we invited participants to discuss their own experiences and understanding of assessment and learning, which prompted reflections on holistic assessment. One participant said:

“Holistic is most important. For example, I’ve seen [a video] about carpentry in Canada. Unlike in Singapore where you go to ITE to take a course, learners in Canada also learn about entrepreneurship, marketing etc., so it’s a very holistic programme and not a piece-meal thing because all these are required to bring to fruition [the work of] carpentry. I thought this is very neat because if you want to empower a person might as well empower all the way.”

Learners’ empowerment through assessment, which aims to enable learners to be the most that they can be, is an important outcome of holistic assessment. Assessment with a holistic perspective addresses the “wholeness” of learners’ development by focusing on the integration of learners’ professional, generic/entrepreneurial, learning-to-learn and reflexive capabilities. Holistic assessment takes a long-term perspective of learning as a continuous process of development. It looks at various aspects of a learner’s growth, and seeks to induct the learner into a larger body or community of practice and/or a profession. Holistic assessment emphasises interconnectedness, as another participant remarked:

“I was involved in a course teaching youths how to communicate with seniors. At the end of the course, we shared with them that it is not just communication with seniors but beyond – with the community and family, and not just the programme with seniors. So, holistic to me it means that there is a bigger purpose of the course, and that there is a connection with the seniors and the world [at large].”

Holistic assessment requires learners to know about themselves and their relationship with others in the social world. This entails self-responsibility as well as a sense of responsibility to others. Thus, holistic assessment’s emphasis on the “authentic wholeness” of real work also refers to the learner’s sense of self and his/her relatedness to others as a member of the family, community and/or society.

Consequently, holistic assessment not only contributes to the development of the learner as a professional, but also plays a role in socialising the learner into the larger community (of practice) and society. The discussion suggests that holistic assessment focuses on learners’ abilities to think critically and reflexively about the (broader) world around them, the interconnections that they (are

able to) make with various issues, and their ability to monitor their own learning through mutual dependence.

2.3.2 Alignment

Participants also focused on the topic of alignment. They discussed the agreement of expectations and roles between stakeholders or the “constructive alignment” (Biggs, 2003) between learning outcomes, learning activities and assessment activities, which require an iterative process of capturing and writing the learning outcomes, and also discussed developing the learning and assessment activities in order to achieve coherence between assessment methods and programme specifications. They highlighted how alignment is closely connected to the future-oriented dimension, as one participant summed it up:

“I totally agree on everything (described in the six-dimension assessment model). But the problem is the ‘real world’, especially those running the WSQ programmes and those doing assessment, because there is no alignment between assessment with the purpose [of these programmes] which is to develop learners’ capabilities. It is not so much whether the person can do it now but, as an assessor, whether s/he can do it in the future – that current understanding [of future-oriented] is not there. So, in terms of alignment, that is really critical and if that does not work then nothing else works.”

Participants agreed that learners need to be more engaged and they (the learners) need to be recognised as thinking, feeling and knowing participants rather than passive subjects. They also noted that, for WSQ programmes, the learning outcomes could have been deliberated more carefully, better defined and clearer, and also better aligned with assessment. The discussions highlighted the fundamental concept behind alignment – that learners construct meanings (which are situated in and informed by specific work and workplace contexts) from what they do in order to learn, and therefore it is important to link learning activities and assessment tasks to learners’ experiences and concepts, and to extrapolate future possibilities.

Participants also highlighted that the wider context, the changing nature of work and WSQ programmes need to be more future-oriented and capability-focused, which requires a more concerted strategic effort to enable assessment for, of and as learning, as two participants observed:

“So we have a case of misalignment with the whole context of assessment (in WSQ programmes). The move towards a more holistic approach is going to take time and resources to redevelop the whole perspective, and assessment. And I think this [exercise] is timely to awaken [policy makers and general public] about the difficulties trainers and trainees face at the system level.”

“I have an example here in a central kitchen environment where a chef operates. Now the chef has become a cook because all he has to do is to mix the things up and he does not have to think! My question is whether the national system, standards and assessment are able to make the distinction in capabilities. The current national system, standards and WSQ have been defined very rigidly – they are not future-oriented, and rarely holistic. There are no feedback loops put into the course, etc. It requires fundamental re-thinking on the part of policy-makers.”

2.3.3 Assessment, WSQ and change

The discussions revolved around participants' experiences of WSQ programmes and highlighted the following:

1. Assessment is primarily credentialing in WSQ programmes.
2. Participants' complaints about WSQ courses and assessment suggest the need for a review of current programmes and adult learning and assessment agenda.
3. Participants saw the value and potential of assessment "for" and "as" learning as developmental tools, and they wished that these could be better implemented in, incorporated into and/or designed in the context of WSQ programmes.

Here, participants voiced their concerns about assessment: they expressed dissatisfaction with the current state of assessment and associated it with high-stakes (national) examinations and certification. They also criticised the "teaching-to-the-test" approach to learning. One participant highlighted the inflexibility in the WSQ programmes, and questioned the quality and value of these programmes provided by private operators. Citing their experiences as learners, instructors and assessors in WSQ courses, participants described the learning as being rigid and of poor quality:

"I looked at what my brother went through [the WSQ Basic English Course] and half the time I don't think he understands, and at the end of the day you know how they assess? They tell him 'this is the answer'..."

"A lot of times, the ICDL trainers focus on [teaching] how to answer the questions rather than learning, and it defeats the purpose already. When you don't pass, you have to fork out the whole cost, so everybody wants to pass to get the cert. With the cert, people will be able to say 'enable continued self-learning', and use it for job application."

"The idea behind [WSQ and assessment] is good but something is wrong with the implementation ... the courses at implementation level are not well done."

These concerns about examinations and complaints are nothing new (e.g. see Bound & Lin, 2013), but collectively they reflect issues that are entwined with adult learning. They include the difficulties of gaining access to and/or participating in work, which often requires job seekers to produce certificates as proof of their "competency", suggesting "a set of stand-alone attributes that reside within an individual" (Bound & Lin, p. 403). Their experiences and complaints highlight that the assessment process leading to certification feeds into this rigid framework of competency, which is devoid of context regarding the workplace and the understandings of work. Rather than enabling a continuous process of development, assessment becomes a finality, or something that is done at the end of a training course, with an end product in the form of the certificate. There was a sense that there should be *more* to (adult) learning and assessment than credentialing and training. One participant said:

"My frustration with assessment is nothing much has changed: there is still a lot of teaching-to-the-test [in the CET sector], and the test or assessment is defined in that way by management. And it doesn't matter because everything flows from there."

Another participant said:

“If I want to change my part but the rest of the system does not change then very little can be done. Everybody changing a small part is not enough, you can push- push-push in your own room, but the whole building does not change.”

Firstly, we argue that change is required not (just) in the design and implementation of the training programmes and assessment (which participants have suggested), but also in the approach towards assessment, work and learning. This *change in approach* underscores a fundamental shift in the understanding of assessment from:

- a “measure” of learning to assessment “for” and “as” learning;
- the notion of assessment as an activity separate from learning to the intertwinement of assessment and learning;
- a focus on individual competence to collective practices taking into account workplace culture and organisational factors;
- a causal and linear relationship between learning and assessment to an understanding of the messy dynamics of work where “the capabilities required of learners for and in the world of work are complex” (Bound et al., 2016, p. 19).

Secondly, the engagement of stakeholders including learners; curriculum designers; those who teach and/or assess what is to be learnt; educational institutions/providers (the educational institution); professional bodies (where they mandate particular requirements or offer possibilities for continuing professional development, which involves assessment); employers; workplace supervisors; reporting managers and/or experienced colleagues in the workplace (because learning and assessment may take place entirely in work settings, with or without an educational provider); and licensing bodies (Bound et al., 2016, p. 22) is important. In complex and dynamic ways, these stakeholders govern performance standards and inform stipulated requirements, which provide affordances as well as limit possibilities for assessment and learning design. There are models for “collaborative partnerships”, but this is not within the scope of these assessment heuristics, and is addressed in the research report *Assessment and the changing nature of work: cross-case analysis* (Bound et al., 2016).

