INSTITUTE FOR ADULT LEARNING SINGAPORE

Centre for Work & Learning

# Enhancing Course Quality and Curriculum

*A Review of Course Accreditation Processes and Documentation*

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# Executive Summary

The Enhancing Course Quality and Curriculum project was initiated with the objective of improving the quality of CET courses based on research findings centred on the impact of the Six Principles of Learning Design (PoLD) on learning effectiveness (Bound & Chia, 2020). Lasting over a year, the project comprised several activities spanning 2 stages (Trial 1: documentary review of Course Proposals (CPs) for evidence of design principles, online survey on perceptions of CET practitioners and Training Providers (TPs) to PoLD in course design, and Trial 2: coaching 17 TPs through the process of populating the new PoLD-infused Course Proposal, conducting focus group discussions with SSG auditors and TPs not involved in the coaching trial).

The reviews of the CPs indicated that the six PoLD were not determinable or evident in majority of the CPs. Curricula were kept 'static' as TPs were hesitant to amend or update their courses due to the rigour and tedium in seeking re-accreditation of courses. As such, 'evolving curriculum' remained a foreign concept to many TPs. There were also comments from the TPs about the CP audit process, especially on how to increase the consistency of the audit decisions. In addition, the poor quality of the designers involved in the crafting of the course designs was highlighted by the coaches as a concern. Through the various activities, the course documents (Course Proposal, Evaluation Rubrics and Requirements Document) were introduced where possible, for comments and trialling. Following which, the documents were updated and trialled again the following activities for further feedback and refinements. The constant prototyping and collection of feedback provided the underpinning basis for the confidence in the latest version of the documents.

Based on the findings from Trial 1 and Trial 2, key recommendations falling into 2 categories: (1) updates and shifts to processes and documentation, and (2) enablers, tools and levers to support the changes to the processes, were proposed. These recommendations centred on changes to: (a) developmental accreditation (including accreditation documentation and processes), (b) Course Proposal assessment process, (c) course redesign and delivery processes, (d) capability development programmes, (e) recognition schemes for designers and auditors and (f) systemic feedback mechanisms to collect direct evidence on the quality of course delivery. Comments on current system tensions were also included to provide a holistic perspective to enhancing curriculum quality in Singapore CET.

# 1. Introduction

The purpose of the Enhancing Course Quality and Curriculum project is to review current course accreditation process(es) and propose enhancements and improvements to raise the quality of learning design and delivery for better learning experiences, and to better ensure that the learning is able to meet intended outcomes. To achieve this, SSG personnel directed that the Six Principles of Learning Design (6PoLD) (Bound & Chia, 2020) be used as the basis for what constitutes quality curriculum. The 6PoLD are: authenticity, alignment, feedback, judgement, holistic and future-orientation. These are explained in detail later in this Chapter. The focus on this project has been on Workforce Skills Qualification (WSQ) courses, with acknowledgement that the suggested changes may may have a wider scope of application to non-WSQ courses.

The project has involved close collaboration with SkillsFuture Singapore's (SSG) Quality Management Division (QMD), and additionally involved personnel from across the Institute for Adult Learning and SSG Divisions, as elaborated in the subsequent section on Background. The work of those involved is based on an application of the Six Principles of Learning Design (6PoLD), an outcome from the findings of the ethnographic research of Assessment for the Changing Nature of Work (Bound, Chia & Karmel, 2016).

## Background

The germination of the Enhancing Course Quality and Curriculum project, (hereafter referred to as the EQ project) came from a presentation by IAL's Centre for Work and Learning (CWL) researchers to QMD, on the findings of the Assessment for the Changing Nature of Work project. QMD proposed that the model the researchers had developed, viz the 6PoLD, would be a useful basis for reviewing curriculum proposals. Subsequently a Working Group was established, involving representatives from SSG's QMD, Manpower Infrastructure and Planning Division (MIPD), Skills Development Division (SDD) and IAL's Centre for Work and Learning (CWL), Centre for Innovation and Development (CID) and Learning and Programme Development Division (LPDD). The Working Group was co-chaired by the Deputy Director of QMD (SSG) and Deputy Director of CWL (IAL). The Working Group was tasked to:

- Identify gaps and weaknesses in the current course accreditation processes
- Leverage the work undertaken by IAL (CWL and LPDD), in particular the 6 principles of learning design, to raise the quality of learning outcomes and experiences
- Identify and incorporate established best practices into the quality assurance requirements
- Identify any other issues that are in tension with the proposed enhanced quality assurance processes
- Develop and implement the sandbox approach (test in the field) and evaluation framework to trial the enhanced quality assurance process

The Working Group reported to a Steering Committee comprising the Directors of the Divisions involved. See Appendix 1 for membership of the Working Group and the Steering Committee.

The specifics of how the work was undertaken is detailed under Methods.

### Enhancing quality of curriculum: What is the problem being addressed?

The problem being addressed in this EQ project is multi-faceted; from the need to design learning to meet dynamically changing circumstances on multiple fronts, to shifts in policy, and feedback from training providers and adult educators This section will focus on each of these aspects in turn.

Given the focus on WSQ (that is, competency-based training), an important aspect to understand in the context of changing circumstances, is the debate around competency-based training. The current competency-based training (CBT) system, known as WSQ, in Singapore was developed in the early 2000s, with reference to the Australian and English systems. Internationally, there has been and continues to be considerable debate and critique of rigid understandings of competency and the systems that support them. For decades, academics have called for more flexible and dynamic curricula to develop deep expertise within the workforce. As noted by Säljö, (2008, p.317), "[t]he assumption that present-day work practices can serve as criteria for successful learning practices is grossly overrated." Säljö (2008) notes that it is important to emphasize learning and the learner. He further states:

> If vocational (or any other) education becomes merely instrumental and has as its sole ambition to copy activities in other activity systems, its role in society will rapidly diminish (pp.317-318).

Säljö's argument that for CBT to capture what takes place in the workplace limits learning and his implication that learning activity should place learning and learner at the centre, lies at the core of the critiques of CBT. In Singapore, recent changes to the documentation of 'skills' in the Skills Frameworks have now included much-needed pathways, but separates technical and generic capabilities and in many instances, has taken an instrumental approach to the listing of skills. This approach has implications for curriculum design, as it takes an experienced, insightful educator to design curriculum such that it relates to the work in its entirety (see for example Sandburg, 2000; Bound & Lin, 2013; Bound & Yap, 2021).

The imperatives for more holistic approaches are many and include the need for the "flourishing of different pathways" (Ong, 2015) moving well beyond basic skill sets, defined as tasks, common to many competency-based training frameworks. Dumont, Istance and Benavides (2010, p.20) note "that traditional educational approaches are insufficient." Rather, what is required for learners to navigate their journeys in today's world is curricula that builds on and develops learners' ability for continuous learning. These new directions require holistic approaches to, and different understandings of, curriculum design that the 6PoLD offer.

In recent years there have been a number of changes to policy, process and requirements in relation to curriculum considerations. These changes include the introduction of SkillsFrameworks, a shift to a slightly wider framing of knowledge, abilities and performance compared to the highly task focused competencies that formed the basis of the WSQ, competency-based training courses. However, while the descriptors are broader and a much needed improvement there remains a separation of technical and generic skills, despite in performing work, these skills are integrated.

Other policy changes include a push for blended learning, to increase the use of technology enabled learning, and work-based and workplace learning. In addition to this, historically, all training providers (TPs) were required to submit all course materials, including facilitator and learner guides in order to be considered for accreditation and funding. Currently, most TPs are only required to submit an outline of their curriculum. However, there is currently no standard means of evaluation of the Course Proposal (CP), resulting in differing responses from different auditors who evaluate the course proposal.

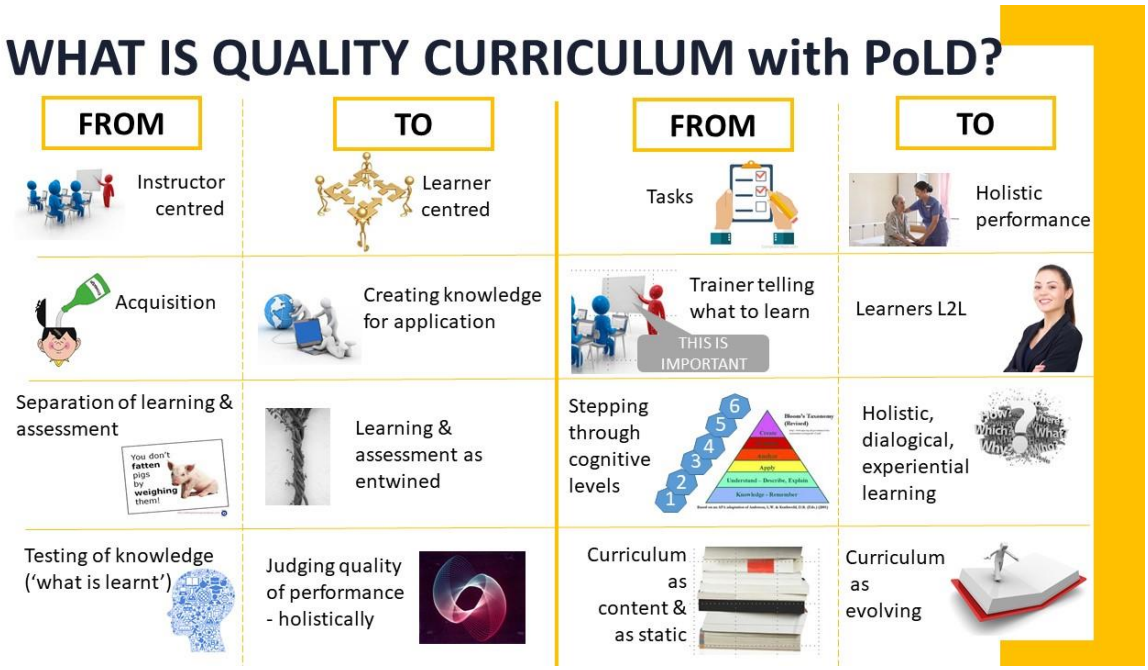
As all WSQ courses are required to comply with the new Skills Frameworks, and should give some attention to technology enhanced learning and workplace or work-based learning, there is a need to update not only the course proposal and accreditation process but also for TPs to update their curriculum. These policy changes along with the concerns as expressed by QMD of inconsistency in course evaluation, constitute strong reasons for change, as indicated by QMD in initial discussions.

## Potential impact of EQ project

The potential impact of this project, should SSG implement the recommendations (see Chapter 3), are considerable. The project is more than a change to the course proposal format and approval process, albeit the CP is a central lever for the proposed changes. The new CP requires a rethink about curriculum and about quality. The decision to base the quality of curriculum on the 6PoLD requires rethinking and reimagining of curriculum, as illustrated in Figure 1.1. The use of the 6PoLD (authenticity, alignment, feedback, judgement, holistic and future-orientedness) (see Bound & Chia 2020 for further explanation) in curriculum design,

- develops participants' capability to thrive in dynamically changing contexts
- brings a focus to the learner and the processes of learning rather than privileging educator and content
- encourages learners' agency – empowering them to act
- develops learners' learning to learn capabilities and deep understanding
- encourages curriculum designers and TPs to design learning that is holistic
- requires learning and assessment to be intertwined
- applies to any learning environment, and implicitly encourages blended learning.

Figure 1.1: What is Quality Curriculum with the PoLD?



In short, over time, the new requirements based on the 6PoLD have the potential to drive capability development and practices in the sector. Simplistically, the shift can be described as one from a focus on the adult educator and content to a focus on learner and the process of learning such that it enables learners to thrive in dynamically changing contexts.

The brief for the project made reference to raising the quality of learning outcomes and learning experiences. The application of the 6PoLD demands a shift in thinking about learning outcomes from being based on tasks, broken down into their component parts, to writing learning outcomes holistically. In other words, learning outcomes will focus on the graduate attributes, the *qualities* of what it means to *be* a particular profession, vocation, role and/or to develop mastery in particular skill sets. This is important, as not only does it reflect movements in international practice (e.g. Jarvis, 2008; Sawchuk, 2008), but it shifts the experience of learning from being one that reproduces knowledge – an approach perhaps more useful for the industrial age – to an approach where learners co-construct and build knowledge. Knowledge co-construction and building is a continual deepening of understanding of ideas, concepts, processes (Chai & Tan, 2009). Knowledge building requires authentic problems drawing from the "world of human knowledge as its intellectual workspace" (Bereiter & Scardamalia, 2014, p.36). This is more appropriate for a knowledge society and economy. All learners are not only capable of knowledge building and co-construction, but are engaged in such processes in their everyday work.

The impact on the Training and Adult Education (TAE) sector will take time and capability development, such as laid out in the recommendations in the final chapter of this report. This is an exciting opportunity for a sector wide change, that could place Singapore at the leading edge internationally in continuing adult education.

As the project focuses on curriculum, it is necessary to unpack what we, the authors of this report, and those involved, mean by curriculum. The question on, what constitutes *quality* curriculum, is also addressed in the following section.

## Understanding curriculum

Curriculum means many things to many people and over time has been variously understood. For example, Rule (1973) claimed there were 119 definitions of curriculum. A useful starting point for this project is Jonnaert et al (2007) definition:

> Curriculum is prior to its programmes, and it serves, among other things, to specify the orientations that the latter must adopt in defining their teaching/learning content. In general, a curriculum performs three main functions: (1) to adapt the education system to the current educational needs of society; (2) to guide the actions that must be undertaken in its implementation and (3) to develop an operational action plan at both the educational and administrative levels of the education system (p. 189)

In this definition curriculum provides the "big picture" of setting out what is to be taught, the philosophical perspectives to be taken ("the orientations") to meet the needs of society, how 'what' is to be taught is implemented and is also inclusive of administrative and educational governance issues. Jonnaert et al. (2007) suggest that the curriculum is broader than a programme of study; they comment that programmes of study "provide information that is useful for developing teaching, learning and evaluation activities that are consistent with the prescribed curriculum" (p. 189). The new course proposal extends the current proposal in this regard by requiring greater detail in relation to stakeholder engagement and establishing the needs for the course, and also lays down the philosophical approach embedded in the 6PoLD.

Important to note is that practitioners do not necessarily separate the curriculum as an overarching document from the day-to-day activity of teaching their learners (Fraser &

Bosanquet, 2006). Fraser and Bosanquet (2006) classified educators' understanding of curriculum into four different categories:

1. the structure and content of a unit (subject)
2. the structure and content of a programme of study;
3. the students' experience of learning; and
4. a dynamic and interactive process of teaching and learning.

In Fraser and Bosanquet's study, lecturers made no relationship between these different categories. Rather, the categories reflect differing philosophical stances. Those who described curriculum as structure and content of a unit or programme focus on what the lecturer teaches that is on curriculum as a product. Categories 3 and 4 focus on curriculum as a process that enables student learning. These different understandings of curriculum reflect different understanding of learning, roles of teacher and student and purpose of content. Bruner (1960) in his seminal work, *The Process of Education,* combines the concepts of enabling learning and of content in his idea of a spiral curriculum, based on the concept that you start from where the learner is, thus making knowledge accessible to the learner for problem solving. He believed it is important to provide the structure of a subject in order to give the learner "a sense of fundamental ideas of a discipline" (p. 3). Now, 50 years later, it is important to build in the need for learners to co-construct knowledge themselves and development their learning to learn capabilities.

Understanding curriculum not so much as a product that contains content but as a process that enables learning (about content) is closer to the Latin origins of the term curriculum - currere. Currere is derived from the Latin infinitive verb that means "to run the racecourse". Curriculum is a verb, an activity, or "an inward journey" (Slattery 1995, p. 56). This explanation of curriculum stresses curriculum as a process and is perhaps closer to Bruner's (1960) concept of curriculum as a process of meaning making, working from where the learner is. More relevant is Doll's (2004) emphasis on what we do in curriculum through dialogue, interpretations, pattern playing, hypotheses generation, and narration as key vehicles for meaning making. In these conceptualisations of curriculum, the *learning* journey is paramount in understanding curriculum as that which is played out in the learning environment and in the interactions between learners and teacher/educator. This is what is referred to as the *enacted curriculum* (Bound, Rushbrook & Sivalingham, 2013). Indeed, Alexander (2008) suggests that curriculum is "probably best viewed as a series of translations, transpositions and transformations from its initial status as published statutory requirements or non-statutory guidance" (p. 14).

In essence, curriculum is dynamic. What the original designers and developers produce as a product required to be followed or to act as guidance, is not necessarily what is enacted in the classroom. Even where curriculum is mandated and required to be followed, "teaching is always an act of transformation" (ibid). What happens in the learning experience is an outcome of the original, creative, thinking on-your-feet efforts of the teacher which often lead the class in directions far, far away from the anticipated goals of the curriculum writers (Schwartz, 2006, p. 450).

Decisions are made in the classroom about timing, about the needs of particular students, the physical environment and other aspects of the environment in which the teacher works (ibid). As a result curriculum writers disparage the seeming inability of teachers to stick to the curriculum and teachers are frustrated by the constraints the curriculum places on them (Bound, 2010; Stack & Bound, 2012; Bi et al., 2020) and/or the lack of practicality of the curriculum developer. For these reasons and more, Schwartz (2006) suggests it is important to

produce curriculum that “engages, challenges and excites the teacher” (p. 452), as they are the users of the curriculum. The degree of regulation and auditing processes impact on the extent to which teachers/trainers adapt the curriculum as they plan and think on their feet and of course on the skill of teachers/trainers. Curriculum also has the potential to both “emancipate and educate teachers” (Eisner, 1990, p. 68).

That curriculum is dynamic is a critically important point. The decision by SSG QMD to no longer require full curriculum documentation of learner and facilitator guides and materials, is a reflection of this understanding, albeit it that the outcome for TPs was less upfront investment prior to gaining accreditation of their courses and funding. It also highlights the value of recognising that curriculum design requires ‘white space’ for the evolution of the curriculum. This already exists under current requirements where TPs are able to change up to 50% of the curriculum before needing to submit a further proposal. Notable also is the observation that curriculum has the potential to develop the capability of educators.

## Considerations in writing curriculum

Writing curriculum is a complex process. It is not linear, but an iterative process between understanding of learners needs, the learners themselves, the development of learning outcomes, learning and assessment activities and stakeholder expectations. It involves the philosophical beliefs and practices of the writer(s) and those they report to. For example, how the curriculum writer considers knowledge and knowing impacts on where learning will be situated (e.g. classroom, workplace, tech. enabled environment) and the type of level of engagement of learners, and the role of learners and trainers/educators.

Glaser (1991) observes that when learners see how knowledge is used in competent performance in authentic learning environments they are encouraged to understand the problems and opportunities encountered in such environments. The degree of ’authenticity’ of the learning environment impacts on what content knowledge and what type of knowledge is learnt/taught. Wheelahan (2009) argues that it is important for learners to have access to theoretical knowledge as it gives them access to ways of being in the world.

Knowing is important, as is attending to the development of metacognitive processes. Metacognition refers to higher order thinking which involves active control over the cognitive processes engaged in learning. Activities such as planning how to approach a given learning task, monitoring comprehension, and evaluating progress toward the completion of a task are metacognitive in nature. Self-regulation is critical to efficient learning and problem solving because it enhances knowledge by overseeing its applicability and monitoring its use (Glaser, 1991, p. 134). Self-regulation enables individuals to reflect upon and control their own activities; for example, knowing when to apply some procedure or rules, planning ahead, apportioning time and resources, and predicting competency performance.

Learners’ opportunities for knowledge construction and knowing are also important. Adult learners bring a great deal of knowledge and experience to the learning experience and engage naturally in knowledge-construction in their work and life generally. Scaffolding the development of metacognition, self-directed learning and engagement with new ideas, concepts and processes involves the ways in which knowledge and opportunities for knowing are structured, and how context interacts with activities. Palincsar (1998) notes “that knowledge is a fruit of the constructive process of bringing personal meaning to experience” (p. 370). In other words, scaffolding is not about instilling knowledge but rather is a process of negotiated meaning undertaken in what Vygotsky (1978) called the “zone of proximal development”. Palincsar (1998) also reminds us that undertaking an activity requires that learners know the purpose of what they are doing, thus understanding learners’ definition of the task provides opportunities for decisions about appropriate scaffolding and/or approaches. Curriculum

designers will choose whether or not to give consideration to the design of the provision of time and space for negotiation within the zone of proximal development, depending on their understanding of curriculum and of learning and teaching.

