

TECHNICAL NOTES PART II

Competency Unit : Supervise Suspended Scaffold TSC Title : Supervise Suspended Scaffold

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Purpose of Guide

This Guide is designed for SSG's Training Providers (TPs) and Adult Educators who are responsible for the design and delivery WSQ Supervise Suspended Scaffold under the Generic Manufacturing Skills (GMS) WSQ Framework. This Guide aims to provide essential curriculum, training and assessment design advisory information, to guide developers, trainers and assessment in the interpretation and translation of competency standards into training and assessment programme. The Guide also contains training and assessment requirements stipulated by industry, and WSQ accreditation information for compliance. It is divided into 2 parts:

- **Part I -** Details specific recommendations and advice for programme developers of "Supervise Suspended Scaffold".
- **Part II -** Provides a broad spectrum of information about WSQ and related components relevant to the "Supervise Suspended Scaffold" programme.

PART I

WSQ Supervise Suspended Scaffold

CHAPTER 1: OVERVIEW OF THE CONSTRUCTION INDUSTRY

The Generic Manufacturing Skills (GMS) WSQ framework aims to raise the professionalism of the workforce. This Competency Unit aims to equip the knowledge and skills to supervise suspended scaffold activities in the construction related industry.

"Supervise Suspended Scaffold" is a Competency Unit under the GMS WSQ Framework. The Performance Statements covered are:

- PS1. Identify standard components and parts of suspended scaffold including different outriggers and anchorages
- PS2. Perform pre-start check of equipment and gears, start-up procedures, shut-down procedures and emergency procedures
- PS3. Interpret drawing with regards to rigging, installation and dismantling of suspended scaffold using different outriggers
- PS4. Inspect suspended scaffolds, safety devices, braking system, anchorage points and related details
- PS5. Perform trouble-shooting of winch/climbing mechanism
- PS6. Use personal protective equipment (body harness) and life line

1.1 Skills gaps and key challenges facing the sector/industry

- 1.1.1 To streamline safety training and reduce repetitive training, MOM Workplace Safety and Health related courses will be transited to the WSQ System. These mandated safety courses will equip the workers and supervisors with the essential competencies to work safely in the construction and other related industries.
- 1.1.2 Specifically, the objectives of this initiative are:
 - To equip all personnel with the relevant safety competencies to work in the construction related industries;
 - To reduce the gestation period before the worker can start working by harmonising the regulatory requirements with the industry endorsed WSQ training; and
 - To provide clear progression pathway and address the necessary skills required to move up to the next level of responsibility

1.2 Expected attitudes of workers in the sector

A competent worker must have a sense of "safety awareness" and is expected to take personal responsibility for his own safety as well as look out for the safety of his coworkers.

CHAPTER 2: WSQ SUPERVISE SUSPENDED SCAFFOLD

2.1 Overview

On completion of this unit, learners will have knowledge and skills in supervising suspended scaffold activities in the construction related industry.

2.2 Key Features of WSQ Supervise Suspended Scaffold

The Performance Statements (PS) covered are:

- PS1. Identify standard components and parts of suspended scaffold including different outriggers and anchorages
- PS2. Perform pre-start check of equipment and gears, start-up procedures, shut-down procedures and emergency procedures
- PS3. Interpret drawing with regards to rigging, installation and dismantling of suspended scaffold using different outriggers
- PS4. Inspect suspended scaffolds, safety devices, braking system, anchorage points and related details
- PS5. Perform trouble-shooting of winch/climbing mechanism
- PS6. Use personal protective equipment (body harness) and life line

Why this Course?

The "Supervise Suspended Scaffold" course aims to provide learners with the knowledge and skills to supervise suspended scaffold activities in the construction related industry.

2.3 Importation of Elective Credits from Other WSQ Frameworks or Recognised Equivalents

Not Applicable.

2.4 Target Audience

- 2.4.1 The "Supervise Suspended Scaffold" is a mandatory WSH training course for all workers supervising scaffold works in construction sites and related industries.
- 2.4.2 Learners are assumed to have:
- Employability Skills (ES) Workplace Literacy level 4 and above.
- Be able to manipulate numbers at a proficiency level equivalent to ES Workplace Numeracy level 4 and above.

2.5 Recommended Learning Hours (RLH)

- RLH = 32 Hours (Training Hours: 28, Assessment Hour: 4)
- The RLH takes into account the time required for direct learning activities. Direct learning is broadly defined as trainer/assessor-directed & involves purposeful instructions given to trainees to complete as part of instructional design of a structured facilitated training and assessment programme.

Activity	Duration	Remarks
Facilitated Learning (Theory and Practical)	28 hours	Theory with case studies: 22 hours Practical session: 6 hours
Assessment	4 hours	Written: 2 hours Practical: 2 hours

- Facilitated training and assessment
- E-learning¹ and assessment

2.6 Recommended Class Size, and Learner-Trainer Ratio

• Recommended Class Size: 24

• Trainer Learner ratio: 1: 24 (class room) 1:12 (Practical)

• Attendance Requirements: 100% for classroom and practical sessions

2.7 Recommended Assessor to Candidate Ratio

Written Assessment: 1:24 (Class size)

Practical Performance: 1:12 (Class size) (exceeds 12 Learners, Assessor:

Learner ratio is 2:24)

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¹ For E-learning to be considered as "directed learning", the learning progress of trainees should be tracked via audit trail, progress reports, etc.

