

# The impact of the learning environment on student learning in higher education: a realist review

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## Introduction

### Background:

- The learning environment has the potential to enhance or impede understanding and engagement with a given topic
- Teacher-centred / instructional approaches to delivery have traditionally dominated teaching practice in higher education
- However, concerns about the disengagement of students, who are continually exposed to instructional approaches has resulted in a shift towards blended approaches to learning in higher education

### Review Aims:

- To examine how the learning environment can be used to yield the most positive learning experience for a student in higher education.
- To explore the implications of the findings of this review for the personal teaching practice of the researcher

## Methods

### Design:

- A realist review of literature.

### Data Sources:

- ERIC, Education Research Complete, eBook Collection, CINAHL, MEDLINE, PsycINFO, PsycARTICLES, PsycBOOKS, citation tracking and grayliterature

### Procedure:

- Research papers which explore the learning environment or learning space and its impact on the student learning experience

**Table 1:** Illustrates the combined search results according to the Boolean terms used

Search	Limits	Boolean Terms	Results
S1	Full-text	Learning Environment (LE)	17111
S2	Full-text	Learning Space (LS)	642
S3	Full-text	Higher Education (HE)	210280
S1 and S3	Full-text	LE and HE	28
S2 and S3	Full-text	LS and HE	3381
S2 and S3	2005 – 2011	LS and HE	1731
S2 and S3	Psycharticles	LS and HE	126

- Nineteen Sources of literature were included in this review. Eleven of these were empirical studies, employing a range of research methods including: survey, intervention testing, qualitative exploration, cases studies and testing instruments used for the assessment of learning.

## Results

### Learning Spaces:

- Trends in learning space design have progressed from the traditional class-room / lecture theatre layout to the introduction of learning studio's
- A learning studio is designed to:

- Facilitate easy interaction
- Incorporate technology
- Be flexible and comfortable
- Be colourful and attractive
- Stimulate occupants visually and aesthetically
- Instructor as facilitator  
(Dean & Provost, 2010)

- Well designed learning spaces have a motivational effect. For example, a learning space that is infused with natural light creates an environment that is easy and pleasurable to work in

"I never thought that I would be expected to play the role of the ignorant student and repress my knowledge to appease my professors"

"It's working! They feel comfortable and they trust us"



## The Learning Environment

- The learning environment should promote engagement, deep learning and meaning. An effective learning environment is one which emphasises process, not product, personalises learning and contributes to whole person development. It therefore incorporates both physical and virtual spaces, in addition to the bodies that we inhabit.
- A teacher-centred environment is described as objective, stable, fixed, well-structured, de-contextualised and compliant. In contrast with a student-centred environment, which is described as subjective, contextualised, fluid, ill-structured, embedded in experience and self-regulated.

### Intervention studies:

- Students who are 'typically surface learners' adopt deeper processing strategies in an action-learning design compared with a conventional (lectures & tutorial) design (Wilson & Fowler, 2005)
- Respect students as individuals, encourage original thinking, introduce field trips and guest speakers, encourage students to reflect on critical issues that link to their personal experience (Robinson & Kakela, 2006)
- An e-learning environment has a significantly positive impact on the critical thinking skills of students in higher education (Fadhli & Khalfan, 2009)

- Sardone (2011), demonstrates that active learning strategies as found in constructivist learning environments, enhance learner satisfaction for all learners in her study

### Survey and qualitative studies:

- Students in a *blended* learning group (a mix of on-line, traditional and activity based learning), experience deeper levels of understanding across four topic areas and display higher levels of intrinsic motivation for their subject (Schaber et al, 2010)
- Students in a student-regulated programme perceive better organisational conditions for supporting their task performance (De Brabander, 2009)
- Elen et al (2007), reveal that students view student-centredness and teacher centredness as mutually reinforcing features of a high quality education

## Conclusions

- Incorporating varied methods of delivery produces the most positive learning experience
- Students in higher education value, autonomy, ownership, relatedness and individuality in their learning
- A space doesn't have to be ultra-modern – injecting fun, humour, participation, activity and variety into a session will enhance the student learning experience

# Faculty of Health Learning Spaces



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