The participants’ dissatisfaction, sense of helplessness and demand for change further suggest the need for:

- the responsible government agencies (e.g. SkillsFuture Singapore, Ministry of Education) to ‘hear’ these voices and make fundamental changes;
- a new research programme that adopts a broader perspective to examining assessment and learning in relation to the economic and labour regime and policy making;
- a set of analytical tools to carry out public conversations about assessment and learning; and
- an activist agenda to disrupt dominant ideologies of work and learning.

2.4 Summary

By emphasising the intertwinement of assessment and learning, contextualising assessment and designing assessment as a process of making judgements, the assessment heuristics have reframed learning away from a deficit model where individuals are labelled as “lacking in certain skills...and

what is required are programmes where these skills are imparted free of context attributing responsibility to the individual to acquire them” (Bound, Lin, & Li, 2011, p. 3).

Participants from the two focus groups have used the assessment heuristics as a tool to review curriculum and assessment design, reflect on their practices and experiences in learning and assessment, and critique the status quo or current approaches to assessment in WSQ programmes. The focus group discussions gave rise to more questions than straightforward “solutions”, for example the need to consider who the learners are and who are involved; the activities involved, such as generating feedback and seeking alignment; how work and workplaces mediate assessment and its purposes; and how to move from assessment as a means of testing and measuring to enabling learners to develop informed judgement about their work and learning.

A few suggestions to improve the assessment heuristics were noted:

- A discussion about the nomenclature of “heuristics” indicated a need to better communicate the purpose of the assessment heuristics as a tool to “think with”, with regard to assessment and learning and the contexts of work and workplaces, and as a tool for dialogue with stakeholders, rather than a tool that sets out a step-by-step guide to assessment design.
- Participants’ comments point to further refinements such as “simplifying the language”. However, simplifying in order to reduce the complexities of assessment, which are difficult to understand in the first place, is to be avoided. Instead, improvements could be made by providing further clarification on key ideas, explaining the rationale behind those ideas and highlighting important references to users of the heuristics.
- Their discussions also highlighted a need for collaterals to explain the purposes of the assessment heuristics and their research background succinctly. The assessment heuristics also need to be re-packaged in a way that communicates more intuitively with practitioners.
- All these suggestions require resources for the professional design, development and marketing of the assessment heuristics.
- An analysis of the focus group discussions highlights the need for an integrated research programme and critical agenda that could be affect both social and systemic levels, as well as individual practice level.

Chapter 3 Application of the assessment heuristics

3.1 Assessment heuristics: from WSQ ACTA to Advanced Certificate in Learning and Performance

The assessment heuristics have been adopted by IAL as a reflection tool for ACTA learners. They are incorporated into the 2018 iteration of ACTA, which has been renamed the Advanced Certificate in Learning and Performance (ACLP). This renaming reflects the greater professionalisation and up-skilling of adult educators such that they are able to facilitate learning experiences, adopt tech-enabled learning and embrace reflective practice for continuous development. The ACLP is also aligned with the Training and Adult Education (TAE) Industry Transformation Map (ITM), and it anticipates the shift from WSQ to the Skills Framework.

Under the WSQ system and framework, an outcome-based approach that maintains a strong focus on the practical implementation of knowledge and skills has been dominant. Here, assessment is primarily summative in nature. Since 2016, IAL initiatives, programmes and systems have adopted a more worker-centric, workplace-focused, learning-oriented and experimental approach to adult learning and continuous education and training. In 2018, the ACLP aims to reposition baseline training for adult educators in consideration of the national plan for sectoral development and changes. These assessment heuristics support the ACLP in the area of reflective practice.

3.2 Assessment Reflection Tool (ACLP)

The Assessment Reflection Tool was developed for the ACLP in collaboration with IAL's Learning and Professional Development Division (LPDD) and Ms Cynthia Lau, who is an adult educator. The tool seeks to help learners think about the purposes of assessment and approaches to assessment based on their assumptions, understanding and experiences of assessment. It exposes learners to the different possibilities of assessment (beyond testing) and places their understanding within the broader purposes of assessment. Through facilitation, learners are encouraged to discuss, debate and develop new possibilities, positions and even problems associated with assessment.

The development of the assessment tool has undergone an iterative process of reviewing, refining and re-working. The main effort was to explain assessment “of”, “for” and “as” learning using examples, descriptions and statements, and to clarify what each dimension means along the continuum of assessment. The final design of the reflection tool can be found in Appendix 3. For adult educators who are curriculum developers, the reflection tool could be used as a prompt for asking the following questions:

- What are the links between assessment and learning outcomes and activities?
- What are the purposes of assessment?
- What do I believe assessment is? How do I think assessment is or is not intertwined with learning?
- How do I incorporate judgements about learning through assessment?
- What do I think the role of the learner is in assessment?
- What do I think the role of the instructor is?
- How has my experience shaped what I believe and do now?

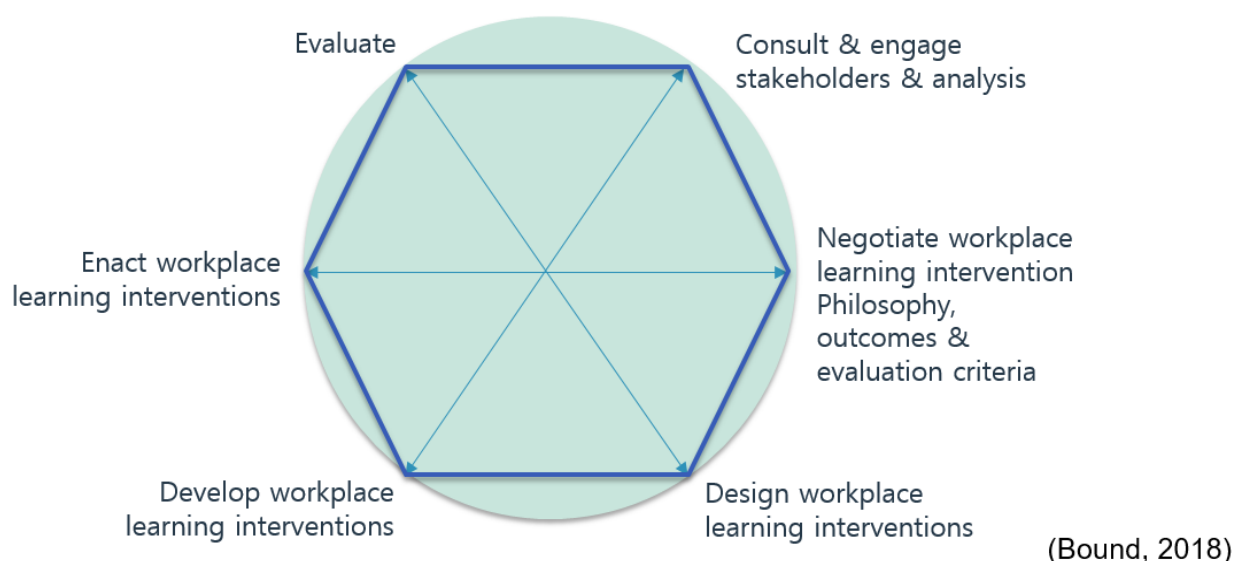
IAL conducted a pilot run of the Assessment Reflection Tool in July 2018 with a group of ACTA learners. Further refinements of the content and the mechanics of the tool are under way.

3.3 Curriculum design

The six dimensions of assessment can be applied to curriculum design. Here, the curriculum refers to a set of documents that articulate content, learning processes, assessment and evaluation, place, duration and learning outcomes. It could be “instrumental”, i.e. teacher and content focused, or “interpretive”, characterised by a flexible, engaging and learner-focused approach, requiring professional judgement and innovation. The curriculum could focus on learning needs; “bespoke” (learning) solutions, which seek to identify and solve specific organisational problems or issues; and/or delivery of standard programmes.

Curriculum design is an iterative process that includes consultation with stakeholders; negotiation of curriculum philosophy, outcomes and assessment criteria; assessment or evaluation; development of courseware; and enactment of curriculum. Each phase of the process is interconnected with the other.