CHAPTER 3: TYPES OF PROGRAMME

3.1 Programme Structure

- 3.1.1 This unit covers the following underpinning knowledge item which could be taught in the classroom via a combination of lectures, discussions and casestudies.
 - UK1. Legal Requirements
 - UK2. Roles and Responsibilities
 - UK3. Safe Rigging of Suspended Scaffolds
 - UK4. Safe Use & Inspection of Suspended Scaffolds
 - UK5. Interpretation of Design Drawings
 - UK6. Accident Investigation and Case Studies
- 3.1.2 The unit also covers the following Performance Statements: These would best be taught via a combination of **lecture**, **demonstrations and hands-on practice**.
 - PS1. Identify standard components and parts of suspended scaffold including different outriggers and anchorages
 - PS2. Perform pre-start check of equipment and gears, start-up procedures, shut-down procedures and emergency procedures
 - PS3. Interpret drawing with regards to rigging, installation and dismantling of suspended scaffold using different outriggers
 - PS4. Inspect suspended scaffolds, safety devices, braking system, anchorage points and related details
 - PS5. Perform trouble-shooting of winch/climbing mechanism
 - PS6. Use of personal protective equipment (body harness) and life line

CHAPTER 4: KEY DELIVERY ADVICE

4.1 Content Coverage

In developing the programme for any "Supervise Suspended Scaffold" competency unit, TPs should always make cross references to the Performance Statements (PS), Underpinning Knowledge (UK), Range and Application and Evidence Sources sections as stipulated in the "Supervise Suspended Scaffold" National Competency Standard.

The components of the Competency Standard and the interpretations are briefly explained here.

For example,

The Range and Application and Evidence Sources reference to the Performance statements and/or Underpinning Knowledge is usually accompanied by the instructions "may include" or "must include":

"May include"

- Indicates that training providers are required to cover some (to indicate percentage if relevant) of the suggested Range and Application items listed when developing the "Supervise Suspended Scaffold" programme.
- The training provider may choose to add more Range and Application items related to the corresponding Performance Statements and/or Underpinning Knowledge as part of their "Supervise Suspended Scaffold" programme development.

"Must include"

- Indicates that training providers are required to cover all of Range and Application items listed when developing courseware.
- The training provider may choose to add more Range and Application items related to the corresponding Performance Statements and/or Underpinning Knowledge as part of their "Supervise Suspended Scaffold" programme development.

4.2 Sequence of Coverage

The following sequence is recommended:

Lesson No.	Content	Instructional Mode	Duration (Hours)
1-6	 UK1. Legal Requirements UK2. Roles and Responsibilities UK3. Safe Rigging of Suspended Scaffolds UK4. Safe Use & Inspection of Suspended Scaffolds UK5. Interpretation of Design Drawings UK6. Accident Investigation and Case Studies 	Theory	22
	Written Assessment	Theory	2
7	 PS1. Identify standard components and parts of suspended scaffold including different outriggers and anchorages PS2. Perform pre-start check of equipment and gears, start-up procedures, shut-down procedures and emergency procedures PS3. Interpret drawing with regards to rigging, installation and dismantling of suspended scaffold using different outriggers PS4. Inspect suspended scaffolds, safety devices, braking system, anchorage points and related details PS5. Perform trouble-shooting of winch/climbing mechanism PS6. Use of personal protective equipment (body harness) and life line 	Practical	6
	Practical Assessment	Practical	2
Total			32

4.3 Recommended Learning Strategies and Methods

- 4.3.1 Curriculum developers are recommended to adopt the following structure for thinking about and planning a learning strategy:
 - Summarise the learning strategy
 - In this learning strategy, what learning principles are being applied?
 - What learning theories or learning design theories underpin this strategy?
 - How will this strategy resolve the identified learning problems? What is it about the learning strategy that will cause people to change in a way that resolves the learning problem?
 - How would you describe the experience that learners will go through? How will this experience support their learning?
 - What methods or tactics are most likely to be used to support this strategy?

- How will interface and media support this strategy?
- How will this strategy engage learners' interests?
- How will this strategy assess learners' progress or increased competence?
 (Extracted from www.networked-learning.com, accessed 19 Sep 2010)
- 4.3.2 An example of instructional strategy selection for cognitive, affective and psychomotor domains is given in **Annex A**.
- 4.3.3 A non-exhaustive list of recommended delivery methods is provided below.
 - Demonstration
 - Practice
 - Observation
 - Lectures
 - Role play
 - Group Discussion
 - Written Exercise
 - Case Study
 - Workplace Practice
 - Presentation
 - Action Learning
 - Coaching / Mentoring
- 4.3.4 Where relevant and appropriate, the learning activities for the unit should be designed to shape or cultivate the expected attitudes of the candidates and to prepare them for their role in the sector.
- 4.3.5 To enhance the transfer of learning, an andragogical or adult-learning approach to learning is encouraged in the development and delivery of the Competency Unit. Andragogical instructional techniques are designed with these factors in mind:
 - Adults are self-directed
 - Adults have acquired knowledge and experience through the workplace that can be utilised as a resource for learning
 - Adults show a greater readiness to learn tasks that are relevant to their work roles
 - Adults are motivated to learn in order to solve problems and address needs
 - Adults expect to be able to apply what they learn
 - Adults need to be challenged with varied strategies that maintain interest
- 4.3.6 This unit may be delivered in a combination of simulated environment and off-the-job.

- Content relating to underpinning knowledge and principles may be delivered off-the-job. Off-the-job delivery can be face-to-face in the classroom in a training organisation, or at a workplace venue. Classroom delivery should be interactive and learner-centred, using a range of activities and instructional methods.
- The practical aspects of the Competency Unit, however, should be delivered in simulated workplace settings.
- 4.3.7 All training delivery should be related to the normal work process and every effort should be made to link the acquisition and application of the knowledge, skills and attitudes to the workplace.
- 4.3.8 Suggestions for delivery of this Competency Unit are given below:

Competency	Instructional Methods	Remarks
Underpinning Knowledge	Lectures, discussions, case studies, problem- based learning, videos, e- learning resources	 The knowledge component of this course is primarily focused on the requirements Legal Requirements Roles and Responsibilities Safe Rigging of Suspended Scaffolds Safe Use & Inspection of Suspended Scaffolds Interpretation of Design Drawings Accident Investigation and Case Studies These can be delivered in a classroom using models and slides.

Performance Statements	Lectures, demonstrations, practice	 The demonstration and practice may include the following key skills: Identify standard components and parts of suspended scaffold including different outriggers and anchorages Perform pre-start check of equipment and gears, start-up procedures, shutdown procedures and emergency procedures Interpret drawing with regards to rigging, installation and dismantling of suspended scaffold using different outriggers Inspect suspended scaffolds, safety devices, braking system, anchorage points and related details Perform trouble-shooting of winch/climbing mechanism Use of personal protective equipment (body harness) and life line
Attributes	Discussions, modelling, sharing	A competent construction worker must have a sense of "safety awareness" and is expected to take personal responsibility for his own safety as well as look out for the safety of his co-workers.

