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research

[plural] 1 serious study to discover new facts

research into the student's lab
David Wooff
Principal Lecturer
(Quality Assurance and External Engagement)

10th October 2018
Research Fundamentals
By the end of this session you should be able to:

- Understand some of the reasons why researchers undertake research!
- Give reasons why teachers (and trainee teachers) should engage in research
- Determine the academic rigor of research (and other published materials)
- List limitations of research you might encounter as students, trainee teachers and qualified teachers
Why Bother?

Teacher research is practical, action-based research. It enables educators to follow their interests and their needs as they investigate what they and their students do. Teachers who practice teacher research find that it expands and enriches their teaching skills and puts them in collaborative contact with peers that have a like interest in classroom research. Some researchers call this type of research "action research."

Mills (2002)
Task 1

Teacher-research projects often yield findings and implications that result in ..........?

(Complete the sentence)
* Increased sharing and collaboration across departments, disciplines, and grade levels.

* Increased dialogue about instructional issues and student learning.

* Enhanced communication between teachers and students.

* Improved performance of students.

* Revision of practice based on new knowledge about teaching and learning.

* Teacher-designed and teacher-initiated staff development.

* Development of priorities for school wide planning and assessment efforts.

* Contributions to the profession's body of knowledge about teaching and learning (subject pedagogies)
What about trainee teachers?

• Beginning teachers can improve their decision making by making use of a range of evidence sources, search strategies and personal research.

• Personal experience alone is insufficient for making complex teaching choices partly because we are easily fooled (more about this later!)
What about trainee teachers?

....and of course as students, there is the necessity of undertaking research for academic purposes.

In other words – Assignments!
What about experience?

“I’ll believe it when I see it!”
When things become complex: Correlation Error?

Smokers' kids 'are yobs'

CHILDREN whose parents smoke are more likely to binge drink, skip school, take drugs and have sex, it was claimed today.

The conclusion was made after a study of more than 830 teenagers.

They were quizzed about their attitudes to school, HIV, drugs, and drink driving, and asked whether they had vandalised, stolen, had sex, taken drugs or binge drunk in the past week.

The study found that children of parents who smoke had far worse problem behaviour than children from non-smoking homes.

These ranged from binge drinking, drug experimentation, truancy and theft to vandalism, fighting and under-age sex.
Task 2

As the sale of Ice Cream rises so does the rate of burglaries……

Why?
Mid-West USA

Sale of Ice Cream  
Correlation Model  
Forest Fires

$100
$50
$25

Dec  Jan  Feb  March  April  May  June  July  Aug  Sep  Oct  Nov

Time

24.0
12.0
6.0
“Patternicity” – The tendency to find meaningful patterns in meaningless noise. (Shermer, M., 2010)
Strike-hit school governor blames pupil anarchy... on wind and rain

By Jaya Narain
Last updated at 7:34 PM on 6th April 2011

A school struggling with a wave of verbal and physical assaults by pupils says there is a perfectly rational explanation for their dreadful behaviour - the wind and the rain.

(Narain, J., 2011)
Greater Uncertainty = Greater False pattern matching

=superstition

(Shermer, M., 2010)
Uncertainty increases pattern matching errors.

Implications for beginning teachers (uncertain)

Beware false pattern matching

– importance of mentor role.
Skinner’s superstitious pigeons – entirely random rewards resulted in:

Bird 1 -- made counter clockwise turns in the cage, made two to three turns between reinforcements.
Bird 2 -- thrust its head into one of the upper corners of the cage.
Bird 3 -- Tossing response as if placing its head beneath an invisible bar and tossing it up.
Birds 4&5 -- pendulum motion of their heads and body -- head was extended forward and swung from right to left with a sharp movement followed by a somewhat slower return.
Bird 6 -- brushing movements directed toward but not touching the floor.
So why the differences?
IT'S POP QUIZ TIME
Rules

Get a piece of paper (and a pen/pencil!)

