

Using wikis to help first year students develop collaborative knowledge management skills for tomorrow



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Background

Information literacy & knowledge management skills

- the ability find, interpret, organise & create knowledge
- presenting knowledge creatively using information and communications technologies (ICTs).
- collaborative and creative teamwork and critical, reflective practices
- How might teaching and learning approaches foster the development of knowledge management skills?

Aggregators Folksonomy Wikis User Centered Joy of Use
Blogs Participation Six Degrees Usability Widgets
Pagerank XFN Social Software FOAF Browser
Recommendation Sharing Collaboration Perpetual Beta Simplicity AJAX
Videocasting Podcasting Audio IM Video Design
Convergence Web 2.0 CSS Pay Per Click
UMTS Mobility Atom XHTML SVG Ruby on Rails VC Trust Affiliation
OpenAPIs RSS Semantic Web Standards SEO Economy
OpenID Remixability REST Standardization The Long Tail
DataDriven Accessibility XML
Modularity SOAP Microformats Syndication

Wiki Characteristics

- Most wikis are completely **unrestricted**,
- Content edited anywhere through simple browser interface
- Content created using a simplified hypertext format
- **Changes** to content documented & stored each time a revision is made, can **revert** to earlier versions of a page.
- Pages within a wiki are usually **linked** with each other, allowing for **organic** connections between content areas
- Wikis have a **spatial** rather than temporal structure
- Wikis provide a space where knowledge is **networked** and **contextualized**, but remains **ephemeral**

Wikis in Education

Uses

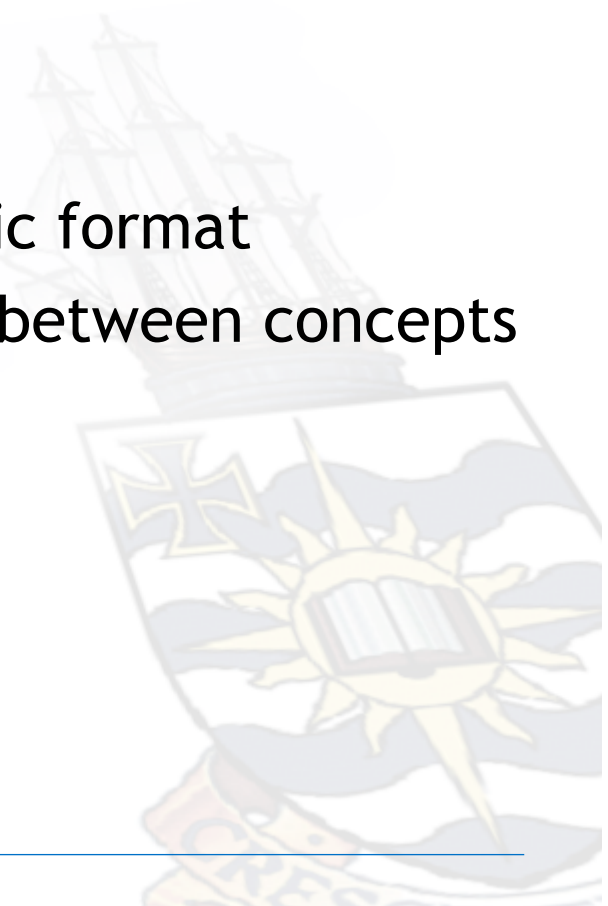
- Source of information and knowledge
- Tool for virtual collaboration

Features

- Data can be presented in a more organic format
- Allows students to make new connects between concepts
- Provides greater scope for expression