4.4 Trainer's Guide and Learner's Guide and Handouts

- 4.4.1 The TP is required to prepare a trainer's guide for the course. The guide provides the trainer with information on the course including:
 - Course aim
 - Learning objectives
 - Target audience
 - Assumed skills and knowledge
 - Course duration
 - Class size and trainer/Learner ratio
 - Lesson plan
 - Course contents and instructional materials according to the course requirements
 - Training methodologies
 - Training resource requirements
 - Course administration instruction

- 4.4.2 The TP shall also facilitate the learning process by providing each learner with a learners' workbook/handouts to summarise (with illustrations, where possible) key learning points of all the topics covered in the syllabus. This may be in the form of drawings/illustrations rather than words.
- 4.4.3 The TP is required to submit a cross reference matrix (see **Annex B**) to show that the courseware submitted is aligned to the requirements of the competency standard.
- 4.4.4 The TP is to ensure that materials used for the training does not infringe on patent, design, copyright and intellectual property rights.
- 4.4.5 The TP shall maintain a version control of updates made to the course materials for verification by the relevant authorities.

4.5 Training Resources

- 4.5.1 Training Requirements:
 - Training site emergency evacuation route to be briefed at start of course
 - Training SOP must be available before the conduct of the course
 - Photos/slides of the various types of construction-related *hazards (biological, fire, explosives, working at height, chemicals, mechanical, electrical, radiation and gas)
 - Local case studies, where possible, relating to incidents/accidents in the construction related industry
 - Appropriate and relevant PPEs and equipment for classroom demonstration must be made available during the course
 - The suspended scaffold (gondola) and related materials and components including outriggers, suspension lines, lifelines, etc. that are to be used for practical exercises are to be kept and maintained in good condition, and in sufficient number to ensure that the exercises and tests could be conducted properly and safely. The TP is to ensure that the approved facilitator use and wear the appropriate personal protective equipment and apparels during the practical sessions.

*The Risk Assessment process should consider the management of infectious disease outbreak, employees' health (including mental well-being) and terrorist threats. Training Provider should take reference from the 3rd revision of the Code of Practice on Risk Management.

4.5.2 Total WSH Presentation Slides

- Total WSH presentation slides will be issued upon approval of the Training Provider.
- The materials are provided strictly for the explicit use and guidance of training providers for the conduct of this course.

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4.5.3 Training Provider Requirements

Training Providers are required to fulfill the following requirements:

- ISO 29993 certification;
- bizSAFE Level 3 certification;
- Blended learning
- Have developed an SOP to conduct online training and assessment (with online proctoring for supervisor and above courses) when required to do so. For each WSH course, the Training Provider must have at least:
 - a. 1 full time Principal/Director;
 - b. 1 full time WSH Approved Adult Educator/ Trainer/Facilitators for each WSH course; and
 - c. 2 approved full time/associate Adult Educator/ Trainer/Facilitators for each of the language.
- Training Providers are to inform the WSH Council when they withdraw their training provider status for any WSH course(s); or have their status suspended or terminated by any authority.
- Training Providers are to comply with the instruction by either (I) SkillsFuture Singapore (SSG), Ministry of Manpower (MOM) or the WSH Council to stop conducting any WSH Course(s) when an investigation is ongoing; or a non-compliance is being verified. Further actions would be taken when fraudulent acts or significant non-compliances are established.

4.6 Training Venue Requirements

- 4.6.1 TP is required to be equipped with sufficient and relevant practical training equipment such as scaffold materials and accessories, PPEs, firefighting equipment etc.
- 4.6.2 For the theory training, this is to be conducted in a classroom with supporting training slides, videos, local case studies on incidents and accidents at the construction or related sites, and where possible, actual equipment/PPEs to enhance learning.
- 4.6.3 The TP shall ensure the classroom has adequate chairs and writing tables to be comfortably spaced for a class of up to 24 participants for conduciveness to the learning process. There must also be adequate land space to

comfortably conduct the practical training and assessment safely. A time device e.g. clock, lightings and ventilation must be adequate for classroom instruction. Emergency exit routes must be clearly marked out and briefed to the course participants at the start of the course. Necessary equipment such as projectors, multimedia player, whiteboards, flipcharts and any other equipment essential for instruction purpose must be made available.

- 4.6.4 TP is to adhere to the conditions stipulated in the CTAG Part I and Part II at all times, where applicable. Adequate safety control measures must be undertaken to ensure the safety of the learners and approved trainers during the conduct of the course/training at all times.
- 4.6.5 Unless prior approval has been granted by the CB, which had certified its WSH courses, each TP shall maintain and conduct its WSH course at its primary Training Venue. In addition, the TP shall ensure that the following are not shared with any other TP:
 - (a) their approved Training Venue/s; and
 - (b) Any other equipment or loads, which are used for the conduct of the WSH course.
- 4.6.6 In the event, where the TP wishes to conduct its WSH theory course(s) at a venue, other than the approved Training Venue, the TP must inform the CB, which had certified its WSH course(s) at the approved Training Venue/s, of its intent to effect such a change, and it must also demonstrate to the CB that:
 - (a) It has an approved Training Venue at the registered address;
 - (b) That the proposed venue is conducive for learning; and
 - (c) That there are no safety and health concerns in relation to the proposed venue/s.

The TP may conduct its WSH theory course(s) at a venue other than the approved Training Venue/s only after obtaining the CB's approval.

