

A novel OER initiative under University of Delhi's new FYUP:

an investigation into the Pedagogical Impact



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Preamble

-  OERs in teaching-learning process: New approach on learning horizon
-  Focus is on development of cognitive skills vis-à-vis mentoring approaches adopted
-  Dynamic learning, teaching and assessment strategies
-  Engaging, easy, effective and collaborative learning techniques






Background

- ☀ Recently University of Delhi (DU) has shifted to new Four Year Undergraduate Programme (FYUP) from conventional three years
- ☀ All (> 50,000) newly admitted undergraduate students have been given laptops for promotion of E-learning through access to HQOER
- ☀ Laptops are exclusively powered by Ubuntu OS (12.04 LTS) and other freeware include Open Office, Firefox, VLC and Rythmbox
- ☀ Laptops are internet enabled with 40 mbps connections in college

Perceived advantages

- ❏ Overcome barriers to participation, especially those absent in class, employed or differently-abled
- ❏ Another chance to understand classroom teaching for those who did not comprehend it the first time - time versus pace issues
- ❏ Student can be separated from the mentor for a substantial part of the total learning time
- ❏ Students have opportunity to access printed texts or other media, such as video, audio and multimedia, real-time
- ❏ Option for full-duplex communication between the student and mentor

Collateral Advantages

-  Becoming technology enabled at home with more hours spent on accessing OER
-  Moving from abstract theories described in text-book to becoming stakeholders in OER development
-  Opportunity for parents to act as resource persons
-  Simultaneously bolstering the 'technocrat' as well as the 'academic' in the student
-  Internet is expected to help rethink and reorganize the process of knowledge dissemination between education and research

Why OER ?

University of Delhi's take on FYUP using OER

- ❏ Exemplar shift in curriculum with augmented tenure of study
- ❏ Entails training students to possess greater flexibility
- ❏ Develop qualities for autonomous learning
- ❏ Cultivate taste for opening up to wide-ranging career choices
- ❏ Combining knowledge with practical skills

