



Australian Government

Department of Education, Employment and Workplace Relations

CHCEDS426A Facilitate learning for students with vision impairment

Release: 1

CHCEDS426A Facilitate learning for students with vision impairment

Modification History

Not Applicable

Unit Descriptor

Descriptor

This unit deals with the skills and knowledge required by education support workers to support students with vision impairment

It provides understanding of the impacts of vision impairment on students' learning and skills to scaffold students' learning, to enhance students' access to learning opportunities and to ensure vision impaired students' needs are met using the most suitable resources available

Application of the Unit

Application

This unit applies to education support work in a variety of education contexts

The role of the education support worker includes providing additional practice for learning activities designed by visiting specialists and day-to-day support for teachers and students encompassing various aspects of school life

Work is to be undertaken with appropriate guidance, support and supervision by a nominated teacher or other education professional

Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Pre-requisite

This unit must be assessed after achievement of the following related unit of competency:

- CHCEDS417A Facilitate learning for students with disabilities

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. Support the student to be comfortable in the learning environment

- 1.1 Provide orientation and mobility for the student in areas of the facility to be accessed
- 1.2 Ensure the student has ongoing *safe access* to, and within, the environment by consistent maintenance of approved arrangements
- 1.3 Model *orientation and mobility techniques* for other students, where appropriate, and encourage their use
- 1.4 Determine, through discussion with *appropriate people, adjustments* that may be required to optimise student comfort and access to learning

ELEMENT**PERFORMANCE CRITERIA**

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| 2. Identify ways in which vision impairment can affect learning | 2.1 Identify and explain the nature and causes of <i>vision impairment</i> |
| | 2.2 Identify and explain <i>ways in which vision impairment may affect students' learning</i> |
| | 2.3 Explain the <i>implications of vision impairment for effective teaching and learning practices</i> |
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| 3. Provide direct support to a student with vision impairment | 3.1 Provide supervision and <i>support</i> during learning activities, follow up lessons and practice opportunities |
| | 3.2 Provide <i>resources</i> to accommodate the needs of the student to allow him/her to actively participate in learning |
| | 3.3 Adapt or develop learning resources to address the needs of the student |
| | 3.4 Use technology and/or vision aids to support student access to the curriculum |
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| 4. Provide support to teachers of a student with vision impairment | 4.1 Locate <i>suitable resources</i> to support teachers in delivery of educational programs for visually impaired students |
| | 4.2 Cooperate in the implementation of programs and strategies designed by the teacher/s |
| | 4.3 Monitor and arrange maintenance of equipment used to support <i>students with vision impairment</i> |
| | 4.4 Assist with transcription of text to braille and braille to text, if required |

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 demonstrated knowledge and understanding of:

- Vision impairment and its impacts on learning
- Appropriate support strategies in a variety of learning situations for students with vision impairment
- General safety issues with students with vision impairment
- Required learning outcomes for student/s with vision impairment
- Orientation and mobility techniques
- Fundamental understanding of braille

Essential skills:

It is critical that the candidate demonstrate the ability to:

- Apply knowledge of the major causes of vision impairment in students
- Demonstrate understanding of the effects of various forms of vision impairment on learning
- Apply knowledge of strategies that can be used in a learning environment to support students with visual impairment
- Use a basic range of adaptive equipment to prepare resources for students with visual impairment and their teachers

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 apply skills in:

- Language and literacy to effectively and appropriately communicate using a range of verbal, non-verbal, written and electronic mediums

REQUIRED SKILLS AND KNOWLEDGE

- Empathy with the difficulties faced by students with vision impairment
- Inclusive language use
- Maintaining confidentiality
- Teamwork
- Problem solving
- Use of adaptive equipment required by students
- Learning to utilise various equipment required by different students
- Technology to develop tactile resources and arrange timely maintenance of equipment

Note: Education support workers supporting students with vision impairment may need to develop additional competency in:

- Typing the braille, including shortforms, word signs and symbols
- Transcribing from braille to print