Figure 3.1 Phases of curriculum development



Going through the process or phases of curriculum development (Figure 3.1), developers together with their stakeholders, including senior management, managers and workplace supervisors, and learners, will have opportunities to ask questions and surface assumptions on decisions as follows:

- Who is the curriculum for?
- What is its purpose?
- What problem or issue is it addressing?
- What do you want your graduates to be?

The six dimensions of assessment provide further guidance for the curriculum design process:

- Authenticity: in what ways does learning and assessment reflect the complexities of the work, work settings, profession/vocation?

- Feedback loops: how should feedback be designed into the curriculum? What sort of feedback is to be generated, and by who?
- Holistic: how does learning and assessment integrate embodied learning, doing, and thinking?
- Judgement: how are learners given opportunities to judge their own and their peers' performance against transparent standards?
- Future oriented-ness: how are learners' learning-to-learn capabilities developed?
- Alignment: are all aspects of the curriculum aligned to meet the agreed outcomes?

3.4 Summary

The feedback from Ms Cynthia Lau, who co-developed the reflection tool, suggests that the assessment heuristics could serve such a purpose:

“Going through this exercise [of co-developing the tool] has opened up [my] paradigm of teaching and learning. Assessment is not something that we [as instructors] do just to tick the box, but it is a way of thinking about learning and curriculum design. If we design curriculum with assessment in mind then the learning activities will be very different. Assessment CAN structure learning and learning behaviours, and the assessment heuristics provide the means to do that.”

The next steps would be to explore how adult educators and curriculum developers could be supported to use the assessment heuristics in their work. This is discussed in Chapter 4.

Chapter 4 Next steps for the assessment heuristics

This chapter discusses what is needed to support the operationalisation of the assessment heuristics. Collaboration within, as well as outside, IAL is key to operationalising the heuristics. As indicated in the previous chapter, participants in the workshops and focus group discussions generally agree with the principles and objectives of the assessment heuristics. The issues highlighted by participants pertain primarily to implementing what is regarded as “aspirational” to achieve in terms of concerns, such as time, resource and an understanding of the assessment heuristics and the six-dimension assessment model. These issues can be addressed by the following: self-help resources; critically oriented training and facilitated discussions; and continuous engagement with stakeholders.

It is useful at this point to be reminded of the intent of the assessment heuristics. The six-dimension assessment model is a diagrammatic representation of six interconnected elements, related to the different types of assessment. The purposes and/or types of assessment drive the design process, which incorporates each of the elements/dimensions. The assessment heuristics are a tool based on the six-dimension assessment model for *thinking about* assessment, which supports and enables learning. It adopts a practice-based approach to enable practitioners to draw on their own experiences, it directs their attention to the contexts of work and workplaces, and it seeks to reshape their understanding of assessment and learning. A practice-based approach positions practitioners, the contexts of work and the workplace, and the organisation in which assessment takes place as “mutually produced” (Boud & Brew, 2017, p. 79). It shifts the focus from individuals and their attributes (e.g. competencies) to the activities of assessment, the sayings and doings of various stakeholders about assessment, and the contexts of work, workplaces and organisations in which assessment occurs.

The assessment heuristics re-prioritise assessment and its design as follows:

1. Assessment involves helping learners to act within and on the practices through which they are developing expertise as professionals in their respective fields.
2. Assessment cannot be separated from learning, be it in accredited courses or in non-formal and informal learning. It is part of a continuous process of (professional) development – of participation, construction and becoming (Boud & Brew, 2017; Bound & Lin, 2013).
3. Assessment involves the fostering of “learning-conducive” (Boud & Brew, 2017) work and work environments that involve job (re)design, managerial practices and “co-producing” assessment with others, including learners, workplace supervisors and employers.

Success in assessment is not to be judged by the number of “passes” or boxes ticked in a list of competencies but by the development of individual as well as collective learning, and by growth towards understanding of the work and informed judgement. The assessment heuristics not only address curriculum development needs but also look at wider concerns (about work, workplaces, organisations and the broader community and/or society) by enabling practitioners to “see” the interconnections and implications among these concerns. Clearly, this approach is more realistic than the deficit model (of teaching and learning) inherent in many assessment approaches, which emphasises what learners need to learn and what they do not know or cannot do, expecting them to

fill in the gaps through their own endeavours, often by “working harder” regardless of contexts. Consequently, the assessment heuristics are not a checklist. They could be used as a reflective and communicative tool, as indicated in the previous chapter and in the following discussion concerning the next steps for the model and the heuristics.

4.1 Self-help resources

Developing self-help resources will complement the use of the six-dimension assessment model, as well as feed into collective activities for professional development, and support design and development teams in using the six-dimension assessment model.

Some suggestions for self-help resources may include providing examples, case studies and manuals mounted on a platform for practitioners to access the six-dimension assessment model and heuristics. To drive reflection, users will need additional, reflective questions to assist them and encourage them to think about some of the things that they want to maintain or keep, and the things that they want to change.

At this stage, we think that there could be more clarification of assessment as the development of practice rather than a task, checklist or strategy, and how the ways of thinking about learning, knowledge and work shape what we do with assessment.

Developing case studies on the use of the model and the assessment heuristics for practitioners and those who design and develop programmes and institutional policy on assessment would provide specific examples to help them make sense of and gain deeper value from the use of the heuristics.

4.2 Critically oriented training and facilitated discussions

The assessment heuristics seek to enable practitioners to “see” assessment as intertwined with learning, as situated within work and workplaces, and as a process of making judgements. It is a shift in understanding assessment as a method to “practice”, which practitioners find challenging and even difficult to grasp, as one participant observed:

“Do you mean how they are learning, how well they are learning, or what they are learning? The ‘how they are learning’ is about methodology – learning visually, formal learning, learning by taking instructions, and/or learning by osmosis. The idea here is that assessment can lead to that, and this is the concept of assessment as learning.”

However, learning is more than just “methodology”. As many leading adult learning scholars have highlighted, learning is relational, highly situated and always negotiated. While additional resources are required to support the further development of the six-dimension assessment model and heuristics, it is equally important to enhance the standards of adult educators and invest in a more critically oriented curriculum for professional development, in order to realise the principles of learning and assessment embedded in the heuristics.

Developmental conversations and facilitated discussions, to deepen reflection, broaden understanding and extract greater value from the six-dimension model and heuristics, are required. Given the current review of ACTA, IAL will continue to explore the uses of the model and heuristics.

Another suggestion is to use the assessment heuristics to identify the practitioners' perspectives on assessment. By taking the model and heuristics upstream to the pre-curriculum development stage, training managers may have, at their disposal, a useful tool to shape and inform their training processes. This is also being explored within IAL to develop an online tool for profiling learners' assessment approach.

4.3 Continuous engagement with stakeholders

The six-dimension assessment model and assessment heuristics could be further developed and implemented as a tool by groups interested in assessment and curriculum design. But practical concerns were raised by practitioners in the adult training sector:

"I believe that it is challenging for instructional designers to decide appropriate assessments, partly due to pressures from some stakeholders. In light of shorter business cycles, assessors face mounting challenges to design good assessment and deliverables."

"Assessment plans for WSQ modules, once accredited are quite hard to modify significantly. Work-based assessments are hard to carry out in external training. Summative assessment in our current system limits how much we can put into the assessment plan."

These concerns regarding business needs and rigidity imposed by the WSQ system require continuous dialogue with stakeholders. The assessment heuristics engender this dialogue by prompting people to not only think more critically (about assessment and learning) but discover for themselves the broader implications and interconnections within the organisation and the contexts of work and workplaces.

Beyond practitioners themselves, we also seek to work with educational institutions, such as local polytechnics and universities, as well as IAL, to explore opportunities to further develop and implement the six-dimension model and the assessment heuristics.

Indeed, there are many possibilities, especially if practitioners use the six-dimension model and heuristics as a dialogue tool for engaging with stakeholders. In such a case, those practical concerns regarding implementation could be better addressed.