Initiatives taken by DU

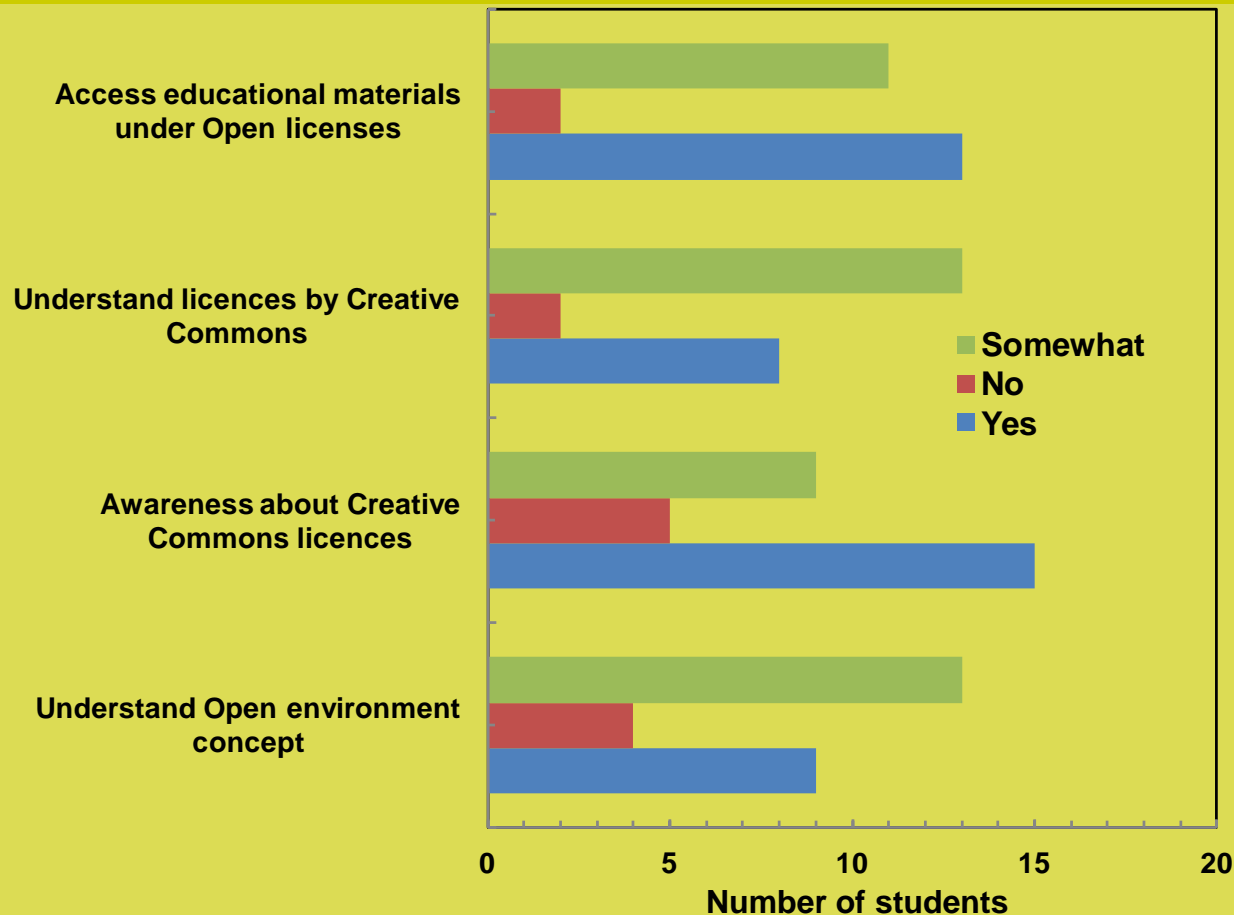
- Introduction of Free and Open Source Software (FOSS)
- Furthering Open Education:** circumventing licence fees or royalties
- An upgraded course content
- Ingenious idea to make students stakeholders in accessing OER
- Popularizing use of OER with pre-incorporated licence for reuse and/or adaptation sans copyright holder's permission
- Policy implementation:** multimedia applications, streaming videos, textbooks or any other media used for teaching-learning process, free for dissemination.

The Study.....

The present investigation seeks to analyze the pedagogical impact of the twin effects

- a) students utilizing internet enabled laptop computers during real-time classroom teaching
- b) using OER content linked with resource based learning so as to leverage both most effectively