- 4.6.7 The requirement stated at Para 4.6.6 shall apply to a TP for single and multiple usage.
- 4.6.8 Where the CB has granted approval to the TP to conduct the WSH theory course(s) at an alternate venue, the TP must ensure that:
- a) All training and assessment records are kept by the TP, for courses conducted, at the alternate venue. Such records shall include the following documents:
- i. Photographs of the alternate venue;
 - ii. Photographs of the WSH theory course(s) being conducted at the alternate venue;
 - iii. Layout plan of the alternate venue; and
 - iv. Leasing documents;
- b) The records mentioned in sub-paragraph 5.6.8(a) above, are continually updated;
 - c) The alternate venue is only used for the conduct of WSH theory course(s). No practical training/assessment shall be allowed at the alternate venue, unless approval has been granted by the Authorities; and

- d) The alternate venue is not occupied and or used by another TP or WSH approved training provider at any time.
- 4.6.9 The TP must ensure that all Training Venues (including alternate venues) have been approved by the Urban Redevelopment Authority (URA) or the Housing & Development Board ("HDB"), either as a Commercial School (theory based only) or for Industrial Training (theory and practical), before it applies to be certified by the CB. Note: Tenancy agreement (e.g. from JTC Corporation or other Developers) does not constitute a URA approval. Only correspondence with letterheads bearing the office of the relevant government authorities granting the approval shall be recognised.
- 4.6.10 Paragraph 4.6.9 shall not apply to TP who is applying for a once –off use of the theory training premises.
- 4.6.11 The TP is to note that a CB's approval of any practical training venue is conditioned upon its safe and adequacy of the training facilities and equipment. The TP shall comply with all relevant legislations including but not limited to legislations involving land use, building, fire and safety.

CHAPTER 5: KEY ASSESSMENT ADVICE

This chapter describes the following components:

A description on the general guidelines and requirements for conducting assessment is given in the reference WSQ resource websites in Part II of this document.

5.1 Recommended Assessment Strategies and Methods

5.1.1 There shall be a one 2-hour written and one 2-hour practical assessment at the end of the course.

S/N	Assessment Activity	Method/Format	Duration
1	Written Assessment	Written Test – 50 MCQs	2 hours
2	Practical Assessment	Assessment	2 hours
Total Assessment Time			4 hours

5.2 Industry Requirements

- The learner must pass **BOTH** written and practical assessments in order to be issued with the certificate of successful completion. Failure to pass either of the assessments shall render a "Fail" outcome for the participant and he must then reattempt the course and assessments.
- To facilitate marking of the assessment papers, TPs shall install the Automated Marking System (AMS) and its associated hardware.
- The TP personnel who is authorised to use the AMS to scan and mark the test via AMS must also ensure that the assessment results are updated in SSG's TP Gateway system.
- TPs are to upload the test results to MOM/WSH Council no later than 5 calendar days after completion of the courses. All errors must be rectified within 24 hours for re-submission of the affected results to MOM/WSH Council via WSH TRS. This is in addition to the uploading of assessment results to SSG via TPGateway
- Authorities (i.e. MOM/WSH Council) may request from TPs information on the course. TPs are to ensure that the information given to the Authorities are accurate and updated.
- MOM/WSH Council officers shall conduct audits with or without notice on WSQ WSH TPs.

Note: For system(s) or requirement(s) administered by the relevant authorities, i.e. MOM/WSH Council, the TP shall fulfil the requirements and follow up with the agencies accordingly.

5.3 Assessment Instruments and Tools

5.3.1 Assessments instruments and tools will be required to conduct the assessment planned. Examples of such templates include:

- An Evidence Sources Checklist to serve as a reporting snapshot of the types of evidence gathering that may be used.
- A Verbal Assessment Checklist to record answers to questions concerning Underpinning Knowledge if this is used as an alternative to written exercise.
- Written Assessment Checklists as an instrument for the recording of answers to questions concerning the performance statements and underpinning knowledge.
- A Recording and Reporting Assessment Table Format as an instrument for the concise recording of competency and re-assessment information concerning the Competency Unit.

5.4 Assessment Plan

5.4.1 General Guidelines on Assessment

The assessment plan shall comprise the following:

- Overview of the assessment tools and its duration
- Clear instructions on the conduct of the assessment (inclusive of emphasis on Safety for Learners)
- SOP on the upkeep of the confidentiality of the written assessment questions
- Instruments or tools of the written assessment (e.g. question paper)
- Written assessment summary record

Guidelines on Written Assessment:

- The TP must administer a **50** multiple choice question (MCQ) test.
- The total allocated time for the written assessment is 2 hours.
- The passing mark for the written assessment is 65%
- During the administration of the written assessment, there shall be an assessor
 to ensure the integrity of the assessment process. The trainer for the course is
 not permitted to be the assessor for the same course during the assessment. An
 invigilator can be appointed in place of the assessor, but the trainer for the
 course must be on standby to make clarification on the questions where
 needed.
- The number of attempts a candidate is allowed to be assessed in the written assessment is ONE. The candidate certified "NOT YET COMPETENT" after the assessment must be re-coursed.
- SOP on the upkeep of the confidentiality of the written assessment questions

Guidelines on Practical Assessment:

- The assessment plan shall comprise the following:
- Overview of the assessment tools and its duration
- Clear instructions on the conduct of the assessment
- SOP on the upkeep of the confidentiality of the practical assessment questions
- Instruments or tools of the practical assessment (e.g. question paper, suspended scaffold checklist)
- Practical assessment summary record

5.4.2 Principles of Assessment

The assessment plan should be valid, reliable, fair and flexible.

- Valid Are the assessment methods and tools appropriate and effective? Are the evidence collected relevant to the training?
- Reliability Are the results consistent from one assessment to another?
- Fair Are the assessment criteria clear? Do all the trainees know what to expect from the assessment? Will the assessment disadvantage any trainee? Do the trainees have any recourse for appeals?
- Flexibility Can the assessment be used for multiple assessments? Are the assessment tools and methods uniform across different approaches and drawing on a range of different methods? Can they be used appropriately to the context, task and individual under assessment?

5.5 Conduct of Assessment

- 5.5.1 The learner shall be assessed either "Competent" or "Not Yet Competent". All PS and UK MUST be assessed as 'Competent' to be deemed to competent in the unit; AND The candidate must answer at least 65% of the questions correctly in the closed book written test.
- 5.5.2 The practical assessment must be conducted strictly in accordance with the practical assessment plan. Each Learner is expected to complete and pass ALL the assessment requirements (100%) within the stipulated assessment time allocated.