4.4 Conclusion

The key areas for support and follow-up work include:

1. finding a "platform" for the six-dimension model and heuristics, and providing access to the tool; developing self-help resources to assist users in interpreting their responses and drilling further into uncovering their assumptions;
2. developing a critically oriented curriculum, facilitating discussions to broaden practitioners' understanding of assessment and learning, and taking people through the six-dimension assessment model and heuristics;
3. continuous engagement with stakeholders to identify possibilities for developing different tools for curriculum design and assessment and learning practices.

In conclusion, the assessment heuristics are not concerned with the details of assessment strategies, design processes and approvals, evaluation protocols and so on. Rather, they emphasise a practice approach to enable practitioners to “see” assessment as intertwined with learning, as situated within work and workplaces, and as a process of making judgements. Assessment should be an integral part of learning, not an afterthought. Ways of providing suitable support and creating conditions for this remain a responsibility of the organisations and institutions involved.

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Appendix 1 Workshop on assessment @Polytechnic

Activity 7: Dimensions of assessment

1. Read assessment plan 2.
2. On a scale of 1 (least strong) to 5 (strongest), use a coloured dot to rank Assessment plan 2 against the following dimensions.
3. Using your rating, consider in what ways assessment plan 2 is assessment of holistic performance. Write your thoughts on a sticky note and place it on the flipchart.



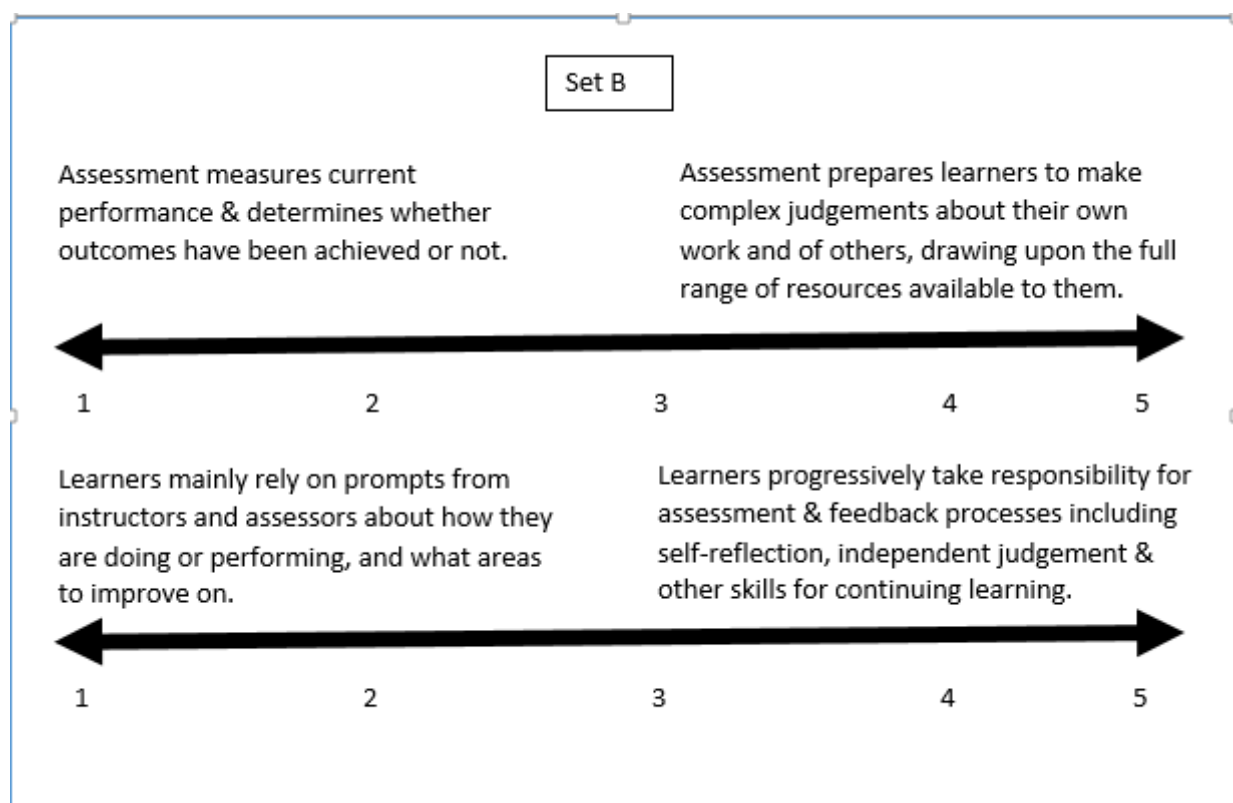
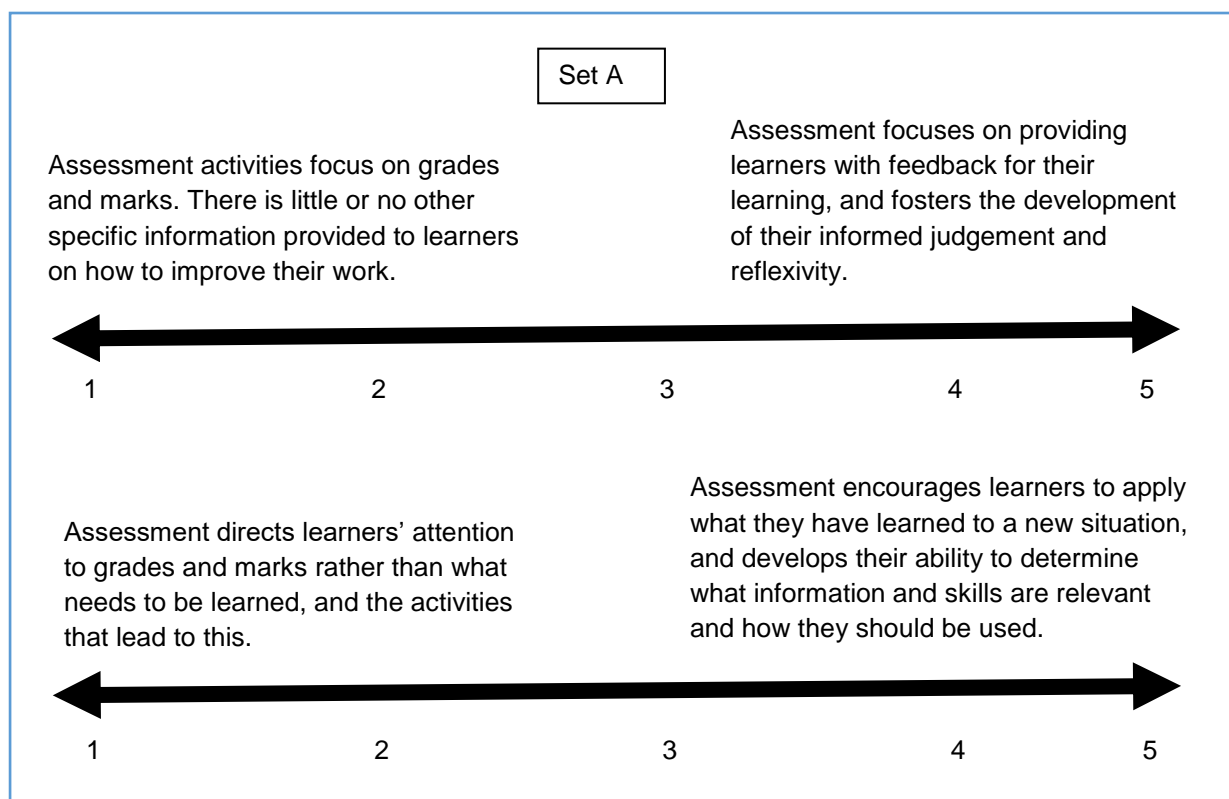
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A flipchart template for Activity 7. It features a white brick wall background. On the left, a vertical label reads 'Least Strong'. On the right, a vertical label reads 'Strongest'. In the center, there are six horizontal lines, each corresponding to a dimension of assessment: Alignment, Authentic, Feedback, Future-oriented, Holistic, and Judgment. Each line has a small colored dot at the left end, indicating a rating scale from 1 to 5.

Activity 8: Your approach to assessment and learning

- 1) Use the handout on the table to rate your approaches to assessment and learning.
- 2) Plot your results on the handout.
 - Use Set A & B to plot the “assessment as judgment – assessment as testing of learning”.
 - Use Set C to plot the “assessment and learning are intertwined – assessment are separate from learning”.
 - Locate where the points intersect.
- 3) Transfer your point of intersection (which quadrant you are in) onto the flipchart provided using a coloured dot.



