



Australian Government

Department of Education, Employment and Workplace Relations

CHCLLN402A Support adult numeracy learning and development

Release: 1

CHCLLN402A Support adult numeracy learning and development

Modification History

Not Applicable

Unit Descriptor

Descriptor

This unit describes the skills and knowledge required by those providing numeracy support to adult learners who wish to develop their core skills of learning and numeracy, including using number, measurement, estimation and problem solving

The unit provides skills and knowledge to enable tutors to work with a supervisor to develop strategies and resources to reinforce numeracy skills, and to support learners during various phases in the development of their numeracy competence

Application of the Unit

Application

This unit applies to those supporting adult numeracy learners in a variety of contexts

The work in this unit could be conducted by a tutor in consultation with learners, and would be monitored by a program supervisor with appropriate language and literacy expertise

Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Not Applicable

Employability Skills Information

Employability Skills

This unit contains Employability Skills

Elements and Performance Criteria Pre-Content

Elements define the essential outcomes of a unit of competency.

The Performance Criteria specify the level of performance required to demonstrate achievement of the Element. Terms in italics are elaborated in the Range Statement.

Elements and Performance Criteria

ELEMENT

1. Identify numeracy learning requirements of learners

PERFORMANCE CRITERIA

1.1 Meet with *supervisor* to establish own role and responsibilities and *identify learner's language and numeracy levels* and needs

1.2 Meet with learner to establish rapport and identify *factors that may inhibit the development of mathematical skills* for numeracy, and discuss with supervisor as required

1.3 Negotiate numeracy learning needs with learner and establish achievable learning outcomes, in consultation with supervisor where appropriate

1.4 Monitor learner understanding and use of numeracy to inform planning of strategies and resources

2. Plan resources to support mathematics learning for numeracy

2.1 Plan learning environments, activities and appropriate method to evaluate learning outcomes in advance with the supervisor

2.2 Adapt or develop *resources* appropriate to learner needs and context according to *program requirements*

ELEMENT**PERFORMANCE CRITERIA**

3. Facilitate application of mathematics skills for numeracy
 - 3.1 Identify and explain a variety of numeracy demands and opportunities in daily life
 - 3.2 Demonstrate the different uses and functions of mathematics using activities and examples
 - 3.3 Develop numerate understandings appropriate to learners' culture, age, abilities, interests and needs
 - 3.4 Use examples and activities to highlight and explain *applications of mathematics skills and knowledge* for numeracy to scaffold learning
 - 3.5 Use diverse strategies to model use of mathematics skills relevant to specific learners

4. Support learners to develop mathematics skills for numerate understanding
 - 4.1 Determine strategies for supporting learners in the application of mathematics skills for numeracy, seeking advice from supervisor or other specialist as needed
 - 4.2 Implement planned strategies to enhance the abilities of learners and address their individual needs
 - 4.3 Encourage learners to problem solve using mathematics knowledge and skills in everyday life contexts
 - 4.4 Use the *language of numeracy at the appropriate level* to focus learners on specific mathematics skills and knowledge
 - 4.5 Evaluate learning outcomes and discuss with supervisor as required

ELEMENT**PERFORMANCE CRITERIA**

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|------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5. Provide structured activities to further develop learners' mathematics skills and knowledge | <p>5.1 Plan strategies with supervisor where appropriate, including <i>accurate mathematics terminology and concepts</i>, to support learners' learning</p> <p>5.2 Implement strategies that develop learner skills in using mathematics for numeracy understanding across appropriate <i>aspects of communication</i></p> <p>5.3 Encourage learners to improve mental computation and calculation skills using strategies appropriate to individual learners</p> <p>5.4 Ensure learners check for reasonableness of solutions when calculating and measuring, using a range of strategies and <i>tools</i></p> <p>5.5 Encourage learners and build their confidence to attempt problem solving that requires the use of mathematics skills and knowledge</p> |
| 6. Review strategies used to enhance learner skills | <p>6.1 Monitor learner progress</p> <p>6.2 Seek support and feedback from supervisor when required</p> <p>6.3 Review strategies in terms of their effectiveness and feedback received</p> |

Required Skills and Knowledge**REQUIRED SKILLS AND KNOWLEDGE**

This describes the essential skills and knowledge and their level required for this unit.