Awareness about Open Education

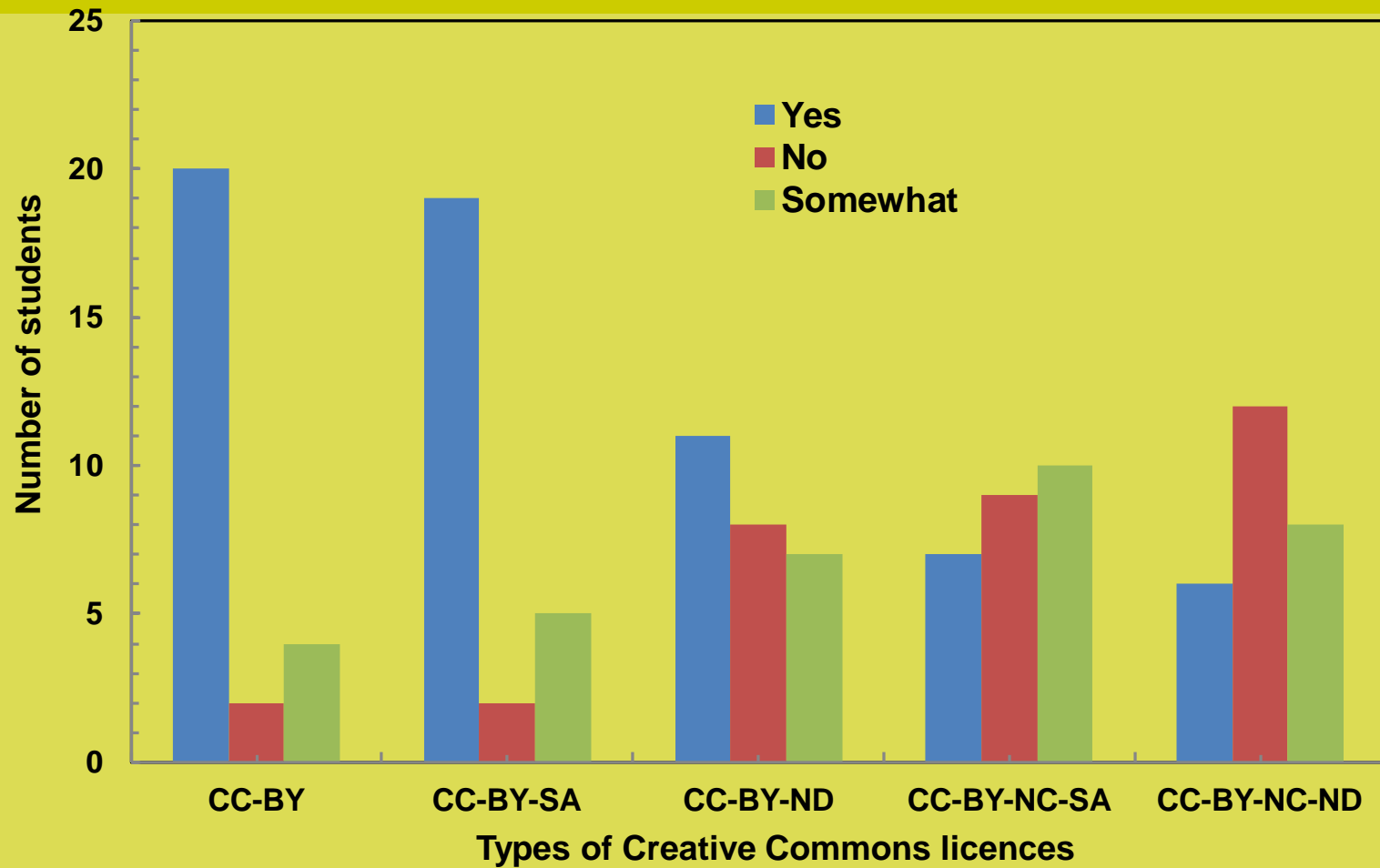


Investigation of access, licences, awareness and understanding of Open education materials

Open Education.....

- © Teaching-learning process under FYUP is seen to be dependent on the availability of information and material content.
- © Students with exposure to HQOER are seen to possess a different take within the existing framework.
- © Students' access to Open educational materials on the internet, associated licences and awareness of Creative Commons are noted to be important.
- © Introduction to HQOER substantially affects their pedagogic approach.