Set C

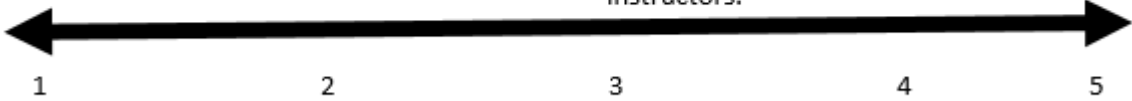
Assessment is standalone with limited or no feedback to or from learners.

Assessment is an integral part of curriculum planning where feedback from various sources are generated, processed and used to enhance performance on multiple stages of learning.

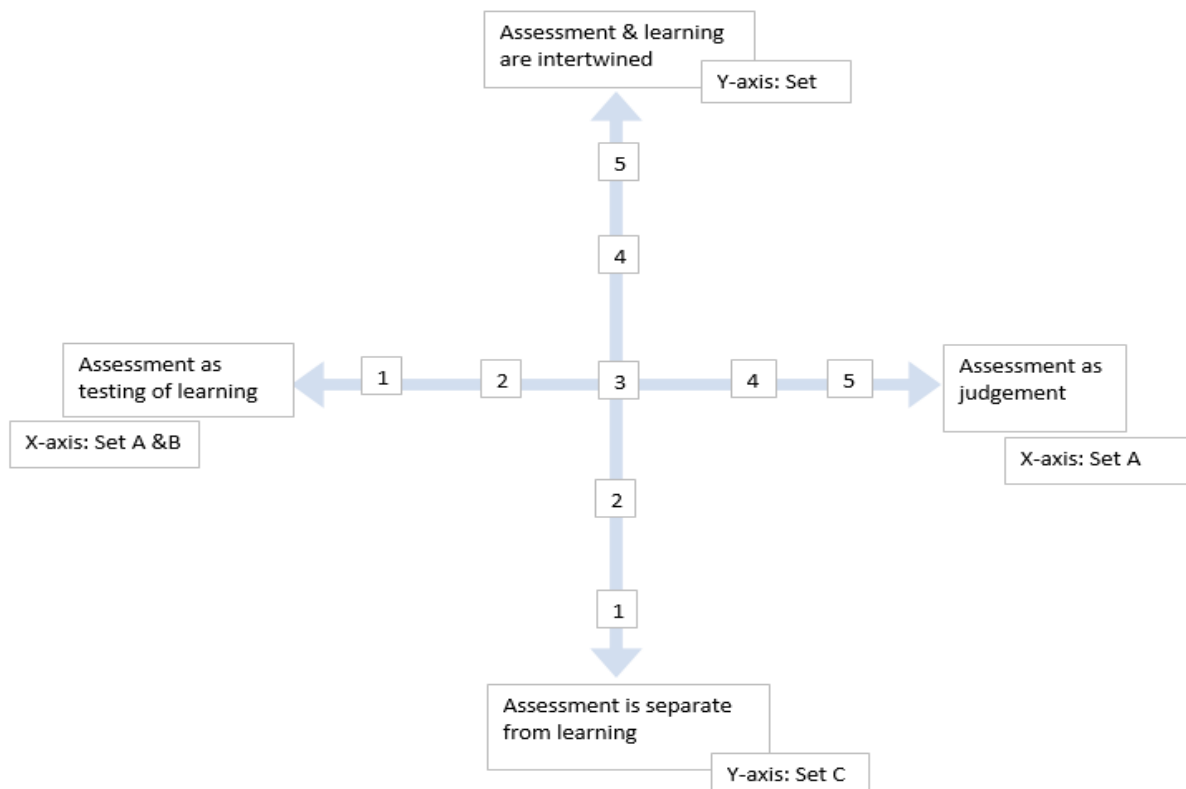


Information from assessment is generally one directional from instructors & assessors to learners.

Dialogue & interaction about assessment processes & standards are encouraged among learners and instructors.



Use questions Set A & B to plot the 'X'-axis, and questions Set C to plot the 'Y'-axis. Locate where the points intersect and identify the quadrant that reflects your assessment approach.



Appendix 2 Focus group discussion:

WSQ “Provide GEMS Service”

Instructions on Assessment Heuristics

- Please read the Standard Curriculum and Standard Assessment Plan on “Provide GEMS Service”:
 - For service staff from various service industry
 - To deliver “Go-the-Extra-Mile Service” (GEMS)
 - 2-day course comprising of mini-lecture, role-play, Q & A, and assessment
- In your small group:
 - Discuss which of the Assessment Heuristics dimensions and descriptors depict or reflect the assessment in the sample curriculum.
 - Select 3 descriptors that you have checked off. Give examples of what the specific activities are, and write them under those dimensions/descriptors in the lines provided.

The six dimensions of assessment	Brief explanation of each dimension	Descriptors			
		Summative	Formative	Sustainable	
Authenticity	Authentic assessment reflects the demands of real practice and the real nature of the work and/or professions. The design of assessment activities draw on real work practices. Such assessment activities do not necessarily need to be situated in or at a workplace. However, there	Uses, draws on and/or is embedded in real work practices (encompasses case-study scenarios, simulations, real work activities).	Assessment requires learners to provide justifications of the solutions to problems, not just answers.	Assessment focuses on learners’ judgement, i.e. the ability to apply what they have learned to a new situation, and the ability to determine what information and skills are relevant and how they should be used.	None of the above.

	needs to be purposeful engagement with the context of work/professional/vocational practice.				
Alignment	Components of the learning system need to be aligned with each other: curriculum and intended outcomes; learning activities; and assessment tasks.	Assessment activities mirror intended learning outcomes, capturing desired qualities of performance.	Assessment is recognised as an opportunity for learning, e.g. assessment activities are designed in an interlinked, constructive, organised and coherent sequence, which focuses on enabling learning.	Assessment objectives, curriculum/ content and activities are aligned towards developing informed judgement, and fostering reflexivity.	None of the above.
		The assessment criteria are transparent and clearly communicated to learners.	Assessment is an integral part of curriculum planning from the earliest stages of course/module/program development.	Some of the learning outcomes include the fostering of lifelong learning capabilities.	
Feedback	Information is not feedback. Feedback has a positive impact on learners' learning and/or outcomes. Feedback is not an input but a process which is judged on its effects.	Information about current work is provided by the instructor to learners, to influence the quality of subsequent work. Onus is on the instructor to do what is needed to have an	Dialogue and interaction about assessment processes and standards take place between instructors and learners.	Feedback stimulates learners to develop capacities in monitoring and evaluating their own learning. Feedback is two-ways between	None of the above.

		effect, and to notice the effect.		instructor and learner.	
		Feedback is primarily one-way from instructor to learner.	Feedback involves learners in dialogues that raise their awareness of quality performance.	Feedback is acted on or used for new &/or subsequent learning activities, and to foster interaction with and between course designers, instructors, administrators & learners.	
				Feedback loops and processes are designed into the curriculum.	
Judgement	Assessment is a process of making judgement. Judgement embodies an understanding of what quality work is, what the performance criteria and standards really are, and it enables improvement and progress in learning. Judgement entails thinking critically about knowledge and learning (Hager, 2001; Beckett, 2013) in the design of the	Moderation processes are in place, e.g. assessors come together to develop shared understandings of criteria (what is important), and move towards increasing clarity of standards and outcomes.	Focuses on learner's understanding of assessment criteria, and aligning this understanding with assessor's interpretation.	Requires learners to apply their knowledge and evolving professional capabilities as they make judgements.	None of the above.