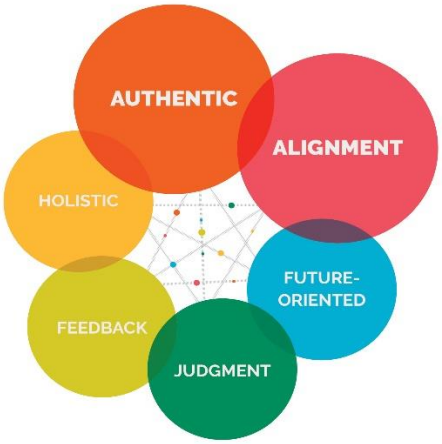
Designing for engagement in learning and assessment activities that is meaningful and provides natural motive orientation (Edwards, forthcoming) involves consideration of basics such as working from where learners "are at" - build from what learners know (Glasser, 1991), and to focus on the quality of interactions, as opposed to the quantity of interactions. "Students learn more by giving elaborated help to others and less from receiving low-level elaboration by others" (Terwel, 1999, p. 197). The design of learning activities is reflective not only of the designer's pedagogical beliefs and values, but of their understanding of curriculum, and of their stakeholders, including the learners'.

These aspects of curriculum are embedded within the 6PoLD, that the new course proposal is premised on.

## The Six Principles of Learning Design (6PoLD)

The 6PoLD are a set of principles for designing and facilitating learning and assessment that reflects the complexities and nuances of work and development of abilities that enable learners to thrive in uncertain, changing conditions. For some time now we have seen shifts in thinking about learning and assessment, from something done *to* learners, to a more collaborative empowering approach to learning and assessment. Learning can no longer be thought of as just preparing students/learners for 'now', for solving predictable, standard problems and for their ability to recount or reproduce content. This requires a shift from front-end loading of content and focus on assessment *of* learning (i.e. summative assessment) to creating dynamic learning environments built on authentic experiences. When learners are actively engaged, and their learning experience is embodied and holistic; when they are engaged in giving and receiving feedback, and making judgements (Boud, 2010); and developing deep understanding and learning to learn (Bound, Chia & Karmel, 2016), they are learning to *be* and *become* a particular profession, vocation or role and master sets of capabilities (and skills). These processes position learners to learnt to thrive in changing conditions, that are an inherent part of our lives. Figure 1 illustrates the 6PoLD, showing the interconnections of each principle with others. This is important in design as one learning or assessment activity will encompass a number of principles at the same time. Authenticity and alignment are enlarged to emphasise that these are critical aspects of design. Without these, it is difficult to achieve the other principles.

## Figure 1.2: The Six Principles of Learning Design (6PoLD)




*The 6 Principles of Learning Design*
*(Bound, Chia & Karmel, 2016)*

Table 1.1 provides a brief summary of the 6PoLD. See Bound & Chia, 2020 and Bound, Chia & Karmel, 2016 for a fuller explanation.

## Table 1.1: The Six Principles of Learning Design (6PoLD)

| Principle | Explanation |
|---|---|
| Authenticity | Authenticity brings a focus to performance that is required in real work settings. Learner engagement is a critical aspect of authenticity. Courses of any length can be anywhere along an authenticity continuum.<br>Authenticity does NOT necessarily mean that all tasks or activities are about doing the work in real work settings – as this is not always feasible. Providing for authentic learning and assessment experiences can be achieved through bringing the complexities of the work into the classroom environment and/or technology enabled environment, through for example, learners engaging in or with: (the list goes from lower level of authenticity to higher level)<br>• peer sharing of experiences<br>• complex case studies based on real life examples<br>• solving of complex problems that are based on real life examples |

| | |
|---|---|
| | • practice exercises that require the *integrated* application of technical and generic/soft skills<br>• tasks / activities that reflect performance required in work settings<br>• tasks / activities that mirror the way knowledge and skill are performed in real settings and/or take place in real work settings |
| Alignment | Design that involves every aspect of learning so that all work together for a common purpose. Alignment (what John Biggs (2002) describes as constructive alignment) refers to all aspects of design to form a cohesive whole. So learning purposes and outcomes, assessment design and learning activities and the *place* of learning, need to support each other. For example, a short course that has the purpose of developing participants' report writing skills and has as its assessment a series of multiple choice items, is clearly NOT aligned. For there to be alignment, the assessment would need to be the writing of a report for a real audience (and thus the assessment is also) which would make the learning and assessment authentic. |
| Holistic | Integrates: knowing, doing, thinking and feeling; theory and practice, technical and generic, and learning to learn capabilities. Involves use of multiple senses – creating learning experiences that are embodied.<br>Holistic aims for learning to be inclusive of the wider ethics and values of the profession and/or occupation, of integrating knowledge, skills and experience. "Integrated-ness" suggests the inseparability of learning from the learner and that which is learned, or the connectedness between doing, thinking and *be*ing. Holistic design is important in developing the core of what it means to *be* a particular professional, or role or vocation.<br>Learning is regarded as an ongoing process of participation in relevant activities, and engagement in meaningful undertakings, rather than as a "thing", "product" or acquisition of certain "products". (e.g. Vygotsky, 1978; Marchand, 2008; Ross, 1999). |
| Feedback | Feedback involves giving and receiving feedback from multiple sources and creating opportunities for learners to act on their feedback.<br>Feedback is far more than expert-others giving feedback to learners. Feedback should be dialogic – a discussion. Learners need to be engaged in *giving* feedback, and receiving feedback from peers, educator, work supervisor etc. (where appropriate) and in self-assessing their own performance. The purpose of such a feedback loop is to improve performance – this is why feedback needs to be a discussion and from multiple sources.<br>Creating multiple feedback loops over the time of a module and of a program enables learners to:<br>• understand how they are progressing<br>• develop clarity about standards/expectations (quality) of performance |
| Judgement | Judgement enables learners to make judgments about their own and others' performance, including making and evaluating ethical judgements. |

| | |
|---|---|
| | Judgement refers to the ability of learners to make informed judgements of their own learning. Judgement is an essential part of the learning and assessment processes because the development and use of judgement is fundamental in enabling learners to understand their own work, and how they are doing/performing in relation to what is required/expected. Feedback and judgement are intertwined. Both require learners to be actively engaged in learning (Boud & Molloy, 2013). |
| Future-oriented | Involves Learning to learn, opportunity to develop deep understanding – thus enabling application to multiple situations and contexts, engaging with multiple perspectives and inquiry. Future-orientedness emphasises learners' ability to resolve unfamiliar or non-standard problems. It involves many of what are variously called 21st century skills, or the new 'top 10 skills', such as critical thinking, creativity, learning to learn. Deep understanding of a discipline, a process, is required for effective solving of the unfamiliar. Deep understanding is developed through exposure to multiple, different perspectives (e.g. points of view, conceptual models, ways of thinking, doing, beliefs…) which in turn requires critical thinking, and the ability to evaluate different forms and sources of 'evidence'. Having inquiry skills, knowing what questions to ask, how and where to gather data to assist in meeting challenges is all part of future-orientedness. "Meta-thinking" processes (using big-picture thinking or conceptual frames) are important for making sense of the unfamiliar (Stack & Bound, 2012). |

To sum up this section, quality curriculum as understood for the purposes of this project as curriculum that:

a) for learners:
   - uses the 6PoLD to design learning and assessment that positions learners to better thrive in changing circumstances
   - integrates learning and assessment – formative, sustainable and summative assessment that challenges and improves learners' performance
   - develops learners' agency, by providing opportunities to act to improve their own learning and performance and contribute to their work
   - actively engages learners in knowledge building, while providing the necessary scaffolding
   - has a focus on the processes of learning and is learner centred

b) for educators:
   - provides white space to
     i. enact the curriculum
     ii. constantly monitor and review the curriculum
     iii. develops the educators

c) for those responsible for quality assurance
   - meets the above
   - provides opportunity for ongoing dialogue for continuous improvement
   - meets regulatory requirements

## Methods used

The Working Group Terms of Reference stipulated that a sandbox approach be used, that is, the process be trialled, feedback gathered and evaluated, and necessary adjustments and inputs be made. The sandbox approach is a term borrowed from computer sciences and refers to a safe space to trial and test products (Wright, Schroh, Proulx & Skaburskis, 2006). The research team combined this approach with approaches from user-centred-design approaches. The emphasis in these approaches is to co-design with users, to know the user experience and challenges. Through interactions with users, empirical data is generated (McDonagh, 2006). The steps designed by the research team involved constant interaction, discussion and feedback from users, that is training providers and curriculum designers and those that support them (members of SSG, and IAL) within Singapore's Training and Adult Education system.

The Working Group, supported by the Steering Committee and SSG's DCE (1) and GD TMIG, developed the steps outlined in Figure 1.3. As Trial 2 involved gathering data to identify what changes and adjustments would be needed, IAL ethics approval was sought and granted. Participants consented to their participation being recorded. Details of the steps in the project are described here:

- *What is quality?* Beyond the use of the 6PoLD, the basics of the new quality approach as stipulated in the Terms of Reference, a range of literature was reviewed to determine what we mean by quality curriculum. This is addressed in this report under the heading, "*What is quality curriculum?"* What also became apparent in scanning quality processes internationally was that many agencies relied on defined standards, or what we called requirements. As a result, the step on requirements and open comment was included.

- *Trial 1:* This step was undertaken to determine if there was evidence of the principles of learning design already being practised in the sector. A set of criteria was developed with QMD to select 45 course proposals for analysis. The criteria included, range of industries and level of courses (all WSQ), and a mix of modules and full qualifications. A scoring rubric was developed against which to evaluate the 45 course proposals.

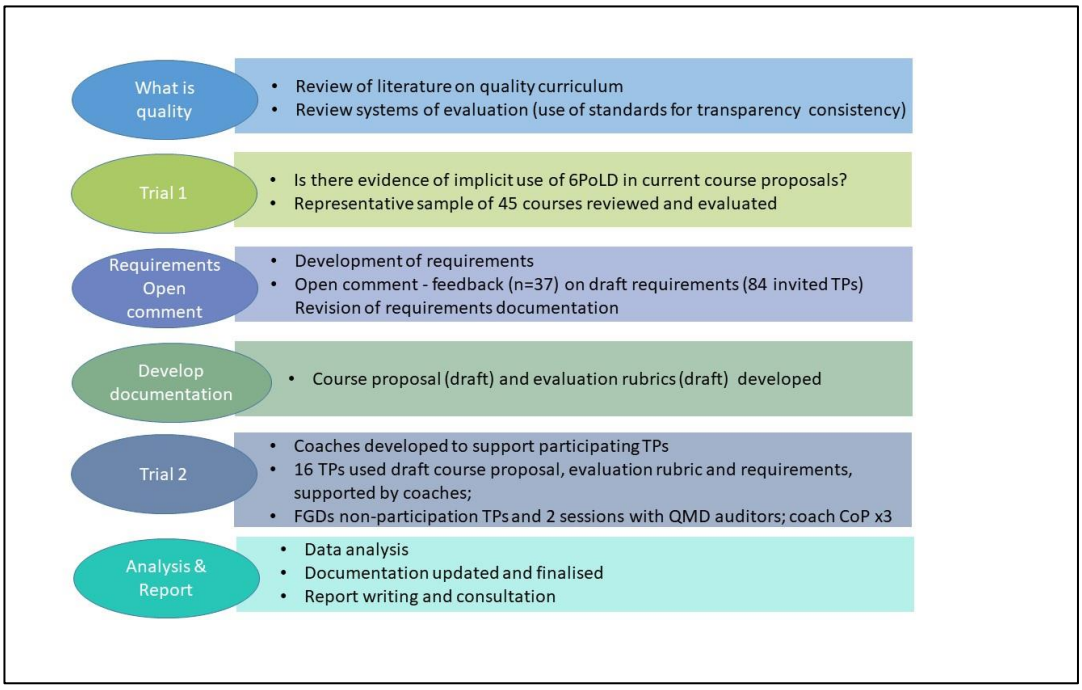
- *Requirements and open comment period:* Requirements statements were developed for all the major sections of the draft course proposal (which was further developed later). The new sections in the proposal (6PoLD) or those that needed strengthening (blended learning and learning outcomes), were put made available online to 84 selected TPs to provide feedback. A total of 37 TPs responded. The requirements document included, a definition of each item, the requirements statement, guidance statements and examples of how to meet the requirement. There were 60 respondents. These responses were analysed; the working team met with QMD to go through each requirement, the feedback and to agree on required changes in the wording and framing.

- *Develop documentation:* Once the requirements documentation was finalised. for this stage, the subsequent drafting of the course proposal proceeded, again in close consultation with QMD. In addition, an evaluation rubric was developed. This rubric is for QMD auditors to use when assessing course proposals for accreditation. The rubric is also to be made available to TPs and curriculum designers to enable them to self-assess their course proposal. This is seen as a contribution to transparency and capability development.

- *Trial 2:* In this second trial, the documentation from the previous step was used by 17 TPs (although 1 TP had to withdraw due to other commitments) to develop real course proposals that they will submit to QMD for accreditation. The intent was to identify challenges that would indicate capability development needs, that which was valued, that which TPs and curriculum designers were able to complete relatively easily and necessary changes to be made to the documentation. The curriculum designers and their TPs were each supported by a coach. To develop the coaches, an invitation was sent out to selected IAL Adult educators who were identified as high-quality educators. Two workshops were conducted to develop coaches (n-12). Due to timing and other commitments, 9 of these coaches took part in supporting the TPs and curriculum designers over a period of one to five weeks. The coaches were paid for this work. The intent was not only to support the trial, but to develop a group of experienced AEs who could potentially support the sector in the roll out of the new documentation and processes. As this took place during the COVID-19 period, all coaching sessions were conducted online using ZOOM. These recorded sessions and other data were placed on IALs canvas in a module set up for this purpose.

- *Analysis and report:* Data collected from Trial 2 included the following:
    - Twice-weekly coaching sessions, recording in ZOOM
    - Weekly reports from coaches
    - A pre and post coaching short questionnaire from participating TPs
    - The 3 community of practice (CoP) sessions with the coaches over the 5 weeks of coaching, recorded in ZOOM
    - Two focus group discussions with a total of 18 non-participating TPs, at the end of Trial 2, to validate the updated documentation, recorded in ZOOM
    - Two sessions with 9 QMD auditors as they engaged with and gave feedback on the new (still draft) course proposal and evaluation rubric, recorded in ZOOM
    - Observation notes and minutes of research team meetings were also useful data points
    - Email correspondence, WhatsApp messages and other communication notes between coaches and TPs and among coaches were also collected

## Figure 1.2: The process undertaken by the research team



All this data was analysed, with the recordings of coaching sessions being referred to only when the research team needed to better understand what was being highlighted from other data sources. The coach and TP questionnaires were analysed for descriptive statistics. Text data was categorised into themes, keeping in mind the Terms of Reference that the team had to comply with.

## Structure of report

This chapter has introduced the Enhancing Quality project and explained the background to the initiation and conceptualisation of the work. The section on 'What is quality curriculum?' is important as it sets the framework in relation to curriculum, and elements of what constitutes quality curriculum for preparing learners for current and future dynamically changing circumstances. This is followed by a detailed description of how the work was undertaken. Chapter 2 provides the findings from Trial 1, the open comment responses and Trial 2. The third and final chapter offers a set of recommendations based on the findings from this study.

# 2. Findings

## Introduction

Adopting a multi-phasal approach where the findings from each phase inform the next, the EQ project has navigated through a relatively long research undertaking, to emerge with findings that represent the views of multiple stakeholders, unpack the intricate schisms of the course design, accreditation and implementation process, and uncover the systemic tensions in driving yet, dissuading its adoption within the CET sector.

Beginning with the initial examination of Course Proposals from TPs to see if PoLD are inherently present in quality course designs, the project moved into developing the standards, what we came to call requirements statements, for the major new sections of the proposed new course proposal. This step was added in to the original process as the findings from Trial 1 indicated extensive variety in the quality of the course proposals and to also address QMD's concern about feedback from the sector on the huge variation in interpretation from the auditors. As explained in the previous chapter, the requirements statements were made available for open comment from Training Providers (TPs). Their feedback was discussed over a series of intense meetings between the research team and QMD, with each requirements statement being adjusted accordingly. A consistent piece of feedback from the open comment exercise was the request for more examples, despite examples being provided. At the same time the Course Proposal was further revised, and an evaluation rubric (for course proposals) was developed.

At this point the team was ready to move into Trial 2 where TPs used the new documentation (i.e. CP, evaluation rubrics and requirements document) and audit process, underpinned by the 6PoLD. The strength of staging the project progressively, with the results from the previous stages providing justification to proceed in an informed manner is the level of clarity and confidence that certain specifications (e.g. instructions and requirements in CP) work to affect course design and subsequently, quality curriculum. If needed, specific parameters are further tested to ensure resonance of the underlying factors with the stakeholders and learning designers, in determining the quality of curriculum design. As such, the findings that are described in the following sections need to be interpreted in the context of rapid prototyping where specifications are tested and retested quickly and progressively.

## Key Findings

Findings from this project have identified that there are providers who have many courses approved a decade back with seemingly no subsequent changes / amendments. Similar findings have been reported by Bi, Bound, Mohamed and Cai (2020) study that undertook detailed ethnographic case studies of courses, following selected learners across different learning sites in blended learning courses. Since the first studies of curriculum and pedagogical practices in the TAE sector were undertaken in 2011 (Bound & Lin, 2011; Stack & Bound, 2012; Bound, Rushbrook, Sivalingham, 2013: Bound, Chia & Karmel, 2016) to present the sense that curriculum cannot be changed has remained a strong perception. In addition to this, it appears there are TPs who have not sought to make changes to approved curriculum where possible.

The reason for the lack of change to curriculum is partly attributed to curriculum designers often being engaged on project basis and are tasked to complete the Course Proposal in an expedient manner, to satisfy the course requirements set by SSG. Once the CP has been approved, the courseware development adheres strictly to the specifications set in the CP to avoid going back to QMD for further approval, thereby causing further delays. For example, Coach L reported, "*On the whole, the TP was able to develop a good number of the learning and assessment activities to reflect the design*

*principles well as a first draft without coach's feedback ... They were reluctant to develop more than necessary as they were afraid that they will be held accountable to those stipulated in the course proposal and not be allowed to change them after the course proposal has been approved. This is understandable given their varied experiences with different auditors who differed in their interpretation of the requirements for the course proposal.*"

The consequence is that the curriculum becomes 'static' partly due to the mindset of TPs (in not wanting to engage with QMD on exacting further changes to the curriculum) and partly due to cost consideration.

Consistently, over the five-week engagement with the TPs, coaches often cited the experience and capability of the designers as one of the critical determinants that impact the quality of the course design. Having a strong grasp of the technical vocabulary and being able to apply relevant conceptual design frameworks are important to the crafting of the course design especially when highlighting the 6PoLD that underpin the learning activities.

Given that the CP provides a restricted space for designers to expound their design considerations, there is a need to review the CP to facilitate the explanation and alignment process, building up the case in a sequential manner beginning with Needs Analysis, Graduate Profile, Competency Mapping of Ability and Knowledge statements, Sequencing of Learning Units, and Justification of Learning Activities (using 6PoLD). The current CP gives the impression of a disorganised structure with administrative information (e.g. training and assessment hours, facilities and logistics) and design requirements (e.g. sequencing of learning units) interspersed throughout. In short, TPs are requesting for the CP to be disambiguated, with clearer instructions and requirements.

In addition to documentation, the research findings have indicated that the audit process requires strengthening, especially with differing auditors requiring evidence based on their own interpretation of the requirements. With varying audit practices, TPs find it difficult to pin down exactly what is required pertaining to both audit and design specifications. Over time, there is a sense of 'helplessness' among TPs in not knowing what to expect, and a genuine hope to land an auditor who is sympathetic and not overly demanding. Strengthening the audit process would mean incorporating benchmarking practices, encouraging shared understanding of the audit process and requirements and to further the internal and external dialoguing exchanges among auditors and designers, for a more transparent system, in order to drive a self-learning mechanism for course design.