Essential knowledge:

The candidate must be able to demonstrate essential knowledge required to effectively do the task outlined in elements and performance criteria of this unit, manage the task and manage contingencies in the context of the identified work role

These include knowledge and understanding of:

- Key concepts of the Australian Core Skills Framework (ACSF) to engage in discussion

REQUIRED SKILLS AND KNOWLEDGE

with supervisor of learner levels and requirements and learning plan, including:

- the five core skills
- spiky profiles: varying levels of performance in each core skill
- factors that may influence performance
- Mathematical concepts, operations and terminology relevant to learner needs and context
- Requirements of the support program, including administrative and confidentiality requirements
- Risk-management strategies to negotiate sometimes complex situations and learning environments
- Roles and responsibilities of those providing numeracy support and of their supervisors
- Range of basic communication and learning strategies, including techniques that:
 - encourage critical thinking about mathematics and its use as a learning tool
 - scaffold learning and assist learners to problem solve
- Tools to evaluate learning outcomes, such as the ACSF

Essential skills:

It is critical that the candidate demonstrate the ability to:

- Negotiate learner numeracy needs and program outcomes based on identified skill gaps, in consultation with supervisor and learner where appropriate
- Identify, adapt, develop and use a variety of learning strategies and resources based on agreed outcomes
- Support numeracy skill development in learners
- Use a range of strategies to encourage and model skill development

continued ...

Essential skills (contd):

In addition, the candidate must be able to effectively do the task outlined in elements and performance criteria of this unit, manage the task and manage contingencies in the context of the identified work role

These include:

- Communication skills, including:
 - listening skills to identify learner needs and elicit learner responses
 - speaking skills to model language and question effectively
- Initiative and enterprise skills to use appropriate support strategies for diverse learner needs
- Interpersonal skills to:
 - interact with clients from a range of social, cultural, religious and linguistic backgrounds and with varying physical and mental abilities

REQUIRED SKILLS AND KNOWLEDGE

- show respect for, and draw on, the expertise and background of the learner
- Language, literacy and numeracy skills to:
 - apply mathematical concepts appropriate to the diversity of learner needs being supported
 - maintain and complete records, where required
 - identify, collate and develop or adapt resources to support the development of learners' mathematics skills and knowledge for numeracy
- Planning and organisation skills to develop, follow and evaluate learning plans
- Problem-solving skills to select strategies that address learner needs
- Self-management skills to:
 - know own limitations and set appropriate boundaries
 - review own practice
- Teamwork skills to collaborate with supervisor to:
 - analyse learner needs in relation to development of numeracy understanding
 - apply appropriate model of learning to develop learners' mathematics skills and knowledge
 - implement support strategies appropriate to learner needs
- Technical skills to:
 - adapt examples and activities to meet the specific numeracy needs of individual learners
 - apply key concepts of the ACSF
 - use a range of strategies to:
 - support learners in acquiring and applying mathematics skills and knowledge
 - adapt or design resources that cater for individual learners
- Technology skills to:
 - use a range of technology to support numeracy learning
 - use software packages as part of the learning program
- Time-management skills to plan and deliver learning programs

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the Performance Criteria, Required Skills and Knowledge, the Range Statement and the

EVIDENCE GUIDE

Assessment Guidelines for this Training Package.

Critical aspects for assessment and evidence required to demonstrate this unit of competency:

- The individual being assessed must provide evidence of specified essential knowledge as well as skills
- Assessment should ensure the candidate addresses the elements and performance criteria on at least three occasions, over a period of time

Access and equity considerations:

- All workers in community services should be aware of access, equity and human rights issues in relation to their own area of work
- All workers should develop their ability to work in a culturally diverse environment
- In recognition of particular issues facing Aboriginal and Torres Strait Islander communities, workers should be aware of cultural, historical and current issues impacting on Aboriginal and Torres Strait Islander people
- Assessors and trainers must take into account relevant access and equity issues, in particular relating to factors impacting on Aboriginal and/or Torres Strait Islander clients and communities

Context of and specific resources for assessment:

- Competency must be demonstrated in a realistic simulated or real work environment
- Assessment requires access to a range of opportunities defined in the range statement, including access to:
 - an educational work environment or simulation to enable candidates to demonstrate their skills and knowledge while working with supervisors and learners
 - mathematics and numeracy terminology used in the role

EVIDENCE GUIDE

Method of assessment:

- Assessment methods suitable for valid and reliable assessment of this competency may include a combination of:
 - case studies
 - demonstration
 - observation
 - oral and written questioning
 - scenarios, simulation or role plays
 - authenticated evidence
- Assessment methods should reflect work demands, such as literacy, and the needs of particular individuals, such as:
 - people in rural and remote locations
 - people with disabilities
 - people from culturally and linguistically diverse backgrounds
 - Aboriginal and Torres Strait Islander people
 - women
 - young people
 - older people

Guidance information

- This unit may be assessed independently, however holistic assessment with other units relevant to the industry sector, workplace and job role is recommended

Range Statement

RANGE STATEMENT

The Range Statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Add any essential operating conditions that may be present with training and assessment depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts.

Supervisor may include:

- Experienced tutor
- Numeracy specialist
- Mentor

Identifying learner's language and numeracy level may include:

- Considering:
 - information provided in supervisor briefing
 - learner's educational background
 - psychological, social and cultural factors
- Using key concepts of tools such as the ACSF when considering:
 - relevance of context, support, task and text
 - strengths and weaknesses of learner's ability to:
 - identify the mathematical information and meaning in activities and texts
 - problem solve using mathematical processes
 - use written or oral mathematical language, and mathematical symbols and diagrams, to communicate numeracy concepts

RANGE STATEMENT

Factors that may inhibit the development of mathematical skills may include:

- Cultural barriers relating to ethnicity and identity, for example
- Disabilities, such as acquired brain injury
- Geographic factors, such as isolation
- Health issues, including chronic conditions
- Learning difficulties
- Limited opportunities for practice
- Personal barriers relating to such things as:
 - age
 - displacement issues for refugees
 - emotional issues
 - family circumstances
 - gender
 - language background
 - previous formal schooling experiences
 - religion
 - social circumstances
 - trauma
- Physical factors, such as eyesight
- Psychological issues, such as mathematics phobia
- Technology issues, such as:
 - lack of access
 - skill level

Resources may include:

- Computer hardware and software
- Concrete materials
- Games
- Handouts and workbooks
- Online and digital resources
- Realia
- Reference materials
- Visual aids, such as digital cameras, charts, displays and posters

RANGE STATEMENT

Program requirements:

- May be developed by:
 - the tutor
 - consulting with supervisor
 - consulting with learner
- May include:
 - program guidelines
 - program resources

Applications of mathematics skills and knowledge may include:

- Using mathematics in real-life work, social, community and leisure contexts, such as:
 - interpreting timetables and timelines
 - measuring area, volume, length, weight, etc.
 - performing operations and calculations
 - placing orders
 - planning use of spaces
 - reading and interpreting data displays
 - reading maps, driving and navigating
 - telling the time
 - using phone numbers
 - using shopping catalogues
- Working mathematically to solve problems, including those specific to a particular context, such as:
 - calculating medical doses
 - comparing prices
 - understanding bills

RANGE STATEMENT

Language of numeracy at the appropriate level includes:

- Formal and informal language
- Knowledge of the level, e.g. \$5.98, 1/2, +, -, 12/5/07, simple and highly familiar tables and graphs
- Language, such as:
 - addition, subtraction, division and multiplication
 - up, down, behind, right, left, over, through
 - comparative language, such as taller, heavier, hotter, smaller
 - language of shape, size, colour, such as straight, curved, square, circle, triangle
 - language of measurement, such as SI units of measurement, weight, height
- Symbolic and diagrammatic representations and conventions of mathematics e.g. Language of position
- Simple symbolism, diagrams and conventions relevant to mathematics

Accurate mathematics terminology and concepts may include:

- Displays, such as graphs and tables
- Mathematics specific conventions
- Place values
- Ratio
- Symbols
- Units of measurement
- Vocabulary - mathematics context versus real world contexts

Aspects of communication may include:

- Different contexts in which an individual uses numeracy skills in all aspects of their lives, including:
 - cooperative: interacting in groups
 - personal: expressing identity
 - procedural: performing tasks
 - public: interacting with the wider community
 - systems: interacting in organisations
 - technical: using tools and technology

RANGE STATEMENT

Tools may include:

- Estimating
- Mathematical and IT tools, such as:
 - ruler or tape measure
 - protractor
 - kitchen scales
 - measuring jug
 - computer
 - calculator

Unit Sector(s)

Not Applicable