Numbers 1 to 10 down the left

Mark answer next to the number (True /False)

Which of the following statements are based on published research?
1. Children are less attentive after sugary drinks and snacks
2. Environments that are rich in stimulus improve the brains of pre-school children
3. Vigorous exercise can improve mental function
4. Short bouts of coordination exercises can improve integration of left and right hemispheric brain function
5. Differences in hemispheric dominance (left brain, right brain) can help explain individual differences amongst learners.
6. There are no critical periods in childhood after which you can’t learn some things, just sensitive periods when it’s easier.
7. Individual learners show preferences for the mode in which they receive information (e.g. visual, auditory, kinaesthetic)
8. Regular drinking of caffeinated soft drinks reduces alertness
9. Individuals learn better when they receive information in their preferred learning style (e.g. visual, auditory, kinaesthetic)
10. Drinking less than 6-8 glasses of water a day can cause the brain to shrink
3. Vigorous exercise can improve mental function

6. There are no critical periods in childhood after which you can’t learn some things, just sensitive periods when it’s easier

7. Individual learners show preferences for the mode in which they receive information (e.g. visual, auditory, kinaesthetic)

8. Regular drinking of caffeinated soft drinks reduces alertness
Conclusions: In the absence of formal training, trainee teachers acquire their own ideas about brain function, many of which are potentially detrimental to their practice as teachers.

(Howard-Jones et al, 2009)

Research which tells us about the importance of ... Research.
How would you define “Research”?
What research have you read recently?

How did you conduct your most recent research?
What is “Research”? 

**research.** 1.a. the **systematic investigation** into and study of materials, **sources**, etc, in order to establish facts and reach **new** conclusions.

b. an endeavour to discover new or collate old facts etc by the scientific study of a subject or by a course of **critical investigation**.

[Oxford Concise Dictionary]
Good researchers are...
Good researchers are...
Memory – organised
Positive & inquisitive
Focussed – know what they are looking for
Good researchers are...

- Objective
- Tenacious
- Dedicated
- Interested – passionate
- Open minded
- Confident

Knowledgeable about research methods and their field
Ethical & caring
Not dismissive of alternative viewpoint
Creative
Focused
Realistic
Dispassionate?
“I do remember one formative influence in my undergraduate life.

There was an elderly professor in my department who had been passionately keen on a particular theory for, oh, a number of years, and one day an American visiting researcher came and he completely and utterly disproved our old man’s hypothesis. …
The old man strode to the front, shook his hand and said, “My dear fellow, I wish to thank you, I have been wrong these fifteen years”.

And we all clapped our hands raw.

That was the scientific ideal, of somebody who had a lot invested, a lifetime almost invested in a theory, and he was rejoicing that he had been shown wrong and that scientific truth had been advanced.”

Richard Dawkins
The Value of Research – for teachers

Making choices
Improving practice
Trying new things - innovation
Task 3 (Well it’s a question really!)

Which Learning Style best describes the most effective way you learn?
“Within six weeks, I promise you, kids who you think can’t learn will be learning well and easily... The research shows that every single time you use learning styles, children learn better, they achieve better, they like school better.”

Rita Dunn, quoted by O’Neil (1990, 7) in Coffield (2004: 36)

“[...] after more than 30 years of educational research into learning styles there is no independent evidence that VAK, or indeed any other learning style inventory, has any direct educational benefits, suggesting valuable time and resources are being wasted.” Greenfield S (2007)
Specific Research
Described Methodology
Robust & Valid

Should we be using learning styles?
What research has to say to practice

Learning style instruments are widely used. But are they reliable and valid? Do they have an impact on pedagogy? This report examines 13 models of learning style and concludes that it matters fundamentally which model is chosen. Positive recommendations are made for students, teachers and trainers, managers, researchers and inspectors.

What should we spend our time doing?

Everything is an improvement

—Resources are limited — especially

Teacher Time!
# Formative Assessment

<table>
<thead>
<tr>
<th>Sharing Assessment Criteria</th>
<th>Effective Questioning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effective Feedback</td>
<td>Pupil Peer &amp; Self-evaluation</td>
</tr>
</tbody>
</table>
Inside The Black Box

Specific Questions:
1. Is there evidence that improving formative assessment raises standards?
2. Is there evidence that there is room for improvement?
3. Is there evidence about how to improve formative assessment?