The next few sections will detail the findings from Trial 1 and Trial 2, and the findings across the trials, research activities and data types are triangulated to provide a coherent picture of the current situation on the ground.

## Findings from Trial 1

Findings from 45 course proposals were examined for evidence of critical design principles in Trial 1 phase at the end of 2019.

While bearing in mind that the current CP form does not explicitly request course developers to address the six principles of learning design, we considered this an important exercise in order to identify what was implicitly present, or not, in the then current course proposals. This would help inform the extent of support required for Trial 2 and for sector capability development.

The 45 course proposals were evaluated using the rubric shown below, to determine if the 6 PoLD were visible and articulated by the designers when describing the Purposes / Learning Needs, Level of Content and Pedagogy within the course proposals. The scale used is shown in Table 2.1.

## Table 2.1: The Rubric Used to Evaluate the 45 Courses

| 6 principles: authenticity, alignment etc. | Scale | | | |
|---|---|---|---|---|
| | **0 to 4** | **5 to 6** | **7 to 8** | **9 to 10** |
| **Purposes/ Learning needs** | Fails to demonstrate a real business, organisational, social or individual learning need. | Learning needs are supported by some evidence. | The learning clearly meets organisational and/or individual goals. | Genuine learning needs are clearly demonstrated, and connected to learning outcomes. |
| **Level of content** | Curriculum content is questionable or under-developed. | Content demonstrates thinking through and is reasonable. | Content is well developed with sufficient evidence. | Content indicates a good understanding of actual requirements for the work. It is evidenced by real support for the course. |
| **Pedagogy** | How and what students are learning is unclear. | Some indication of alignment, feedback etc. | Pedagogy demonstrates how the 6 principles can be achieved. | Pedagogy shows clearly how the 6 principles are enabled & integrated. |

Accordingly, while course designers may be applying one or more of the six principles, the evidence from the current course submissions tends to be based on extrapolation of intent rather than on the actual articulation of these principles. Thus, many of the principles were indeterminable from the current write-up on course designs as illustrated in Table 2.2.

## Table 2.2: Scores from Trial 1 Evaluation of 45 Course Proposals

| 6 PRINCIPLES/ SCORE | <0-4/10 | 5-6/10 | ≥7/10 | Indeterminable |
|---|---|---|---|---|
| **Authenticity** | 25 (56%) | 11 (24%) | 9 (20%) | 0 (0%) |
| **Alignment** | 17 (38%) | 19 (42%) | 5 (11%) | 4 (9%) |
| **Feedback** | 7 (16%) | 15 (33%) | 5 (11%) | 18 (40%) |
| **Future-orientation** | 5 (11%) | 3 (7%) | 5 (11%) | 32 (71%) |
| **Holistic** | 14 (31%) | 7 (16%) | 6 (13%) | 18 (40%) |
| **Judgment** | 6 (13%) | 7 (16%) | 7 (16%) | 25 (56%) |

The outcome of the evaluation based on ratings from the authors of the 6PoLD and QMD personnel, revealed diverse results with Authenticity being largely absent, and Future-Orientation, Feedback, Holistic and Judgement being indeterminate from the analysis of the course proposals. Only Alignment (at 42%) was somewhat described in the course proposals being reviewed. See Table 2.2 above for the descriptive statistics.

**Some observations about learning design from Trial 1**

32 out of 45 courses are underpinned by a learning design which is primarily acquisitional in nature. This is evidenced by an instructional curriculum of "theory" to be taught by practitioners or experts who are instructors in the classroom, and augmented by other learning activities such as discussion, role-play, hands-on practice, and assessment. The learning design premises that ‘knowledge’ needs to be transmitted or downloaded first rather than its unfolding or emergence from practice, participation in work or other (learning) activities that lead to self-discovery and understanding. It also privileges knowledge as a matter of the intellect comprising of ’objective’ facts & theories rather than tacit, experiential, and embodied forms of knowledge & knowing which characterise most vocational work & activities like cooking, cleaning, caregiving, closing sales, and even trouble-shooting a computer network system.

It is highly teacher/instructor centric as s/he is positioned as the beholder and transmitter of knowledge and skills, and learners as receivers rather than participants or co-creators of their own knowledge and understanding. In this teacher-centric model, learning is highly instructional with self-discovery and understanding through inquiry and questioning, experiencing, experimentation as more secondary modes of assimilation.

Learning as an acquisition process focuses on the individual as the primary site and agent of learning rather than a more expansive notion of learning as a human function, organisational process or means of community practices. This approach to learning adheres to the didatic teacher-student or master-apprentice model.

The Skills Framework (SFw) has enabled ATOs to identify various learning outcomes (A1, A2 etc.) and underpinning knowledge (K1, K2 etc.) for the courses under development. Most course designs reflect the mapped SFw As' and Ks' in their learning units. However, as shown in Table 2.2, there are missing details from the course designers on what content is covered or how the case studies facilitate concept application, and explanation on how the content & cases are utilised to drive learning. Without these details, it may be difficult for learning reviewers and auditors to fully comprehend the translation of the course design into the enacted curriculum on the ground, let alone the enablement of the individual or social & organisational outcomes of learning, or the actualisation of workplace learning.

**Summary of Findings from Trial 1**

Findings from Trial 1 EQ can be summarised as:

- The majority of the Course Proposals (CPs) submitted showed some to no evidence of most principles or are indeterminable from the documentary analyses; the degree of demonstration was mostly low to moderate; no CP scored consistently high across all six principles.
- An instructional, didactic, top-down approach of learning as acquisition is the predominant development approach for most training providers. This could be a result of an over-emphasis on skills acquisition in competency-based training and “teaching to the test”, at the expense of trainees being perceived and valued as co-creators of their own learning by participating and engaging in critical inquiry, problem-solving and knowledge-building.

- Courses intended for the development of vocational skills are generally better designed and more targeted than those for soft skills as the learning outcomes and application are easier to be established.
- ATOs whose CPs are low on authenticity' come from a mixture of sectoral frameworks such as Retail, Security, Food Services, and involve both vocational and generic skills.
- CPs with low scores for 'alignment' come from a range of sectors, with generic and IT skills dominating, and the Security, Environmental Services, HR, F&B frameworks making up the rest.
- Similarly, the low 'holistic' scores tend to come from generic and IT courses, while the rest are from frameworks such as Public Transport, Accountancy, Security.

While not alarming, the statistics does point out the need for greater clarity pertaining to visibility of these principles in learning design. The question becomes, how do course designers account for and justify their design if they are not referring to these principles? More critically, we need to ask how the Course Proposal can be re-crafted to allow designers to rationalise their course design and the corresponding impact of the learning brought about by their design?

## Findings from Trial 2

*a) PoLD Workshops for Selected Coaches from IAL*

Building on the results from Trial 1, a select group of 12 coaches from Institute for Adult Learning (IAL) were put through ~~2~~ two half-day~~s~~ of training on 6PoLD with two major objectives, 1) for them to populate an updated CP which explicitly requires the designer to state the 6 PoLD in the justification of the design with a critical eye; and 2) to discuss ideas approaches and likely challenges in providing coaching support to the TPs participating in Trial 2. The evaluation rubric and the requirement document were also introduced to facilitate the process. Despite having no exposure to the new course proposal, the coaches made a strong attempt at highlighting the 6PoLD in the course designs, with several of them raising good questions. One coach questioned if the duration of these courses (with 6PoLD incorporated) would need to be increased to allow the participants of these courses (submitted by TPs) to deepen the learning through activities e.g., more opportunities for development of Judgment and Feedback. There were also concerns where, over time, the designers copy the sample text for the 6PoLD and paste into new course proposals since many of the justifications remain generic and hence, perpetuating a paper exercise rather than a genuine description of the eventual training programme. Coaches countered that beyond asking for design justifications, the specific descriptions of the learning activities in the course being submitted would also be critical.

Other comments from the coaches included the need to unpack the 6PoLD for greater clarity, examples of which are - Would learners be expected to exercise Judgement at the superficial level or much deeper levels, drawing on professional beliefs, assumptions and biases? To what extent would an activity be considered as having met the requirement of Judgement (or other principles) in terms of the time spent and the degree of learner engagement? As such, the new Course Proposal will need to frame the design requirements with clear instructions on the scope needed. The instructions in the course proposal can be further clarified - How is tech-enabled learning defined? What constitutes system access to the TP's LMS? These questions also extended to the evaluation rubrics and the value of the course proposal in outlining the design features of the course.

*b) Results from the Open Comments Survey*

Beyond collecting qualitative evidence from the coaches through the workshops, online surveys (open comments stage) of TPs and CET practitioners (to get more representative data) yielded interesting results. Despite not being briefed in detail about the project, their responses reflected a clear unease

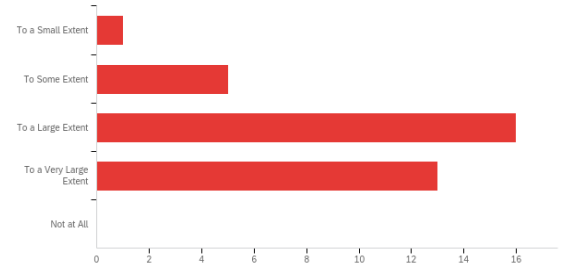
about the current course accreditation process and indicated a willingness to embrace a more learning design-centric process.

The findings are shown below, as depicted in a series of graphs (Figure 2.1) together with a selection of the comments made.

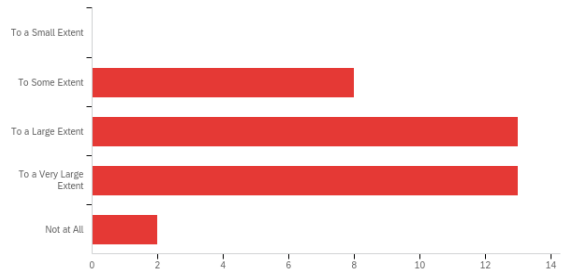
## Figure 2.1: Graphs showing the Perceptions of TPs to PoLD and Training

*a) To what extent will this specific requirement (PoLD) likely improve the overall quality of training for the learner?*

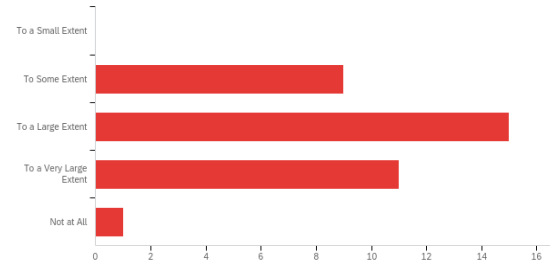
Authenticity



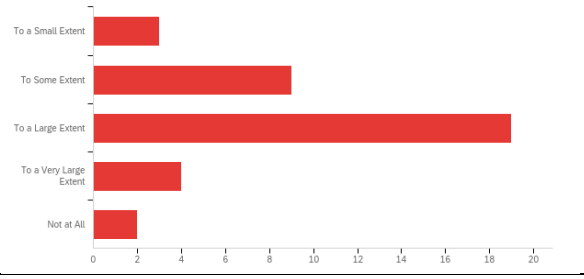

Alignment



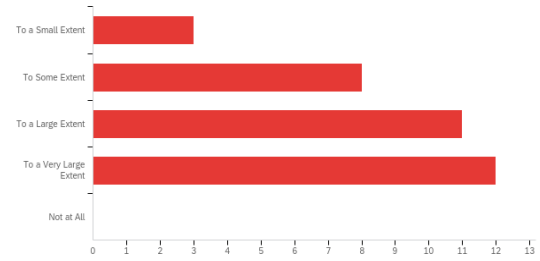

Feedback



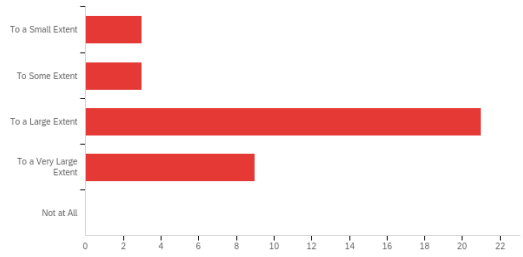

Judgement



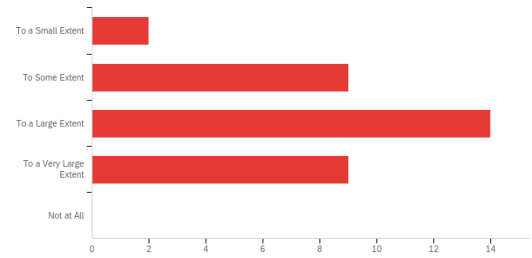

Future Orientation



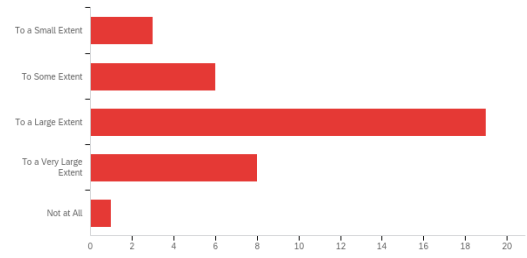

Holistic

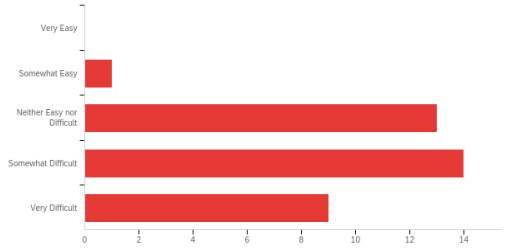
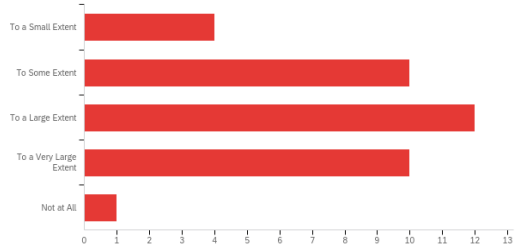



Blended Learning – 2 Modes




Blended Learning – Seamless Experience



| *b) How easy or difficult will it be for you to incorporate these requirements into future course proposals?* | *c) To what extent would training make it easier to incorporate these new requirements into a future course proposal?* |
|---|---|
|  |  |

While the respondents provided positive feedback concerning all principles in 6PoLD, the principles that were perceived to improve the quality of training are Future-Orientedness, Alignment and Authenticity. For many of these respondents, receiving training on the incorporation of the PoLD would help the designers to a large extent.

The qualitative comments generally support the use of these PoLD as a measure of strong course design, although some respondents raised concerns about the ease of implementation. For example, one respondent commented, "*… the model is good. however, how much time do we need to write such program … effective training using such model which is good but we must remember the others which are as critical on implementation."*

The other issues being raised include expectations of the requirements in the new Course Proposal and the audit practice. There were a number of such comments, for example, *"CP must be simplified with clear expectations of what is required and when CP is audited, there must be consistency in reviewing the requirements … different course auditors have different expectations and at times asking more than what is necessary."*

With reference to support, some TPs requested for completed samples of Course Proposal to provide greater clarity on what is required by the auditors … *"I need examples of filled forms for qualification. What is considered good practice? Why are some information only asked during the 2nd clarification and not incorporated in the table (e.g. assessment and instructive method table)."*

Listed below (Table 2.3) are key notes and quotations on the various 6PoLD and the perceived challenges to the implementation process.

## Table 2.3: Responses from TPs Collected Through the Open Comment Tool

| Principle | Overall response | Perceived challenges and quotes |
|---|---|---|
| Authentic | There was overall agreement on understanding of 'Authentic' - 15 out of 21 comments indicate that they understand authentic as relating to skills practice that takes place in the workplace | TP's feedback was that companies wanted compensation to provide placement for learners to undergo "skills training"<br>e.g. *there must be incentive for workplaces to be open … Which company is willing to open their workplace up to ATOs to use if they are not compensated?* |
| Alignment | There was overall agreement that 'Alignment' is important.<br><br>*Alignment across the learning outcomes, learning activities,* | Observations of responses include:<br><br>• the need to align course design with the profile of learners<br>• clarity about the job role is required |

| Principle | Overall response | Perceived challenges and quotes |
|---|---|---|
| | *content & assessment tasks, processes, and modes of delivery is very important to ensure that the learners are able to understand, practice the new skills & knowledge during the duration of the course, and competent to perform the new skills & knowledge in the real work environment.* | • request for flexibility when implementing the proposed course design given varied requirements from different auditors |
| Feedback | There was general agreement that Feedback was important. Questions were raised about the level of detail required concerning Feedback in the CP.<br><br>*Requirement for Feedback needs two parties and a bidirectional communication channel.*<br><br>*Feedback must be constructive, so that both parties able to accept it for improvement.* | TPs may adopt a standard feedback technique to be used by all the facilitators.<br><br>The profile of learners must also be taken into consideration when analysing or implementing activities to garner feedback. |
| Judgement | There are different opinions to how Judgement ought to be incorporated into the training, especially when there is the expectation that correct judgement with expertise is required to ensure learning is on the right path …<br><br>*Agree to the above statement as curriculum design must include opportunities for learners to judge the quality of their and/or others' work and as appropriate to make ethical judgement.* | The ethical judgement should come from subject matter experts and not just commoners like their peers.<br>Include opportunities to practise so that judgement can be exercised on work output or "evidence" of performance.<br>Time constraint is an issue. The course design needs to be balanced – considering the participant's time, the resources needed and running cost.<br>Judgement is likely to be a relevant principle only if the group or individual has prior background or shared experiences on the topic since a level of expertise is required.<br><br>If learners are in the learning stage, they will have limited basis or expertise to make judgement of others work.<br>Will Judgement be relevant or appropriate for learners undertaking level 1 (certificate) training, especially in terms of ethics? |
| Future-orientedness | There is the perception that for simpler courses of short duration with straight forward learning outcomes, this principle may not be suitably incorporated.<br><br>*Future Orientation is important, however may not be directly applicable in all contexts of learning or training course. For simpler courses of short duration and straight forward learning outcome,* | Critical thinking, analysing and reflecting are important, but the classroom learning duration is always too short to be effective. A follow-up at the workplace is important where peers and supervisors can help augment the learning.<br><br>Is future-orientedness is a cultural problem, not something that should be addressed by training? Is future-orientedness applicable to all industries as some learners may be of lower |

| Principle | Overall response | Perceived challenges and quotes |
|---|---|---|
| | *this principle may not be suitably incorporated.*<br>*Future proofing is important. Currently provided by just talking/discussion of future direction. Not easy to demonstrate or experience.* | cognitive, especially the cleaning and security industries? |
| Holistic | Overall response is mixed, with some agreeing that Holistic as a design principle will improve quality although implementation may prove difficult<br><br>*Holistic approach encourage learners to make connection in a subject and using their creative skills.*<br><br>*Develop psychological, social and emotional growth.* | It may be difficult to implement as learners may come from different backgrounds, with differing experiences and knowledge.<br><br>There is the perception that holistic practice may only be applicable when learners get back into their work environment and practise what they learnt. In Singapore, we focus on skills training. Therefore, the requirement is proficiency. *The training programme is designed based on a TSC. How holistic should we expect the course to be?* |
| Learning outcomes (LOs) | Mixed responses which range from very supportive to questioning the need for this requirement. There were also some comments which indicated some confusion about what LOs entail. | Some developers copy and paste 'Ability'/AA statements from TSC/SS and use them as Learning outcomes. The question is whether this practice is acceptable.<br><br>Different auditors have differing views about how learning outcomes are to be crafted. TPs request for a standard requirement so that designers "*do not have to keep re-doing the LOs"*. Learning Units and Learning Outcomes guidelines should be provided and make standard across all frameworks. |
| Blended learning | Overall response is mixed, but most agree this requirement will improve quality | Some TPs may not have capabilities/ equipment/ resources for blended Learning. Allowing TPs to share resources may speed up the process for TPs to implement this requirement. Alternatively, SSG can provide a portal (for e-Learning contents) where Training providers that do not have the resources can tab on.<br><br>Blended learning is expensive. There were also requests for funding for TPs to do blended learning. While the different learning modes drive different learning experiences, it is important to design the curriculum to ensure the learning experiences are blended carefully to achieve the intended learning outcomes. |
| Seamless Blended learning | Quite a number of comments indicated that this would be challenging to achieve. | There was little alignment among the respondents on what would constitute a seamless blended learning experience. |

Key findings from the FGDs and Open Comment survey in turn informed the crafting of the Course Proposal, requirements document and the evaluation rubrics along with a review of the accreditation process and TP's need for design support.