5.5.3 Written Assessment

TP must adhere to the following guideline for the written assessment:

- Must administer a multiple choice question (MCQ) test for the WA.
- The total allocated time for the written assessment is 2 hours.

- The passing mark for the written assessment is 65%.
- During the administration of the written assessment, there shall be an assessor to ensure the integrity of the assessment process. The trainer for the course is not permitted to be the assessor for the same course learners during the assessment.
- SOP on the upkeep of the confidentiality of the written assessment questions

5.6 Briefing to Candidate

- 5.6.1 The briefing to candidate is to explain the purpose and context of assessment so as to ensure that there are no surprises during the conduct of assessment
- 5.6.2 The briefing to candidate shall include the following:
 - The assessment requirements and process, including clear instructions on each of the assessment adopted
 - Candidates' rights and the appeal process for assessment outcome
- 5.6.3 During the briefing, assessors are to establish any special needs and how such needs will be addressed during the assessment.
- 5.6.4 Assessor must seek feedback and ascertain candidates' understanding of the assessment requirements before the commencement of the assessment

5.7 Recording and Reporting of Assessment Outcome

- 5.7.1 All assessment outcomes must be accurately recorded in the assessment summary record form (see **Annex B**).
- 5.7.2 Assessment outcome will be communicated to the candidate at the end of the assessment.
- 5.7.3 The TP shall maintain a record of the assessment results for 2 years for audit purposes.

5.8 Issuance of "Safety Pass" and the "Certificate of Successful Completion"

- 5.8.1 "Safety Pass/Card" is to be issued, in accordance with the format shown in Annex D, to candidate who is assessed "Competent" in this Competency Unit for the SOC.
- 5.8.2 "Certificate of Successful Completion" is to be issued, in accordance with the format shown in Annex E, to candidate who is assessed "Competent" in this Competency Unit.
- 5.8.3 The issuance of the "Certificate of Successful Completion" is optional for LSPs/TPs who have already issued the "Safety Pass" to candidate who is assessed "Competent" in this Competency Unit.

CHAPTER 6: ADULT EDUCATOR REQUIREMENTS

A developer / trainer / assessor for this module shall possess all of the following:

6.1 Trainer and Assessor Requirements

A trainer and assessor of this course should possess all the following:

- Advanced Certificate in Training and Assessment (ACTA)/Advanced Certificate in Learning and Performance (ACLP) qualification or Diploma in Adult Continuing Education (DACE) or Diploma in Design and Development of Learning for Performance (DDDLP)
- For the THEORY TRAINING: Registered WSH Officer with at least 2 years working experience relating to suspended scaffolds
- For PRACTICAL TRAINING: Registered WSH Officer with at least 2 years of practical experience in the actual operation, installation and dismantling relating to suspended scaffolds, OR
- For PRACTICAL TRAINING: Others with at least 3 years of practical experience in the actual operation, installation and dismantling relating to suspended scaffolds
- All trainers/adult educators are required to attain 10 hours (minimum) annually by attending Continuing Professional and Development (CPD) courses conducted by appointed training providers. For more details, refer to Train-the-Trainer (T3) Programme in WSH COUNCIL website (www.wshc.sg)
- The trainer for the course is not permitted to be the assessor for the same course learners during the assessment.

6.2 Developer Requirements

In addition to the requirements for trainer and assessor above, the developer should possess all the following:

- WSQ curriculum developer pedagogic requirement: The developer must have attained a WSQ Advanced Certificate in Training and Assessment (ACTA)/Advanced Certificate in Learning and Performance (ACLP) qualification or its equivalent. With effect from 1 October 2015, a WSQ Diploma in Adult and Continuing Education (DACE) or Diploma in Design and Development of Learning for Performance (DDDLP) is required;
- WSQ curriculum developer experience: The developer should preferably possess a minimum of one-year experience in WSQ-related courseware development; AND
- Language proficiency: WPL level 7 or equivalent.

A qualified and experienced developer can work with a Subject Matter Expert with relevant domain qualifications and work experience in developing the courseware.

CHAPTER 7: SUMMARY OF MANDATORY SECTIONS / INFORMATION

This chapter summarises all the mandatory sections and required information, for easy reference. TPs / Adult Educators are expected to note the information indicated in the following Sections and to comply with the stated requirements, where appropriate:

<u>Section</u>	<u>Title</u>
2.5	Recommended Learning Hours (RLH)
2.7	Recommended Class Size and Learner-Trainer Ratio
2.8	Recommended Assessor to Candidate Ratio
4.1	Content Coverage
	(On percentage of items under Range and Application and Evidence Sources
	to be covered)
4.5	Training Resources
4.6	Training Venue Requirements
5.2	Industry Requirements
5.4	Assessment Plan
5.5	Conduct of Assessment
6.1	Trainer and Assessor Requirements
6.2	Developer Requirements

CHAPTER 8: RESOURCE INFORMATION

This chapter indicates the various literatures, journals, articles and researched information on the competency unit "Supervise Suspended Scaffold".

Related WSH legislations, industrial code of practice and other references (list is not exhaustive)

- Workplace Safety and Health Act
- WSH ACOP: (Code of Practice for Working Safely at Height)
- WSH (Risk Management) Regulations
- WSH (Work at Heights) Regulations
- WSH (Work at Heights) Regulations Amendment
- WSH (Construction) Regulations
- WSH (Scaffolds) Regulations
- SS659:2020 Code of Practice for Scaffolds
- SS 598: 2014 Code of practice for suspended scaffolds