YES!
Influential?

[BOOK] Inside the black box: Raising standards through informed teaching
P Black, D Wiliam - 2005 - books.google.com
Inside the Black Box is written by the leading figures in educational assessment and research. It indicates that effective formative assessment has a huge impact on student learning. [99] Cited by 6708
Related articles

Inside the black box
School of Education
“BREAK TIME”
Question:
How do we get better marks in academic assignments?

How do we make good decisions about teaching strategies and what we do in the classroom?

(One possible) answer:
Read (and make use of) “Good Stuff”
Next Question:
What do we mean by read (and make use of) “Good Stuff”?

We are entering the territory of the “Literature Review”
Why do a Literature review?
Why do a Literature review?

What is important?

Formative and Summative Assessment

Lambert and Lines
Assessment Reform Group
QCA
Black et al
Why do a literature review?

Consensus
What is known / agreed?
Why do a Literature review?

Disagreement / debate
To what extent? Balanced?
“Within six weeks, I promise you, kids who you think can’t learn will be learning well and easily... The research shows that every single time you use learning styles, children learn better, they achieve better, they like school better.”

Rita Dunn, quoted by O’Neil (1990, 7) in Coffield (2004: 36)

“[…] after more than 30 years of educational research into learning styles there is no independent evidence that VAK, or indeed any other learning style inventory, has any direct educational benefits, suggesting valuable time and resources are being wasted.” Greenfield S (2007)
Why do a Literature review?

Similarities

Differences

Your work
Experts in different subject disciplines have different usage patterns and preferences for print or electronic [resources]. There is no one right solution for services or system design for every subject discipline.
• Both faculty and students use and like electronic resources and most readily adopt them if the sources are perceived as convenient, relevant, and time saving to their natural workflow.
• Users will read articles from a wide variety of journal titles and sources if available to them, although most of the readings come from relatively few journals.
• College and high school students use the Internet more than the library for research, and many believe they are more expert at searching than their teachers.
• Students exercise some quality judgments about materials they retrieve from the Internet, but **those quality judgments may not exactly match faculty members’ criteria for quality.**

(Tenopir, 2003)
It's Okay to Be Different
Where might we begin our search?
Methodologies

Methods

Literature Review

Topic

Subject
Authority, Personal Bias, Commercial Bias and ‘Attractive’ Ideas

Question: Is VAK a useful tool?
Free VAK visual auditory kinesthetic learning styles test questionnaire
www.businessballs.com › self/personal development

VAK Visual Auditory Kinesthetic learning styles free test for self assessment of learning style, and measurement of personal or employee learning styles.

Multiple intelligences - howard gardners multiple intelligences ...
www.businessballs.com › human resources

... interpretation according to the needs of the situation. In addition to ...

Show more results from businessballs.com

VAK
www.brainboxx.co.uk/a3_aspects/pages/VAK.htm

VAK. (Visual-Auditory-Kinaesthetic), Returns to this page, Return to MAIN (index) page. Probably because of its simplicity and practicality, VAK theory is widely ...

Visual, Auditory, and Kinesthetic Learning Styles (VAK)
www.nwlink.com/~donclark/hrd/styles/vakt.html

29 May 2000 – The VAK learning style uses the three main sensory receivers: Visual, Auditory, and Kinesthetic (movement) to determine the dominant learning ...

Vak - Wikipedia, the free encyclopedia
en.wikipedia.org/wiki/Vak

VAK or Vak may refer to: Vāk, Hindu goddess of speech; VAK (Visual Auditory Kinesthetic), a system of learning styles in NLP (neuro-linguistic programming) ...
Q. What’s wrong with Business Balls?