Most respondents agree that course submission is a critical process and respect the need for SSG to (only) approve quality courses. These points raised by the respondents suggested a general agreement that the course accreditation process should take on design emphasis, with a need to also review the audit requirements and process, capability development of the designers to support the quality expected and a review of the actual training conducted in the classroom or online as downstream implementation considerations. As such, the trialling of the updated documentation with coaching support in the subsequent phase of the trial provided rich data including indications on how TPs perceived the role of the 6PoLD in structuring a learning-centric Course Proposal and the manner of support that TPs require in crafting quality course designs.

*c) Trialling of Documentation and Coaching Process with 17 Training Providers*

With the inputs from the coaches through the 6PoLD workshops and responses through the Open Comment online survey, the documentation (Course Proposal, Evaluation Rubric and Requirement Document) was updated to further unpack the definitions of the 6PoLD, clarify the instructions as well as re-structure the Course Proposal to allow the designers to showcase their course design.

The trial with the 17 TPs yielded quantitative and qualitative data across different media (e.g. Zoom videos, online surveys, weekly reports, completed Course Proposals, WhatsAppand email communication notes) from multiple sources (e.g. designers, coaches, auditors, IAL and SSG staff) over a span of 8 to 10 weeks. The findings are complex, multi-dimensional and would require detailed analyses over a much longer period of time than currently available. Here, we would share the findings relating specifically to the Enhancing Quality project, to inform the course accreditation and assessment process. The findings are categorised into these 3 key areas further subdivided into topics:

1. **Mindsets of Training Providers**
2. **Process Updates and Shifts**
    - Learning Design-Centric Documentation
    - Audit Team and Process
    - Course Delivery and Redesign
3. **Levers, Tools and Enablers**
    - Current Capability of Stakeholders
    - Current Evaluation and Feedback Mechanism

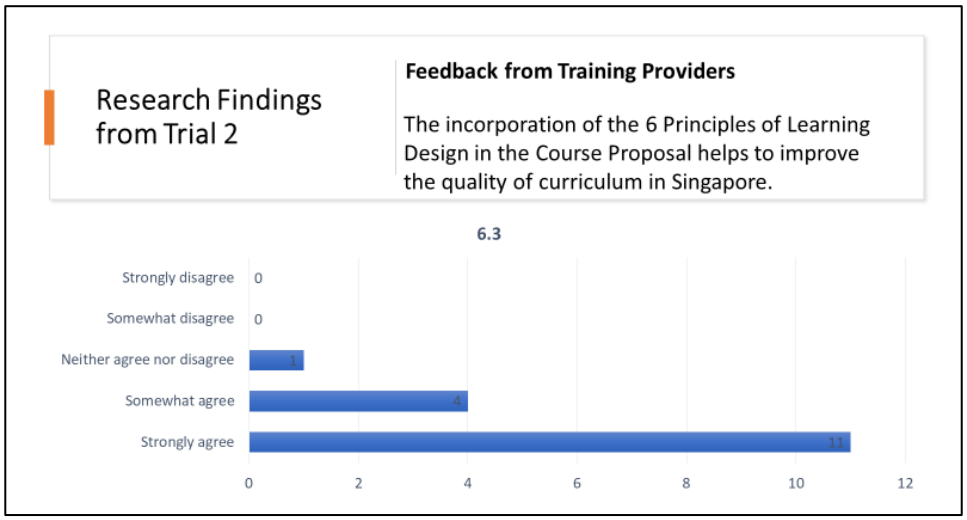
Knowing where to begin dissecting the findings from Trial 2 is a challenge especially when the data is so massive and there are multiple layers that can be unpacked from the analyses. Having stated that, it is always a good idea to look at how the critical stakeholders view the project and the accompanying changes. Hence, we will examine the mindset of the TPs, followed by the critical process updates and shifts needed to the system to improve curriculum quality in Singapore CET. Underpinning these changes and shifts will be the understanding of the issues related to the levers, tools and enablers and what we can do about them to facilitate the required systemic and documentation changes.

## 1. Mindset of Training Providers

Most people are averse to changes and here, we see an interesting buy-in from TPs on the use of the 6 PoLD to create a more learning design-centric Course Proposal for the purpose of improving the quality of curriculum in Singapore CET.

The descriptive statistics based on an online survey of the 16 TPs that completed the coaching journey showed a highly positive perception of the incorporation of the 6PoLD into the Course Proposal. 16 out of 17 TPs indicated that they somewhat agreed or strongly agreed to the changes with 1 TP remaining neutral as indicated in Fig. 2.2.

Figure 2.2: Feedback from TPs in Trial 2 to PoLD

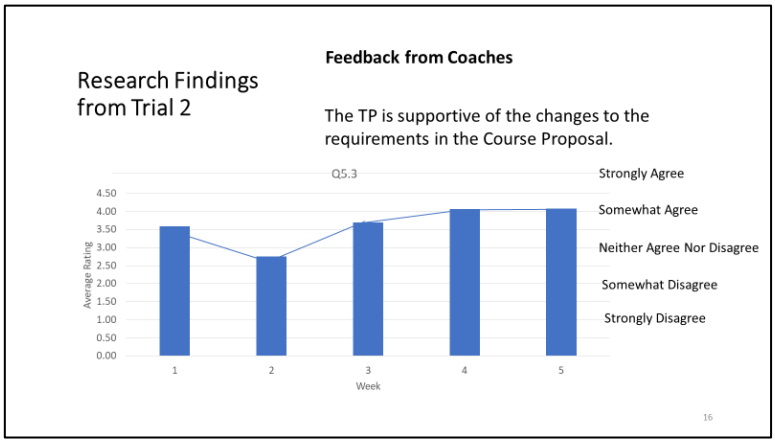



The finding was also corroborated by the coaches (see Fig. 2.3 below) who reported positive levels of optimism from the TPs to the changes in the Course Proposal, with the initial excitement being dampened slightly in Week 2, and then picking up nearing the end of the 5-week coaching period.

For example, Coach M reported that for a TP, "*Moving from scoping of the course which was the initial discussion in Week 1 to gaining a conceptual understanding of curriculum design according to the ADDIE process was a big jump for them. This transition is subtle but critical to translate what was theoretical to practical.*" With the coaching support over the 5 weeks, and as TPs gained confidence in their capability, the deliverables improved, in line with Coach G's comments - "*There is a marked improvement in the CP (Part 5C) written between week 4 and week 5.*"

## Figure 2.3: TPs' Perceptions to the Changes in the Course Proposal as Reported by the Coaches

Notably, as the coaches and TPs embarked on the exercise of crafting the Course Proposal, there were issues in producing the deliverable and a fair amount of effort to justify the learning design in the new Course Proposal. These issues are examined in the next segment below.




### 2. Process Updates and Shifts

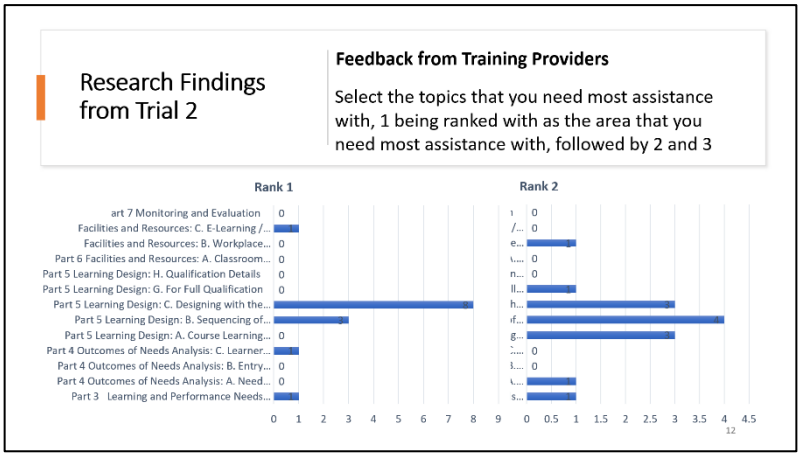
- Design-Centric Learning Documentation

Exactly what were the issues pertaining to the Course Proposal that TPs grappled with and how did the new Course Proposal address these issues? There were notably multiple issues with the current Course Proposal. As the current Course Proposal was updated periodically over time with new requirements inserted into sections where appropriate, which resulted in a confusing sequence of content with unclear instructions. For example, TPs had difficulties in deciphering the amount of information required for each section. The granularity expected is left unstated thus creating a fair amount of apprehension especially among TPs submitting Course Proposals for the first time. TPs were also concerned that by revealing too much information, they would be bound by the commitments made in the Course Proposal with little room to manoeuvre later on, if the curriculum needs to be changed, as shown, for example, in Coach L's comments, *"They were reluctant to develop more than necessary as they were afraid that they will be held accountable to those stipulated in the course proposal and not be allowed to change them after the course proposal has been approved. This is understandable given their varied experiences with different auditors who differed in their interpretation of the requirements for the course proposal."*

The current Course Proposal included sections which were relevant to submissions for both modular and bundled programme, and full qualification submissions. This resulted in certain sections being not applicable to TPs submitting modular proposals, which would be the majority. Besides being irrelevant, these sections add to the cognitive load for the TPs as they navigate through the terminologies and instructions provided in the Course Proposal. There are also terminologies which may not be clear. For example, Coach D cited the instruction in Part 6 (Facilities and Resources) where "*Administrator rights to Learning Management System (LMS) to be granted to SSG"* may mean, in IT context, the capability to change or disable the system when SSG just needs system access to check learner attendance.

With the new Course Proposal, the attempt is to let the designer build the content in a sequential manner, beginning with Needs Analysis and diving into detailed pedagogical requirements near the end of the learning design section such as sequencing of learning units and justification of the learning activities using 6PoLD.

## Figure 2.4: The Topics that TPs in Trial 2 Needed Most Assistance In




The bar chart (Fig. 2.4) illustrates that TPs tend to struggle with the use of the 6PoLD in designing the course as the top ranked difficulty with the sequencing of the learning units coming in a distant second and the crafting of learning outcomes identified as the third difficulty. It is important to be mindful that while the new Course Proposal may have addressed the lack of clarity issue, the incorporation of 6PoLD to focus on design in the Course Proposal will inadvertently lead to designers needing additional capability to address these requirements. Besides the designers, the other critical pool of stakeholders will be auditors and their assessment of the course designs submitted by TPs using the new Course Proposal. Key questions raised would thus be: What are the findings pertaining to the current audit process and will the new documentation ensure a more streamlined and consistent approach to the course accreditation and assessment experience for the TPs?

- The Audit Team and Process

The findings revealed varying professional beliefs and audit practices by the auditors leading to confusion on the part of the TPs. A TP commented, "*There are varying practices among auditors. Some insist in leaving the LOs as A & K statements while other (auditors) advocate a need to contextualise and paraphrase."*

There are other examples given by TPs and coaches on how auditors place different requirements (e.g., providing emails, NOM for all stakeholders listed in the TNA section) on TPs during the Course Proposal submission process. Even during the workshops conducted with the auditors, there were moments when the auditors sought clarification from each other, in interpreting the appropriate mapping of the course (at Level 5) with the level of the learning outcomes (e.g. analysis vs comprehension) or if the learning activities and the assessment activities were aligned. It is sufficient to say that further alignment in understanding between TPs and auditors, as well as among auditors will be a useful process going forward.

The dialoguing between QMD with TPs concerning SSG policies and audit practices was extremely helpful, borne out by the 2 incidences when QMD colleagues took time to explain the issues to the TPs during the coaching sessions. In all fairness the audit team is currently only nine-member strong, while providing operational services to more than 300 TPs across Singapore. It is extremely difficult to balance a heavy workload with a constant focus on maintaining consistency when auditing course proposals from different sectors, especially when one's expertise is not from that sector. Taking time to establish common understanding and conducting benchmarking exercises among auditors are critical in these instances, made more so as designers embark on utilising PoLD to improve their course designs. Auditors will also be expected to provide quality feedback and make incisive decisions when assessing course proposals.

- Course Delivery and Redesign

The manner in which Course Proposals are assessed over the years has also led to a legacy mindset that approved course designs cannot be changed or updated. This perception brought about by past audit practices are ingrained due to TPs being penalised when changes are made to curriculum and subsequent audit checks revealed deviations from the approved course designs, even though there may be strong justification to make those changes, due to shifting learner profiles or content requirements. Generally, TPs "*would like to find out how much deviation they can make from the course proposal to the final courseware as they state that conditions may change after the course proposal is approved. – comment from a coach*"

The hesitancy of TPs to resubmit Course Proposals stems partly from mindset and partly from cost considerations. Each resubmission comes with a fee of a few hundred dollars, besides the potential stoppage of course delivery if the new course design is not approved in time. Given the gamut of reasons to not make resubmissions, it is not inconceivable that many curricula remained static over the years. To this point, the changing landscape with shifting learner needs and new job requirements should add to the pressure for TPs to make their curricula more dynamic and adaptable to the changes on the ground. Unfortunately, this is not the case currently. Some TPs have curricula That have remained unchanged since 2009.

A measure of flexibility in curriculum adjustments downstream is important to allow TPs the space to manoeuvre to improve the curriculum for the learners, and to meet the demands of new job roles. A TP commented, "*(The CP) merely requires the developer to design the learning activities and describe the actual details upfront, which is not so practical, as sometimes, there is a need to tweak the learning activities during the development stage.*"

Hence, there is a strong need to review if the accreditation process along with the new documentation can allow the approved curriculum to evolve based on needs of the learners and content, especially if the updated enacted curriculum proves more effective than originally designed.

**3. Levers, Tools and Enablers**

- The Current Capability of Stakeholders

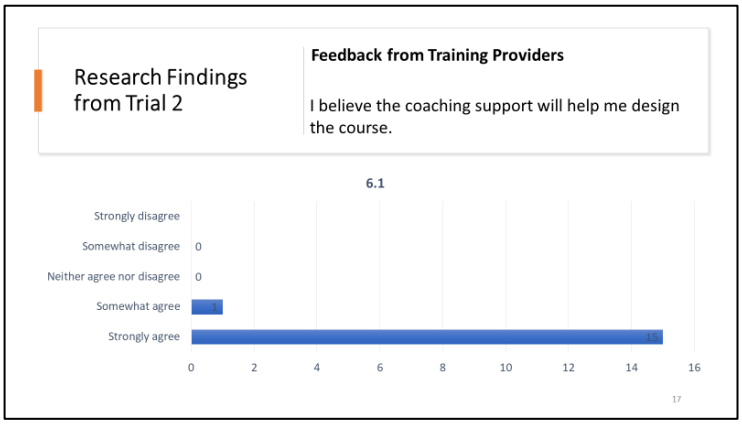
The key gripe of coaches who had to guide the designers from the TPs was that some of their coachees had little to no design experience. Their lack of capability in crafting learning experiences that can lead to positive outcomes hindered the progress of the course design. Coach C commented, "*For Curriculum Developer 2, he had difficulties doing the rationale portion as the learning activity would not address the LO … noted something went off but was unable to see what was wrong … it was not surprising that the Curriculum Developer 2 was unable to do the PoLD table.*"

Conceptual grasp of the technical design skills is one aspect of the capability required, the other is the individual's writing ability so that the design is accurately described for the auditor to understand. Another coach (H) remarked, "*Looking at the coachee's work, one of the important elements in the CP writing is good conceptual and writing ability. While the coachee knows to design the module, putting the thoughts into words can sometimes prove to be a challenge … This is an important element to bear in mind so that the CP form can be correctly interpreted by the auditors.*"

Notably, all designers should have the Diploma in Adult and Continuing Education (DACE) qualification, based on SSG policy although on the ground, the design activities can be carried out by non-qualified personnel. In effect, we are looking for "a *competent Curriculum Developer who understands the 6 PoLD and is able to infuse that in the design of the programme.*"

In the course of supporting the TPs through the 5-week coaching process, TPs have asked for supporting resources in the form of video clips, documents, sample CPs and a set of Frequently Asked Questions, to ensure that they address the requirements in Course Proposal submission.

### Figure 2.5: Feedback from TPs on Coaching Support




Coaching through modelling was also practised by a number of coaches i.e. handholding the coachees through the Course Proposal with demonstrations of how to craft the justifications or incorporate other key considerations (e.g. learner profile). The survey findings (see Fig. 2.5) at the start of the coaching session suggest that most TPs agree that they do believe that coaching support will help. Again, this was borne out by the TPs in their positive feedback and compliments on the coaches sent through emails and reflected in the online survey.

- The Current Evaluation and Feedback Mechanism

Most TPs utilise the Kirkpatrick's 4 levels of evaluation to measure learner feedback (Level 1), and performance of learners (Level 2 – assessment result) as proxy indicators to the impact of the course. In addition, the TRAQOM finding (based on a survey sent to all leaners a few months after course completion) is supposed to address the application of the concepts learned to job roles. These measures are stated in the Course Proposal under Tracking and Monitoring section.

In all fairness, course impact measurement is difficult when many of these indicators are subjective or heavily biased (especially if funding is involved). There is a need to include evidence of enacted curriculum that can be captured easily using technology e.g. video recordings of actual class delivery or lesson notes from the assessor or trainer. However, to allow for this evidence to circle back into the system as feedback, the mentality should not be to use the feedback only for audit but also for curriculum improvement.

During one of the two Focus Group Discussions conducted for non-participating TPs (i.e. TPs not involved in the coaching trial), TP1 mentioned, *"Enacted curriculum means that you find things do not work, so (we) need to change, but auditors do not allow this flexibility, you have to keep to what is in the accredited CP. So (I) like the white space for change."*

Sending out the right message to the TPs is critical for the evolving curriculum model to work. The outcome is a better served CET community and a more dynamic training system that can meet the needs of the current workforce to take on future challenges.

## Conclusion

The findings reported in this chapter are multi-layered and are triangulated through Focus Group Discussions, surveys, and coaching over multiple sessions with stakeholders from a cross-section of different sectors and industries. What is encouraging is that the mindset of the TPs appears affirmative with regards to the changes to the course accreditation process. As the findings show,

there are multiple issues that range from a lack of clarity of the documentation required, less consistent audit process, inflexible curriculum due to TPs being reluctant to tweak what is already approved and the need for designers to be equipped with the necessary competencies to underpin the course design with 6PoLD.

Sufficient buy-in and support from the TPs will be critical to the implementation of the measures which include updating the documentation, strengthening the audit process, capability building, enhancing the feedback mechanism to collect evidence of the enacted curriculum.

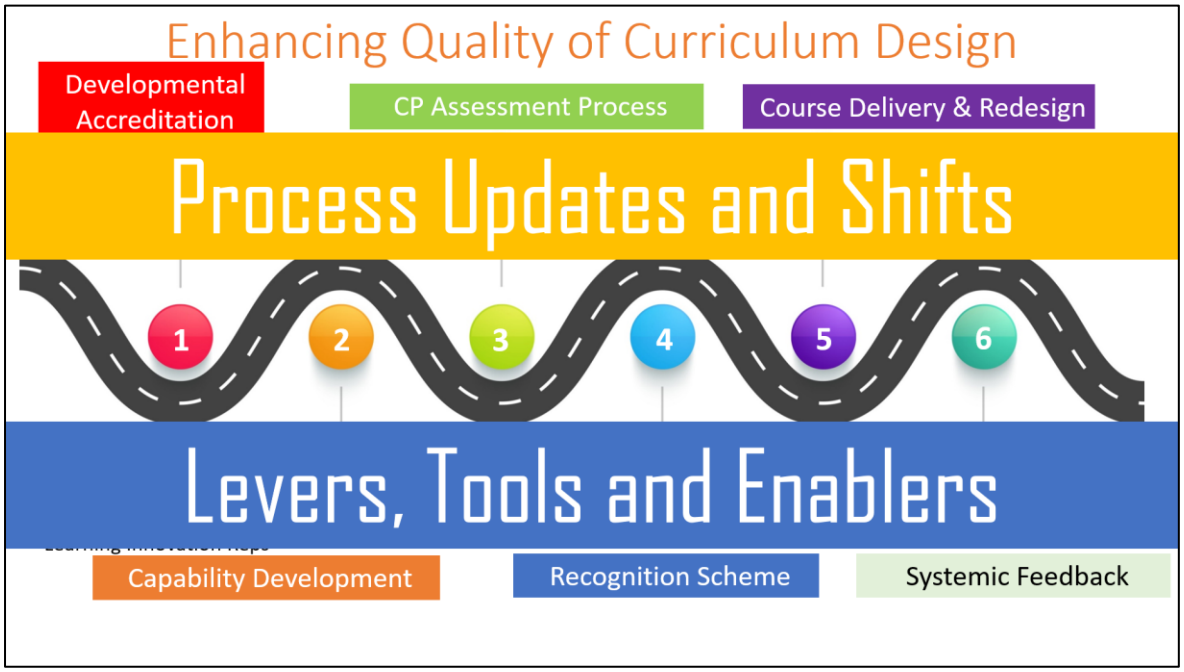
In the next chapter, we will examine the key recommendations based on the gathered findings.