PART II

WSQ & Supporting Resources **Glossary**

Glossary			
Assessment	A systematic process of collecting evidence and making judgements as to whether an individual has achieved a certain level of competency.		
Assessment Criteria			
	Provides the context and conditions, under which the assessment		
and marking	will be conducted, what evidence the assessor must collect and the		
scheme	grading criteria used.		
Assessment	The process or technique used to gather evidence.		
method	(Bresciano & Fackler, 2005)		
Assessment plan	A document which outlines when the evaluation will take place		
	and how it will be conducted. An assessment plan includes the		
	programme mission or course/activity purpose, goals as		
	appropriate, in/ended outcomes, methods for gathering,		
	analysing data, and interpreting data for providing evidence to		
	inform decision making."		
	(Bresciano & Fackler, 2005)		
Assessment	The series of steps which a candidate undertakes within the		
process	enrolment, assessment, recording and reporting cycle of		
•	assessment.		
Assessment tool	An instrument or resource used in association with a given		
	assessment method. It may include a questionnaire, test paper,		
	interview questions, structured report template and record sheet.		
Assumed skills and	Assumed skills and knowledge are what learners ought to have		
knowledge	and are assumed to have before they attend the training		
Kilowicage	programme.		
СВ	A Certification Body (CB) is an organization accredited by the		
	Singapore Accreditation Council (SAC) to assess and certify a WSH		
	Training Provider's compliance to ISO 29993:2017 and MOM/WSH		
	Council requirements.		
	·		
Competency	A competency is a measurable set of knowledge, skills and		
	attitudes that drives and individual's performance to perform at		
	his/her job effectively.		
Competency category			
	industry area or function, competency units (CU) that are		
	inter-related are grouped by competency categories.		
Competency	A competency element is the sub-division of a CU.		
elements	Competency elements encompasses performance criteria,		
	Underpinning knowledge,range and context as well as evidence		
	sources.		
Competency level	The competency level reflects the level of complexity and depth of		
	learning required by the competencies in the standard. It is		
	outlined in the competency standards.		
Competency Map	A document that captures the type of competencies needed in		
(CM)	an industry. The competencies are expressed as CU and these are		
	grouped into competency categories and pegged to		
	occupational levels.		

Competency Standards (CS)	A competency standard documents expected work performance outcomes, expected level of performance, knowledge that supports the delivery of work performance outcomes and work contexts under which the work performance outcomes are to be delivered.
Competency Unit (CU)	A CU describes a particular work role, duty or function, which forms the smallest group of skills, knowledge and abilities set able to be recognized separately for certification. The certification requirements of a CU are detailed in a CS.
Continuing Education and Training (CET)	Continuing Education and Training (CET) refers to educational programmes for adults, usually at the post-secondary level and offered as a part-time or short courses in occupational subject areas. Also see Pre-employment Training (PET).
Credit	A unit of measure assigned to courses or course of equivalent learning.
Technical Notes (TN)	The TN is a document that provides training and assessment advice to achieve effective training and assessment leading to WSQ certification of a CU.
Dimensions of competency	The dimensions of competency cover all aspects of work performance. The five dimensions of competency are: - TASK skills - TASK management skills - Contingency management skills - Job and role management skills - Transfer skills
Evidence sources	The evidence source section in a CS gives examples of tasks, observations, documents etc. that can be used as evidence for assessing the particular competency element or list of performance statements.
Learning outcomes	The work performance that a learner should be able to demonstrate as a result of having undertaken training and/or assessment. It must be measurable, clear and observable.
Performance criteria / statements (PC / PS)	Performance criteria or performance statements refer to the expected work performance or behaviours and expected level of performance to be demonstrated by a competent individual.
Pre-employment Training (PET)	Pre-employment Training (PET) refers to educational programmes that prepare individuals for entry into the workforce. This includes secondary, pre-university, polytechnic and university education.
Qualifications	Qualifications are formal certifications issued by a relevant approved body, in recognition that an individual has achieved learning outcomes identified by the industry.
Range and context	Range and context provides the type of situations under which the performance criteria / statements apply. Range and context cover items that are achievable or to be performed across by competent individuals, such as types of equipment, products and services, types of customers.

TP	TPs are training organisations accredited under the WSQ to offer training programmes and assessment services leading to WSQ certification
Underpinning knowledge	Underpinning knowledge states the knowledge that an individual needs to know and understand in order for him/her
	to perform competently at work.

Version Control

Version	Amendment Date	Changes	Author	Approved By
1.0	1 Jul 2019	Initial version	SSG-MOM	SSG-MOM
2.0	21 Jan 2022	Update	WSH Council	WSH Council
3.0	1 Sep 2023	Update	WSH Council, CPT	WSH Council, CPT

Annex A

Instructional Strategy Selection Chart

Instructional Strategy	Cognitive Domain (Bloom, 1956)	Affective Domain (Krathwohl, Bloom, & Masia, 1973)	Psychomotor Domain (Simpson, 1972)
Lecture, reading, audio/visual, demonstration, or guided observations, question and answer period	1. Knowledge	1. Receiving phenomena	1. Perception 2. Set
Discussions, multimedia CBT, Socratic didactic method, reflection. Activities such as surveys, role playing, case studies, fishbowls, etc.	2. Comprehension3. Application	2. Responding to phenomena	3. Guided response 4. Mechanism
On-the-Job-Training (OJT), practice by doing (some direction or coaching is required), simulated job settings (to include CBT simulations)	4. Analysis	3. Valuing	5. Complex response
Use in real situations. Also may be trained by using several high level activities coupled with OJT.	5. Synthesis	4. Organise values into priorities	6. Adaptation
Normally developed on own (informal learning) through self- study or learning through mistakes, but mentoring and coaching can speed the process.	6. Evaluation	5. Internalising values	7. Origination

The chart does not cover all possibilities, but most activities should fit in. For example, self-study could fall under reading, audio visual, and/or activities, depending upon the type of program you design.

(Extracted from http://www.nwlink.com/~donclark/hrd/strategy.html, accessed 19 Sep 2010)

Annex B

Cross Reference Matrix for WSQ Competency Unit Assessment Reference Methods **Underpinning Knowledge Assessment Criteria Assessment** oral Questioning **Performance Statement** (State what is expected and required from the candidate) Instruments/Tools Range & Application ssignment Practical Learner' Guida PS1 Identify the needs and expectations of customer populations to develop customer profiles. Tell Me (Knowledge) UK 1 PS₁ Sample Format for reference to develop the Cross Reference Matrix Iden expe popu customer profiles. surveys; Range & Context questionnaires; Research techniques may database analysis; include: o interpreting third party research output; interviews; 9 10 10 observations; Use of business excellence tools such as o surveys;. Voice of Customer, Quality Function 28 32 62 Deployment (QFD). Research may focus on areas which may include: Identify the needs and expectations of your individual influences on customer behavior: customers. social influences on **Show Me (Process)** customer behavior; & Research the demography of your customers by: Lifestyle influences on customer behavior.

