# **Possible Sources**

# **Analysis of interactive design elements in a practical application of gamification to learning: Khan academy.**

**Matthew L. Belskie**

Discusses the ways in which educational games and other online interactives (ie. Khan Academy). Their effectiveness is **not** thoroughly discussed.

<http://dc.lib.unc.edu/cdm/ref/collection/s_papers/id/1838>

Students are interested for more in-class lab/activity time, but the traditional lecture method simply doesn't leave enough time for this type of learning

<http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=6481483>

# Online education : learning and teaching in cyberspace

**Greg Kearsley**

Has a multitude of topics, but (chapter 6) would bring up effectiveness.

<http://search.lib.unc.edu/search?R=UNCb3337179> (Davis Library -- 6th floor)

Students have different styles of learning; let passive learning that is already happening in class happen outside out of class, then find the ways student learn the best while in class where teacher attention can be more easily and quickly directed to where it is needed,

Breadth of multimedia resources online make possible the accommodation of different styles of learning

<http://www.tandfonline.com/doi/pdf/10.1080/00220480009596759>

Instructor prep-time can be reduced by using this class method, as they no longer need to prepare a lecture every day. The majority of the work is done by the curriculum planner who gives the instructor a lay out of what the students need to know. The instructor can then make a single video and spend the majority of his time planning in class activities that ground the information for students (tech aided education slide)

<http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=6462428>

After executing an inverted class pilot program in a math and computer science class, 60% of students in the compsci class said that they prefer inverted to the typical class lecture structure

<http://delivery.acm.org/10.1145/2450000/2445236/p113-lockwood.pdf?ip=152.23.48.125&id=2445236&acc=ACTIVE%20SERVICE&key=AA86BE8B6928DDC7%2EB2ED415011FB783D%2E4D4702B0C3E38B35%2E4D4702B0C3E38B35&CFID=580914832&CFTOKEN=27297235&__acm__=1412691054_339dcdb9dbe52a2c91b08bf9f1149153>

Example of teachers using the flipped classroom for more than just science and math classes.

<http://go.galegroup.com/ps/i.do?action=interpret&id=GALE%7CA336620561&v=2.1&u=unc_main&it=r&p=AONE&sw=w&authCount=1>

# E-learning and disability in higher education : accessibility research and practice

**Jane K. Seale**[**http://search.lib.unc.edu/search?R=UNCb7599548**](http://search.lib.unc.edu/search?R=UNCb7599548)

# CQ Researcher

Why do top universities not offer many online education? If degrees from these institutions are valuable, does this mean online education is less valuable (Can computers replace classroom teachers?)?

[**http://library.cqpress.com/CQResearcher/document.php?id=cqresrre2011120200&type=hitlist&num=3**](http://library.cqpress.com/CQResearcher/document.php?id=cqresrre2011120200&type=hitlist&num=3)

Random Sources:

<https://cst.usc.edu/teach/strategies/the-inverted-classroom/>

**Plan of Discussion**

**How an ideal tech-aided education would work**

Classroom in which lesson plans are taught at home (via internet videos and interactives). Discussion and 1-on-1 help happens in the classroom. This is similar to the way in which entry level language classes are taught at UNC. This is known as the Thayer Method and was developed at West Point.

*Examples of Thayer Method:*

Reading at home and discussing reading in class

Watching videos/interactives at home and discussing in class

Listening to a recorded lecture at home and asking questions and doing examples in class.

**Computer games and interactives:**

Belskie’s thesis and CQ researcher.

Sal Khan discusses his product Khan Academy, and what it provides.

<http://online.wsj.com/articles/SB10001424052748704101604576248713420747884>

**Downfall of e-learning:**

As the CQ researcher stated, top universities do not offer many online programs, implying that an online education is less valuable than a conventional one. Probable reasons for this include the amount of effort needed to produce and online course as compared to a traditional one. It can be predicted that if online education continues to expand, you will have two distinct groups of educators: *“Within a few decades, teachers may be sharply divided into an elite class of professionals who are savvy at both technology and teaching and a second, less-prestigious group who act more or less as babysitters, managing students in classrooms”*

Educators must be available for 1:1 discussion and interaction with the students in person, which is why many online classes are not valued in the same way that conventional education is. For large classes, the inverted classroom loses some of its benefits. Without the 1 on 1 attention that comes from inverting a smaller classroom, it may seem pointless for students in lecture size classes as they don’t get one of the biggest benefits of more attention during the learning process.

Although with climbing student-teacher ratios (especially in k-12 education), many teachers are being forced to use online educational tools.

*Main Point*  -- 1-on-1 education is the most effective form of learning, however this is not economically feasible.

**Future of Tech-Aided Education**

Major obstacles in the way of digital conversion in schools

<http://www.statista.com/statistics/273357/obstacles-in-the-way-of-content-specific-digital-conversions-at-us-schools/>

Look at the tables to see the extreme growth in smart device access (tablet, smartphone, etc.)

<http://www.tomorrow.org/speakup/pdfs/SU12EducatorsandParents.pdf>

Teachers can spot gaps in knowledge quickly through technologies like Khan Academy (Thompson, 182) (Pros of digital flipped classroom model)

Reduced instructor prep-time; pre-determined curriculum, video(s) for each topic, in-class time saved for interactive learning (Herold, Lynch, Ramnath, Ramanathan, 5) (Promises of tech-aided education)