Creative Commons Licences

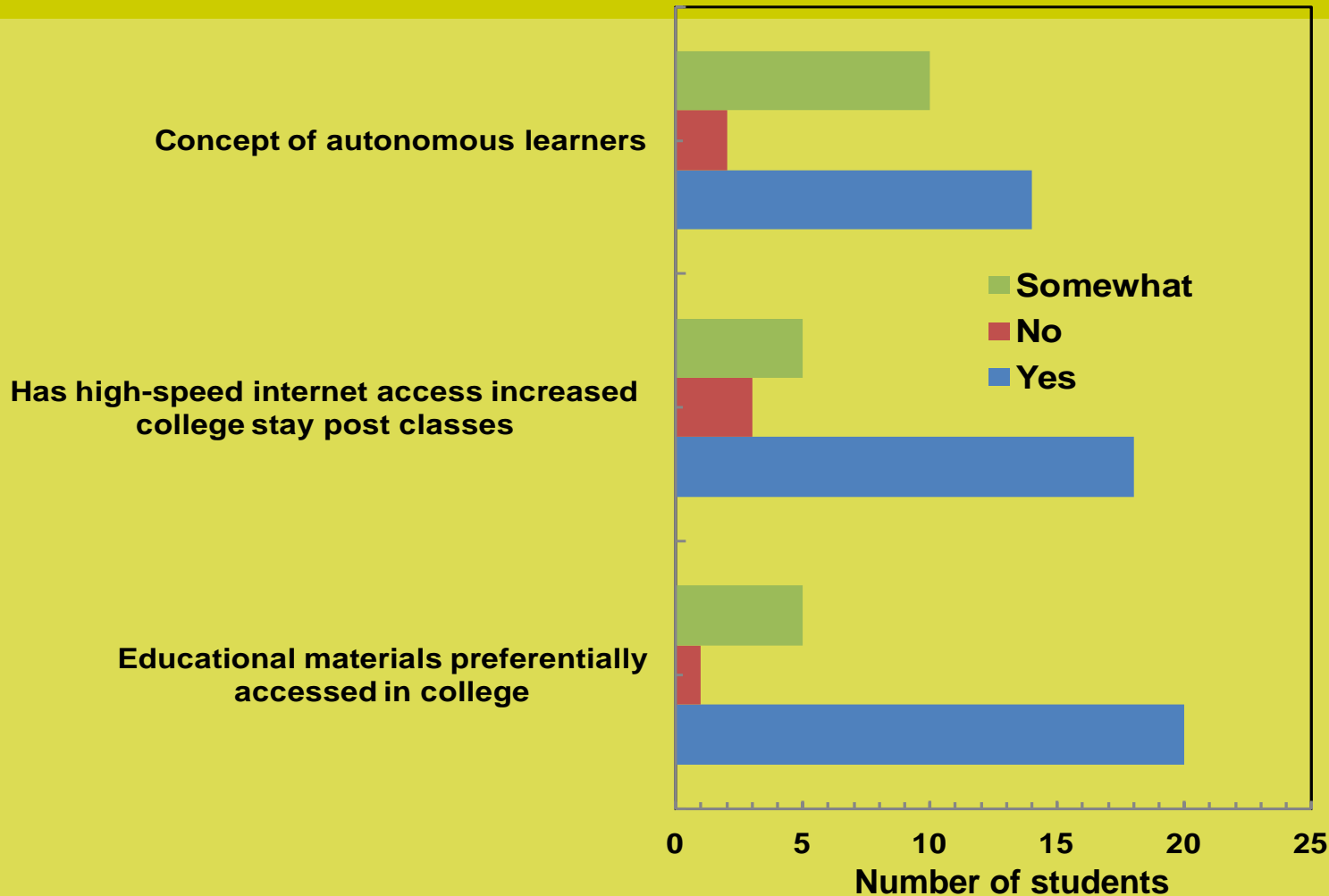


Investigation of awareness about various licences
of Creative Commons

Creative Commons.....

- Students introduced to HQOER gain valuable insight about different types of licences proffered by Creative Commons
- Students become aware about usage of various licensed HQOER materials while preparing assignments & presentations
- Citation of appropriate sources as deemed necessary is followed.
- A fine balance is seen to emerge about usage of copyrighted and OER materials while accessing course materials from world's top sites / universities