# 3. Recommendations

## Introduction

In line with the findings in the previous chapter, the recommendations described in this chapter will focus on the key levers to shape and inform curriculum design in Singapore CET. They fall into two categories – Process Updates and Shifts, and Levers, Tools and Enablers. The recommendations in the first category will directly impact the course accreditation process and shift mindsets of critical stakeholders in the CET industry (e.g. TPs, Auditors, documentation) while those in the second category aim to build up the levers, tools and enablers in order to support the accreditation process and curriculum quality. See Fig. 3.1 for details.

Figure 3.1: Two Key Categories: Process Updates and Shifts, and Levers, Tools and Enablers




## Key Recommendations

The changes to the documentation (e.g., incorporating 6PoLD into the Course Proposal) will require curriculum designers to be equipped with the necessary skills to craft quality curriculum underpinned by PoLD and other considerations. Capability development of these designers becomes an important enabler, given that the quality of the designers was a critical factor cited in the findings. Coupled with the recommendation on the upskilling and recognition scheme for the designers is a careful review of the support system and a similar recognition scheme for the CP auditors. Comments by TPs on the need for greater consistency of audit decisions underpin this recommendation. The first step is to identify critical audit competencies for the purpose of recognising quality auditors and subsequently, setting these quality auditors in positions where they can provide professional inputs for the purpose of uplifting audit processes and increasing the credence to the decisions made. Finally, internal benchmarking and standards alignment helmed by an authoritative panel of auditors to drive consistency in quality audit decisions should provide a good foundation for an effective audit system.

Complementing the audit system, the feedback system to quality CET training needs to be strengthened. The reason for recommending a systemic feedback mechanism is to provide clarity on the status and quality of courses being delivered by TPs. Hence, the currency of evidence (of the enacted curriculum) is critical to give SSG an accurate picture of the quality of training on the ground (i.e. in the classroom, workplace or online). As discussed in the focus group session with the non-participating TPs, the evidence should be direct (actual video clips of training) rather than hearsay or indirect evidence (e.g. learner feedback, albeit that this is critically important). To evaluate the quality of the enacted curriculum, a new team of learning reviewers should be set up and trained to identify quality learning based on established criteria and parameters. SSG can identify useful lesson segments (e.g. how TPs blend online with classroom training or workplace learning) that TPs submit for the purpose of verifying and propagating best practices.

The systemic feedback mechanism will provide big data that may prove useful to determine the critical design components in the Course Proposal leading to quality training. At the same time, the feedback data will triangulate with existing data points (e.g. TRAQOM, learner feedback, assessment results) to provide a holistic perspective of current training landscape. The intent is to build in feedback loops that provide data to be mined for continuous improvement of the system, process and focus on specific requirements. This would allow SSG to have evidence from which to better understand the challenges and quality of curriculum, including enacted curriculum, and to make changes as required. See Table 3.1 for details to the key recommendations.

## Table 3.1: Key Recommendations Based on Findings

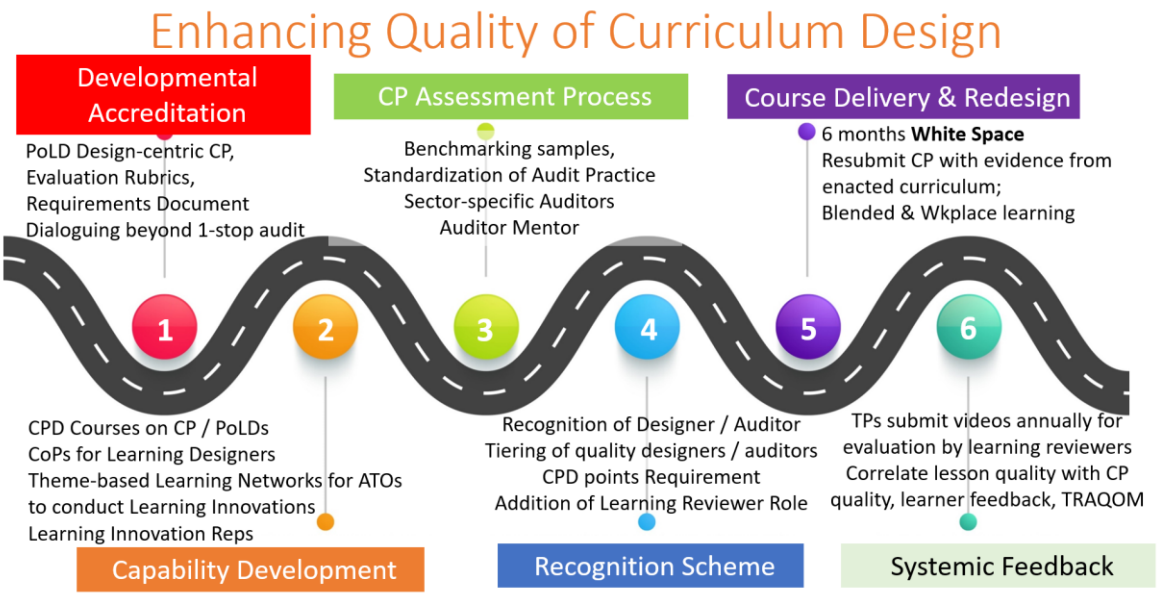
| No. | Recommendations | Expected Impact | Follow Through |
|---|---|---|---|
| 1 | **Update CP, with Evaluation Rubrics and Requirements Document** to reflect learning design centricity using 6 PoLDs as the basis for design considerations | High Impact:<br>New course submissions or those transiting to the SFw will be impacted. | Training of TPs and designers on the use of the CP and the 6 PoLDs<br><br>Create resources (e.g. videos and articles) for referencing and capability building |
| 2 | **Standardise Audit Practices with Benchmarking References** to provide a more consistent and targeted focus on learning design | High Impact:<br>Due to the strong evidence from the research, the consistency of the audit practice needs further review, so any benchmarking or standardisation efforts will help. | Creation of Auditor Mentors<br><br>Routine benchmarking and standardisation exercises with communication of observations with CET community<br><br>Evaluation Rubrics and Requirements Document |
| 3 | **Review Course Delivery and Redesign Process**<br>Creation of 6-month White Space to allow for exploration and evidence-based design adjustments | Moderate Impact:<br>For those TPs keen to innovate or try new designs, this White Space may be useful<br>Similarly, for TPs which may lack strong design skills, the 6 months will provide useful evidence to drive capability building. | The setup of the time-based infrastructure allows conversations, beginning with auditor feedback on the course proposal, to be tracked and followed through<br><br>Repository to be set up to collect evidence from TPs<br><br>Set up a specialised unit in QMD to drive the 6-month learning design review process. |

| No. | Recommendations | Expected Impact | Follow Through |
|---|---|---|---|
| 4 | **Develop Capability of Curriculum Designers and Auditors** with enhanced DACE and ACLP content, AEN short courses | Moderate Impact:<br>As the designers are DACE-certified, these short courses are to build on the competencies for alignment with the new CP and requirements.<br>Auditors will likely need another suite of capability building courses with Mentor Auditors driving some of these initiatives. | New workshops and coaching programmes with certification on how to develop CPs with PoLDs embedded in them<br>As for Recommendation 1: Create resources (e.g. videos, asynchronous 'courses', materials) |
| 5 | **Enhance Accountability and Recognition System for Designers and Auditors**<br>• to recognise designers who have consistently submitted quality learning designs<br>• to empower designers to work as a team with the AEs in designing and in implementation of their design<br>• to recognise (or badge) the quality designers and auditors within the AE Professionalisation scheme | Moderate Impact:<br>This scheme will build up the quality of the curriculum design and auditor community over time with recognition of their competencies and empowerment to implement and audit the course designs. | Creation of a list of quality designers based on their CP submissions<br><br>Hold designers accountable for the implementation of their learning designs by having them submit the evidence 6 months after the Expected Course Start Date for Provisional Pass cases<br><br>Give due recognition to designers for this kind of work, in terms of relevant scheme and in their rate of pay, and in payment for time for this additional role.<br><br>Recognise and tier auditors based on their experience and quality of work. |
| 6 | **Set up Systemic Feedback System**<br>- Yearly submission of video clips (e.g. 2 to 3 video clips of 30 min each on critical learning activities) by TPs<br>- TRAQOM results<br>- Level 1 Learner Feedback from TPs with room for TPs to add their own Qs<br><br>- To allow for review of quality of learning designs | Moderate Impact: to ensure that the quality of the curriculum is maintained with just-in-time policy adjustments if needed | Set up a pool of accredited learning designers that can review short (30-min) video clips of lessons to check quality of lessons<br><br>Correlate quality of CPs with quality of training and lesson design along with learner feedback and TRAQOM data |
| 7 | **Review System Tensions**<br>- Lack of absentee payroll funding for asynchronous online learning<br>- E-Assessment can still be problematic if authentication is not possible or costly<br>- Course fee subsidy is based on learner passing the assessment, resulting in pressure on AEs to 'over-support' learners | Moderate Impact: to review policies as the landscape changes pertaining to the propagation of online learning and instruction in CET due to restrictions imposed by the COVID-19 situation<br><br>To review how learner selection can be enhanced or monitored before learners enrol into courses to ensure goodness of fit. A proactive system of identifying learners and pushing out selected courses in a data-driven manner based on learning pathways would make Singapore CET in line with global intelligent recommender systems. | Incorporate policies that facilitate new delivery and assessment approaches while still providing value at an affordable cost to the learners and government |

To complete the picture, it is important to address the system tensions that exist within the CET space. These tensions surfaced outside the data collection process but were observed and discussed by the research team. These issues are also listed in Table 3.1, for consideration.

The summary of the recommendations (shown below in Fig 3.2.) is a visual representation of how the enablers, tools and levers (at the bottom layer) support the shifts in processes and documentations (seen in the upper layer). Implementing both categories of recommendations in a coordinated and phased manner ensures the success of the recommendations. Some of the recommendations (e.g. restructuring of the audit teams, amendments to documentation, capability development workshops) can be implemented in phase 1 as the demands may involve internal resources or are less time-consuming.

Figure 3.2: Visual Representation of the Key Recommendations




## Other Considerations

Going forward, the data collected from the systemic feedback mechanism would warrant further analysis and research, to evaluate how the shift to learning design (PoLD) in the new Course Proposal, the sequence of blended learning activities and improvement in audit processes impact learning quality. This is where a data-driven system where learners are informed on suitable training resources and assessed on their current competences (from work and training) could be set up, corresponding with technological advancements in global intelligent recommender systems.

## Conclusion

With the full suite of recommendations, the stakeholders involved for the successful implementation of the various initiatives and capability building measures will include members from QMD to SDD, MIPD, IAL and the senior management of Training Providers, among other process owners. What remains critical is the unified vision of a stronger and more responsive CET system, to develop the Singapore workforce for the future and this vision will drive the necessary changes within the government, cascading down to the training providers and the adult education community.

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# Appendices

**Appendix 1** Course Proposal (Draft), pending further edits and approval, dated 31 Oct 2020
**Appendix 2** Evaluation Rubrics (Draft)
**Appendix 3** Requirements Document (Draft)

# COURSE PROPOSAL

**CA-WSQ-2020-XXXXXX**

**(MODULAR/ BUNDLED PROGRAMME)***

*To delete accordingly

*(Please complete Sections A, B and C.)*

## Section (A) Course Context

## Part 1 Course Particulars

| | |
|---|---|
| **Name of Training Provider** | *(As registered with the Accounting and Corporate Regulatory Authority [ACRA])* |
| **Title of Module / Bundled Programme**<br><br>*(Please use alternative form for Full Qualification application)* | |

| **Standard Name**<br><br>*(As per title in the Skill Standard [SS]/ Technical Skills and Competencies [TSC]/ Critical Core Skills [CCS])* | **Unit Code** |
|---|---|
| | |

You may wish to add more lines if required (for Bundled Programmes).

| **Course Delivery** | | **Hours** |
|---|---|---|
| **Modes of Delivery**<br><br>*(In hours[1])* | Classroom Facilitation: | |
| | [2] Workplace Learning (e.g. Practicum, internship, OJT): | |
| | [3]Technology-enabled Learning<br>a) synchronous:<br>b) asynchronous: | |
| | [4]Practical Work (e.g. laboratory, kitchen, field work): | |
| | Summative Assessment (State Method 1): | |

| | | |
|---|---|---|
| **Assessment Duration** *(in hours)* | Summative Assessment (State Method 2): | |
| | Summative Assessment (State Method 3 (if applicable): | |
| | **Total Assessment Duration** | |
| | **Total Learning and Assessment Duration** | |
| | **Recommended Learning Hours (RLH) in the CS** *(Not applicable for SS/ TSC/ GSC)* | |
| **Course Implementation** | | **Other Details** |
| | **Estimated Commencement Date** (ddmmyyyy) | |
| **Trainer-to-Learner Ratios** | Min Trainer-to-Learner ratio<br>Max Trainer-to-Learner ratio | |

[1] Hours indicated should be same as input in Training Partners Gateway and should exclude duration for lunch breaks.

[2] Workplace learning is defined as learning within the workplace context for a period of time. Examples of workplace learning include Practicum, internships, On-the-Job Training (OJT). Practicums, internships and the like are typically structured work-oriented programme assigned by a training institution for learning purposes. On the other hand, OJT refers to structured and planned learning that takes place at the place of work using a structured OJT blueprint or curriculum (showing the key OJT tasks and corresponding OJT training hours) to conduct the training.

[3] Technology-enabled learning is defined as a mode of learning delivery whereby a learner utilizes technology to achieve a learning outcome for a sustainable period of time, whether independently or in a facilitated manner. The following activities would qualify:

- asynchronous learning objects mounted on LMS or other platforms
- synchronous learning through online communication tools

Conducting learning activities which involve the use of teaching / technology tools (e.g. Kahoot, Padlet or Google docs) does not constitute a mode of learning delivery. To qualify as a mode of learning delivery, the learner needs to be immersed in and be able to navigate within the tech-enabled, classroom and/or workplace environment for the purpose of learning.

[4]Practical work is defined as learning through hands-on activities within an environment designed to mirror real work applications with the intent to improve specific skills. Examples include chefs practising their culinary skills in a kitchen within the training institution; nursing professionals learning to handle medical equipment within a simulated healthcare setting; and aircraft engineers learning how to solder.

# Part 2 Organisational Personnel and Development Team

| Name | Phone | Email | Role in development team (e.g. SME[1], Developer[2]) | Other roles in the industry | No. of Years of Relevant Domain/ Industry Experience | Name of Organisation (if different from that in Section 1) |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

[1] Subject Matter Expert will be the personnel who was consulted for the course development, preferably with a minimum of 3 years of experience.

[2] The CV, technical and training certification of the Curriculum Developer and Subject Matter Expert (If applicable) are to be uploaded into Training Partners Gateway as supporting documents.

**Management Representative**

| | |
|---|---|
| **Name:** | |
| **Designation:** | |
| **Telephone:** | (O) (Hp) |
| **E-mail Address:** | |

# Part 3 Learning and Performance Needs Analysis

This section is to establish that the **stakeholder consultation process** serves to validate the need for the Module/ Bundled Programme.

**A. Details of Stakeholders Consulted**

Please provide the details of the stakeholders[1] consulted and/or involved in proposing or validating the programme needs and intended outcomes.

| Name of stakeholders | Company (if applicable) | Designation | E-mail | Contact Number |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

[1]Details of the stakeholders include the personnel's name, company, designation and contact information to be filled in the above table. Please add more rows if necessary.

**B. Consultation Process**

Describe how you or your team conducted

i) the consultation process (e.g. interviews, surveys, focus group discussions), taking into account the views and suggestions of **all** groups impacted by the proposed course. When needed, you will be asked to supply supporting evidence (e.g. emails, minutes of meeting)

ii) the analyses of the data to derive your findings on the learning and performance needs/gaps

## C. Market Survey

Are there other similar WSQ and non-WSQ courses in the market? Please list their details below.

| | Course Title | Training Provider | Course Fee | Duration | URL / Reference | Remarks |
|---|---|---|---|---|---|---|
| 1 | | | | | | |
| 2 | | | | | | |
| 3 | | | | | | |
| 4 | | | | | | |

## D. Findings and Outcomes / Recommendations Arising from Needs Analysis

State your key findings based on your analysis of the data from your stakeholders and market survey:

- Targeted sector(s), background and needs for the training.
- Targeted groups for e.g. local or foreign workforce, PME or RNF, mature workforce, employed or unemployed, corporate or public runs etc
- Performance gaps / needs that the course will address.
  You will need to address these current performance gaps / needs through your course design and the eventual graduate profile in the subsequent sections below.

## E. Estimates of Course Targets

| Complete the table below. | | | | | | |
|---|---|---|---|---|---|---|
| **Year** | **Target Headcount** | **Est. No. of Runs** | **Est. Passing Rate** | **Est. Attrition Rate** | **Est. NYC Rate** | **Est. SOA** |
| Year 1 | | | | | | |
| Year 2 | | | | | | |
| **Total** | | | | | | |

# Section (B) Learning Design

In this segment of the Course Proposal, you will reference the learner profile, content characteristics and environmental factors (e.g. organisational contexts, mode of delivery) to justify your learning design based on the 6 Principles of Learning Design (PoLDs). Bounded by these 3 parameters (Learner, Content and Environment), you will need to describe how the learning design considerations satisfy the following quality dimensions


*The 6 Principles of Learning Design*
*(Bound, Chia & Karmel, 2016)*

- Reflective of real-world work practices and settings (**authentic**);
- Support learning and assessment through highly complementary and integrated activities (**aligned**);
- Integrate multiple senses of knowing, doing, thinking and feeling (**holistic**);
- Opportunities for multi-directional feedback for learners' capability development (**feedback**);
- Attune learners to appropriately evaluating their own and others' performance (**judgement**); and
- Embed deep understanding to enable application to multiple situations and contexts and to foster future-oriented lifelong learning capabilities (future-oriented).

For further information, see

Bound, H. and Chia, A. (2019). *The six principles of learning design. Designing learning for performance.* Singapore: Institute for Adult Learning. Available at https://www.ial.edu.sg/find-resources/learning-resources-and-tools/principles-of-learning-design.html

**Note**: In the event that the descriptions require further clarity, the enacted curriculum (in the form of video clips, lesson plans, assessment plans, learner feedback data etc.) should be furnished to SSG, no later than **6 months** after the course has been provisionally approved, to provide additional contextual design information to how the course activities work to facilitate learners achieve the learning outcomes.