However, in undertaking this unit of competency, there is no expectation that candidates should achieve fluency in braille

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 may be assessed either on the job or off the job through an appropriate workplace simulation
- Assessment should ensure the candidate addresses the elements and performance criteria on at least three occasions, over a period of time

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
 - appropriate documentation, resources and technologies normally used in an educational environment supporting students with vision impairment
 - principles of practice used in the organisation
 - scenarios that replicate difficulties experienced by vision impaired students and that provide opportunities for participants to problem solve support
 - Key aspects of the assessment context for closely replicating a workplace include:
 - various environments - inside, outside, stairs, doors etc within which the 'student' may be assisted using orientation and mobility strategies
 - learning situations in which the participant is to provide appropriate support to meet the needs of the 'vision impaired student'

EVIDENCE GUIDE

Method of assessment:

- Assessment methods suitable for valid and reliable assessment of this competency may include, but are not limited to, a combination of two or more of:
 - case studies
 - demonstration
 - observation
 - questioning - oral and written
 - scenarios, simulation or role plays
 - workplace projects
 - authenticated evidence from the workplace and/or training courses
- Assessment methods should reflect workplace demands, such as literacy, and the needs of particular groups, 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

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

Vision impairment refers to:

- Vision impairment in educational terms is any diagnosed condition of the eye or visual system which results in reduced visual functioning for learning
- Disease, damage or injury causing vision impairment can occur to any part of the visual system, i.e. the eye, the visual pathway to the brain or visual centre of the brain

Vision impairments that require support include:

- Distance visual acuity of 6/18 or worse:
 - visual acuity figures for distance are expressed in the following way: the top figure indicates how closely a person needs to be to a letter size which a person with normal vision can see from the distance indicated by the bottom figure
 - for example, a person with visual acuity of 6/18 would need to be 6 metres from a letter which could be seen normally 18 metres away
- Restricted visual fields which adversely affect visual functioning:
 - the visual field is the total area, left and right/above and below, which a person sees while looking straight ahead
 - some eye conditions cause visual field defects and affect the ability of a student to function in the environment
 - eye conditions can affect different parts of the visual field
 - if the damage is in the central region, the ability to see fine detail is impaired
 - damage in the peripheral region, impairs the ability to move around the environment
 - some conditions result in loss of half or a portion of the visual field in one or both eyes while others cause patches where vision is poorer
- A condition which results in deterioration of vision
- Damage to the visual centres of the brain causing reduced visual functioning
- A combination of any of the above

continued ...

RANGE STATEMENT

Vision impairment (contd):

- Visual impairment may:
 - be present at birth
 - occur at any time from disease or accident
 - be part of a medical condition or syndrome
- The majority of visual conditions in children are stable and vision remains relatively unchanged
- Some conditions, however, are progressive, resulting in reduced vision over varying periods

The following conditions are not vision impairment for educational purposes:

- Normal vision in one eye (with no disease in that eye)
- Strabismus (known as squint, lazy eye or turned eye)
- Colour vision defect
- Visual perceptual problems
 - Visual perception occurs in the brain and problems can range in severity
 - in educational terms a visual perception problem is the inability to interpret written symbols
 - no specific eye disease is known to cause such problems
 - these children may have learning difficulties and require learning support
- Some conditions which affect the muscles of the eye

RANGE STATEMENT

Orientation and mobility specialists:

- Work specifically with students with vision impairment in helping them to explore their environments in a meaningful way
- In many cases, students do not know how to attend to significant information in their environment and must be taught to do this and to 'tune in', before they can explore
- The approach used is child centred and assists the student to develop skills which are appropriate throughout life
- These skills or strategies are referred to as 'Attention Directing Tools' (ADTs) and they empower the student to pay attention to those things that are appropriate for the individual student during exploration
- This, in turn, helps each student to learn about the immediate environment and to develop accurate and meaningful concepts in relation to people, traffic and the natural and built environment in general

