

The utilisation of Visual Learning and Cooperative Learning strategies within a first year Graphic Design setting

K. A. Chmela-Jones
Vaal University of Technology

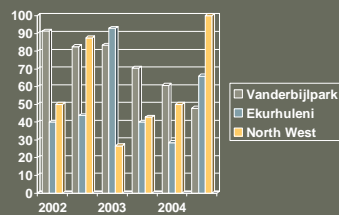
RESEARCH QUESTION

- How do first-year graphic design learners at the Vaal University of Technology (VUT) experience (a) visual learning (VL) strategies, and (b) a cooperative learning (CL) environment, as well as (c) the combination of these?

Background

- Poor results
- Negative effect on overall performance
- Low throughput rate
- Are current teaching methodologies of benefit to the learners, or would alternative teaching methodologies such as visual learning (VL) and cooperative learning (CL) be better options?

Summary of exam results at VUT



Challenges at VUT

- Diversity
- Lack of basic art history knowledge
- Language proficiency
- Lack of awareness of how the theory and practical subjects of the offering relate to each other

Challenges to GD education in SA include:

- Skills
- Expense
- Industry expectations

The aim of the study

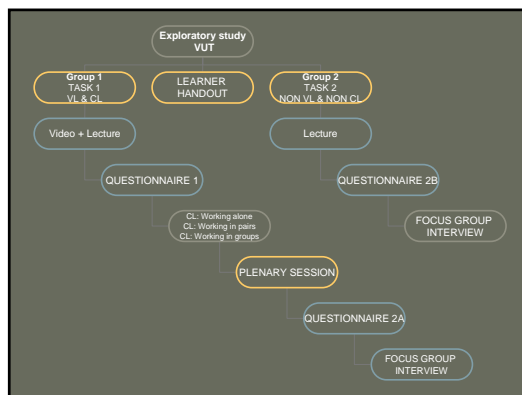
- Feasibility
- Review the literature on VL and CL
- Discuss the status of graphic design education
- Field work

Definitions

- **A visual learner** – someone who views a system as a whole rather than analysing it in terms of disparate elements
- **Cooperative learning** – a set of step-by-step methods which help learners to interact together in order to accomplish a given task

METHOD

- Exploratory study conducted in 2004
- 2002 and 2003 examination results regarded as a control
- Series of questionnaires
- Focus group interviews



Focus group interviews

- Small number of learners
- Random selection
- The learners were from various cultural and socio-economic backgrounds

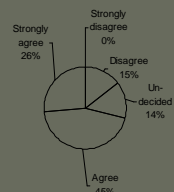
Design of study

- Comparative assessment methodologies framework
- Consistency in data collection
- The learners were placed into two groups and then participated in two lecture sessions which involved disparate teaching approaches.
- Broad based routine non-probability sampling
- Minimum requirement – He or she must be a first year learner enrolled in the full-time graphic design course at VUT between 2002 and 2004

Data collection methods

- Learners answered questionnaires
- Focus group interviews were conducted
- Existing records such as class attendance, test scores and examination results were consulted for additional information
- Standardisation as part of exploratory study – the same information, the same coordinators etc.

Pie graph summary of responses



- Question 1
In my class we regularly use visual information

The pie graph example shows the combined results for Question 1 from all three campuses.

GRAPHIC DESIGN EDUCATION

- Design subjects account for increasingly high proportions of learner enrollement
- Graphic design educationalists agree that professional practice was established before graphic design education
- Graphic design is simply NOT a commercial application of fine arts ideas and processes

Importance of research to graphic design education

- Research is an intrinsic aspect of design practice
- Growing eagerness among university art departments to compensate for shrinking fine arts enrollements with graphic design programmes
- Mediocre graphic design programmes continue to increase, this impacts negatively on the further development of the graphic design education community

The South African context

- South African institutions have developed carefully structured curricula based on educational methods that go beyond the superficial simulation of professional practice (Van Niekerk:1998)
- Highly professional approaches to design education can be seen at some traditional universities as well as private funded institutions

Graphic design teaching methods at VUT

- Broad-based approach
- VUT encourages experimentation with various teaching methods
- The face-to-face lecture still holds an essential position in many classrooms

Challenges to the theory curriculum structure in graphic design

- Lack of visual literacy of learners
- Scarcity of subject specific historical knowledge
- A possible concern that design theory may be too vague and abstract to be useful to graphic designers in "the real world"

VISUAL LEARNING

- The distinction between visual and verbal learning derives from Paivio's (1991:255) dual coding theory which addresses a person's preferred method of processing information

VL and course structure

- The manner in which courses are structured at a tertiary education level has changed dramatically since the popular onset of the internet
- Designing and responding to visual learning material easy for design learners