I. Overview of Assessment for the Competency Unit

Com	petency	unit:
	P	

Purpose of assessment	

Context of assessment	Details
Organisational requirement	
Operational environment	
Industry requirement	
Legal requirements	

Assessment venue:

Description of candidates: (at least four characteristics) Special needs of candidates (at least one special need)

Any other special requirements: (at least one special requirement)

Stakeholders in AP development team and their role:

Title	Name	Support in Developing Assessment Plan	

Competency Elements	Methods

Method	Duration	Ratio of assessor to candidate	Remarks
Total			

II. Assessment Matrix

Mapping of Assessment Methods with Performance and Knowledge Requirements

Conte	ent	Lecture	Practical	Assessment	Total
		(Hour)	(Hour)	Mode	(Hour)
Assess	sment Scope				
UK1. UK2. UK3. UK4. UK5. UK6.	Legal Requirements Roles and Responsibilities Safe Rigging of Suspended Scaffolds Safe Use & Inspection of Suspended Scaffolds Interpretation of Design Drawings Accident Investigation and Case Studies				
PS1.	Identify standard components and parts of suspended scaffold including different outriggers and anchorages				
PS2.	Perform pre-start check of equipment and gears, start-up procedures, shut-down procedures and emergency procedures	22	6	-	28
PS3.	Interpret drawing with regards to rigging, installation and dismantling of suspended scaffold using different outriggers				
PS4.	Inspect suspended scaffolds, safety devices, braking system, anchorage points and related details				
PS5.	Perform trouble-shooting of winch/climbing mechanism				
PS6.	Use of personal protective equipment (body harness) and life line				
WRITT	EN ASSESSMENT	<u> </u>			1
TOTAL	(Hours) – Written Assessment			-	2.0
	(Hours) – Practical Assessment				2.0
	- (Hours)				32

WA = Written Assessment

Practical duration is for cohort of 12 learners

III. Assessment Specifications for Written Assessment

These instructions concern the written assessment of the Learner's competency.

Specification Item	Details on Specifications		
Learning outcome	Fulfil the course learning objectives for all topics		
	to be assessed		
Duration	2 hours		
Venue	Classroom		
Set up	Classroom setup for 24 Learners.		
	Tables & chairs for individual seating		
	Projector and monitor		
	Whiteboard & markers of different colours		
	Whiteboard duster		

	 2B pencil and eraser for each Learner Printed answer sheet Common Clock
Conduct of the Written Test	 Brief Learners to check if they have been given the correct test set Brief Learners on the time allocated for the test Brief Learners on the close book test format. Brief Learners that they cannot refer to any material or notes or discuss the questions with any other Learners during the test Brief Learners that they are allowed to ask the assessor to explain the question/s Brief Learners on the 65% passing mark requirement

IV. Assessment Record for Written Assessment

Candidate's Name:	End Time:
Candidate's ID	
Number :	Start Time :
Assessor's Name:	

KNOWLEDGE CHECKLIST					
Underpinning Knowledge	Assessment Criteria	Tick		Evidence of 'C' and 'NYC'	
imowicage	C	NYC	must be recorded		
UK 1	Sample QuestionsSuggested Answers				
UK 2	Sample QuestionsSuggested Answers				
UK 3	Sample QuestionsSuggested Answers				
UK 4	Sample QuestionsSuggested Answers				

V. SUMMARY ASSESSMENT RECORD

Assessment Centre :						
Competency Unit :						
Candidate Name :						
Candidate ID No. :						
Assessor Name :						
Assessment Method :	Practical Performance (PP)		Written Assessment (WA)			
Assessment Date :						
Start Time:						
End Time:						
Summary						
Performance Statement		Assess PP	ment Method WA	Result		
		PP	VVA			
This candidate has been ass	essed as:					
q COMPETENT						
q NOT YET COMPETENT						
Assessor signature:						
Candidate signature:						

Feedback on outcome by assessor/feedback by candidate:					
In the	e event of "NYC" result:				
q	Candidate does not wish to appeal				
q	Candidate wishes to appeal				
6					
Cand	idate signature:				

VI. Assessment Tools Required and other Related Documents

- Other <u>required</u> Assessment Tools for this assessment plan
 e.g. case studies, role play scenarios, written test papers, logistics checklist
- Pre-Assessment Briefing Checklist
- Appeal Process
- Version Control Record

Version	Amendment Date	Changes	Author
1.0		New release	

Other <u>required</u> Assessment Tools for this assessment plan
 e.g. case studies, role play scenarios, written test papers, logistics checklist

CODE OF PRACTICE FOR ASSESSORS

Assessment specialists have developed an international code of ethics and practice (The National Council for Measurement in Education (NCME)). The Code of Practice below is based on the international standards.

- 1. The differing needs and requirements of the person(s) being assessed, the local enterprise(s) and/or industry are identified and handled with sensitivity.
- 2. Potential forms of conflict of interest in the assessment process and/or outcomes are identified and appropriate referrals are made, if necessary.
- 3. All forms of harassment are avoided throughout the planning, conduct, reviewing and reporting of the assessment outcomes.
- 4. The rights of the candidates (s) are protected during and after the assessment.
- 5. Personal or interpersonal factors that are not relevant to the assessment of competency must not influence the assessment outcomes.
- 6. The candidate(s) is made aware of rights and processes of appeal.
- 7. Evidence that is gathered during the assessment is verified for validity, reliability, authenticity, sufficiency and currency.
- 8. Assessment decisions are based on available evidence that can be produced and verified by another assessor.
- 9. Assessments are conducted within the boundaries of the assessment system policies and procedures.
- 10. Formal agreement is obtained from both the candidate(s) and the assessor that the assessment was carried out in accordance with agreed procedures.
- 11. Assessment tools, systems, and procedures are consistent with equal opportunity legislation.
- 12. The candidate(s) is informed of all assessment reporting processes prior to the assessment.
- 13. The candidate(s) is informed of all known potential consequences of decisions arising from an assessment, prior to the assessment.
- 14. Confidentiality is maintained regarding assessment result.
- 15. Results are only released with the written permission of the candidate(s).
- 16. The assessment results are used consistently with the purposes explained do the candidate.