Orientation and mobility methods and techniques used in supporting a student may include:

- The 6-Step method in teaching route travel
- Oral descriptions of the environment
- Sighted guide (encouraging the vision impaired student to hold the arm of the support worker or another student)
- Enabling the student to gain tactile knowledge of the environment through maps and hands on experiences
- Establishing labels for environmental reference points important to the student
- Enabling the student to discover aspects of the environment without assistance
- WESST (weight, ends and edges, size, shape, sound, texture) - a technique for directing attention to the qualities of an object in order to facilitate recognition of the object in the future
- NBC techniques (NearBy Considerations) - a sensory awareness technique used to gain a more complete mental map of the environment
- Search grids
- Clock face descriptors for objects placed in the learning environment

RANGE STATEMENT

Safe access:

- Will be organised by specialist support staff or the teacher in charge of the facility
- The role of the education support worker is to ensure the environment continues to conform to the safety arrangements determined for the student/s

Appropriate people may include:

- The student
- Parents/caregivers
- Orientation and mobility specialists
- Visiting specialist teachers
- Class teachers
- Learning support teachers
- Therapists
- Optometrists
- Education support workers experienced in working with the student

Adjustments to the learning environment may include:

- Removing or placing protection barrier around very hazardous features (e.g. putting pot plants under stair wells to prevent student hitting head)
- Positioning the student within the classroom to make optimum use of his/her abilities (vision?) and available technologies
- Braille labelling of objects
- Providing access to specific assistive/adaptive technologies
- Providing class learning materials with tactile adaptations for the student
- Adjustments to lighting/glare
- Additional time allowed for reading tasks (usual allowance plus 1/3)
- Adjustments to materials and equipment

RANGE STATEMENT

Terms that suggest some educational needs of students with vision impairment include:

- Low vision - a term used to describe students who may have one or more of the following:
 - reduced ability to see objects clearly at a distance
 - reduced ability to see objects clearly at close range
 - loss of vision in central or peripheral field

Students with low vision will usually use print as their main learning medium

- Braille user - a term used to describe students whose severity of vision impairment requires them to use Braille, tactile and audio materials
These students will be those with:
 - no vision
 - the ability to perceive only light and dark
 - severely reduced visual acuity
- Braille and print user - a small group of students may use some braille and tactile materials and some print depending on the visual demands of the task
- Louis Braille was the inventor of braille, a world-wide system used by blind and visually impaired people for reading and writing. Braille is read by passing one's fingers over characters made up of an arrangement of one to six embossed or raised points or dots

RANGE STATEMENT

Ways in which vision impairment may affect students' learning include:

- Vision impairment interferes with the gathering of accurate information
- Around 80% of information received by the brain is received through the eyes
- Information that can be accessed in a glance by a sighted person will need to be taught to a student with vision impairment
- This has important implications for learning and for teaching students with vision impairment
- These students will require the following in addition to the teaching of the regular school curriculum:
 - purposeful exposure to a range and variety of experiences in which they have the opportunity to interact with the environment through all the senses
 - access to all information in an appropriate format
 - teaching of specific skills that will allow them to access and control the environment independently

RANGE STATEMENT

Additional instruction requirements may include:

- To ensure access and participation in educational programs, students will require instruction in priority areas additional to, or different from, those of their sighted peers
- These priority areas may be provided within the class setting or in other environments and some of the following need to be considered for each student:
 - (i) communication - braille literacy and numeracy, other braille codes (e.g. music, maths/ technical), listening skills, keyboard skills, handwriting, non-verbal communication
 - (ii) orientation and mobility - body and environmental awareness, spatial knowledge and understanding, independent travel
 - (iii) social skills - socially accepted behaviour, self-esteem, self advocacy, appropriate use of language
 - (iv) concept development - specific experiences to develop concepts in all key learning areas and competencies
 - (v) motor skills - fine and gross motor abilities
 - (vi) use of technology - use of high and low tech devices, adaptive technology
 - (vii) vision efficiency training - use of residual vision, training in use of low vision aids
 - (viii) recreation skills - knowledge of and skills to access leisure activities
 - (ix) activities for daily living - self care, organisation skills, time management
 - (x) vocational and employment opportunities - time management, interpersonal skills, work skills