Howard Gardner’s multiple intelligence theories model, free multiple intelligences tests, and VAK learning styles

The Multiple Intelligences concepts and VAK (or VARK or VACT) learning styles models offer relatively simple and accessible methods to understand and explain people’s preferred ways to learn and develop. Occasionally well-intentioned people will write that the use of such models and tests is wrong because it ‘pigeonholes’ people, and ignores the point that we are all a mixture of styles and preferences, and not just one single type, which is true. Please remember that over-reliance on, or extreme interpretation of, any methodology or tool can be counter-productive.

In the case of the Multiple Intelligences model, and arguably to greater extent VAK (because VAK is such a simple model), remember that these concepts and tools are aids to understanding overall personality, preferences and strengths - which will almost always be a mixture in each individual person.

Therefore, as with any methodology or tool, use Multiple Intelligences concepts, VAK and other learning styles ideas with care and interpretation according to the needs of the situation.

In addition to the VAK guide below, further VAK detail and VAK tests are available on the VAK tests page.

multiple intelligences theory

Howard Gardner’s Multiple Intelligence Theory was first published in Howard Gardner’s book, Frames Of Mind (1983), and quickly became established as a classical model by which to understand and teach many aspects of human intelligence, learning style, personality and behaviour - in education and industry.

Howard Gardner initially developed his ideas and theory on multiple intelligences as a contribution to psychology, however Gardner's theory was soon embraced by education, teaching and training communities, for whom the appeal was immediate and irresistible - a sure sign that Gardner had created a classic reference work and learning model.
VAK
(Visual-Auditory-Kinaesthetic)

Probably because of its simplicity and practicality, VAK theory is widely recognised by teachers - particularly those who advocate Accelerated Learning techniques - but the idea that we receive information via different "modalities" has been around considerably longer than that and can be traced back to the work of Grace Fernald ("Remedial Techniques in Basic School Subjects") who promoted kinaesthetic learning techniques; Samuel Orton's work on dyslexia; Anna Gillingham's subsequent work on developing multisensory approaches; and the holistic educational philosophy of Maria Montessori.

Normally, we each have five senses. There is an increasing realisation that we respond subconsciously to our sense of smell. Aromatherapy is based on the principle that aromas can help to create mood. More simply, manufacturers of household products usually try to make them "smell nice". More subtly, perfumers make a living from concocting alluring and enticing odours. Recent research has shown that men and women produce pheromones (body odours) that enhance their attractiveness to the opposite sex in myriad subtle ways.

Similarly, our sense of taste is very important to us and is one of the first to be developed in the young. It is one of the reasons why babies put everything in their mouths (although they also use their mouths as a kinaesthetic sensory organ). Nevertheless, we do not normally associate our senses of smell and taste as being useful for communication purposes - leaving us with three methods (or modes) of receiving and processing information. This is often referred to as the VAK model.

Each of us has a natural preference for the way in which we prefer to receive, process and impart information. This is largely genetically determined but is also susceptible to development, particularly when we are young (whilst our neural pathways are still being established). There are various ways in which preferred processing modes become apparent and some simple ways in which we can enhance the effectiveness of our communication once we are aware of them. One way to detect a person's preferred processing mode is to watch their eye movements, particularly when they are thinking or answering a question.

Of course, in practice, it is not quite as simple as this. Additional factors affect eye movements - such as whether the person is trying to recall real or imaginary circumstances (in other words, are they telling lies?)
Authority, Accountability and Bias
Sources of data

A School Ofsted Report
- Primary
  - Reports
  - Theses
  - Emails
  - Conference reports
  - Company reports
  - Some government publications
  - Unpublished manuscripts

General Ofsted Report
- Secondary
  - Newspapers
  - Books
  - Journals
  - Internet
  - Some government publications

- Tertiary
  - Indexes
  - Abstracts
  - Catalogues
  - Encyclopaedias
  - Dictionaries
  - Bibliographies
  - Citation indexes

Increasing level of detail
Increasing time to publish

Saunders, Lewis and Thornhill, Third Edition

Authority, Accountability and Bias
## Appendix 2: Databases, web sites and journals used