	assessment task(s) and the criteria against which judgements are made.				
		Uses multiple sources of evidence, including self-assessment, and from a range of sources/roles, e.g. learner, peers, educators, work supervisors, etc.	Prepares learners to make complex judgements about their own work and of others, drawing upon the full range of resources available to them.	Learners and instructors become responsible partners in learning and assessment, where learners develop the ability to evaluate the quality, completeness and/or accuracy of work with respect to appropriate standards.	
		Provides transparency of criteria, i.e. clarity and clear communication.			
Holistic	Holistic assessment emphasises the “authentic wholeness” of real work. Craft/vocational/professional capabilities are integrated with learning-to-learn, meta-cognitive and generic/entrepreneurial capabilities. Holistic assessment not	Assessment activities are designed as larger-scale tasks that require learners to demonstrate multiple aspects of a craft and being a professional.	Assessment provides opportunities for learners to integrate concepts and experience.	Assessment and feedback are integrated into the whole-of-programme curriculum design, learning outcomes and teaching and learning activities. For example, an emphasis on feedback for learning is the	None of the above.

	only contributes to the development of the learner as a professional, but it also plays a role in socialising the learner into a community of practice.			focus (of assessment) in the early curriculum, leading to capstone/final and integrated assessment in later years.	
		Assessment tasks are not isolated tasks, content/knowledge or skills.	Challenges are integrated in which a range of skills and knowledge must be used in co-ordination.	Assessment is organised holistically across subjects and programmes with complementary integrated tasks. It builds and enhances professional/vocational attributes through tasks that are diverse, complementary to each other and embedded strategically throughout a programme of study.	
Future-orientedness	Assessment can be developed to equip learners and prepare them for what might be required in the future after graduation. It is learner-centric and offers multiple opportunities for learners to demonstrate their growth in long-	Assessment focuses on enabling learners to identify and solve problems, apply knowledge and skills, and integrate their technical as well as social capabilities.	Learners are enabled to make judgements by giving useful, constructive feedback with respect to their own, as well as others' (learning to	Assessment enables learners to progressively take responsibility for assessment and feedback processes that develop meta-cognitive capabilities,	None of the above.

	term learning capabilities.		learn), capabilities.	including self-reflection, independent judgement and other skills for continuing learning.	
				Assessment enables learners to be inducted into the practices and cultures of their (future) profession through the scaffolding of learning and confidence building from the early stages of learning and assessment.	

Participants reconvened to discuss the six dimensions vis-à-vis the design of the curriculum and assessment:

Which other groups ticked the same dimensions?

Which dimensions do you think ought to be the most important for this module on service excellence? Why?

Assessment as Making of Judgment

Do you think judgment (i.e. understanding of what quality work is, what the performance criteria and standards really are, and opportunities for improvement in learning) is adequately addressed in this module? Why or why not?

Improvements

What areas in this module and/or training would you like to see improvements?

Participants were also prompted to think critically about “service excellence” using the Assessment Heuristics/six dimensions:

Dimension	Reflection Notes
Authenticity	What is "service"? What does it really mean? To serve means to care for and look after the other. To serve is not the same as <i>servitude</i> . It is about mutual respect and recognition of one another. The hallmark of service ought to be <i>sincerity</i> rather than slavish or robotic attentiveness. Does the module or training enhance or compromise sincere service? Could one be "trained" in sincerity? How else could sincere service be imagined, recognized and developed?
Judgment	The module attempts to <u>technicalize</u> and standardize (good) service rather than appeal to the learner's capacity for, understanding about and orientation towards service. There seems to be a tendency to reduce fundamental human activities such as listening, understanding, and communicating into sets of responses and body languages. In the module, "I" is associated negatively with "I won't; I can't"; "I shouldn't" etc. (p.42, 45) instead of reinforcing or affirming one's sense of self, individuality and sense of service, which are unique and diverse. The self appears to be subsumed or dissipated into standardized performances of care/service and polite utterances.
Holistic	What about sense of ownership of work where for example a server may be able to say with all sincerity and confidence: "Can <i>I</i> - fix you a drink?" "Can <i>I</i> - get you anything?" " <i>I/We</i> would like - to take care of you..." "Thank you for letting <i>us</i> - <i>take care of you</i> during this flight..." (British Airways)
Future-orientedness	What kind of customer experience does the establishment hope to deliver? Does it take into account the service staff's experience, needs and personality? Does the establishment treat its employees with respect and dignity?

Participants were asked to give suggestions on future developments of the assessment heuristics, prompted by the following questions:

6-dimensions Assessment Model	Assessment Heuristics	Voice on Assessment
<ol style="list-style-type: none"> Which of the six dimensions resonate with you? Why? Based on your experiences, can you share examples of assessment activities that you thought have been well designed and/or poorly designed? 	<ol style="list-style-type: none"> Do you see the assessment heuristics useful for instructors, assessors and curriculum developers? How would you use them? Who will use them? How can the assessment heuristics be improved? 	<p>How should we continue this conversation, collaborate, and become an organized voice on assessment?</p>

Appendix 3 Assessment Reflection Tool

Instructions:

1. Review the information in “Table 1. A comparison of assessments” on page 1. Then think about what you believe assessment is.
2. On pages 3–5, tick the boxes that most closely reflect your thinking about assessment for each scale: what you think assessment seeks to accomplish, and how it could be accomplished.
3. On the chart provided on page 6, plot each response that corresponds to your score:
 - a. Use questions 1–6 to plot the horizontal axis “Assessment as judgement – assessment as the testing of learning”. There should be a total of six points plotted.
 - b. Use questions 7–9 to plot the vertical axis named “assessment and learning are intertwined – assessment is separate from learning”. There should be a total of three points plotted.
4. Bring your results on page 6 to class to discuss and identify your assessment approach.

Table 1. A comparison of assessments			
Purposes	Assessment of learning	Assessment for learning	Assessment as learning
Description	<p>Assessment is conducted at certain junctures and/or at the end of a course or a programme.</p> <p>At the end of the assessment, learners receive a final decision about their competence and ability, such as a statement</p>	<p>Assessment focuses on helping learners to know how to improve. Learners are continuously monitored by the instructor and given feedback.</p> <p>They are informed on how they are succeeding and where they</p>	<p>Assessment provides opportunities and empowers learners to apply the criteria to help them make decisions and evaluate what constitutes quality work.</p> <p>Learners are their own assessors and take responsibility in</p>

Table 1. A comparison of assessments			
Purposes	Assessment of learning	Assessment for learning	Assessment as learning
	attainment or a grade.	should focus their efforts to improve. Strategies for moving forward are also provided.	monitoring their own learning. They ask questions and use a range of strategies to decide what they know and can do, and how to use assessment for new learning. This equips them with what might be required beyond graduation and in developing proficiency and mastery.
Types of assessment	Summative	Formative, diagnostic	Sustainable, formative, diagnostic and ipsative
Examples include	Examinations and tests	Instructor-centred coaching; expert-led feedback for improvement	Individual reflective practice; critical friendships; dialogue with experts
Underlying belief	Assessment is a statement of achievement.	Assessment enables learners to develop and grow in learning.	Assessment develops learners' self-understanding and critique of

Table 1. A comparison of assessments			
Purposes	Assessment of learning	Assessment for learning	Assessment as learning
			performance and its criteria.
Outcomes of assessment	Assessment focuses on testing, measuring and ranking learners.	Assessment focuses on constructing and providing feedback to learners on their application of skills and concepts.	Assessment focuses on getting the learner to develop critical questioning, evaluation and professional judgement of their work. Learners can use assessment to learn new things.
What assessment means to learners	Assessment is about certification and proof that one has arrived or attained a certain standing or distinction. "Success" and "failure" with assessment have real consequences: success rewards, and failure punishes.	Assessment is considered an integral part of the journey of self-discovery, growth and development of oneself. "Success" and "failure" are de-emphasised. Receiving information about learning is more critical.	Assessment cultivates a thinking disposition that encourages self-assessment and measuring the progress of one's current and previous attempts on a task. Assessment is a skill that enables self-development and mastery of skills.

Table 1. A comparison of assessments			
Purposes	Assessment of learning	Assessment for learning	Assessment as learning
What assessment means to Adult Educators/Assessors	Assessment focuses on production and re-production of standardised answers, teaching to the test, paper chasing, and bell curves.	Assessment is seen as a diagnosis of learning and of learners' needs, to provide a relevant approach to scaffolding.	Assessment is holistic, and reflects integrated design, teaching and learning. Assessment is about imparting the skill of assessment and role-modelling the skills of self-assessment.