RANGE STATEMENT

Implications of vision impairment for effective teaching and learning include:

- The need to establish and maintain a supportive, safe environment that is emotionally, socially and physically inclusive of diversity
- Consideration of suitable groupings of students to support participation of students with vision impairment in teaching and learning activities
- Requirements to develop or acquire and use alternative (audio, sensory, tactile or large print) learning/teaching resources
- A need for technological resources and/or vision aids to meet the needs of students with vision impairment
- Staff who develop competency in the use of braille and suitable technologies

Students with vision impairment may require support:

- In the playground
- During sport and play
- Within the class
- During student movements, particularly in unfamiliar areas and excursions
- With supervision during examinations
- In monitoring environmental conditions
- Through the preparation and monitoring of a consistent safe environment

RANGE STATEMENT

Technological solutions for vision impaired students may include the use of:

- Braille writers and embossers:
 - Perkins Braille writer -a manual, portable, typewriter-like machine for producing Braille
The user needs knowledge of braille symbols for letters of the alphabet and braille short forms of common words and mathematical symbols
Thick paper is required for this machine, to support the embossing process
 - Mountbatten brailier - an electronic Braille writer, notetaker and embosser:
 - has built-in speech and an optional visual display unit
 - requires the direct-input typist to have knowledge of the braille alphabet, short forms and symbols
 - requires thick paper to support the embossing process
 - Embosser - a printer which produces a Braille document from an electronic file
 - Ricoh fuser - a machine that uses heat to cause a reaction between carbon and Swell Paper
 - writing or drawings made with pencil or other carbon-based utensils will swell up when the paper is fed through the machine, creating an embossed document
 - PIAF - Pictures in a Flash - a tactile image maker which uses heat-sensitive capsule paper to produce a tactile graphic
 - Thermoform Braille duplicator
 - this machine will produce braille on plasticised Brailon paper
 - a paper master is required and only one page can be copied in a single operation
 - materials produced on brailon are expected to undergo heavy use over protracted periods

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Technological solutions for vision impaired students (contd):

- Braille Notetakers e.g. Braille Note and Pac Mate - sophisticated portable computers with multiple features and Braille displays
- Computer software such as:
 - Duxbury braille translator
 - this program enables text to be converted to

RANGE STATEMENT

- braille and output from an embosser
- knowledge of braille and duxbury codes is necessary for the production of accurate braille
- JAWS screen reader
 - this program enables the user to have access to information about what is on the screen, keyboard functions, files, typed characters and words
 - the audio function can be set at various speeds to suit student abilities
 - headphones are usually necessary in order not to interrupt other students' work
- Zoomtext enlargement software
 - this program enables the users to customise the print size of all that is displayed on a computer screen
- Open book
 - a software reading package for computers
- Scanner-reading Machines e.g. SARA - use optical character recognition technology to scan text and provide an audio output
- E Beam - transfers information from a white board to a laptop computer

RANGE STATEMENT

Suitable resources may include:

- Tape recorders
- Headphones
- Digital audio players
- Talking calculators
- Tactile rulers or markers
- Tactile maps and graphics
- Braille compasses
- Concrete objects
- Enlarged or embossed worksheets
- Overhead projector
- Low vision aids:
- Optical aids:
 - spectacles
 - magnification devices
 - closed circuit TV
 - tinted lenses
- Non-optical aids:
 - lamps
 - dark lined books for writing
 - dark pens or pencils
 - hats or shades
 - typoscopes - any device used to isolate words, letter or lines while reading or writing
 - reading/writing/typing stands which provide an angled working station to assist with posture
 - illumination control / glare reduction

Unit Sector(s)

Not Applicable