- 17. Self-assessments are periodically conducted to ensure current competencies against the assessment and Workplace Training Competency Standards.
- 18. Professional development opportunities are identified and sought.
- 19. Opportunities for networking amongst assessors are created and maintained.
- 20. Opportunities are created for technical assistance in planning, conducting and reviewing assessment procedures and outcomes.

Annex C

Format of Safety Pass

"Safety Pass/Card" is to be issued, in accordance with the format shown in Annex D. Safety Pass and/or Certificate of Course Completion is to be issued, to candidate who is assessed "Competent" in this Competency Unit.

Do note that the reference below is intended only to present the format of the pass, and should not be used as an actual template for direct printing.

Front

Guidelines for the credit card size pass for MOM WSH courses by TPs

3 % × 2 % inch (85.60 × 53.98 mm)

Front view



Font Type: Arial

Font size (Course title): Recommended 8pt or larger Font size (Others): Recommended 6pt or larger

Photo size: 3.1cm X 2.4cm

•Pass should contain no less than the information depicted in the guide

- •TP may use their own reference format for serial number
- Course Title should be the title as indicated in the WSQ Framework(CS/CTAG). The Technical Skills and Competency (TSC) Code and Title, should also be printed in parentheses () aligned to the title reflected in either the Competency Standards (CS) or TSC. However, it is not required to print the TSC Course name if it is the same as the SC/CTAG title
- •ID should be FIN, NRIC Passport Number or any unique official identifier
- •Course Venue should reflect address of training centre (not business office, etc) which pass holder attended
- •Trainer signature should reflect the trainer that conducted the course

Back

Back view

- Use of card is governed by terms and conditions of < Name of Training Provider>
- < Name of Training Providers> is a SkillsFuture Singapore Agency's Training Provider at the date of issuance of the pass
- 3. This card is not transferrable
- 4. The course is conducted @.< Course venue>
- Holder of the card has been certified competent in the <Course Title> on the issued date as indicated in front.
- 6. This card will expire <xx> years from the date of issue.
- This card is the property of < Name of Training Provider> and must be returned on request.
- 8. Card shall be retained if it has been tampered with, misused or replaced.
- This card is issued by < Name of Training Provider>. If found, please return to < Name of Training Provider>. at <Address of < Name of Training Provider>..
- 10. For enquiries, please contact < Name of Training Provider>. > at <hotline>

Font Type: Arial

Font size: Recommended 6pt or larger

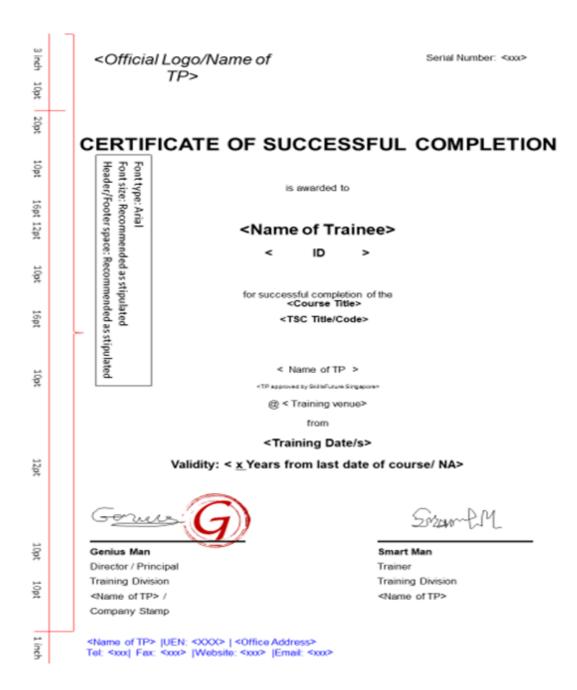
Instructions to TPs for filling in of information on the safety pass

- The company stamp has to be over the trainee's full face photo for laminated paper passes
- ID can be FIN, NRIC, Passport Number or any unique official identifier
- Course Title will be the corresponding WSQ Competency Unit title as indicated in TP Gateway
- Serial Number will be the number issued by the Training Providers (TP) after the uploading of the results into TP Gateway. Please see the explanation of the abbreviation below:
 - ABC: TP initials
 - Corresponding WSQ course code
 - 001: Running order of the trainees who are being certified competent which must be a unique number for each individual. TP may also include the class intake/ batch number in addition
 - R[#]: For reissuance of cards, R1 = first replacement, R2 = second replacement
- The Continuing Professional Development (CPD) Approval code is an optional field if the course is approved by CPD Board for Safety Development Units points.
- The issued date will be the date of assessment where the trainee is certified competent
- Depending on MOM requirements, the expiry date will vary and it will be from the date of assessment where the trainee is certified competent.
 - If MOM has no requirements for the particular course to have an expiry date, this field may be omitted.

Annex D

Certificate of Successful Completion

"Certificate of Successful Completion" is to be issued, in accordance with the format shown in Annex E. This is in addition to the Statement of Attainment (SOA) issued by SSG for WSQ courses.



- ·Certificate should contain no less than the information depicted in the guide
- •TP may use their own reference format for serial number
- •ID should be FIN, NRIC Passport Number or any unique official identifier
- •For TP Course, Course Title should be the corresponding title as indicated in WSQ System Framework(CS/CTAG). The Technical Skills and Competency (TSC) Code and Title should be printed in parentheses () aligned to the title reflected in either the Competency Standards (CS) or TSC. However, it is not required to print the TSC course name if it is the same as the CS/CTAG Title
- Course Venue should reflect address of training centre (not business office, etc) which pass holder attended
- Certificate should indicate that <<Name of TP>> is a Training Provider (TP) approved by SkillsFuture Singapore for <<Course Title of corresponding course>>
- •Trainer signature should reflect the trainer that conducted the course
- Management of safety certificate should be in accordance to the requirements under TP scheme