Assessment Reflection Tool

Q1

1. Assessment is unrelated to what has been taught or learned.

3. Assessment activities focused on enabling the learner to achieve prescribed learning outcomes.

5. There are dialogues and interactions about where the learner is going, and how s/he is doing.

←

1

2

3

4

→

Q2

1. Assessment directs learners' attention to grades and marks rather than what needs to be learned.

3. Assessment activities focused on learners' correct application of feedback, which leads to prescribed learning

5. Assessment encourages learners to apply what they have learned to a new situation and allows them to determine what information is relevant and how skills should

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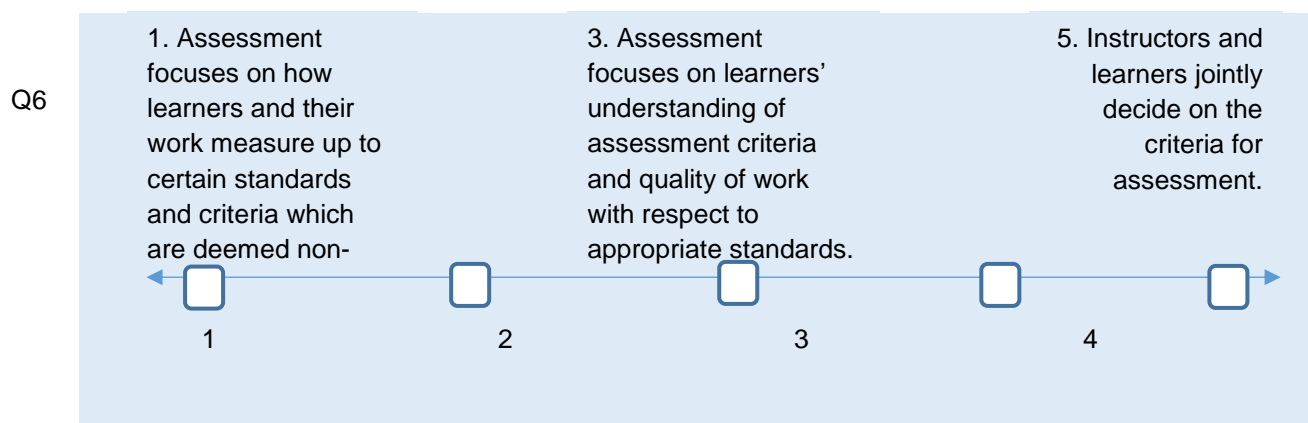
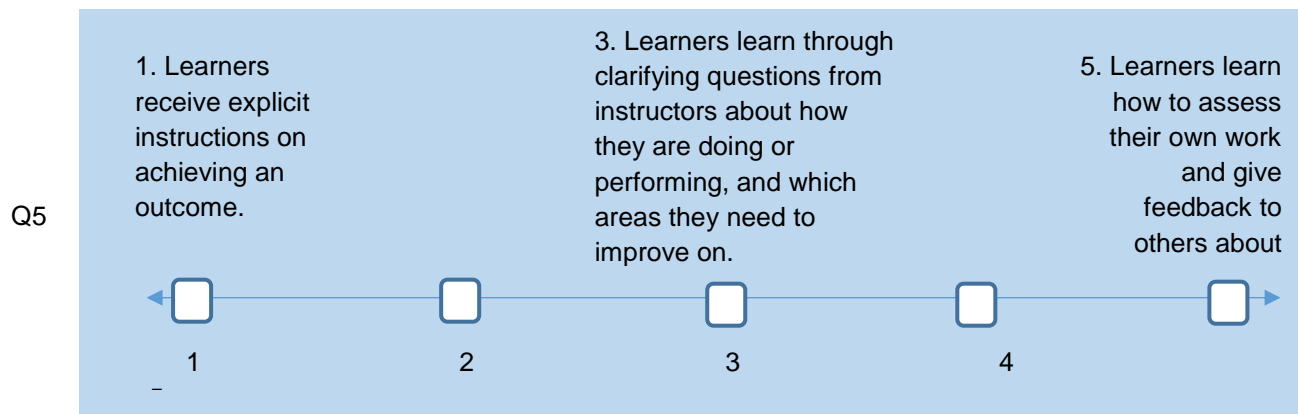
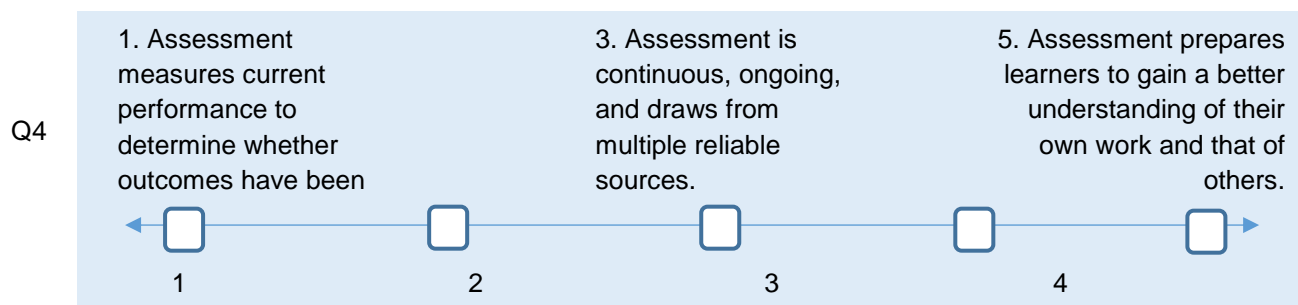
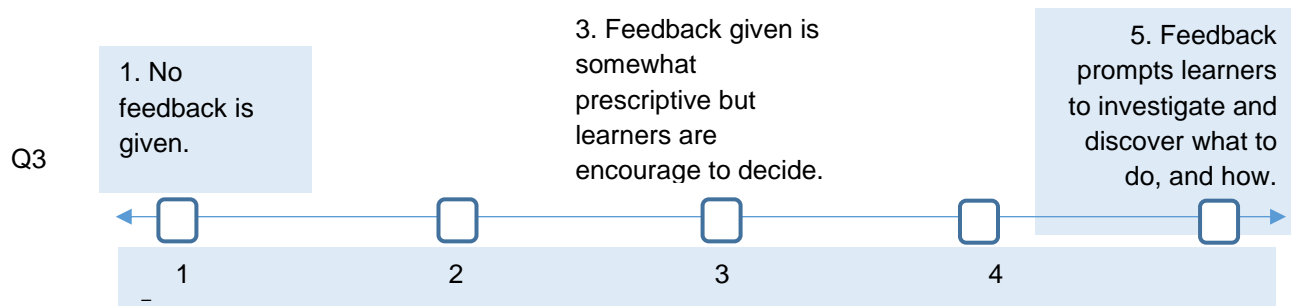
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Appendix 4 Heuristics 2: review curriculum and assessment

Instructions: Select the descriptors that depict or reflect the assessment you have designed. Give examples of what the specific activities are for the descriptors that you have ticked.