Effect of fast internet availability



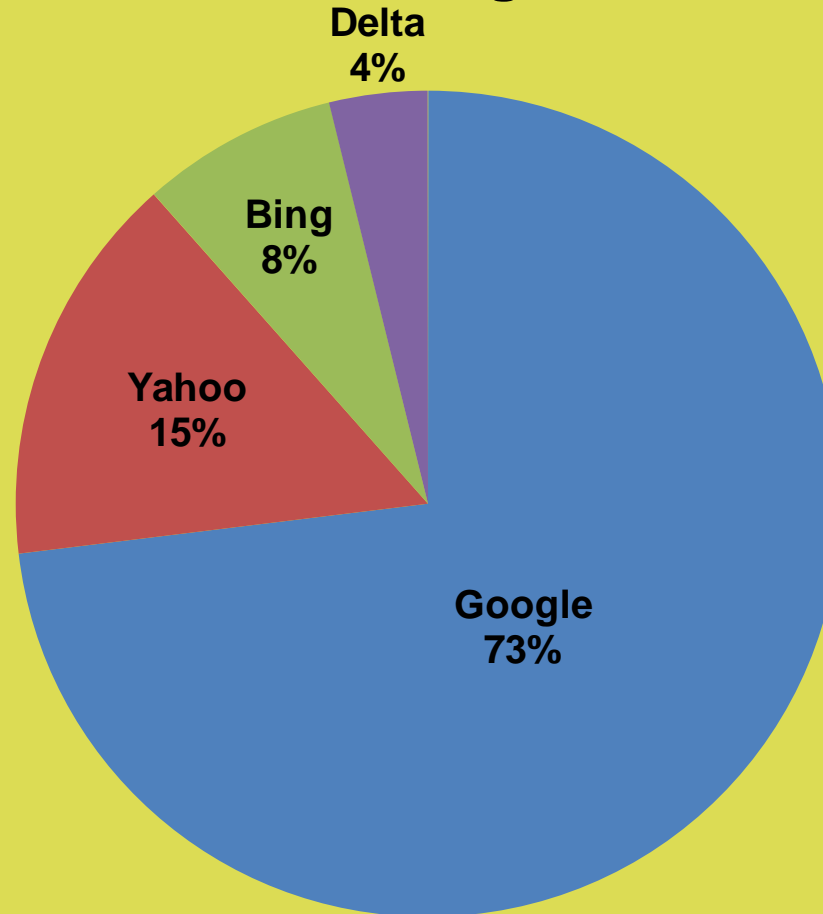
Effect of fast internet access on autonomous learning, past-class stay back and educational material access

Internet Connectivity....

- ✚ Availability of fast internet connection and free software enabled laptops is seen to motivate students embrace the concept of autonomous learning.
- ✚ Autonomous learning is seen to result in stay back by most students post regular college class hours.
- ✚ Traffic on the sites hosting Journals and HQOER material is seen to grow post regular college class hours thereby indicating the following:
 - ❖ Preferential use of the University of Delhi enabled network
 - ❖ Access of the sites by the students in the college premises which otherwise are inaccessible from home

