



Australian Government

Department of Education, Employment and Workplace Relations

CHCEDS307A Support the development of numeracy skills

Release: 1

CHCEDS307A Support the development of numeracy skills

Modification History

Not Applicable

Unit Descriptor

Descriptor

This unit focuses on the role of the education support worker in implementing numeracy programs as identified by the teacher to assist students requiring additional numeracy support

Application of the Unit

Application

This unit applies to education support work in a variety of contexts and work is to be undertaken with appropriate guidance, support and supervision by nominated teacher

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

PERFORMANCE CRITERIA

1. Apply developmental and learning approaches to basic numeracy skills under supervision of teacher

- 1.1 Identify the *skills and knowledge* required by students to make meaning of numbers and basic computations
- 1.2 Identify numeracy processes that are relevant and appropriate to the student's ability and year level according to specified guidelines and practices of the school
- 1.3 Identify links between mathematical/numeracy processes and maths support strategies
- 1.4 Apply *learning models and language* to meet student needs

2. Implement a numeracy support program

- 2.1 Provide a numeracy support program as directed by the teacher, to meet the individual needs of students whilst taking into account their preferred learning styles
- 2.2 Select and implement *activities to support understanding* of numbers, use of number computations, measurement and numerical data
- 2.3 Record students' development in accordance with program/school guidelines
- 2.4 Maintain student confidentiality at all times

ELEMENT**PERFORMANCE CRITERIA****3. Support student numeracy programs**

3.1 Determine support strategies to accommodate student's ability according to education guidelines and teacher requirements

3.2 Evaluate student's numeracy ability with the teacher according to program guidelines and the outcomes of the approved formative and diagnostic assessment processes

3.3 Implement support procedures for numeracy students in accordance with developed program specifications and teacher/school's guidelines

3.4 Encourage the development of self-reliance in numeracy through positive feedback

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 of:

- Basic mathematical concepts and operations relevant to the year levels and the needs of students
- Language associated with numeracy and mathematical operations
- Questions to encourage critical thinking about mathematics and its use as a learning tool
- Policy, procedure and legislative issues affecting performance as education support workers
- The role of education support personnel in providing mathematics support to students
- A range of basic communication strategies

Essential skills:

It is critical that the candidate demonstrate the ability to:

- Analyse what the students are doing when working mathematically and apply an appropriate model of learning to develop the student's numeracy skills
- Implement numeracy support strategies appropriate to the year level as directed by the teacher
- Implement numeracy support programs to support a range of students who may be at various levels as directed by the teacher
- Maintain and complete workplace records

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 the ability to:

- Demonstrate sound mathematical skills applicable to the year levels in which they

REQUIRED SKILLS AND KNOWLEDGE

operate, i.e. early childhood, primary, secondary

- Demonstrate empathy and cultural sensitivity in responding to students
- Demonstrate literacy abilities of a level that supports the identification and collation of mathematical support material
- Demonstrate problem solving techniques
- Demonstrate interpersonal communication (e.g. active listening, giving clear directions and/or instructions, expressing an opinion, suggesting improvements to strategy/methods for assisting/supporting students and teachers
- Manage time to provide support to learners as guided by teachers
- Consult with the teaching team and other education support workers on workplace procedures and new approaches to accommodate individual student requirements
- Complete a sequence of tasks with direction and support from the teacher
- Interpret information from written or verbal directions

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 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
- This unit could be assessed either on the job or off the job through an appropriate workplace simulation for a range of age groups and a range of conditions over a number of assessment situations

EVIDENCE GUIDE

- 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:*
- This unit can be assessed independently, however holistic assessment practice with other community services units of competency is encouraged
 - Assessment requires access to a range of opportunities defined in the Range Statement, including:
 - an appropriate workplace where assessment can take place
 - simulation of realistic workplace environment for assessment
 - relevant school/centre policy, protocols and procedures
 - educational materials

EVIDENCE GUIDE

Method of assessment:

- In cases where the learner does not have the opportunity to cover all relevant aspects in the work environment, the remainder should be assessed through realistic simulations, projects, previous relevant experience or oral questioning on 'What if?' scenarios
- Assessment of this unit of competence will usually include observation of processes and procedures, oral and/or written questioning on Essential knowledge and skills and consideration of required attitudes
- Where performance is not directly observed and/or is required to be demonstrated over a 'period of time' and/or in a 'number of locations', any evidence should be authenticated by colleagues, supervisors, clients or other appropriate persons

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.

RANGE STATEMENT

Skills and knowledge required to work mathematically across a range of developmental levels include:

- Identifying the mathematics on a range of situations from real life to purely mathematical
- Identifying opportunities to apply mathematical knowledge, procedures and strategies (including increased use of technologies)
- Predicting possible outcomes of investigations
- Using mental computations strategies
- Resolving problems with imaginativeness and inventiveness
- Estimating, measuring and calculating
- Interpreting and using a range of mathematical representations
- Visualising mathematical ideas
- Constructing physical modes to represent mathematical ideas, thinking and reasoning
- Interpreting and following mathematical instructions
- Representing mathematical ideas in different ways
- Posing problems and justifying solutions
- Checking the reasonableness of conclusions and answers; and
- Communicating and justifying them

Learning models and language refer to:

- These will depend upon the level of the students and the practices of the teachers
- Education support workers are expected to introduce, explain and model the correct mathematical terms (as determined by teachers) and encourage students to use them appropriately

RANGE STATEMENT

Activities to support understanding and numeracy development in students may include:

- Demonstration/modelling: discuss with the student the purpose of the learning experience
- Allowing students to work it out, giving time, questioning, motivating, listening purposefully
- Guided practice: work together with the student on the learning activity
- Independent practice: allow the student to complete the learning activity on his/her own
- Discuss the activity with the student by using open questions that encourage the student to reflect on their learning, understanding, problem solving

Unit Sector(s)

Not Applicable