## Part 4 Learner Identification and Selection

| |
|---|
| **A. <u>Learner Profile</u>**<br>You are to describe the learner profile *(e.g. the cognitive, emotional and sociality characteristics of the learners)* in not more than 300 words. You may consider using the "Illeris' Three Dimensions of Learning Model", "Smith and Ragan Model", or other models. |
| |
| **B. <u>Entry Requirement</u>**<br>You are to describe what the entry requirements for this course are, including the process for identification and selection of learners, in not more than 300 words. This ensures that you design the learning pitched at the correct level for a specific target audience. Underpin your description of the identification / selection process with the 6 PoLDs. |
| |

## Part 5 Content Characteristics

| |
|---|
| **A. <u>Outcome of Course: Graduate Profile</u>**<br><br>Describe the graduate profile showing the learner attributes (e.g. integrity, customer centricity, innovativeness, critical thinking, future orientedness) to be developed at the end of your course, in not more than 300 words. The focus is to help the learner perform the required job role and thus capture the qualities required for the work. You may wish to refer to the Critical Work Functions and Key Tasks when crafting the graduate profile below. |
| **Graduate Profile (relate to the needs / performance gaps cited in the needs analysis)** |

| |
|---|
| **B. <u>Course Learning Outcome (LOs)</u>**<br><br>With the graduate profile in mind, craft the learning outcome/s to state what a learner will be doing and understanding. Show how you map the Ability and Knowledge statements together to help the |

| |
|---|
| learner achieve the graduate profile eventually i.e. which cluster of the Ability and Knowledge statements will facilitate the development of the learner in those attributes. |
| |

**C. Course Learning Outcome, A& K and Graduate Attributes**

List the Learning Units and their relevant LO(s), assessment method(s), instructional methods, estimated time of the instructional method and how they align with the identified graduate attribute.

| LU | LU Title / Cluster of Ability and Knowledge statements | [1]Assessment Method/s | Instructional Method/s (IM) | [2]Duration Tier for IM | Graduate Attribute/s |
|---|---|---|---|---|---|
| **E.g. LU1** | *The Macro Perspectives when Driving Technology Implementation in an Organisation*<br><br>*LO1: To review emerging technologies against trends and requirements for organisational implementation* | | | | |
| **A1**<br><br>**K1**<br><br>**K2** | *Evaluate emerging technologies against consumer trends, market trends and business requirements*<br><br>*Types of technology trends and their potential application to the organisation's operating environment*<br><br>*Sources of information regarding new and emerging trends and technologies* | *Written Test (Case Study)* | ***Activity 1*** *Group Discussion based on a case study*<br><br>***Activity 2*** *Group research using internet resources for appropriate technologies to apply to case study* | ***Tier 3*** *(inclusive of debrief and feedback)*<br><br>***Tier 3*** *(inclusive of group presentation)* | - *Critical thinking skills*<br><br>- *'Big picture' or macro level thinking (e.g. incorporating consumer and market trends, business requirements) into decision-making processes* |
| | *<add LU title>* | | | | |
| | *<add cluster>* | | | | |
| | *<add cluster>* | | | | |
| | *<add LU title>* | | | | |
| | *<add cluster>* | | | | |

| | | | | | |
|---|---|---|---|---|---|
| | *<add cluster>* | | | | |
| | *<add LU title>* | | | | |
| | *<add cluster>* | | | | |

[1]Examples of assessment methods include: Role Play (RP), Oral Presentation (OP), Oral Questioning (OQ), Practical Performance (PP), Written Test (WT), Written Assignment (WA), Journal Reflections (JR), On-the-Job (OJT), Workplace Observation (WO) etc.

[2]The 'Duration Tier' column is to provide a sense of how much time is needed for each instructional method, in relation to the rest of the course. Hence, use the following tiers (1 to 7) in the table above:

1. Less than 10 min
2. Between 10 min and 30 min
3. Between 30 min and 45 min
4. Between 45 min and 60 min
5. Between 60 min and 90 min
6. Between 90 min and 120 min
7. More than 120 min

## Part 6 Sequencing of Learning Units

| Explain why the learning units/ modules are being sequenced as reflected in Part 5, in not more than 500 words. You may wish to strengthen the justification for your design with the use of instructional design theories and/or framework linked to the subject matter. Include considerations of *'Authenticity', 'Alignment', 'Holistic'* and *'Future Orientedness'* in your explanation, framed by the graduate profile, content characteristics and environmental factors (e.g. blended learning approach, organisational contexts, sectoral requirements).<br><br>In the case of this module being blended as part of the Full Qualification requirement, specify how you intend to blend the various learning units within this module accordingly. |
| --- |
| |

## Part 7 Learning and Assessment Activities

This section requires you to **elaborate** learning and assessment activities (as listed in Part 5) that illustrate your use of the 6 Principles of Learning Design[1], the use of multiple modes of delivery and different types of assessment activities. The assessment activities should also be identified as being either summative or formative (or both if applicable). For all courses, describe **3 to 5 critical** learning activities together with the corresponding assessment activities.

| Learning Unit (LU) Title: | Assessment Method/s: | Instructional Method/s: | Relevant PoLDs: |
|---|---|---|---|
| *LU1: The Macro Perspectives when Driving Technology Implementation in an Organisation* | *Written Test (Case Study)* | *1. Group Discussion*<br>*2. Group Research* | *1. Feedback*<br>2. *Judgment* |
| *In less than 500 words, describe how you intend to conduct the assessment and instructional activities as justified by the relevant PoLDs:* | | | |
| Learning Unit (LU) Title: | Assessment Method/s: | Instructional Method/s: | Relevant PoLDs: |
| *In less than 500 words, describe how you intend to conduct the assessment and instructional activities as justified by the relevant PoLDs:* | | | |
| Learning Unit (LU) Title: | Assessment Method/s: | Instructional Method/s: | Relevant PoLDs: |
| *In less than 500 words, describe how you intend to conduct the assessment and instructional activities as justified by the relevant PoLDs:* | | | |
| Learning Unit (LU) Title: | Assessment Method/s: | Instructional Method/s: | Relevant PoLDs: |
| *In less than 500 words, describe how you intend to conduct the assessment and instructional activities as justified by the relevant PoLDs:* | | | |
| Learning Unit (LU) Title: | Assessment Method/s: | Instructional Method/s: | Relevant PoLDs: |
| *In less than 500 words, describe how you intend to conduct the assessment and instructional activities as justified by the relevant PoLDs:* | | | |

[1]You do not need to incorporate all 6 PoLDs for every learning activity.

## Part 8 Monitoring and Evaluation

| **Tracking of Outcomes**<br>You are to indicate how you *measure* and *track* learning outcomes *(e.g. Kirkpatrick's four levels of evaluation)* and what *data* you will be collecting to measure the learning outcomes. Do align your write up for this section with the course graduate profile, performance needs and results gathered from the TRAQOM surveys. |
|---|
| |

## Part 9 Areas for Dialoguing (only for Courses with Provisional Pass)

| **Areas to Improve or Consider in Learning Design**<br>Complete this section, where applicable, *after* you have received the QMD Auditor's inputs. Address how you have improved your course components and learning design (e.g. graduate profile, sequencing of LUs, learning and assessment activities) in line with the highlighted items. Your comments will be used to continue the conversation with QMD six months after the expected start date of your course. At that point in time, you may be asked to submit short video clips, lesson notes, assessment outcomes, learner feedback data to justify your original design. The principle is to give white space to Training Providers to trial their learning activities and continuously improve their design based on authentic learning outcomes.<br><br>*(For example, a 4-min video clip showing how the role play was conducted, with critical reflection followed by multi-directional Feedback may illustrate how the activity addresses the PoLDs of Feedback and Judgement.)* |
|---|
| |

# Section (C) Facilities and Resources

| |
|---|
| **A. <u>Classroom Facilitation/ Assessment</u>**<br>Provide images and the details of the facility and equipment supporting the delivery/assessment. |
| |
| **B. <u>Workplace Learning/ Assessment</u>**<br>Provide images and the details of the facility and equipment supporting the delivery/assessment. |
| |
| **C. <u>E-Learning/ Assessment</u>**<br>i. Provide details on the system capability to authenticate learners' identities, and capacity to carry the load without system failure. |
| |
| ii. Provide details on the system capability to validate attendance records & track learners' progress as well as details of the authentication process to verify trainee identity, enable the conduct of e-assessments and ensure accuracy and authenticity of the assessment results.<br>**Note:** *Access Rights to Learning Management System (LMS) to be granted to SSG for checks on learner identities, attendance and progress.* |
| |
| iii. Provide details of how the trainer/instructor support is available for trainee who need further clarification or assistance. |
| |
| iv. Provide details of how the technical helpdesk support is available. |
| |
| v. Provide details on how the online learning segment will blend with the classroom or workplace learning i.e. how many days before, during or after the classroom training will learners be required to enrol into the online course, when is the end date for the online course (e.g. 3 days after classroom training is completed) and the estimated number of e-learning hours expected. |
| |
| vi. Provide details on the instructor facilitation (online or face to face). |
| |

## Section (D) Notes for Applicant Organisations

**Important Note**

1. The TP shall develop the courseware in accordance to the course proposal upon accreditation.
2. The following changes made to an accredited course proposal will warrant a submission to SSG for re-accreditation.
    a. Changes in delivery mode (i.e. classroom, tech enabled and workplace learning), or
    b. Changes in assessment methods, or
    c. Reduction or increase in course duration by more than 50% of the approved duration

    Changes to case studies for purposes of contextualisation and updates to content are examples that do not require re-accreditation.
3. The ATO shall ensure commencement of course by the expected course start date indicated in Part 1 of this form.
4. According to the WSQ Adult Educator (AE) qualifications requirements, ATO is to ensure that at least 80% of its trainers / assessors meet the qualifications requirements, i.e. Workplace Trainer Programme (WTP) or Workplace Learning Facilitator (WLF) Programme for in-house ATO / Advanced Certificate in Training and Assessment (ACTA) or Advanced Certificate in Learning and Performance (ACLP) qualification or equivalent for public ATO. ATO is also to ensure that 100% of its developers meet the qualifications requirements, i.e. ACTA or ACLP for in-house ATO / DACE or its equivalent for Public ATO. Failure to meet the qualifications requirements may result in a lapse of the ATO status.
5. It is the responsibility of the ATO to ensure observation of Intellectual Property Rights (IPR) ownership and free from violation as declared by the ATO. The ATO is to note that any infringement of IPR will result in a lapse of the ATO status.

## Section (E) Audit Outcome *(For completion by SSG)*

| **Part (1) Overall Assessment** | | | | |
|---|---|---|---|---|
| | | | | |
| **PoLD** | **Does Not Comply** | **Partially Complies** | **Fully Complies** | **Remarks** |
| 1 Authentic | | | | |
| 2 Alignment | | | | |
| 3 Holistic | | | | |
| 4 Future Oriented | | | | |
| 5 Judgement | | | | |
| 6 Feedback | | | | |
| **Part (2) Areas in Learning Design for Provisional Approval and Follow-Up Monitoring (where applicable)** | | | | |
| **Overall Comments:** | | | | |

| **Section** | **Part** | **Audit Comments** | [1]**Review Comments** |
|---|---|---|---|
| A | 1 / 2 / 3 | | |
| B | 4 / 5 / 6 / 7 / 8 | | |
| C | A / B / C | | |
| **Part (3) Status of Accreditation** | | | |

| | |
|---|---|
| Pass Audit | ☐ |
| [2]Pass (Provisional) Audit | ☐ |
| Fail Audit | ☐ |

[1]The review conducted six months after the expected start date of the course will address if the evidence (e.g. short video clips or feedback from learners) provided by the Training Provider substantiates the learning design elements under discussion. If there are issues with the evidence or if the evidence shows that the learning design does not lead to more effective outcomes, the Training Provider is expected to make the necessary changes to improve the course design and outcomes until the satisfactory learner outcome is achieved.

[2]The Provisional Pass is granted when the minimum audit requirements are met but there are further clarifications which can only be addressed with evidence from the enacted curriculum (i.e. outcome-based evidence from actual course delivery). Training Providers are allowed to run the course on condition that they submit further evidence (e.g. video clips, learner feedback, assessment outcomes) up to 6 months from the expected start date of the course to show that their proposed learning design works OR that they have improved the proposed learning design.

| | | |
|---|---|---|
| *Audited by:* | | |
| | *Associate Manager*<br>*Quality Management Division* | *Date* |
| *Recommended by:* | | |
| | *Manager/ Senior Manager*<br>*Quality Management Division* | *Date* |
| *Approved by:* | | |
| | *Senior Manager/ Principal Manager/ Assistant Director*<br>*Quality Management Division* | *Date* |
| *Reviewed by*<br>*(where applicable):* | | |
| | *Learning Design Reviewer*<br>*Quality Management Division* | *Date* |

## Appendix 2 Evaluation Rubrics (Draft)

### RUBRICS (v01) FOR EVALUATING COURSE PROPOSALS
**(6PoLD + 2 BL + LO)**

#### a) Purpose of the Evaluation Rubrics

The purpose of this document is to specify how a set of evaluation rubrics will be used to evaluate course proposals submitted with the intent to deliver training within the Skills Framework space in Singapore CET. The overall context is to help drive improvement in the quality of courses for adult learners. The evaluation rubrics will describe the criteria used to review the following principles and parameters:

- The 6 Principles of Learning Design (PoLD) (see Annex A):
  - Authenticity
  - Alignment
  - Holistic
  - Feedback
  - Judgement
  - Future-Orientedness
- Learning Outcomes
- Blended Learning – Modes of Delivery
- Blended Learning – Seamless Experience for Learners

#### b) Introduction to the Six Principles of Learning Design (6PoLD)

The 6PoLD are a set of principles for designing and facilitating learning and assessment that reflects the complexities and nuances of work and development of abilities that enable learners to thrive in uncertain, changing conditions.

#### c) Instructions for the Use of the Evaluation Rubrics

The evaluation rubrics (see Annex A) is designed for learning reviewers to evaluate course applications by Training Providers (TPs) using either of the two Course Proposal Forms (Modular or Full Qualification). It is important to determine the quality of course designs only when one is fully informed of the context, guiding principles and intended outcomes for each course submission. The Course Proposal Forms are designed to gain the required information from the TPs to achieve this objective. In particular, the following information will be critical for learning reviewers to evaluate course designs using the evaluation rubrics:

- Performance Needs / Gaps (of Organisation / Sector)
- Learner and Graduate Profiles
- Learning Outcomes
- Sequencing of Learning Units
- Justification of Learning and Assessment Activities based on PoLD
- The Approach to Blended Learning, if utilised

The manner in which the course designer plans and justifies the course design should be clearly stated. In the event that the justifications or descriptions are unclear, the reviewer should question the underlying assumptions and design concept to fully understand the course design before making any evaluation. Depending on the evaluation outcome of CP audit, TPs are also allowed a 'white space' of six months to implement their course and to provide classroom evidence (through videos of actual class delivery, learner and adult educator feedback) on how their designs pan out in the enacted curriculum, and the modifications required.

The scale adopted in the evaluation rubrics ranges from 'Does Not Comply' to 'Partially Complies' and 'Fully Complies'. The lower end of the scale 'Does Not Comply' would also mean that the course design does not meet the requirements stated for either the PoLD, LO or BL parameters. The 'Partially Complies' grade provides space for further discussion with the designer or to get clarity on the details of the design. Finally, the 'Fully Complies' outcome implies that the course design has met the requirements.

### d) Other Resources and Support

Besides the evaluation rubrics and the two Course Proposal Forms (for Modular and Full Qualification submissions), there are other resources which have been or are being developed to assist Training Providers in planning their course designs:

- Requirements Document – a detailed definition of the PoLD, BL and LO parameters with examples
- Video resources – to explain PoLD (e.g. https://www.youtube.com/watch?v=QiHeVcghdiA&t=2s)
- Documentary resources
  Bound, H. & Chia, A. (2020) *The Six Principles of Learning Design. Designing learning for performance.* Singapore: Institute for Adult Learning .https://www.ial.edu.sg/content/dam/projects/tms/ial/Research-publications/Practitioner-guides/The%20Six%20Principles%20of%20Learning%20Design_21092020.pdf

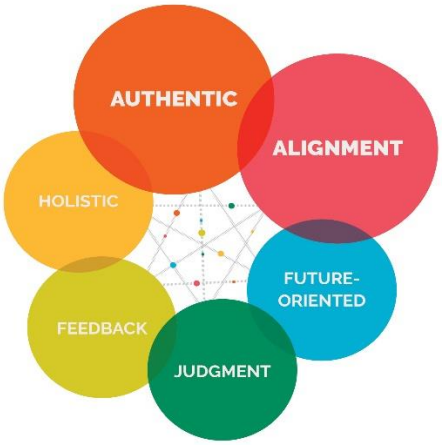
  Bound, H. & Tan S.C. (2020). *Dialogical inquiry. A short guide to teaching using a dialogical inquiry approach.* Singapore: Institute for Adult Learning.
  https://www.ial.edu.sg/content/dam/projects/tms/ial/Research-publications/Practitioner-guides/Dialogical%20Inquiry.pdf
  This contains useful tips on ways to develop deep understanding (includes high cognitive level engagement), learning to learn and information about levels of reflection (helpful for the principle of future-orientedness)

### e) Conclusion

Users should be mindful that these documents and resources are dynamic and should undergo changes as the landscape evolves and new sectoral or national learning needs surface. Constant feedback to modify and update the requirements would be the norm and should be encouraged, as part of the evolving curriculum model.

**Annex A The Six Principles of Learning Design (PoLD)**

## Figure 1: The Six Principles of Learning Design (6PoLD)




*The 6 Principles of Learning Design*
*(Bound, Chia & Karmel, 2016)*

Table 1 provides a brief summary of the 6PoLD. See Bound & Chia, 2020 and Bound, Chia & Karmel, 2016 for a fuller explanation.

## Table 1: The Six Principles of Learning Design (6PoLD)

| Principle | Explanation |
|---|---|
| Authenticity | Authenticity brings a focus to performance that is required in real work settings. Learner engagement is a critical aspect of authenticity. Courses of any length can be anywhere along an authenticity continuum. Authenticity does NOT necessarily mean that all tasks or activities are about doing the work in real work settings – as this is not always feasible. Providing for authentic learning and assessment experiences can be achieved through bringing the complexities of the work into the classroom environment and/or technology enabled environment, through for example, learners engaging in or with: (the list goes from lower level of authenticity to higher level)<br>• peer sharing of experiences<br>• complex case studies based on real life examples<br>• solving of complex problems that are based on real life examples<br>• practice exercises that require the *integrated* application of technical and generic/soft skills<br>• tasks / activities that reflect performance required in work settings<br>• tasks / activities that mirror the way knowledge and skill are performed in real settings and/or take place in real work settings |
| Alignment | Design that involves every aspect of learning so that all work together for a common purpose. Alignment (what John Biggs (2003) describes as constructive alignment) refers to all aspects of design to form a cohesive whole. So learning purposes and outcomes, assessment design and learning activities and the *place* of learning, need to support each other. For example, a short course that has the purpose of developing participants' report writing skills and has as its assessment a series of multiple choice items, is clearly NOT aligned. For there to be alignment, the assessment would need to be the writing of a report for a real audience (and thus the assessment is also) which would make the learning and assessment authentic. |
| Holistic | Integrates: knowing, doing, thinking and feeling; theory and practice, technical and generic, and learning to learn capabilities. Involves use of multiple senses – creating learning experiences that are embodied. Holistic aims for learning to be inclusive of the wider ethics and values of the profession and/or occupation, of integrating knowledge, skills and experience. "Integrated-ness" suggests the inseparability of learning from the learner and that which is learned, or the connectedness between doing, thinking and *be*ing. Holistic design is important in developing the core of what it means to *be* a particular professional, or role or vocation.<br>Learning is regarded as an ongoing process of participation in relevant activities, and engagement in meaningful undertakings, rather than as a "thing", "product" or acquisition of certain "products". (e.g. Vygotsky, 1978; Marchand, 2008; Ross, 1999). |
| Feedback | Feedback involves giving and receiving feedback from multiple sources and creating opportunities for learners to act on their feedback. |

| | |
|---|---|
| | Feedback is far more than expert-others giving feedback to learners. Feedback should be dialogic – a discussion. Learners need to be engaged in *giving* feedback, and receiving feedback from peers, educator, work supervisor etc. (where appropriate) and in self-assessing their own performance. The purpose of such a feedback loop is to improve performance – this is why feedback needs to be a discussion and from multiple sources.<br>Creating multiple feedback loops over the time of a module and of a program enables learners to:<br>• understand how they are progressing<br>• develop clarity about standards/expectations (quality) of performance |
| Judgement | Judgement enables learners to make judgments about their own and others' performance, including making and evaluating ethical judgements.<br>Judgement refers to the ability of learners to make informed judgements of their own learning. Judgement is an essential part of the learning and assessment processes because the development and use of judgement is fundamental in enabling learners to understand their own work, and how they are doing/performing in relation to what is required/expected. Feedback and judgement are intertwined. Both require learners to be actively engaged in learning (Boud & Molloy, 2013). |
| Future-oriented | Involves Learning to learn, opportunity to develop deep understanding – thus enabling application to multiple situations and contexts, engaging with multiple perspectives and inquiry.<br>Future-orientedness emphasises learners ability to resolve unfamiliar or non-standard problems. It involves many of what are variously called 21st century skills, or the new 'top 10 skills', such as critical thinking, creativity, learning to learn. Deep understanding of a discipline, a process, is required for effective solving of the unfamiliar. Deep understanding is developed through exposure to multiple, different perspectives (e.g. points of view, conceptual models, ways of thinking, doing, beliefs…) which in turn requires critical thinking, and the ability to evaluate different forms and sources of 'evidence'. Having inquiry skills, knowing what questions to ask, how and where to gather data to assist in meeting challenges is all part of future-orientedness. "Meta-thinking" processes (using big-picture thinking or conceptual frames) are important for making sense of the unfamiliar (Stack & Bound, 2012). |