Preferred Search Engine for HQOER

Preferred Search engine for HQOER

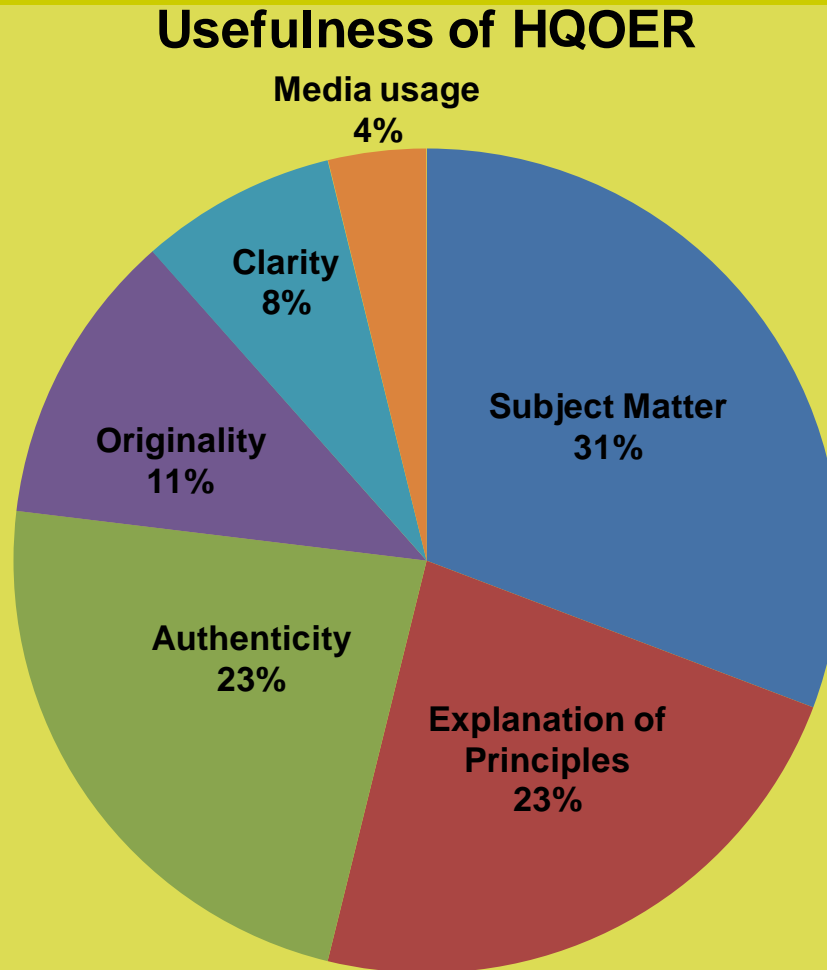


Choice of web-search engine preferred by students for HQOER

Google etc....

- For assignments requiring HQOER students reported using search engines including Google, Yahoo, Bing, Delta etc.
- Google was rated the most preferred search engine by a whopping 73% of the students.
- However, an in-depth investigation indicated that even Google was unable to address requirements for HQOER based content at all times.
- Google was noted to short-list results according to the choice of keywords besides primarily promoting its own affiliates including but not limited to Wikipedia etc.

Usefulness of HQOER



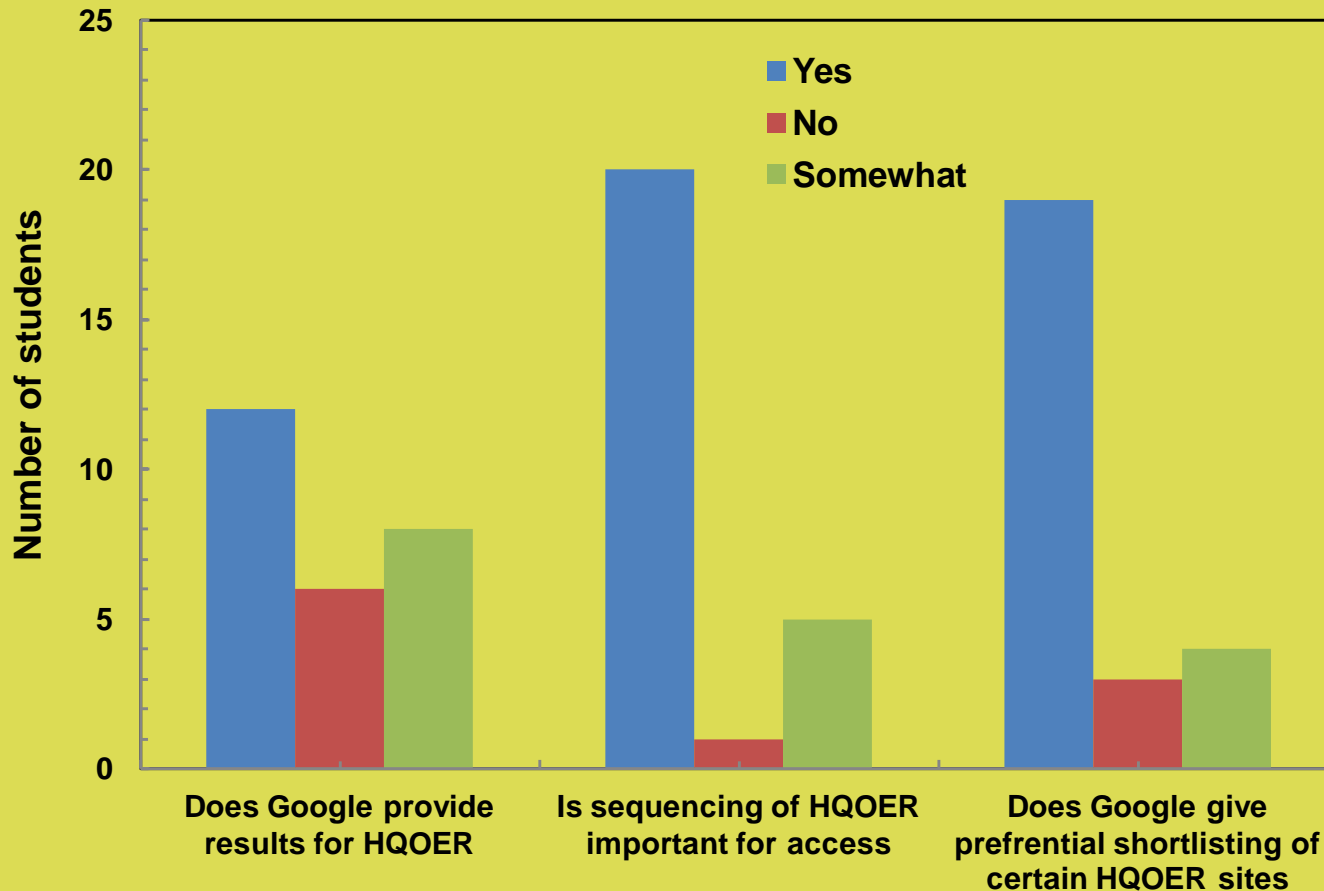
Parameters governing choice of particular HQOER material by students