Two **learning paradigms** that favour wikis

- Collaborative learning paradigm
 - Social Constructivist paradigm
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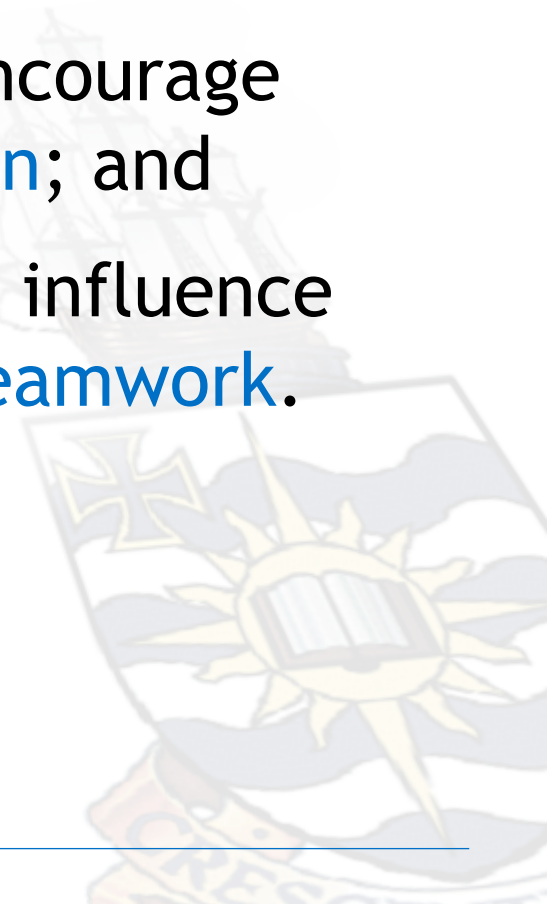
Wikis in Education

Skills Development

- technical literacy
 - content creation in a digital environment
 - creative collaboration
 - consensus building - collective cognition
 - negotiation and conflict resolution
 - creating explicit knowledge from tacit understanding
 - effectively communicating ideas to other people through networked knowledge environments
 - personal and peer reflection
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Study Aims

1. Examine first year students' views about the **flexibility** and **ease of use** provided by wikis;
 2. Assess the extent to which wikis encourage **collaborative learning and reflection**; and
 3. Evaluate the extent to which wikis influence perceptions of **fair and equitable teamwork**.
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Method

Respondents

- 86 first year students

Instrument

- 2 page self-completed questionnaire

Assignment task

- Working in groups of 5-6 over 6 weeks
- Business skills inventory based on
 - 90 job ads
 - secondary sources
- Using *TeamsLX* wiki software embedded in BlackBoard
- Visible to other students after due date & linked to exam question



Transferable Skills

Quick Links

[+Home Page](#)

[+Communication & Interpersonal Skills](#)

[+Teamwork Skills](#)

[+Organisational & Planning Skills](#)

[+Problem-solving Skills](#)

[+Managing & Leadership Skills](#)

[+Graduate Skills](#)

[+Job Advertisements](#)

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Transferable Skills

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[- Table 1.0 - Transferable Skills Matrix](#)