The six dimensions of assessment	Brief explanation of each dimension	Descriptors			
		Summative Formative Sustainable			
Authenticity	Authentic assessment reflects the demands of real practice and the real nature of the work and/or profession. The design of assessment activities draws on real work practices. Such assessment activities do not necessarily need to be situated in or at a workplace. However, there needs to be purposeful engagement with the context of work/professional/vocational practice.	Uses, draws on and/or is embedded in real work practices (encompasses case-study scenarios, simulations, real work activities).	Assessment requires learners to provide justifications of the solutions to problems, not just answers.	Assessment focuses on learners' judgement, i.e. the ability to apply what they have learned to a new situation, and the ability to determine what information and skills are relevant and how they should be used.	None of the above.
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alignment	Components of the learning system need to be aligned with each other: curriculum and intended outcomes;	Assessment activities mirror intended learning outcomes, capturing desired qualities of performance.	Assessment is recognised as an opportunity for learning, e.g. assessment activities are designed in an interlinked,	Assessment objectives, curriculum/content and activities are aligned towards developing	None of the above.

	learning activities; and assessment tasks.		constructive, organised and coherent sequence, and focus on enabling learning.	informed judgement and fostering reflexivity.	
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		The assessment criteria are transparent and clearly communicated to learners.	Assessment is an integral part of curriculum planning from the earliest stages of course/module/programme development.	Some of the learning outcomes include the fostering of lifelong learning capabilities.	
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Feedback	Information is not feedback. Feedback has a positive impact on learners' learning and/or outcomes. Feedback is not an input but a process which is judged on its effects.	Information about current work is provided by the instructor to learners to influence the quality of subsequent work. Onus is on the instructor to do what is	Dialogue and interaction about assessment processes and standards take place between instructors and learners.	Feedback stimulates learners to develop capacities in monitoring and evaluating their own learning. Feedback is two-ways between instructor and learner.	None of the above.

		needed in order to have an effect, and to notice the effect.			
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Feedback is primarily one-way from instructor to learner.	Feedback involves learners in dialogues that raise their awareness of quality performance.	Feedback is acted on or used for new and/or subsequent learning activities, and to foster interaction with and between course designers, instructors, administrators and learners.	
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
				Feedback loops and processes are designed into the curriculum.	
				<input type="checkbox"/>	

Judgement	Assessment is a process of making judgement. Judgement embodies an understanding of what quality work is, what the performance criteria and standards really are, and it enables improvement and progress in learning. Judgement entails thinking critically about knowledge and learning (Hager 2001; Beckett 2013) in the design of the assessment task(s) and the criteria against which judgements are made.	Moderation processes are in place, e.g. assessors come together to develop shared understandings of criteria (what is important), and move towards increasing clarity of standards and outcomes.	Focuses on learners' understanding of assessment criteria, and aligning this understanding with assessors' interpretation.	Requires learners to apply their knowledge and evolving professional capabilities as they make judgements.	None of the above.
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Uses multiple sources of evidence, including self-assessment and from a range of sources/roles, e.g. learner, peers, educators, work supervisors, etc.	Prepares learners to make complex judgements about their own work and the work of others, drawing upon the full range of resources available to them.	Learners and instructors become responsible partners in learning and assessment, where learners develop the ability to evaluate the quality, completeness and/or accuracy of work with respect to appropriate standards.	
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

		Provides transparency of the criteria, i.e. clarity and clear communication.			
Holistic	Holistic assessment emphasises the “authentic wholeness” of real work. Craft/vocational/professional capabilities are integrated with learning-to-learn, meta-cognitive and generic/entrepreneurial capabilities. Holistic assessment not only contributes to the development of the learner as a professional, but it also plays a role in socialising the learner into a community of practice.	Assessment activities are designed as larger-scale tasks that require learners to demonstrate multiple aspects of a craft and being a professional.	Assessment provides opportunities for learners to integrate concepts and experience.	Assessment and feedback are integrated into the whole-of-programme curriculum design, learning outcomes, and teaching and learning activities. For example, an emphasis on feedback for learning is the focus (of assessment) in the early curriculum, leading to capstone/final and integrated assessment in later years.	None of the above.

		<p>Assessment tasks are not isolated tasks, content/knowledge or skills.</p> <input type="checkbox"/>	<p>Challenges are integrated in which a range of skills and knowledge must be used in co-ordination.</p> <input type="checkbox"/>	<p>Assessment is organised holistically across subjects and programmes with complementary integrated tasks. It builds and enhances professional/vocational attributes through tasks that are diverse, complementary to each other and embedded strategically throughout a programme of study.</p> <input type="checkbox"/>	
Future-oriented	<p>Assessment can be developed to equip learners and prepare them for what might be required in the future after graduation. It is learner-centric and offers multiple opportunities for learners to demonstrate their growth in long-term learning capabilities.</p>	<p>Assessment focuses on enabling learners to identify and solve problems, apply knowledge and skills and integrate their technical as well as social capabilities.</p> <input type="checkbox"/>	<p>Learners are enabled to make judgements by being able to give useful, constructive feedback with respect to their own, as well as others' (learning to learn), capabilities.</p> <input type="checkbox"/>	<p>Assessment enables learners to progressively take responsibility for assessment and feedback processes that develop meta-cognitive capabilities, including self-reflection, independent judgement and other skills for continuing learning.</p> <input type="checkbox"/>	<p>None of the above.</p> <input type="checkbox"/>

				<p>Assessment enables learners to be inducted into the practices and cultures of their (future) profession through the scaffolding of learning and confidence building from the early stages of learning and assessment.</p>	
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Figure A4.1 Six-dimension assessment model

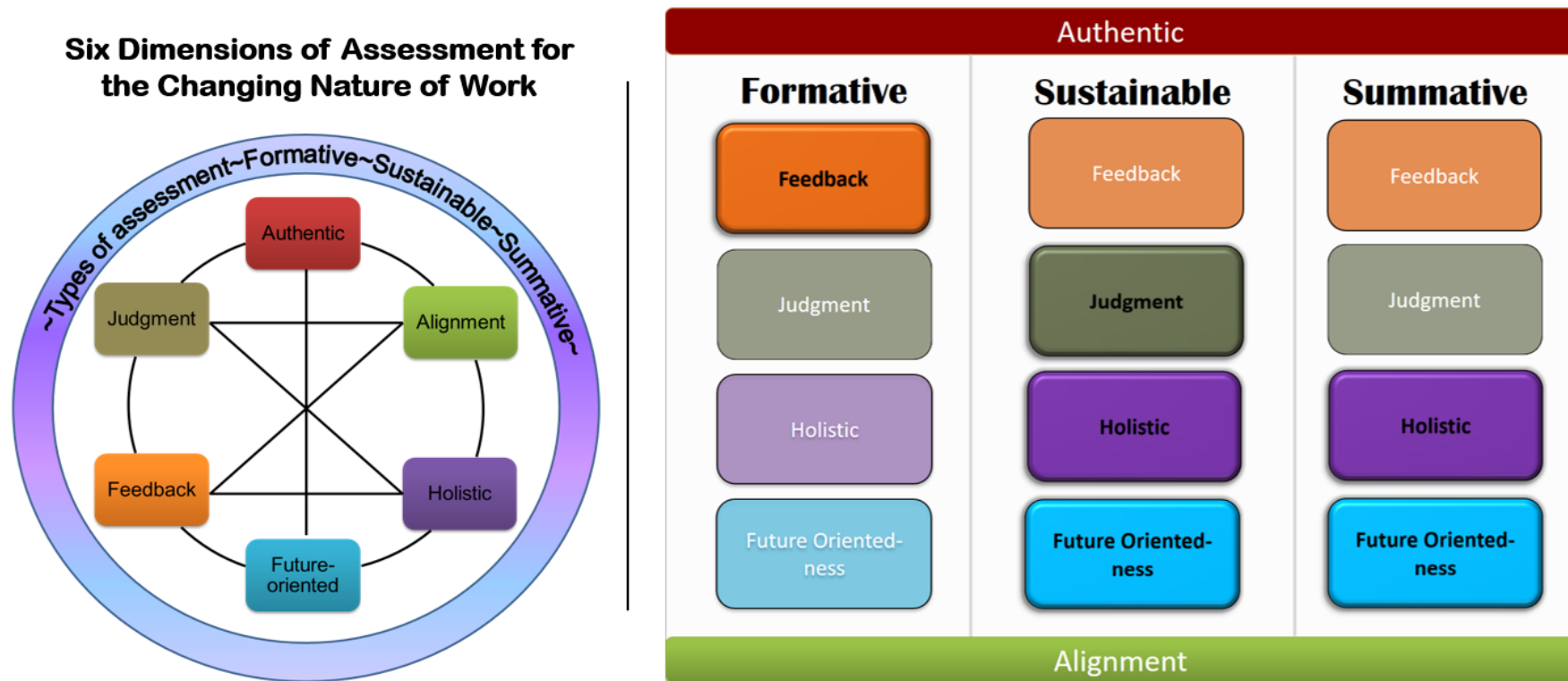


Figure A4.1 highlights the fundamental features to consider when designing assessment. No single feature in the diagram is of greater significance than any other, or has priority, and all are necessary in assessment.