HQOER choice....

For the students specifically choice of HQOER was found to depend on:

- ✓ Subject matter
- ✓ Explanation of principles
- ✓ Authenticity
- ✓ Originality, clarity
- ✓ Media usage

Effect of listing sequence



Effect of listing sequence and preferential listing of HQOER by Google

Search Results...

- ❑ Sequencing of HQOER material listing by the search engine is seen to majorly influence its use by students.
- ❑ This in turn is seen to be depend on the choice of keywords besides preferential use of a particular search engine.
- ❑ Mismatch with Google search algorithm can relegate a dedicated HQOER hosting site deep down short-listed results.
- ❑ Paucity of time and natural reluctance to skim through all search results leads it to not being accessed.
- ❑ HQOER site is therefore inherently never accessed by students and they make do with whatever content is available in the first few pages

HQOER Harnessing

Harnessing of HQOER is seen to be influenced by:

- Authenticity of the OER material
- Specificity of topic
- Sequencing of HQOER hosting sites

Students notice preferential short-listing of certain sites at the top specially those belonging to a specific conglomerate

HQOER Interface

Need for a dedicated tag and keyword search interface for HQOER

- ❖ Providing widgets and APIs that can be used to insert “more....” recommendations into HQOER pages
- ❖ Allow access to HQOERs and their full-text
- ❖ Allow creation of profiles such that personalized recommendations can be received

Challenges Ahead

Despite OERs being available under Creative Commons licensing

- ❑ Actual adoption and adaptation by another institution wishing to include them in the local context remains a challenge
- ❑ Mentors routinely reuse content however, connecting with OER demands more groundwork
- ❑ Learning objectives in HQOER ought to have clear outcomes and objectives with details of learning resources, activities and assessments
- ❑ License wording ought to be simple and clear-cut preventing multiple interpretations in different countries

Local issues in OER

Content completeness: HQOER re-user may have to remix materials to revise content before it can be redistributed

Relevance of Local content: HQOERs ought to be self-contained with option to customize and include local content

Seamless website navigation: Navigating HQOERs on web becomes difficult because of materials hosted on LMS and truncated addresses linked to local servers

Sources on the web: HQOERs on websites are optimized for web-access and sources are obscure preventing customization

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Thank you
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