To sum up this section, quality curriculum as understood for the purposes of this project is curriculum that:

d) for learners:
   - uses the 6PoLD to design learning and assessment that positions learners to better thrive in changing circumstances
   - integrates learning and assessment – formative, sustainable and summative assessment that challenges and improves learners' performance
   - develops learners' agency, by providing opportunities to act to improve their own learning and performance and contribute to their work

- actively engages learners in knowledge building, while providing the necessary scaffolding
- has a focus on the processes of learning and is learner centred

e) for educators:
   - provides white space to
     i. enact the curriculum
     ii. constantly monitor and review the curriculum
     iii. develops the educators

f) for those responsible for quality assurance
   - meets the above
   - provides opportunity for ongoing dialogue for continuous improvement
   - meets regulatory requirements

**Annex B Detailed Evaluation Rubrics**

| **AUTHENTIC** | | | |
|---|---|---|---|
| **REQUIREMENT** | **DOES NOT COMPLY** | **PARTIALLY COMPLIES** | **FULLY COMPLIES** |
| There must be evidence of learners' engagement in performing activities that mirror/ replicate, or reflect/imitate the ***complexities of real work settings***[1] or of activities taking place in actual work setting(s). | There is no evidence of authentic learning and assessment activities that learners will be engaged in | Only 60% or less of learning and assessment activities are authentic. | Most (80% plus) learning and assessment activities that learners engage in can be identified in a continuum of authentic learning. |

| **ALIGNMENT** | | | |
|---|---|---|---|
| **REQUIREMENT** | **DOES NOT COMPLY** | **PARTIALLY COMPLIES** | **FULLY COMPLIES** |
| The intent or aim of the course is to ensure all learning and assessment activities are aligned to the learning outcomes and assessment criteria, as framed by the learner and graduate profiles. | Less than 80% of elements in the curriculum are aligned.<br><br>There is a mismatch between the learning outcomes, the learning activities, and/or the assessment activities.<br><br>There is a mismatch between the purpose of the course/ program, its learners and the application of their learning. | Most (80%plus) elements of the curriculum are connected and related and others are not. | Learning outcomes, the learning activities, and the assessment activities all connect and relate to one and other as an overall objective to help the learner achieve the graduate profile.<br><br>There is alignment between the purpose of the course / program, its learners' capability and the application of their learning. |

| FEEDBACK | | | |
|---|---|---|---|
| **REQUIREMENT** | **DOES NOT COMPLY** | **PARTIALLY COMPLIES** | **FULLY COMPLIES** |
| Opportunities for feedback in a timely manner, from multiple sources, must be built into the curriculum, with the intent for learners to improve their performance. | The proposal does not show evidence of timely feedback to learners.<br><br>Feedback is from one source only (e.g. only the educator) | One of the following is missing:<br><br>Provision of timely feedback to enhance learners' performance<br><br>Feedback from multiple sources | The proposal shows evidence of provision of both:<br>• Timely feedback with the intent to enhance learners' performance, and<br>• Feedback from multiple sources<br><br>In full qualifications there are feedback loops designed into the course e.g. learners receive feedback on performance tasks and have the opportunity to improve |

| JUDGEMENT | | | |
|---|---|---|---|
| **REQUIREMENT** | **DOES NOT COMPLY** | **PARTIALLY COMPLIES** | **FULLY COMPLIES** |
| The curriculum design must include opportunities for learners to judge the quality of their and/or others' work, and as appropriate to make ethical judgements. | There is no evidence that learners are required to judge / evaluate the quality of their performance. | Learners are required to use a range of input (e.g. from self, peers, educator, comparison to similar work / performance etc.) to judge /evaluate the quality of their own work OR that of the work / performance of their peers. | Learners are required to use a range of input (e.g. from self, peers, educator, comparison to similar work / performance etc.) to judge /evaluate the quality of their own work AND the work / performance of their peers. |

| FUTURE-ORIENTEDNESS | | | |
|---|---|---|---|
| **REQUIREMENT** | **DOES NOT COMPLY** | **PARTIALLY COMPLIES** | **FULLY COMPLIES** |
| Opportunities to develop future - orientedness (deep understanding and learning to learn) must be included in the curriculum. | There is no evidence that learners will be engaged in high level cognitive sense-making (e.g. upper levels of Bloom's taxonomy) and/or high level of skill and /or affective behaviours. | Learners have only single opportunities to engage in the following:<br>• high level cognitive sense-making,<br>• improving their learning-to-learn capabilities (e.g. reflection that is beyond descriptive, identifying how they can improve their work / performance, etc.) | Learners have repeated opportunities to engage in:<br>• high level cognitive sense-making, improving their learning-to-learn capabilities (e.g. reflection that is beyond descriptive, identifying how they can improve their work / performance, etc.) |

| HOLISTIC | | | |
|---|---|---|---|
| **REQUIREMENT** | **DOES NOT COMPLY** | **PARTIALLY COMPLIES** | **FULLY COMPLIES** |
| Holistic learning must be integral to the curriculum design, enacted through the learning experiences, and embedded within the learning outcomes, to enhance performance. | Learning and assessment activities consistently separate technical and generic skills.<br><br>Learning and assessment activities consistently separate theory and practice (doing) | One or two of the following are present:<br>• Learning and assessment activities consistently integrate technical and generic skills.<br><br>• Learning and assessment activities | Learning and assessment activities consistently integrate technical and generic skills.<br><br>Learning and assessment activities consistently integrate theory and practice (doing)<br><br>Learning and /or assessment activities use multiple senses (e.g. involving social, |

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| | Learning and assessment activities rely on visual and oral experiences, without opportunities for the kinaesthetic, and emotions, etc. | consistently integrate theory and practice (doing)<br><br>• Learning and /or assessment activities use multiple senses | psychomotor, cognitive, affective domains) to reflect the real-life demands of work on learners<br><br>e.g. engaging in multiple opportunities to share experiences/perspectives/ ideas to link theory and practice |

| **LEARNING OUTCOMES** | | | |
|---|---|---|---|
| **REQUIREMENT** | **DOES NOT COMPLY** | **PARTIALLY COMPLIES** | **FULLY COMPLIES** |
| Learning outcomes must state what a learner will be doing and understanding, including the accompanying attributes both during and at the end of a learning sequence or course. | Learning outcomes are focussed on small tasks, i.e. they are not holistic<br><br>Learning outcomes use verbs that capture only low cognitive levels | Learning outcomes are written from the perspective of the learner (learners will be able to: xxx)<br><br>One or more of the following is absent or unclear<br><br>• Learning outcomes capture holistic performance<br><br>• Learning outcomes are achievable within the timeframe and the allocated resources<br><br>• Learning outcomes align with the purpose | Learning outcomes are written from the perspective of the learner (learners will be able to: xxx)<br><br>Learning outcomes capture holistic performance<br><br>Learning outcomes are achievable within the timeframe and the allocated resources<br><br>Learning outcomes align with the purpose of the course / program |

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|---|---|---|---|
| | | of the course / program | |

| **BLENDED LEARNING – MODES OF DELIVERY** (MANDATORY FOR FULL QUALIFICATION) | | | |
|---|---|---|---|
| **REQUIREMENT** | **DOES NOT COMPLY** | **PARTIALLY COMPLIES** | **FULLY COMPLIES** |
| There must be evidence that learning occurs using at least two different learning modes (e.g., classroom, workplace, practice-based/practical performance, or tech- enabled).<br><br>The principle of authenticity applies within and across all learning modes. | Delivery uses one mode only and there is either no or an inadequate explanation of why this is best | NA | Two or more learning modes are used in a coherent and learning effective manner |

| **BLENDED LEARNING – SEAMLESS EXPERIENCE FOR LEARNERS** | | | |
|---|---|---|---|
| **REQUIREMENT** | **DOES NOT COMPLY** | **PARTIALLY COMPLIES** | **FULLY COMPLIES** |
| There must be evidence of a seamless learning experience that helps learners to make sense of and engage fully with the learning in and across different learning modes. | There is no connection, or flow between different modes<br>OR<br>the learning experience across different modes is truncated with no clear justification on how the learner benefits from the | NA | Activities flow and/or are connected between modes of delivery to provide a meaningful and varied experience for learners<br><br>Learners are actively engaged (not only passive recipients of knowledge) in the different learning modes |

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| | different modes of delivery | | Some learning and assessment activities may take place in one mode only. |

# Appendix 3 Requirements Document (Draft)

**INTRODUCTION:**

The following new standards include specifications for the Six Principles of Learning Design, Blended Learning, and Learning Objectives which must be addressed as part of the new criteria for pursuing WSG course accreditation. Each standard includes a definition, requirement, guidance, and examples. Some standards also include footnotes for other terms embedded within the either the definition or requirement statements, respectively. The *definition* is a statement specifying the meaning for a term or phrase. The *requirement* statement is the mandatory criteria or characteristics to be fulfilled (the compulsory component of the standard). Guidance statements are actionable recommendations for complying with the requirement, in whole or in part. Course proposals, where appropriate, may adapt and include contextualized guidance from the standards as evidence for compliance. Additionally, course proposals may also include alternatives to these guidance statements, based on the specific needs of the course being proposed. Examples are written illustrations or models that represent the realization of one or more guidance statements, either individually or in various combinations. Note that even though all standards are inter-related to one another, all standards must be addressed within the course proposal, especially if the course developer deems any specification not applicable to the given context (i.e., level, type, framework, duration, discipline, etc.) of the course being proposed.

Principles of Learning: **Authentic**

*Definition of Authentic: Learners are engaged in performance of activities that are situated in real work settings or that reflect the complexities of real work settings and experiences*

| Requirement Statement | Guidance (how the requirements can be met) | Examples |
|---|---|---|
| There must be evidence of learners' engagement in performing activities that mirror/replicate, or reflect/imitate the ***complexities of real work settings***[1] or of activities taking place in actual work setting(s). | The course proposal should specify how and to what extent the learning and assessment activities reflect the complexities of the workplace, both in theory and in practice.<br><br>The narrative in the proposal should specify:<br>● how (activities proposed),<br>● where (classroom, online, workplace, or blend),<br>● when (when in the course, i.e., sequencing) and<br>● to what extent (e.g. number of hours/days) authentic learning activities occur.<br><br>A number of activities may together constitute evidence of authentic learning. | Authenticity may be evident in activities such as:<br><br>● Learners have learning outcomes and standards of performance to achieve that are transparent when they spend time in real work settings (e.g. internship, practicum, etc.)<br>● Learners identifying, analysing and solutioning problems or issues they experience or face at work<br>● Active noticing of particular activities in workplace visits, to be collated, analysed and discussed back in the classroom and/or online<br>● Learners are engaged in developing their capabilities in simulated environments, followed by self, peer and educator feedback<br>● Real case studies that include complex problems to be solved |

Principles of Learning: **Alignment**

*Definition of Alignment: aligning all of the following: intent or aim of the course, intended learning outcomes, learning activities, content and assessment tasks and processes, (including required types of evidence of performance) and modes of delivery known as "constructive alignment" (Biggs, 2003), or simply "alignment". In short, learning and assessment activities are attuned to achieving the learning outcomes.*

*In addition, there is alignment between learners' needs, targeted job role, and all of the above.*

| Requirement Statement | Guidance (how the requirements can be met) | Examples |
|---|---|---|
| The intent or aim of the course is to ensure all learning and assessment activities are aligned to the learning outcomes and assessment criteria. | The course proposal should provide aim(s) of the course, learning outcomes, and the examples of learning and assessment activities, should evidently connect with the purpose and outcomes of the course.<br><br>Directly informing the alignment are parameters relating to the organisation's context and the learner profiles, and these considerations should also be stated clearly in the course proposal, for the purpose of achieving alignment in practice. | A learning outcome, such as "Make guests feel welcome" is achieved through activities that provide opportunities for learners to understand what 'feeling welcome' means and 'looks like' (e.g. observing experienced personnel and actively noticing their language, body language, gesture, tone of voice); discussion of how these observations match the theory and having opportunities to practise. Formative assessment (e.g. self-reflection, peer and experienced other, giving feedback) would be part of the practice sessions.<br><br>Summative assessment might take place in real work settings, with evidence being, for example, supervisor reporting, and guest feedback. |

<table>
<tr><td colspan="3">Principles of Learning: Feedback<br><br>Definition: Feedback engages learners in understanding how they can improve their performance; it is both learning and assessment. Feedback promotes a learner's self-understanding enabling them to understand the required standards of performance. Feedback comes from many sources – self as learner as a result of engaging in activities/performance, peers, educator, workplace supervisor, etc.<br><br>Timely feedback through multiple opportunities is the most important aspect of feedback, enabling a structure of meaning to be built up by the learner(s).</td></tr>
<tr><td>Requirement Statement</td><td>Guidance (how the requirements can be met)</td><td>Examples</td></tr>
<tr><td>Opportunities for feedback in a timely manner, from multiple sources, must be built into the curriculum, with the intent to provide opportunities for learners to improve their performance. The standards of performance[2] need to be transparent.</td><td>The course proposal should provide activities where constructive feedback is given from at least two sources (e.g. any 2 peers, adult educator, workplace supervisor, work peers, customers) and received with acknowledgement or clarification<br><br>Effective feedback should address three main questions: "where am I going?" (feed up), "how am I doing?" (feedback), and "where to next?" (feed forward)<br><br>TIMING: Feedback should be provided throughout the learning experience (before, during and after) and at appropriate frequencies and at appropriate times<br><br>PERSPECTIVES: Feedback should be provided from multiple perspectives/sources (e.g., instructors, students, workplace supervisors, customers etc.)</td><td>● Example of a feedback loop designed into a course: Structured opportunities for learners to give feedback to peer's draft assessment activities, using the assessment rubric<br><br>● Graded assessment artefact is set and returned early in the course with the expectation that the feedback be taken into account in the final assessment activity. The final assessment activity will likely require additional aspects<br><br>● Relevant feedback, to correct performance and assumptions, is provided in a timely manner, beyond simple 'correct' and 'wrong' responses as the learners work through the quizzes or scenarios in the online course</td></tr>
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| | MODES OF FEEDBACK: Feedback should be provided through multiple modes, including verbally (e.g., face-to-face discussion in real time, either 1:1 or as part of a group discussion), written (paper, electronic, individual or group chats), or other tech-enabled solutions (e.g., video, computer-generated score reports, etc.)<br><br>CONTENT OF FEEDBACK: The nature of the Feedback should have one or more intents, such as dialogical, corrective, informational, etc.<br><br>DIRECTIONALITY OF FEEDBACK: Feedback should be both pushed to the student and the student should be offered opportunities to pull or request feedback from multiple perspectives/sources and through multiple modes and on multiple occasions.<br><br>Safe spaces should be provided for learners to perform and receive feedback from educators and peers.<br><br>Learners should be provided opportunities, as part of the planned learning experience, to use feedback received from past performances/assessments to improve their next performance/assessment. | Those giving feedback can include questions that encourage the learner(s) to identify and critically analyse the issues with their work and where practical from more than one source.<br><br>Feedback might take the form of asking learners to compare examples and in the process contribute to aspects of the assessment rubric |

| Principles of Learning: **Judgement**<br><br>Definition: *Judgement (exercised by learners) enables learners to develop the ability to give an informed opinion on the quality of their and others work / performance*, understand standards and identify their learning needs. When opportunity for self and peer feedback is given, judgement is being exercised by learners.*<br><br>**refers to holistic performance, bringing together different aspects of whole tasks or performance:* | | |
|---|---|---|
| Requirement Statement | Guidance (how the requirements can be met) | Examples |
| The curriculum design must include opportunities for learners to judge the quality of their and/or others' work, and as appropriate to make ethical judgements. | The course proposal should be evident when describing the learning and assessment activities, how the judgement process is developed with these guidelines::<br><br>● Provide for multiple sources of evidence, self-assessment or reflection as part of the judgement;<br>● Use a range of evidence from multiple sources (verbal, written, tech-enabled, individual and group, etc.) and roles (learner, peers, instructors, co-workers, work supervisors, etc.);<br>● Enable for multiple and diverse outcomes and interpretations;<br>● Provide transparency for criteria against which judgements are made;<br>● Trigger reflections on one's ethics and/or professional practice for self-improvement | Judgement (and the accompanying feedback opportunities) should be holistic, not piece-meal<br><br>Learners may be given or co-develop criteria for judging the quality of work / performance<br><br>Judgement may be evident in activities such as:<br><br>● In hygiene sessions on washing hands, learners might work in pairs or threes and take turns in judging each other's hand washing technique to ensure the standard is being met and the underlying reasons if not. This ensures they comprehend the rationale of the practice as they apply the standards.<br>● In discussing strategies for managing difficult people, learners are required to consider a range of strategies |

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| | ● Encourage divergent judgements as appropriate;<br>● When required, include processes for moderating and/or reconciling diverging judgements;<br>● Provide processes that develop the learner's ability to make realistic judgements about their own performance, as well as the performance of others | from theory and their own practice and 'test' them against theory and the practical application. The judgement is a judgement of ideas and thus involves peer feedback as a natural part of the discussion.<br>● In developing learners' English literacy capabilities, learners work in small groups to 'judge' written (or verbal or reading) quality and correctness. For beginners they may require examples of good and poor English which have previously discussed<br>● In making a dish (culinary arts), learners judge the taste and presentation of the dish. Through this process they may develop a vocabulary to describe taste, using the taste wheel for example. In this example, learners themselves come up with the criteria of what is a quality dish through the exercise of making the judgements. This can then become a discussion about how their standards of performance compare against company requirements or Michelin Star performance, whatever is appropriate.<br>● In lesson planning, alternative viewpoints (e.g. "It is possible that some learners may consider role play to be a more appropriate assessment method to gauge the performance of a security personnel compared to demonstration because … ") should be stated to facilitate divergent thinking as a consequence of the judgement process. |

| Principles of Learning: **Future orientation**<br><br>*Definition: Future-orientedness is developing learners' ability to face future unknowns and new challenges beyond the immediate course/training. The key aspects of future-orientedness is developing learners' deep understanding (know-why) and learning to learn ability. Deep understanding (as opposed to process knowledge) enables learners to solve complex, unexpected problems and learning to learn helps them to navigate change. Critical thinking, analysing and reflecting, for example, are core to both deep understanding and learning to learn. Future orientation means that your learners are asking critical questions, analysing and reflecting deeply*. | | |
|---|---|---|
| Requirement Statement | Guidance (how the requirements can be met) | Examples |
| Opportunities to develop future-orientedness (deep understanding and learning to learn) must be included in the curriculum. | The course proposal should explicitly describe the learning and assessment activities with reference to opportunities for critical reflection, analysis and for learners to pose questions for the purpose of developing learning to learn and sense-making capability.<br><br>These opportunities could be intentionally designed into the instruction and assessment through:<br>• the adoption of specific instructional design models that facilitate deep learning and reflection<br>• the conduct of active learning activities that question assumptions and professional beliefs<br>• giving learners space and time to explore issues without the need to arrive at the 'right' answer | Deep understanding may be developed through activities such as:<br>• Comparing different solutions – the advantages and disadvantages of each<br>• Applying theory to solve learner's work issues/challenges<br>• Exploring 'what if' questions (e.g. what happens if hands are not washed properly? Taking samples and watching bacteria grow)<br>• Encouraging learners to ask questions and answer their own questions - this can also develop learning to learn capabilities through discussing and making learners' aware of the strategies they use to address their own questions |

