

A User Study Investigating the Information Literacy of Scotland's Teenagers

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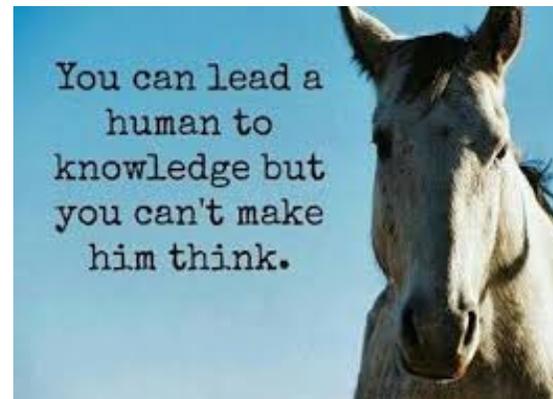
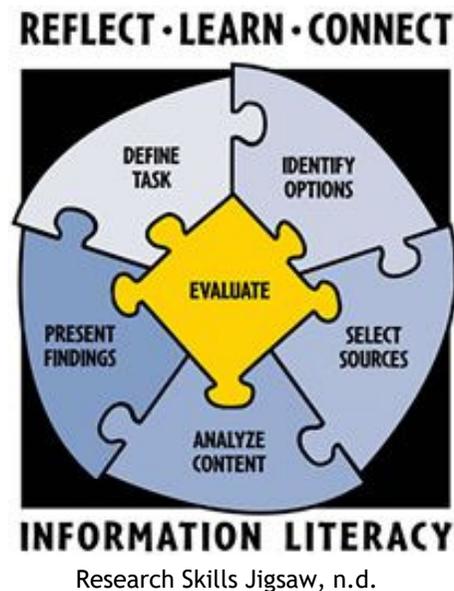
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Introduction

- ▶ IL skills essential to effectively participate in our modern information society.
- ▶ Students introduced to concepts at school and given tasks that require these skills i.e. report writing* ¹
- ▶ It is not enough to provide information, education systems should ensure that today's students are empowered to learn and to take their place in the learning society. ²



77english.com, 2016

1. Eisenberg, 1990
2. Yu, 2006

Related Work

- ▶ ‘... their apparent facility with computers disguises some worrying problems ... young people have a poor understanding of their information needs and thus find it difficult to develop effective search strategies’. ¹
- ▶ pre-university students are unable to construct effective search queries. ²
- ▶ and rarely employ effective search strategies or systemically plan how to find the information they need. ³

1. Nicolas, Rowlands and Huntington, 2008, p.12
2. Harrop, 2012
3. Coiro, 2007

Related Work cont.

- ▶ leading them often to simply cite/copy top-ranked resources without assessing their quality. ¹
- ▶ needs to be countered early on in a child's development as there are questions whether student information behaviours can be changed once they enter Higher Education. ²
- ▶ identifying actual behaviours and performance is imperative
 - ▶ ESOL Post graduates were unable to perceive their performance correctly, often judging high performance when the opposite was true. ³

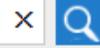
1. Smith, 2007
2. Rowlands, 2008
3. Brazier and Harvey, 2017

Methodology

- ▶ A quantitative analysis of secondary school-aged children's information gathering behavior
- ▶ Triangulated with qualitative assessments of the participants' own assessment (so technically mixed methods!)
- ▶ The study is situated as a simulated work task in which participants are allocated two research topics to write a report on, although in reality they will not be required to write the report.
- ▶ use a bespoke search system to collect a small set of relevant documents for their chosen topic over a time-constrained period.

Methodology cont.

- ▶ Search system based on the TREC AQUAINT collection,
 - ▶ a large set of over a million documents from three large news agencies collected between 1996 and 2000
- ▶ Pre-defined search topics associated with it
 - ▶ Initial 15 topics > 4 topics selected by school representatives (librarian and 2 teachers)
- ▶ Relevance judgements are per-topic evaluations indicating which documents in the collection are relevant
- ▶ Participants fill in pre- and post-task questionnaires to self-assess various elements related to search



Before you begin the next search task shown at the bottom of the page ("tropical storms"), we would like to ask you a few quick questions about it. How much do you agree or disagree with the following: **Don't forget to click the submit button after you've filled out the form!**

I know a lot about this topic already

Disagree Agree

I am interested in this topic

Disagree Agree

It is clear how to complete this task

Disagree Agree

Overall, I think this will be a difficult task

Disagree Agree

I think it will be difficult to find relevant documents for this task

Disagree Agree

I think it will be difficult to decide when I have enough information to complete this task

Disagree Agree

[Submit](#)

Current search task

tropical storms

What tropical storms (hurricanes and typhoons) have caused significant property damage and loss of life?

zing

tropical storm deaths

x



Found 43683 results (0.328 seconds)

Check any you think are relevant



[\(no title\)](#)

Death toll from **Tropical Storm** Mitch increases to 306, officials say....



