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# CertHE Skills for the Workplace

## BMSK4003

### Digital Skills and Research Methods

*Trawsnewid Addysg; Trawsnewid Bywydau*  
*Transforming Education; Transforming Lives*



[www.uwtsd.ac.uk](http://www.uwtsd.ac.uk)

# Objectives of session:

- provide an overview of the module - its aim objectives and assessment;
- introduce digital skills;
- introduce research methods;
- ascertain current digital/research skills.

# Module Introduction

## AIM(S)

to improve students' digital skills within the workplace;  
to develop awareness of the importance of effective analysis of information and its translation into knowledge.

## LEARNING OUTCOMES

Upon the successful completion of this module, the student should be able to demonstrate the ability to:

1. evaluate the appropriate use of contemporary technologies to improve workplace efficiency and employability;
2. identify and effectively evaluate a range of information sources;
3. show competence in workplace data handling;

# Module Content

**During this module we will:**

- examine modern workplace communications systems, including social networking;
- explore the use of web-based and mobile applications within the workplace;
- develop awareness of legal, ethical and security issues, including the ethical implications of gathering information within the context of data protection;

# Module Content

- understand Prof Russell Ackoff's definitions of data, information, knowledge, understanding and wisdom;
- explore potential sources of information to solve workplace problems;
- understand the ways in which numeracy, knowledge and reasoning are integral to most employment areas, including an appreciation of the use of basic statistics in the interpretation and analysis of data;
- become competent in basic numerical handling and the efficient organisation and management of files and folders.

# Why are Digital Skills Important?

- To communicate both inside and outside the organisation;
- to enable research to be carried out.
- Others?

# Why are Research Skills Important?

- To find out facts and figures;
- to inform decision-making.
- Others?

# Secondary Research

- This involves the work already carried out by others.
- Secondary sources include books, academic journals, websites and podcasts.
- What are the dis/advantages of this type of research?

# Primary Research

- This is original research.
- Primary research involves designing and carrying out bespoke surveys, interviews or focus groups .
- What are the dis/advantages of this type of research?

# Questionnaires

May be delivered in different ways:

self completion (e.g. online or postal);  
telephone;  
face to face.

May seek to discover any of the following types of information:

factual;  
behavioural;  
opinion based;  
attitudes;  
beliefs.

# Questionnaire Design

## Good design:

- respondent knows exactly what to do;
- clear, neat, attractive layout;
- questions ask what you need to know – no more, no less;
- polite and professional tone.

## Poor design:

- too long;
- inappropriate layout or language.
- ambiguous.

# Interviews

May be delivered in different ways:

skype;

face to face.

Usually seek to discover qualitative rather than quantitative information.

Design considerations: time available; questions tend to be more open (than questionnaires); choice of interviewee.

# Questionnaire or Interview?

*The need to know how many staff would like training in IT skills development.*

This requires a little information, in the same format, from a large number of staff. Which method???

*The need to know in detail how people feel about a new product.*

This requires detailed information on personal views. Which method???

*Other examples?*

# Sampling

Virtually all statistical results are based on the measurements of a sample drawn from a population.

It is possible to obtain accurate information from samples.

Measuring the entire population (census) is usually very expensive or even impossible.

# Ethical Handling of Data

Once data has been collected, it needs to be handled in view of Data Protection Laws.

In April 2018, the new [General Data Protection Regulations](#) (GDPR) come into force in the UK. More information about this and other such regulations e.g. (Freedom of Information Act) are available on the [Information Commissioner's Office](#) website.

# Digital Skills

- The following is a very useful basic introduction to computers:

<http://www.fulco.lib.in.us/wp-content/uploads/2015/06/BC01-Computer-Basics-101.pdf>