

Unit 53: Installation, Maintenance and Removal of Assistive Technology in Care Settings

Unit reference number: T/616/7386

Level: 3

Unit type: Optional

Credit value: 2

Guided learning hours: 15

Unit summary

Assistive technology can be a key factor in improving the quality of life for many who receive support from care practitioners. However, there are both positive and negative impacts that come with the installation and use of assistive technology for individuals, their families, carers and others. They will all need support in understanding the purpose and safe use of assistive technology.

In this unit, you will develop your understanding of the implications for individuals and others of the installation and ongoing use of assistive technology. You will learn how to install, maintain and remove assistive technology. You will gain an understanding of the policies and procedures that underpin work practices. Policies include guidance on work practice in an individual's home or in a caring environment, such as safeguarding and risk assessment. You will learn how to support individuals and carers during the installation and use of assistive technology in a caring environment or in the individual's own home.

Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes	Assessment criteria
<p>1 Understand the implications for individuals and others of assistive technology installation</p>	<p>1.1 Explain the impact of installing assistive technology on:</p> <ul style="list-style-type: none"> • An individual • Others <p>1.2 Explain policies and procedures for safety in relation to assistive technology when working in an individual's own home including:</p> <ul style="list-style-type: none"> • safeguarding • infection prevention • fire risk • risk assessment • data protection
<p>2 Be able to install assistive technology</p>	<p>2.1 Support an individual and carers to understand the purpose of installing assistive technology</p> <p>2.2 Work in partnership with an individual and others to ascertain location for assistive technology devices</p> <p>2.3 Complete safety and operational checks for assistive technology and any linked services</p> <p>2.4 Carry out installation of assistive technology with regard to the individual's assessed needs, identified goals, and choices</p> <p>2.5 Ensure operability of assistive technology</p> <p>2.6 Support an individual and others to understand instructions on safe use</p> <p>2.7 Discuss service agreements with an individual and others</p>

Learning outcomes	Assessment criteria
<p>3 Be able to support an individual and others to maintain assistive technology</p>	<p>3.1 Provide an individual and others with information on the maintenance of assistive technology</p> <p>3.2 Ensure an individual and others are aware of support available if assistive technology becomes inoperable</p>
<p>4 Be able to support an individual and others to remove assistive technology</p>	<p>4.1 Provide information to an individual and others on removal and disposal of assistive technology after use</p> <p>4.2 Support an individual and others to carry out removal of assistive technology in accordance with agreed ways of working</p>

What needs to be learned

Learning outcome 1: Understand the implications for individuals and others of assistive technology installation

Definition of assistive technology

- Assistive technology: manual or electronic products, equipment, and systems that enhance learning, working, and daily living by compensating for or alleviating an injury, handicap or illness or to replace a physical function.

Assistive Technology

- Examples of assistive technology:
 - for learning, e.g. timers, reading guides, frequency modulation systems, calculators, writing supports
 - for communication and sensory impairment, e.g. hearing aids, induction loops, communication applications, smartphones computer software and hardware such as voice recognition programmes, screen readers, screen enlargement applications
 - for mobility, e.g. lightweight high-performance wheelchairs, scooters, walkers, hoists
 - for daily living, light-switch extension, remote-controlled appliances, bath and toilet aids, food aids
 - for comfort and dexterity, e.g. alternating pressure cushions, mattresses and overlays, posture support systems, adjustable beds
 - cushioned grips, medication dispensers, extendable reaching devices, adaptive switches
 - environmental control systems, e.g. telephones, intercom systems, remote controlled equipment, telecare alarm systems.
 - Safety and security aids, e.g. automatic calendar clocks, telecare alarm systems, location devices.

Impact of installation of assistive technology

- Social.
- Emotional.
- Physical.
- Physiological.
- Ethical implications.
- Promoting independence.
- Protecting personal choice.
- Human centred approach.
- Balance of individual's privacy and welfare.
- Impact on culture.
- Adaptability.
- Impact on home environment.
- Family life.
- Quality of services.
- Human contact.

What needs to be learned

Policies and legislation relating to assistive technology in line with current legislation

- Work policies:
 - safeguarding.
 - infection prevention.
 - fire risk.
 - risk assessment.
- Relevant up-to-date legislation from the Health and Safety Executive (HSE) for health and safety in a care work setting, e.g.
 - Health and Safety at Work Act etc. Act 1974
 - Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR) 2013
 - Manual Handling Operations Regulation 1992 (as amended)
 - Health and Safety (First Aid) Regulations 1981
 - Management of Health and Safety at Work Regulations 1999 (as amended)
 - Control of Substances Hazardous to Health (COSHH) Regulations 2002.
- Other legislation:
 - Care Standards Act 2000
 - Freedom of Information Act 2000
 - Mental Capacity Act 2005
 - Human Rights Act 1998
 - Disclosure and Barring Service (DBS)
 - Safeguarding Vulnerable Groups Act 2006
 - Care Act 2014
 - Data Protection Act 1998.