[Mitch brings disastrous floods: death toll rising](#)

TEGUCIGALA, Honduras (A) _ **Tropical Storm** Mitch sloshed into the heart of Honduras on Saturday, spreading **death** and destruction throughout the impoverished country already...



[Officials fear growing hunger in devastated Central America](#)

. As the official **death** count surged, Mitch re-formed Tuesday as a weak **tropical storm** in the Gulf of Mexico, though its 40 mph (65 kph) winds were a shadow of the 180 mph (290 kph) monster...



[China reports five killed by Babs](#)

SHANGHAI, China (A) _ **Tropical storm** Babs killed five people in southeastern China and caused an estimated 480 million yuan (dlrs 58 million) in damage, the official Xinhua News...



[Tropical Storm Death Toll Increased to 304 in Vietnam](#)

HANOI, November 8 (Xinhua) -- The **tropical storm** hitting southern Vietnam Sunday and Monday has increased the **death** toll to 304, a Vietnamese official said today. ...

Current search task

tropical storms

What tropical storms (hurricanes and typhoons) have caused significant property damage and loss of life?

New topic, please >



Now that you have completed the search task "Antarctica exploration", we would like to ask you a few questions about it. How much do you agree or disagree with the following: **Don't forget to click the submit button after you've filled out the form!**

Overall, I thought this was a difficult task

Disagree Agree

I found it difficult to choose good search keywords to find the right information

Disagree Agree

I found it difficult to find relevant information

Disagree Agree

I found it difficult to decide when I had found enough information

Disagree Agree

I felt I could trust the information I found

Disagree Agree

I felt I could understand the documents I read

Disagree Agree

Current search task

Wildlife Extinction

The spotted owl episode in America highlighted U.S. efforts to prevent the extinction of wildlife species. What is not well known is the effort of other countries to prevent the demise of species native to their countries. What other countries have begun efforts to prevent such declines?

Pilot

- ▶ N = 19
- ▶ Demographics
 - ▶ 53 students - 13/14 y.o.
 - ▶ Students assigned unique ID for post discussion
 - ▶ No other identifiers collected



Topic #353: Antarctica exploration

Identify systematic explorations and scientific investigations of Antarctica, current or planned.

Users: *cb?mdlhf* *kdlm?lab* *fmicgnkg* *fnojihf*

cb?mdlhf issued the following query:

- 🔍 south pole(0)
- 🔍 south pole science study(1)

Took words from the description and thought of similar words

How did you come up with these queries?

kdlm?lab selected the following document:

📄 Bulgaria's Exploration Team Leaves for South Pole
SOFIA, January 9 (Xinhua) -- A 5-member polar prospecting team sent by Bulgaria's Academy of Science set out today for the South Pole, the Bulgarian Telegraph Agency (BTA) reported.
The team, headed by atmospheric physicist Hristo Pimpir...

It's about a team of scientists going to the South Pole

What made you choose this document?

fmicgnkg issued the following query(ies):

Observations

- ▶ Task fatigue apparent after just 1 task
- ▶ Avg. task time in T2 was observed to be lower than T1
- ▶ Engagement was high
- ▶ Attitude was good