### Abstract databases:
- ASSIA: Applied Social Sciences Index and Abstracts (CSA Illumina)
- Australian Education Index (Dialog DataStar)
- British Education Index (Dialog DataStar)
- Computer and Information Systems Abstracts (CSA Illumina)
- Educational Research Abstracts Online
- ERIC (CSA Illumina / Dialog DataStar)
- Social Sciences Citation Index (Web of Knowledge)

### Full-text databases:
- ACM Digital Library
- Cambridge Journals
- EdITLib Digital Library for Information Technology and Education (AACE)
- Emerald
- IEEE Xplore
- Informaworld
- Ingenta Connect
- MetaPress
- SAGE Full-text Journal Service
- ScienceDirect
- SpringerLink
- Teacher Reference Centre (EBSCO Host Research Databases)
- Wiley InterScience

### Other services:
- BUBL Education (bubl.ac.uk/Link/e/educationlinks.htm)
- Directory of Open Access Journals (www.doaj.org/)
- Education-line (www.leeds.ac.uk/bei/)
- Google Scholar (scholar.google.co.uk)

### Journals:
- ALT-J (Informaworld)
- British Educational Research Journal (Informaworld)
- British Journal of Educational Technology (Wiley Interscience)
- Computers & Education (ScienceDirect)
- Computers in the schools (Informaworld)
- Distance Education (Informaworld)
- E-Journal of Instructional Science and Technology (http://www.usq.edu.au/e-JIST/)
- E-Learning (http://www.wwwords.co.uk/elea/)
- Educational Media International (Informaworld)
- Educational Technology Research and Development (SpringerLink)

### Web sites:
- BBC (www.bbc.co.uk)
- Becta (www.becta.org.uk)
- CERUK (www.ceruk.ac.uk)
- DCSF (www.dcsf.gov.uk)
- DENI (www.deni.gov.uk)
- E-learning alliance (www.elearningalliance.org)
- The elearning network (http://www.elearningnetwork.org/)
- European Commission (cordis.europa.eu/home_en.html)
- European SchoolNet (www.eun.org/portal/index.htm)
- Futurelab (www.futurelab.org.uk)
- The Guardian (education.guardian.co.uk/elearning/)
- The Innovation Unit (www.innovation-unit.co.uk)
- JISC e-learning focus (www.elearning.ac.uk/)
- LTS (www.lts.scotland.org.uk)
- NAACE (www.naace.org)
- NFER (www.nfer.ac.uk)
- QCA (www.qca.org.uk)
- Schoolnet Global (www.schoolnetglobal.com)
- TDA (www.tda.gov.uk)
- Teacher Training Resource Bank (www.ttbrc.ac.uk)
- The TES (www.tes.co.uk)
- UFI (www.ufi.com/home/default.asp)
- UNESCO (www.unesco.org)
- Uniservity (www.uniservity.com)

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Note the mix of sources. Do they seem “authoritative / academic?”

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**Whitton (2009)**

Review of the Research Literature on the Impact of Multimedia Revision Web Materials Report for the BBC
The Upper Peninsula War (1843-1844, also known as the Canadian - Michigan War) was the conflict between the State of Michigan and Canada over a disputed territorial line in the Upper Peninsula, which led to a secession attempt by the governor of Michigan, Epaphroditus Ransom. The boundary dispute arose out of ambiguous and conflicting mappings of the region, which set the St. Mary’s River through, what is known now as the Upper Peninsula. Governor Ransom feared that the Canadian government would attempt to reclaim sovereignty over the Upper Peninsula. He also feared threats from U.S. President John Tyler to remove him from office. These two political insecurities lead to a brutal crackdown on Canadian residents of Michigan and Ransom’s declaration of independence titled 'The Cause for Independence'.

The disputed boundary line was set shortly after the War of 1812. During the war of 1812 British Troops captured what was then the Michigan Territory and sovereignty of the territory was briefly returned to Upper Canada. Control of the territory was only restored to the United States after the Treaty of Ghent, which implemented the policy of "Status Quo Ante Bellum" or "Just as Things Were Before the War". However, true sovereignty of the Upper Peninsula and the islands in the St. Clair River remained contested. After Michigan was awarded the Upper Peninsula as a consolation for its losses in the Toledo War, the issue of sovereignty was reignited.