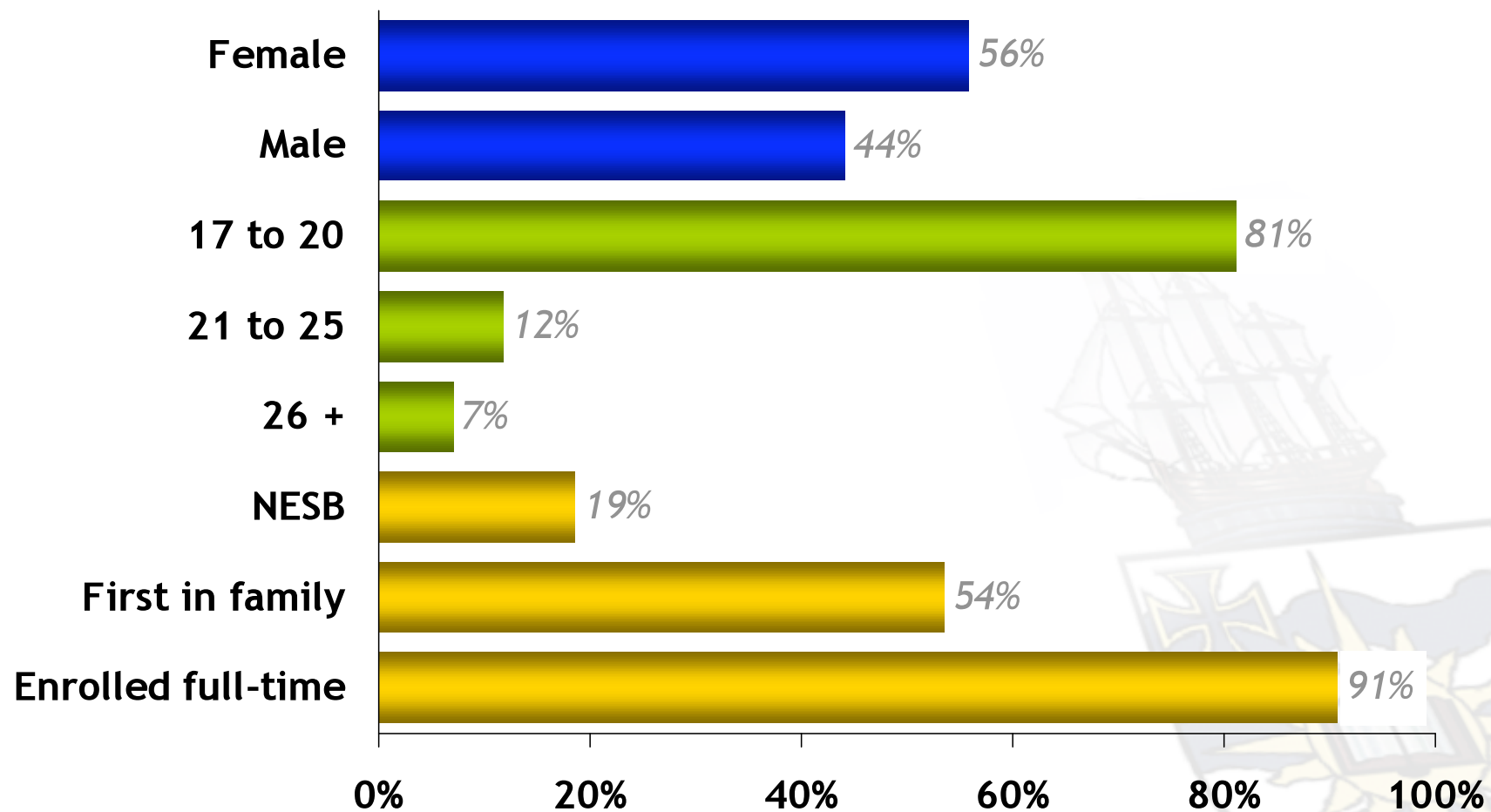
Introduction

Employability in the 21st century is no longer just about knowledge or professional skills; the bar has been raised. Clarke and Patrickson (2008) broadly define employability as the "individual's ability to find a job, retain a job and move between jobs and/or industries should the need arise". This ability is also referred to as 'business skills', 'transferable skills', 'generic skills' and 'soft skills'. The term 'transferable skills' will be used throughout the majority of this Wiki.