Work in progress

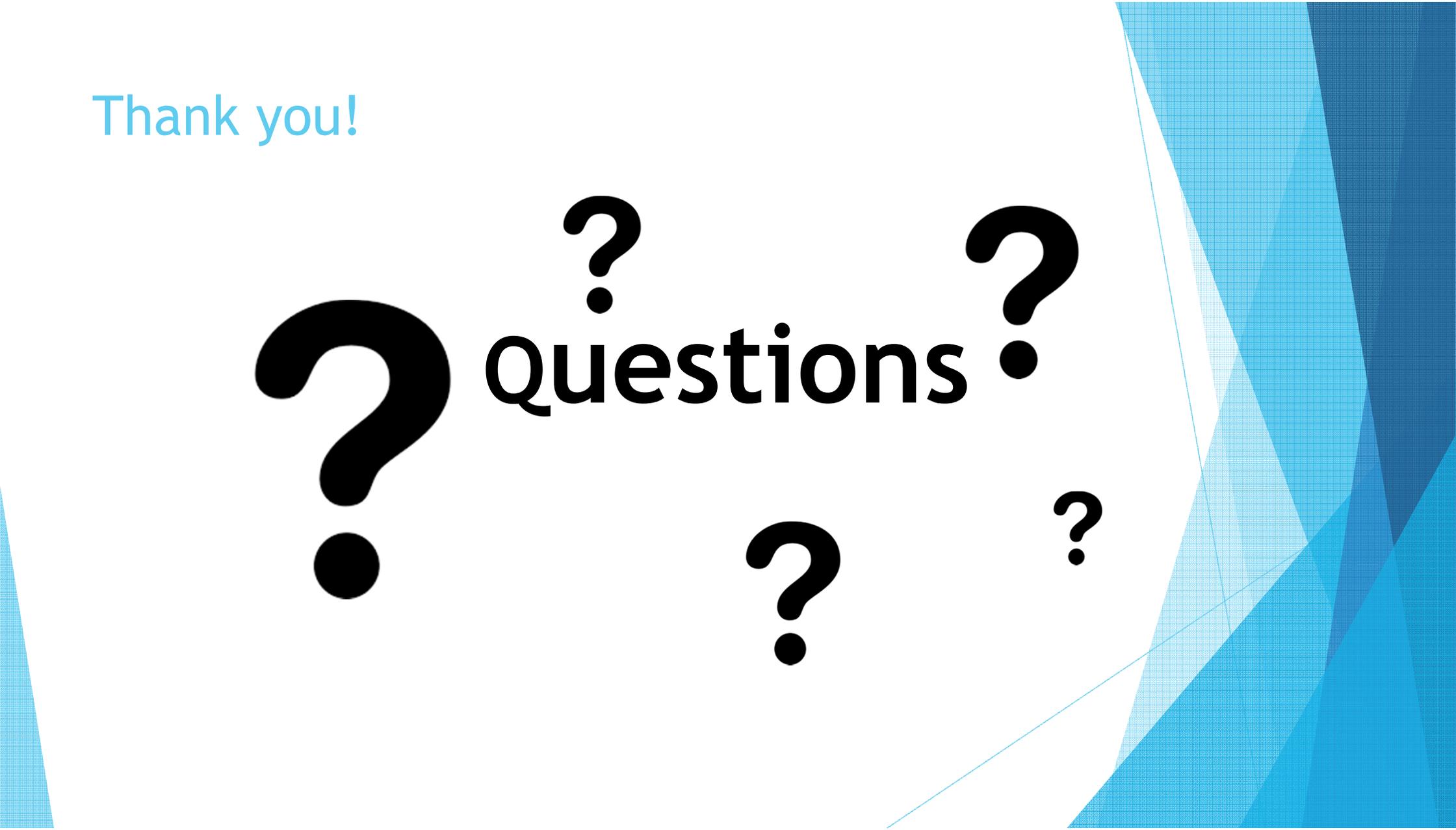
- ▶ Use findings to adapt study design and interface
 - ▶ Task description relocated to more prominent location
 - ▶ Instruction sheet (physical) i.e. browser page, interpret interface
- ▶ N = 100 students
- ▶ 5 x 20 student sessions over 2 days
 - ▶ Pilot study participants not included

Impact

- ▶ Recommendations and guidelines for IL teaching.
- ▶ Inform professional practice.
- ▶ Feedback to participants (pamphlet) for reflective purposes.
- ▶ Academic Publications in the fields of:
 - ▶ Information Literacy;
 - ▶ Information Retrieval;
 - ▶ Education and Pedagogy.

Thank you!

? questions ?
? ?



Refs

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- ▶ Eisenberg, M.B., 1990. *Trends & Issues in Library & Information Science*. Information Resources Publications.
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- ▶ Research Skills Jigsaw. (n.d.). [image] Available at: https://www.sheffield.ac.uk/polopoly_fs/1.214316!/image/research_skills_jigsaw.jpg [Accessed 8 Nov. 2017].
- ▶ Sir77 (2016). Idioms Explained #2: 'You Can Lead a Horse to Water But You Can't Make It Drink'. [image] Available at: <http://77english.com/idioms-explained-2-you-can-lead-a-horse-to-water-but-you-cant-make-it-drink/>. [Accessed 8 Nov. 2017]
- ▶ Smith, 2007
- ▶ Yu, 2006