In 1840, when large mineral deposits (copper and iron) were discovered in the area, French-Canadians began to migrate to the region en masse. Some French-Canadian separatists began to secretly fund the new immigrants to the region — organizing them into regional militias. Michigan Governor Epaphroditus Ransom feared, after being informed of the secret militia funding that the Canadian government was attempting to annex the region. On February 25, 1843, Governor Ransom mobilized a militia force to move into the region. He ordered the militia commanders to crackdown on all Canadian citizens and secure the Upper Peninsula borders against a full-fledged Canadian incursion. This troop mobilization lead to a brutal crackdown in the Upper Peninsula — specifically in the towns of St. Ignace (on the south-western edge) and Rudyard (on the eastern border). The conflict was only ended with the capture of Governor Ransom by federal troops on April 1, 1843.

 Origins
With the passing of the Act of Union (1840), by the Parliament of the United Kingdom, Upper Canada and Lower Canada where joined into the Province of Canada. With the proclamation of the act, on February 10, 1841, Upper Canada and Lower Canada became, respectively, Canada West and Canada East. This was the beginning of the implementation of Lord Durham's Report. In 1838, Lord Durham was assigned the task of investigating the causes of the Rebellions of 1837-1838. The problem, Durham concluded, was essentially animosity between the British and the French inhabitants. For
The COMPLETE KĀMA SŪTRA

The First Unabridged Modern Translation of the Classic Indian Text

Translated by ALAIN DANIÉLOU
Alan Titchmarsh is latest victim of Wikipedia pranksters

Alan Titchmarsh has become the latest victim of Wikipedia pranksters who claim he has published a version of the Kama Sutra.
The TV gardener's entry on the web encyclopaedia also falsely states that he is trustee of a charity called Gardens for Squats.

The roots of the hoax could lie with an award Titchmarsh once won with one of his novels for the worst sex scene in a book.

But he denied the suggestion he had devoted a work to sexual positions as "embarrassing and wrong".

Titchmarsh said: "I know about the Wikipedia entry. It's full of wrong facts".

To conclude Titchmarsh stated: "I do not have a new version of the Kama Sutra being published!"
What is the value of books? How will you judge their worth?

Paperback – 19 May 2016

by Clare Christian (Author)

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It has never been easier to self-publish your book but it is sometimes hard to know where to start. In A Simple Guide to Self-Publishing, publisher and publishing consultant Clare Christian offers clear and comprehensive guidance on how to do it and do it well.

From deciding the best route for you, to choosing the right editor, to actual publication, Clare talks you through the different stages, giving sound advice and flagging up potential pitfalls along the way.
What is the value of newspapers / outlets?

Water coolers to help pupils think

A campaign has been launched in Yorkshire schools to encourage children to drink more water to increase their concentration.

Studies have found that children who are dehydrated do not work as well in the classroom as those who have drunk the recommended eight glasses of water a day.

Yorkshire Water has run a pilot project in Leeds in which water coolers were put in three schools.

There was a significant increase in the amount of water the children drank and the company now plans to put the coolers in every primary school in Yorkshire over the next three years.

The time has come to take the tap water out of the toilets

Kevin White
Yorkshire Water
Meanwhile, a review of research into learning styles by the Government's ICT-in-education agency Becta offers a similar warning, claiming that "there is no secure evidential base to support any one theory". Or, as Professor Guy Claxton of the University of Bristol puts it, the idea of children having different learning styles is based on "neuro-babble and phoney science". (Hastings, 2005).
Improving your Literature Search

**VAK or VAK-uous? Towards the trivialisation of learning and the death of scholarship**
J Sharp, R Bowker... - Research Papers in Education, 2008 - ingentaconnect.com
... Against this background, and in this position article, we consider the recent rise in interest in the concept of learning styles as VAK (visual, auditory, kinaesthetic) in primary schools in England and Wales and begin to identify and interrogate some of the more unorthodox claims ...
Cited by 9 - Related articles - All 7 versions