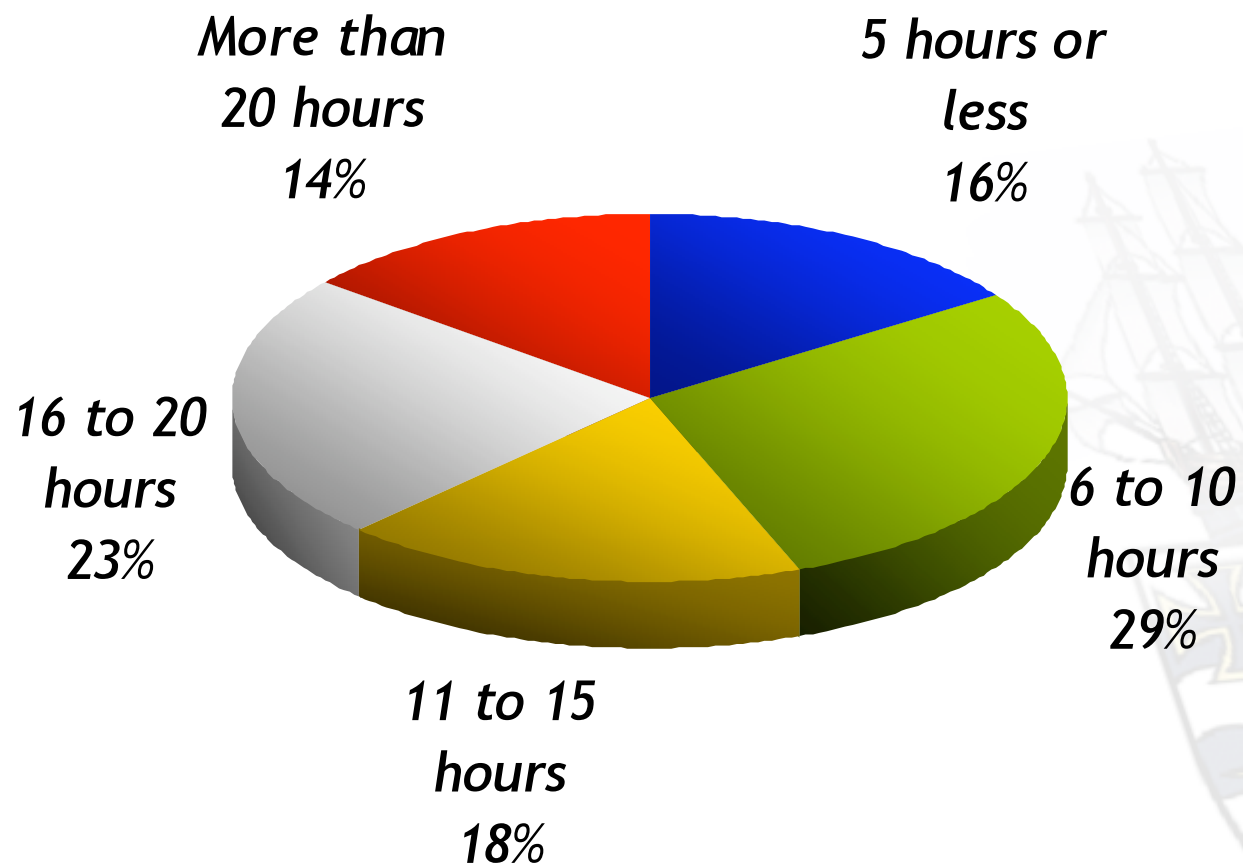
Contemporary challenges in the business world, such as globalisation and the continually changing nature of work, have contributed to this change in attitude to employment. The emphasis is now on transferable skills as these are now considered by employers to be more important than academic qualifications and technical skills. Academic and Government reports, referred to later in this Wiki, confirm this trend. The importance of transferable skills is also related to the level of seniority in a work environment (Pearce 2008).

What are transferable skills?

Results



Results



Aim 1: Flexibility & Ease of Use

Enjoyment and Ease of Use

Mean

The wiki was better than a paper-based team assignment

2.37

The wiki tools were easy to use

2.53

I had no technology problems when using the wiki

2.68

I enjoyed using the wiki in this unit.

2.78

Flexibility

The wiki allowed me to contribute to teamwork at a time and place that was convenient

2.11

The wiki reduced the need for face to face contact with my group

2.41

Aim 2: Collaboration & Sharing

Collaboration	Mean
I felt comfortable about editing the work of other team members	2.63
The wiki helped promote discussion with other team members about tasks required to finish the assessment.	2.72
Using the wiki helped the team develop a better product.	2.80
The wiki enhanced the level of meaningful intellectual exchange between group members and others in the class	2.90
Sharing	
I liked looking at the wiki's of other teams	2.86
Knowing that the wiki would be available to the rest of the class after the due date influenced the way I approached this assessment	3.35

Aim 2: Collaboration & Sharing

Reflecting on progress	Mean
The wiki allowed the me to identify and rectify content errors and problems made by other team members	2.34
The wiki is great for tracking tasks because it keeps all team members informed about progress.	2.43
The wiki made it easy to track and reflect on my progress	2.54
The wiki helped alert me to problems that others were having in my team.	2.65
Using the wiki assisted with my learning.	2.83

Aim 3: Fairness and Equity

Fairness

Mean

The weighting allocated for the wiki assessment was fair

2.54

I would like to see the wiki used like this in other subjects with teamwork.

2.77

Using the wiki helped promote fair and equitable teamwork.

2.80



Student characteristics

- No age differences in mean ratings
- Some gender differences
- Few differences between ESB and NESB
- Few differences between students on the basis of time spent on the task



Summary

- For some students wikis do support the development of creative collaboration & knowledge management skills
 - Personal & peer reflection on progress & quality
 - Some evidence of collective cognition and synergy
 - Structure, synthesis and richness of information
- Very successful as a **flexible learning** task ... anytime, anywhere
- **Staged assessment** might be useful
- Potential for **peer evaluation** of wikis
- Why did some students not engage with the content or collaborate in the virtual space?
 - Individual ownership of pages
 - Time constraints, lack of motivation, lack of technical expertise