Policies and procedures in relation to assistive technology when working in an individual's own home:

- Specific policies and procedures or agreed ways of working apply to own practice.
- Own responsibility in relation to:
- specific working conditions and the working environment
- use of equipment
- procedures relating to personal care
 - procedures relating to security and personal safety.
- Own responsibility in relation to:
- observation
- risk assessment
- reporting and recording procedures
- supporting others to understand and follow safe practices.
- Importance of:
 - good communication
 - sharing information
 - attending training
 - maintenance of equipment.

What needs to be learned

Learning outcome 2: Be able to install assistive technology

Support individuals and carers

- In line with agreed ways of working

Purpose of installing assistive technology e.g.

- Independence.
- Communication and social interaction.
- Cognition.
- Mobility.
- Confidence.
- Safety.
- Physical health and wellbeing.

Installation

- Location.
- Completion of safety and operational checks.
- In line with assessed needs.
- Ensure operability.
- Assist understanding of instructions for safe use.
- Discuss and agree service agreements.

Learning outcome 3: Be able to support an individual and others to maintain assistive technology

Information on the maintenance of assistive technology

- Provided by manufacturer.
- Set out in organisational procedures.
- Statutory requirements.

Verify with the individual and others

- What to do and how to do it
 - procedure
 - contact details
 - associated cost
 - statutory requirements (e.g. MHRA).

Learning outcome 4: Be able to support an individual and others to remove assistive technology

Information on removal and disposal after use

- Safe handling and storage.
- Cleaning.

Removal and disposal of assistive technology

- In line with agreed ways of working for:
 - cleaning
 - storage
 - recycling
 - disposal.

Information for tutors

Suggested resources

Books

Cook A M, Miller Polgar J – *Cook and Hussey's Assistive Technologies: Principles and Practice 3rd edition* (Mosby, 2007) ISBN 9780323039079

Cook A M and Miller Polgar J – *Essentials of Assistive Technologies* (Mosby, 2012) ISBN 9780323075367

Edyburn D – *Efficacy of Assistive Technology Interventions: 1 (Advances in Special Education Technology)* (Emerald Group Publishing Limited, 2015) ISBN 9781784416423

Lancioni G E, Sigafoos J – *Assistive Technology: Interventions for Individuals with Severe/Profound and Multiple Disabilities* (Springer SBM, 2013) ISBN 978148999579

Oishi M M K – *Design and Use of Assistive Technology: Social, Technical, Ethical, and Economic Challenges* (Springer, 2010) ISBN 9781489989802

Websites

www.gov.uk/mhra Medicines and Healthcare Products Regulatory Agency

www.legislation.gov.uk Website for current Government legislation

Journal articles/ Academic papers

www.bmcgeriatr.biomedcentral.com/articles/10.1186/s12877-016-0269-3/open-peer-review Effect of a tailored assistive technology intervention on older adults and their family caregiver: a pragmatic study protocol. Demers L, Mortenson W Ben, Fuhrer M J, Jutai J W, Plante M, Mah K, DeRuyter F

www.faculty.washington.edu/wobrock/pubs/chi-11.03.pdf In the Shadow of Misperception: Assistive Technology Use and Social Interactions. Shinohara K

www.jstor.org/stable/23880164 Education and Training in Development Disabilities Vol 39, No. 3 (Sept 2004), pp. 217-226 Assistive Technology Use and Stigma

Assessment

This guidance should be read in conjunction with the associated qualification specification for this unit.

This unit is internally assessed. To pass this unit, the evidence that the learner presents for assessment must demonstrate that they have met the required standard specified in the learning outcomes and assessment criteria, and the requirements of the assessment strategy.

To ensure that the assessment tasks and activities enable learners to produce valid, sufficient, authentic and appropriate evidence that meets the assessment criteria, centres should follow the guidance given in *Section 8 Assessment* of the associated qualification specification and meet the requirements from the assessment strategy given below.

Wherever possible, centres should adopt an holistic approach to assessing the units in the qualification. This gives the assessment process greater rigour and minimises repetition, time and the burden of assessment on all parties involved in the process.

Unit assessment requirements

This unit must be assessed in accordance with the assessment strategy (principles) in *Annexe A* of the associated qualification specification.

Assessment decisions for learning outcomes 2, 3, and 4 (competence) must be made based on evidence generated during the learner's normal work activity. Any knowledge evidence integral to these learning outcomes may be generated outside of the work environment, but the final assessment decision must be within the real work environment. Simulation cannot be used as an assessment method for learning outcomes 2, 3, and 4.

Assessment of learning outcome 1 (knowledge) may take place in or outside of a real work environment.