**Learning styles**
M Conner... - Retrieved November, 2000 - communityhealthcorps.org
... book addresses. VAK=Visual/Auditory/Kinaesthetic, VAK+ refers to models that look at VAK + other modes, MI=Multiple Intelligences, MS=Mind Styles, MBTI=Myers Briggs, PG=Psycho-Geometrics, LS=Learning Styles Indicator ...
Cited by 12 - Related articles - View as HTML

**Neuromythologies in education**
J Geake - Educational Research, 2008 - Taylor & Francis
... and Brain Gym. Prominent examples of neuromythologies of the latter include: left- and right-brained thinking VAK (visual, auditory and kinaesthetic) learning styles; and water as brain food. Characteristically, the evidential basis ...
Cited by 23 - Related articles - BL Direct - All 9 versions

**Introduction to learning styles**
ML Conner - Ageless Learner, 1997
Cited by 8 - Related articles

**Learning objects (LO) aligning different learning styles**
J Schreurs... - 2006 - uhspace.uhasselt.be
... There are various instruments used to determine a student's learning style. 2.2. VAK (Visual, Auditory, Kinaesthetic) learning styles and presentation of learning content combining those 3 learning styles 2.2.1. Introduction The ...
What’s so great about journals?
VAK or VAK-uous? Towards the trivialisation of learning and the death of scholarship

Authors: Sharp, John; Bowker, Rob; Byrne, Jenny

Source: Research Papers in Education, Volume 23, Number 3, September 2008, pp. 293-314(22)

Publisher: Routledge, part of the Taylor & Francis Group

Abstract:
Developments within education, psychology and the neurosciences have shed a great deal of light on how we learn while, at the same time, confirming for us all that learning is a profoundly complex process and far from understood. Against this background, and in this position article, we consider the recent rise in interest in the concept of learning styles as VAK (visual, auditory, kinaesthetic) in primary schools in England and Wales and begin to identify and interrogate some of the more unorthodox claims frequently used to legitimise and lend support to its validity. Through the casual acceptance and promotion of VAK, and its often wider association with the notions of accelerated and brain-based learning, it is our assertion that the complexity of learning is becoming increasingly trivialised and scholarship at all levels within certain sectors of the education community compromised.

Keywords: VAK; learning styles; accelerated learning; brain-based learning

Document Type: Research article

DOI: 10.1080/02671520701755416

Affiliations: 1: Bishop Grosseteste University College, Lincoln, UK 2: School of Education and Lifelong Learning, University of Exeter, UK 3: School of Education, University of Southampton, UK

Publication date: 2008-09-01
Peer Review Policy:

All research articles submitted to this journal undergo rigorous peer review. This is normally carried out by the Editor, the Deputy Editor, and two referees. The first referee, who receives an anonymised version of the submitted paper, is usually chosen from either the Editorial Board, the International Advisory Board, or the Reviewing Panel. Sometimes it is necessary to select someone as first referee not on the journal's Boards or Reviewing Panel in order to ensure that the referee has appropriate expertise. The second referee, who also receives an anonymised version of the submitted paper, is usually not from the journal's Boards or Reviewing Panel. The referees' reports are considered by the Editor and the Deputy Editor, who seek further opinions on the paper if necessary.