VL and the graphic design course

- Graphic design – words, concepts, animation
- Other courses are almost entirely word-based (Markel, 1998:47)
- VL training for lecturers remain a problem
- Lecturers perceive themselves a verbal rather than visual thinkers

Forms of VL

- Dramatisation, role-playing games, feedback and presentations
- Excursions, i.e. the opportunity to gain knowledge from industry visits, museums and galleries
- Demonstrations
- Audio-visual aids such as film materials, including the internet and interactive DVD's, graphic material and models

COOPERATIVE LEARNING

- CL exists on a micro and a macro level in the lecture hall or classroom.
- In SA the Durban University of Technology (DUT), introduced appropriate cooperative teaching methodologies as far back as 1994, in order to encourage 'teamwork and to redefine the notions of advantage and disadvantage so that learners could learn from each other as equals' (Sutherland 2004:56)

CL and the graphic design course at VUT

- CL may be applied to both practical and theoretical courses
- CL already implemented in the teaching of several practical components of the graphic design course
- CL has relevance to the working situation

Benefits of CL

- Change in perception
- CL can stimulate interaction between diverse cultural groups
- Due to their various cultural backgrounds learners tend to experience some difficulty communicating effectively amongst themselves as well as with their lecturers

Relevance of CL to graphic design

- CL affects most aspects of the graphic design field
- Large scale design projects often require multidisciplinary teams because they cover a broad range of media options
- While graphic design education has sporadically paid attention to the need to train designers to work collaboratively, often their training is typically based on designers maintaining their definite identity as the creators of visual ideas

The effectiveness of CL

- Researchers have expressed doubts about the effectiveness of small-group work currently practiced
- The learners communication is often perceived as being not task enhancing

Challenges to CL

- Learner focus
- Negative roles within CL –the 'hitch-hiker', the 'buffoon', the 'isolate' etc. (Cowie, Smith, Boulton & Lavar 1994:59)

RESULTS OF STUDY

- Learners at the VUT preferred the 'standard' format of the lecture to the VL & CL method used in the study
- 69.6% of learners at all three campuses were in agreement that the 'standard' lecture was more enjoyable
- 37.6% of learners found the group discussion memorable

Factors determining the success of VL & CL at VUT

- The Vanderbijlpark campus learners did not enjoy the group discussion due to the group dynamics and a need for 'someone' other than a member of the group to fill in gaps in their discussion
- Learners were not satisfied with their own conclusions but need reaffirmation and encouragements that their findings were 'correct'
- Learners at Ekurhuleni campus enjoyed the group work as long as the group remained small (>4 participants)-as soon as the group was bigger the discussion turned to chaos
- Most learners agreed (81%) that they found the visual material useful

- At Ekurhuleni campus learners held the instructor's opinion in less regard than at the other campuses and their need for approval from the instructor diminished
- Learners with previous higher than average examination scores preferred the 'standard' lecture system as they could focus on individualized study and work quicker
- Although learners from the North West campus were positive about the group work when observed, the group work itself was problematic as not all learners chose to participate in it

- At Vanderbijlpark most learners agreed that additional visual content in the forms of videos or presentations would be beneficial but they were unprepared to give up any 'spare' time in order to access this material
- The expediency of the visuals plays a role: visual material which is readily available such as the content of the text book or support documentation given out in class, and video material which is unusual in its delivery, for example the video used in this study

Visual presentation challenges

- Learners resented the 'sifting' through superfluous information in the video in order to gain access to the information relevant to their lecture
- Darkened venue was cited as a problem for note taking

Deduction

- One may deduce that CL or group work is appealing for its entertainment factor but that learners actually learn more in a traditional environment

RECOMMENDATIONS

- The majority of the learners at all three campuses enjoyed and saw value in some aspects of the VL and CL strategies but a combination of these was seen as disruptive to the learning process
- The increased use of such approaches is thus unlikely to lead to a significant improvement in examination results in the long term

Further recommendations

- All learners need to be held individually accountable for their contributions to the segments of CL
- Facilitators need to constantly monitor the group work and point out problem areas such as lack of leadership or poor decision making skills
- In order to fully benefit from visual learning learners must be willing to devote more time to visual research
- Lecturers should stress the significance of visual learning as well as draw attention to the opportunities afforded to learners by the use of visual learning methods

CONCLUSION

- Larger sample size may be recommended
- One institutions vs. various institutions
- The results did not indicate that first-year learners enrolled in the discipline of graphic design are likely to benefit from a combination of VL and CL strategies
- The implementation of a combination of the above-mentioned strategies is not recommended in this setting

Thank You

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