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| | • the use of scenarios with no clear answers or boundaries, to drive application and discussion, ultimately, developing learners who are comfortable with fuzzy parameters and contexts | • Facilitating learners to consider and weigh up different perspectives depending on one's roles, beliefs or processes<br>• Asking learners to draw and layer on comments for each other's concept maps to clarify the relations among systems, processes, concepts and ideas<br><br>Leaning to learn capabilities may be developed through activities such as:<br>• Giving learners time to suggest strategies on how to find certain types of information<br>• Giving responsibility to learners to work out answers to their own questions<br>• Asking learners to share how they solved a problem<br>• Requiring learners to develop a plan for how they will complete a required assessment / performance, and discussing the plans in groups (to share ideas and learn from others)<br>• Encouraging learners to step out of their comfort zone e.g. learners may not think of themselves as analysers, yet after they have successfully completed a task requiring analysis, the processes they used for analysis can be pointed out)<br>• Designing activities that encourage learners to pre-empt errors or issues before they occur, to heighten mindfulness and analytical abilities |

| Principles of Learning: **Holistic**<br><br>*Holistic refers to learning as embodied, that is, technical and generic capabilities, theory and practice, ethical and moral decisions and considerations are integrated, not separate from each other. Holistic is about what it means to 'be' a cleaner, a nurse, an engineer, a cook, a manager, etc. (i.e., a working member of a given occupation or profession).*<br><br>*Note: being and becoming a particular vocation/profession, role (e.g. manager) takes time, and experience. A course is only the beginning of this journey, or a deepening of an aspect of the journey. Holistic is NOT getting learners to reproduce knowledge.* | | |
|---|---|---|
| Requirement Statement | Guidance (how the requirements can be met) | Examples |
| Holistic learning must be integral to the curriculum design, enacted through the learning experiences, and embedded within the learning outcomes, and to enhance performance. | The course proposal should specify how both learning and assessment activities embed the ways of 'being' – to consider, in an integrated and comprehensive manner, the representation of the job tasks, role, occupation or profession (including wider ethics and values in context).<br><br>The course proposal should specify how opportunities are provided as part of the learning experience to integrate concepts and experience, and develop language and deep understanding in the context of the capabilities, job tasks, role, occupation or profession. | Holistic may be evident in activities such as:<br><br>• Debriefing after complex simulations where learners and educators analyse what happened, why it happened, explicitly linking theory and practice, naming up feelings and fears and flow moments. Together, analysing why and developing alternative, better ways of performing<br><br>• In a practical session on moving a patient from the bed to a wheelchair, discuss, why particular postures of the therapist are better than others; why the patient needs to be supported in a particular way. This combines theory and practice, the doing and the know why. Identify what learners are fearful of, what is easy, and why, as they move patients - the embodiment of learning |

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|---|---|---|
| | The course proposal should specify how and to what extent the learning and assessment activities:<br><br>● Develop practitioner ways of thinking, speaking and being in the context of the job tasks, role, occupation or profession<br>● Socialise the learner into the larger community of practice and society from a workplace perspective.<br>● Inculcate the professional beliefs and values that are evident in the occupation or profession | ● Assessment may be based on learners' work issues, challenges and addressing these (this strongly brings together theory and practice, (knowing and doing), technical and generic capabilities and ethical dimensions)<br><br>Using inquiry approaches where learners collect data as part of solving an issue - this brings up ethical considerations, taps into motivations of the learner and develops their generic capabilities. Analysis of data will develop theoretical capabilities. E.g. learning hand washing and collecting swabs from a variety of circumstances and people, or interviewing workers to clarify what the problem is, etc., means learners need to analyse why<br><br>● Drawing out (e.g. using tape) a theoretical model on the floor and having learners stand in the parts that best represent their approach, their problem, beliefs or the stance of their organisation etc. Getting them to move as they apply their thinking or beliefs to different scenarios may present multiple paradoxes, in that their views are often challenged as they unpack and deepen their thinking and beliefs through the process. |

**Learning Outcomes**

*Learning outcomes state what a learner is expected to understand, be doing and the attributes they are expected to develop at the end of a learning process or sequence. The way such outcomes are defined and written orients teaching and learning, and influences the quality and relevance of education and training. The way learning outcomes are defined and written matters to individual learners, the labour market and society in general. (CEDEFOP, 2017, p.13)*

| Requirement Statement | Guidance (how the requirements can be met) | Examples |
|---|---|---|
| Learning outcomes must state what a learner will be doing and understanding, and include the accompanying attributes both during and at the end of a learning sequence or course. | Learning outcomes, in the aggregate, should address all facets (i.e. understanding, doing and attributes) related to a job task, role or occupation.<br><br>Learning outcomes should be described in a manner that is observable, measurable and specific, within a typical context for application.<br><br>Learning outcomes should emphasize the application and ***integration*** of understanding, doing and attributes<br>● Learning outcomes should help to clarify intentions and demonstrate actual achievements of learning.<br>● Learning Outcomes should be developed to reflect relevant findings of industry consultation (e.g., current learning needs among target learners)<br>● Cumulatively, the learning outcomes for a course should be inter-related in a manner that strengthens and deepens the meaning making for each learning outcome | By the end of the food hygiene course, participants are able to:<br><br>● Collect, grow and identify bacteria from appropriate sources<br>● Teach others hand washing techniques and why this is important in the contexts of their work<br>● Evaluate the quality of their own and other's handwashing process<br><br>By the end of a course on leadership, participants will be able to:<br><br>● Use appropriate tools to read and critically analyse the environment in which they and their organisation work<br>● Use consultative strategies appropriate to their working environment to co-develop strategic direction, goals and how to achieve these goals<br>● Evaluate the approaches used by their peers and make constructive suggestions |

CEDEFOP 2017 *Defining, writing and applying learning outcomes A European handbook*. Luxembourg: Publications Office. http://dx.doi.org/10.2801/566770; https://www.cedefop.europa.eu/files/4156_en.pdf

| **BLENDED LEARNING** - **USE AT LEAST TWO OF THE FOLLOWING MODES** (i.e., CLASSROOM, WORKPLACE, PRACTICE-BASED/PRACTICAL PERFORMANCE, OR TECH-ENABLED) | | |
|---|---|---|
| Requirement Statement | Guidance (how the requirements can be met) | Examples |
| There must be evidence that learning occurs using at least two different learning modes (e.g., classroom, workplace, practice-based/practical performance, or tech-enabled). The principle of authenticity applies within and across all learning modes. | The learning modes used should include a combination of **at least two** of the following:<br>● Classroom learning that takes place in a protected space and time<br>● Tech-enabled learning: learning that taps on the use of technology to boost learner engagement, participation and ownership of the learning process and outcomes; For *the purposes of this requirement,* technologies that enable efficiencies in managing learners and/or materials, are not considered as being tech-enabled learning (for example, sharing materials using DropBox or other file-sharing service)<br>● Workplace learning: learning that occurs in real work settings (observations, practicums, on-the-job coaching, etc.)<br><br>The proposal should specify how (activities proposed and implementation support planned for), where (classroom, online, workplace, or blend) and when (specific junctures in the course) learning will occur.<br><br>Choice of learning modes should be intentional and justified according to the desired learning outcomes, learner profile, | Technology should be used to enhance learning; examples include:<br>● Promoting self-directed learning and/or peer learning in ways that overcome space and time constraints of learning in the classroom and/or workplace.<br>● Simulating work &/or workplaces with technology<br>● Motivating learning by infusing gamification elements<br>● Challenging learners to question norms and re-evaluate one's beliefs and values through scenario-based, problem-based or error-based learning approaches embedded within tech-enabled learning resources<br><br>See guide for specific examples |

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| | and type of work and/or performance that learners are being prepared to undertake, as well as other relevant input(s) from the stakeholder consultation process<br><br>Learner support for accessing, using, fully participating in the tech-enabled platforms should be explained<br><br>Where learning through work, and/or at workplaces is required, the expected role and contribution of workplace stakeholders and/or workplace environment (eg. physical space, tools) requirements should be well-defined to support requisite preparation and participation in the workplace<br><br>Workplace stakeholders should be equipped to provide learning guidance, support &/or assess learning. | |

| **BLENDED LEARNING - SEAMLESS LEARNING EXPERIENCE** - Learning in and across modes is connected to facilitate learner engagement. | | |
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| Requirement Statement | Guidance (how the requirements can be met) | Examples |
| There must be evidence of a seamless learning experience that helps | A seamless learning experience should take into account:<br><br>● Sequencing of learning modes designed to enable "to and fro" movement between learning modes to | ● Early in the course, learners visit workplaces for between 1-3 hours to observe specific practices. Learners return to classroom to share and evaluate the practices to build towards an understanding of |

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| learners to make sense of and engage fully with the learning in and across different learning modes. | enable &/or reinforce distinct yet interrelated and layered learning experiences.<br><br>● Learning in each mode augments and / or reinforces competence, when applicable, developed in other modes(s)<br><br>● Learning in and across each mode leverages the unique strengths of each learning modality (eg. technology is used to enable personalised learning at own time, and collaborative learning).<br><br>● Appropriate learning support (eg. user guides for using technology platforms) is provided for learners. | what is good and not so good practice and why<br><br>● During longer work placements or internships, in an appropriate online space, learners weekly share challenges, frustrations and interesting, enjoyable experiences. Part of their assessment could include making suggestions for others to address challenges, or questions to ask, or strategies etc.<br><br>● Use simple online games to reinforce and familiarise learners with specific terminology, which learners access repeatedly until they gain 100% score.<br><br>● Use online games where learners make choices in a scenario, culminating in particular outcomes. Use the classroom space to reflect, analyse and develop deeper understanding of why certain actions / decisions lead to particular outcomes<br><br>● Learning activities *at* and *through* work is designed as ongoing formative assessment and not only as summative assessment at the end |

| PRINCIPLES OF ASSESSMENT:<br><br>Applies to summative assessment (assessment of learning) only | | |
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| Requirement Statement | Guidance (how the requirements can be met) | Examples |
| Assessment strategies, assessment design, and associated assessment tools, activities, & experiences must comply with assessment principles for fairness, flexibility, reliability and validity<br><br>Note: The context for these principles are being revised from a traditional psychometric approach to that which is consistent with the 6 principles of learning design. | The course proposal should meet the following principles of assessment:<br><br>**FAIRNESS:**<br><br>● The TP should consider the individual's needs as a learner in the assessment process<br>● The TP should apply reasonable accommodations, where appropriate, when considering the learner's needs in the assessment process.<br>● The TP should provide the learner with processes or opportunities for reconsideration of assessment decisions made<br>● The TP should inform the learner about the assessment purpose, assessment criteria, and process<br>● The TP should demonstrate that assessments are equitable to both individuals and groups | ● In considering accommodations for learners with dyslexia, the curriculum designer designs the assessment to provide additional time for the written test segment.<br>● As an advisory, the trainer advised the learners (for both males and females) to wear trousers as there will be some climbing up the ladder for the activity the day after.<br>● The assessment activity provided options for learners to choose different resources (e.g. Western, Chinese, Indian or Malay costume) to illustrate their competency at presenting a positive cultural image of self. |

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| | **FLEXIBILITY:**<br>● The TP should provide assessment opportunities at mutually convenient times for the TP and the learner.<br>● The TP should provide assessment opportunities that are appropriate to the range of contexts / application.<br>● The TP should have the option to tweak contextual limits for the assessment activity, to satisfy the special needs (e.g. physical ailment) of the candidates<br><br>**RELIABILITY:**<br><br>● The TP should demonstrate that the interpretation of evidence (e.g., artefacts produced, activities performed, behaviors observed, etc.) in determining assessment outcomes is consistent across learners<br><br>● The TP should demonstrate that assessment outcomes results are consistent across different modes and across different assessors.<br><br>**VALIDITY:**<br><br>● The TP should assess what it claims to assess through collection of evidence that is relevant to learning outcomes have been met<br>● The TP should assess candidates according to the specifications of the learning outcomes within the agreed environmental contexts and task conditions | Assessment may take place in any of the modes (tech-enabled, workplace or classroom) as appropriate<br><br>Assessment rubrics are provided to learners early in the course and learners use them to self and peer assess their work.<br><br>As part of the assessment, learners hand in a self-assessment using the rubric with a rationale as to why they assessed themselves as they did.<br><br>• Using role plays as a means to assess the performance of retail staff in managing difficult customers at the retail store would be considered valid.<br>• Contextualising the assessment criteria for 'Managing Difficult Customers' to address serving high nett worth individuals for retail staff at luxury goods stores |

| RULES OF EVIDENCE (for assessment of learning)<br><br>Applies to summative assessment (assessment *of* learning) only | | |
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| Requirement Statement | Guidance (how the requirements can be met) | Examples |
| Assessment strategies, assessment design, and associated assessment tools, activities, & experiences must comply with evidence rules for Authenticity, Currency, Sufficiency, and Validity. | **ORIGINALITY**<br><br>● The TP should have processes in place that allow a learner's identity to be verified.<br><br>● The TP should have processes in place that can verify a learner's produced artefacts as part of the learning experience to be the learner's own work.<br><br>**CURRENCY:**<br><br>● The TP should demonstrate that both the learning and results, as well as all artefacts produced by learners as part of the learning experience, are current, relevant and applicable to today's context.<br><br>● The TP should demonstrate that both the learning and results, as well as all artefacts produced by learners as part of the learning experience, are appropriate to the relevant and current Skills Frameworks. | Require submission using plagiarism software (e.g. Turnitin)<br><br>Cover sheets on submitted work that requires learner signature against a statement that is the work is theirs.<br><br>Group work assessment artefacts would require signatures from each group member. In group work also require each individual to write or record a short piece commenting on the collaborative process.<br><br>The assessment should be conducted within a stipulated timeframe (e.g. 2 years) after completing the learning.<br><br>The portfolio evidence entails work completed within the last 3 years in order to ensure that the skills being assessed are valid and current. |

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| | **SUFFICIENCY:**<br>● The TP should demonstrate that the assessment evidence quality is adequate for assessors to determine attainment of learning outcomes.<br>● The TP should demonstrate that the assessment evidence quantity is adequate for assessors to determine attainment of learning outcomes.<br>● The TP should demonstrate that the assessment evidence relevance is adequate for assessors to determine attainment of learning outcomes.<br>**VALIDITY:**<br>● The TP should demonstrate that all the learner's constructed evidence meets the specified criteria of the learning outcomes | ● Besides using Oral Questioning, the candidates were also assessed through Practical Performance to triangulate the evidence collected.<br>● Evidence was collected for all learning outcomes with some learning outcomes being measured across 2 assessment methods.<br>● When candidates fail to display the competencies being assessed, the assessor may use probing questions or get the candidate to repeat the Practical Performance to collect more evidence to validate the assessment decision.<br>● The assessment criteria for the work portfolio were clear and learners were expected to check if the portfolio evidence matched all the specified learning outcomes. |

| STAKEHOLDER CONSULTATION PROCESS | | |
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| Requirement Statement | Guidance (how the requirement can be met) | Examples |
| The perspectives of all stakeholders who will be impacted by the proposed course must be considered as part of the consultation process. | ● Consult key industry players, past and present learners, Adult Educators, Curriculum Developers, Employers. Different modes of consultation may be used (e.g. interviews, surveys, Focus Group Discussions, desktop research etc.)<br>● The course development process should show evidence of iterative consultation and validation of learning outcomes and design with stakeholders.<br>● Explain the criteria for selecting representatives from each stakeholder group, including what the considerations were, in deciding how many, who and how to engage these stakeholders. [E.g. direct recipients of the learning, sponsors, organisation, employers' perspectives)<br>● Critically analyse the data collected to ensure needs will be addressed<br>● Identify what the pain points, performance gaps and/or needs are<br>● Describe what you have uncovered about the understandings, doings and attributes expected of potential learners, prior to and after the course, through the consultation process. You should also include information about the enablers and constraints for learning in this particular course<br>● Ensure the curriculum components reflect the findings from your stakeholder engagement | ● Prior to developing any curriculum, a training needs analysis comprising interviews, focus group discussions and surveys was conducted in order to ascertain requirements of both internal and external stakeholders.<br>● Random selection of members from the supervisory team for further consultation on the development of the curriculum was conducted to more accurately inform the scoping of the content.<br>● The purpose of the training needs analysis was to establish the performance gaps of the current and future frontline staff in providing a positive shopping experience for our customers. |

| LEARNER PROFILE | | |
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| Requirement Statement | Guidance (how the requirement can be met) | Examples |
| The learner profile must come from the consultation process and include reference to the range of previous experience and capabilities as far as is known | The learners' profile should be considered in terms of:<br>● The learners' learning and performance needs, which should encompass understandings, doings and attributes<br>● The learners' past and present work and learning experiences, complexities and requirements of their work, and how these may affect learners' engagement | ● The cognitive, social and affective attributes of the learners were mapped to establish the learner profile for the purpose of determining the difficulty level of the course.<br>● Learners may be granted exemption if they have submitted evidence of having acquired the competencies through attending other courses or performing the job role for a significant period of time. |

| MONITORING AND EVALUATION | | |
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| Requirement Statement | Guidance (how the requirement can be met) | Examples |
| The proposal must explain how the course or programme and learning outcomes will be evaluated and tracked. The evaluation process must include collection and analysis of TRAQOM data and of facilitator feedback | Learner evaluation should include:<br>● Capturing feedback on learner's beginning -to-end experience, from course registration, to facilitation, and ultimately, to work and performance outcomes<br>● Explanation of how the data will be analysed<br>● How the analysis will be used to regularly review the course / programme<br><br>Facilitator feedback should include:<br>● Qualitative data on facilitator's experience of the designed curriculum and how it might be improved<br>● Feedback on the extent to which the curriculum meets learners' needs<br>● Learners' challenges and triumphs<br>● The extent to which the facilitator considers the curriculum to have enabled learners to develop future-oriented attributes / capabilities | TPs may do one or more of the following to obtain data on course effectiveness:<br>● Design and conduct a survey for graduates and potential learners of the course<br>● Conduct focus group with the current learners, to determine the efficacy of the programme<br>● Analyse the learner performance in formative and summative assessments as part of the monitoring and evaluation process<br>● Interview facilitators and senior management for their feedback on the conduct of the course and the impact on the productivity of the work unit<br>● Collate and analyse the findings to improve the training effectiveness, for TRAQOM submission<br>● Evaluate the training impact on the learner's organization, especially with regard to business results and productivity |

| FACILITIES AND RESOURCES | | |
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| Requirement Statement | Guidance (how the requirement can be met) | Examples |
| Provide details and images (where applicable) of how the facility, equipment, company SOPs, industry requirements or other supporting resources will support the intended learning experience, be it in the classroom, workplace or technology-enabled learning mode. | ● The TP should provide details of the proposed venue in which learning and/or assessment will be taking place. This may include (but not limited to):<br>○ Classroom<br>○ Worksite<br>○ Simulated environment<br>○ Laboratory<br>● The TP should also provide details of any equipment that is required to facilitate the smooth and effective delivery of learning and/or assessment. This may include:<br>○ Work Tools<br>○ Construction Scaffolding<br>○ Personal Protection Equipment<br>○ Laptops<br>The TP should ensure that there are adequate sets of equipment for all learners.<br>● If there are legislations and regulations governing the use of the facilities or equipment, or registrations, permits and licenses required for the operation and use of facilities and equipment, the TP should show that these have been duly obtained from the relevant authorities.<br>● Company SOPs in place to ensure participants' safety should also be included in this section. | ● A classroom with sufficient space to facilitate group discussion and presentations for a maximum of 20 learners is available. Ergonomically-appropriate seats and tables are arranged to facilitate delivery of the programme. There are also 2 large projector screens at the front of the classroom for presentation of lesson content. The learning facilities have met the Workplace Safety and Health (WSH) Act and Consumer Protection (Fair Trading Act).<br>● The recommended PPE, fire extinguishers etc are available for a Workplace Safety and Health course. The construction scaffold structure has also been set up according to the recommended dimensions.<br>● For a Food Services course, one set of tools and equipment, comprising a pot, wok set, cutting board, knives, utensils and measuring equipment will be provided to 2 learners. There will be sufficient sets for a maximum of 20 learners (i.e. 10 sets). The practical sessions will be held at the Central Kitchen of XYZ Culinary School which has obtained halal certification and met the Singapore Food Agency's licensing requirements for Food Establishments, as well as the MOM's Occupational Safety and Health Regulations. |