Appendix 1: Keywords and queries used

The following keywords were used as the basis for the search strategy:

**Age range:** key stage 3, key stage 4, school children, young people, secondary, GCSE

**Purpose of resource:** revision, support

**Nature of resource:** interactive, multimedia, rich media

**Mode of delivery:** e-learning, e-resources, online learning, online resources, web-based learning

**Evidence sought:** achievement, attainment, effect, impact, practice, usage, use

**Other:** BBC bitesize, ability, disability, free school meals

The following queries formed the core for the search:

```
“BBC bitesize” OR “interactive online”

(“multimedia” OR “rich media”) AND (“support” OR “revision”) AND online AND learning AND school

online AND revision AND (interact* OR multimedia OR “rich media”) AND (revision OR support) AND

(achievement OR attainment OR effect OR impact OR practice OR usage OR use)

(impact OR effect) AND (“online learning” OR e-learning) AND (ability OR community OR diversity OR gender OR ethnicity OR disability OR “free school meals” OR “social class” OR “learning difficulties”)

(“key stage 3” OR “key stage 4” OR “school children” OR “young people” OR “secondary” OR “GCSE”) AND (“revision” OR “support”) AND (“interactive” OR “multimedia” OR “rich media” OR “e-learning” OR “e-resources” OR “online learning” OR “online resources” OR “web-based learning”) AND (“achievement” OR “attainment” OR “effect” OR “impact” OR “practice” OR “usage” OR “use”)

(support OR revision) AND (interactive OR multimedia OR “rich media”) AND

(impact OR effect OR use) AND school

(“key stage 3” OR “key stage 4” OR “school children” OR “young people” OR “secondary” OR “GCSE”) AND (“e-learning” OR “e-resources” OR “online learning” OR “online resources” OR “web-based learning”) AND (“attainment” OR “effect” OR “impact” OR “practice” OR “usage” OR “use”)
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Structure of casting a search term net vs the hopefulness of Hook a Duck internet searches.

Remember an internet search for:

**English Language**

“English Language”

**English +Language**

Will all produce a different set of results! Yes there will be some overlap, but they will include different results…..
Turning our attention from the what to the how: the National Numeracy Strategy

Margaret Brown, Alison Millett, Tamara Bebb & David C. Johnson, School of Education, King’s College London

Abstract: This article examines the policy of the UK Labour Government between 2002 and 1999 in relation to the production and implementation of the National Numeracy Strategy, within the context of contest of influence, contest of policy form and contest of practice. It examines the costs in, and differences from, numeracy and mathematics policies of previous regimes, some tensions between the philosophies of modernisation and traditionalism, which are represented among those responsible for the New Labour education policies and which are reflected in the National Numeracy Strategy. Finally, evidence from the context of practice demonstrates that despite the attempt at high prescription and control, cyclical recontextualisation and multiple interpretations exist.
When you find a good source – use it’s reference list to follow-up ideas.
Objectives

By the end of this session you should be able to:

• Understand some of the reasons why researchers undertake research!
• Give reasons why teachers (and trainee teachers) should engage in research
• Determine the academic rigor of research (and other published materials)
• List limitations of research you might encounter as students, trainee teachers and qualified teachers
Above all: Be Organised !!

I AM A VICTIM OF My OWN ADMINISTRATION
“The important thing is to never stop questioning.”

Albert Einstein
That's all Folks!
References (Part 1)

- [http://community.tes.co.uk/forums/p/305382/4421417.aspx](http://community.tes.co.uk/forums/p/305382/4421417.aspx)
- [http://scholar.google.co.uk/scholar?hl=en&client=firefox-a&rls=org.mozilla:en-GB:official&q=windy%20day%20school%20behaviour&gs_sm=e&gs_upl=17467l17467l0l17842l1l1l0l0l0l124l124l0.1l1l0&um=1&ie=UTF-8&sa=N&tab=ws](http://scholar.google.co.uk/scholar?hl=en&client=firefox-a&rls=org.mozilla:en-GB:official&q=windy%20day%20school%20behaviour&gs_sm=e&gs_upl=17467l17467l0l17842l1l1l0l0l0l124l124l0.1l1l0&um=1&ie=UTF-8&sa=N&tab=ws) – see BERA and follow “cited by”
- Anon, Research Papers in Education. Available at: [http://www.tandf.co.uk/journals/routledge/02671522.html](http://www.tandf.co.uk/journals/routledge/02671522.html)
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- Sun, 2006. Smokers’ kids “are yobs” | The Sun |News. Available at: http://www.thesun.co.uk/sol/homepage/news/article61622.ece