

**Academics' Use of Technology with Face-to-Face Teaching:  
Factors Predicting the Use of Blended Strategies**

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**ABSTRACT**

Positioned in the literature related to academic professional development, this study makes a contribution to the understanding of academics' blended practices by exploring how various factors influence academics' use of technology with face-to-face teaching. The primary research question addressed by the study is 'Why do some academics tend to use technology together with their face-to-face teaching to achieve blended teaching strategies to support learning, while others do not?'

The study arises from a context in which a growing number of universities are investing considerable resources in blended learning, as an institutional strategy to respond to the pressures of uncertain economies, increasing globalisation, and the changing expectations of cohorts of digitally savvy students. However, the success of blended learning as an institutional strategy is firmly grounded in the widespread adoption of effective blended teaching practices, which has generally failed to happen. Currently, the adoption of effective blended teaching practices is limited to a minority of academics. The premise underlying this study is that understanding the factors shaping academics' blended learning practices is fundamental to the provision of the professional support needed to facilitate the uptake of effective blended practices on a larger scale. Unfortunately, existing blended

learning literature provides meagre insight into academics' blended practices. This study stems from the urgent need to better understand academics' blended teaching practices.

Underpinning the study is a conceptual framework consisting of core ideas found in technology acceptance models and diffusion of innovation theory, and in the field of teachers' use of technology for teaching. The conceptual framework along with a review of relevant literature enabled the formulation of a theoretical model of academics' blended practices. The model was then further developed using a mixed methods, two phase methodology. In the first phase, a survey instrument was designed and distributed to academic staff within Griffith University. Using the data collected from the survey, regression modelling was used to refine the theoretical model. Other statistical methods were also used to gain further insights into academics' perceptions of blended learning and the nature of their practices. In the second phase of the study, survey respondents were purposefully selected, on the basis of quantitative results, to participate in interviews. The qualitative data yielded from the interviews was used to support and enrich understanding of the quantitative findings.

A very interesting, and major finding, of the study is that the factors predicting academics' blended strategy use differ between male and female academics. Factors found to be significant predictors of current blended learning practice are perceived usefulness,

teaching experience in higher education and, for female academics, self-efficacy. Significant predictors of the intention to use blended strategies in the future were found to be perceived usefulness, use of blended strategies in current practice and, for female academics, perceived feasibility.

The theoretical contribution of this study is the model, which predicts academics' current use of blended learning strategies, and the intention of future use of blended strategies. The predictive model, together with other findings, enhances understanding of the nature of academics' blended teaching practices. Findings from this study have implications for the design of professional development and support for the adoption of effective blended teaching practices, and are presented as guiding principles at the conclusion of the study.

**Keywords**

Blended learning, academic development, educational technology, higher education

### **STATEMENT OF ORIGINALITY**

This work has not been previously submitted for a degree of diploma in any university.

To the best of my knowledge and belief, the dissertation contains no material previously published or written by another person except where due reference is made in the thesis itself.

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Rosaria Girarda (Geraldine) Torrasi

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## DEDICATION

Dedico questa tesi alla mia carissima Mamma.

Chi dà sempre tanto, con molto amore -

Questo lavoro è tanto il vostro come è mio.

*I dedicate this thesis to my dearest Mum.*

*Who always gives so much, with so much love -*

*This work is as much yours as it is mine.*

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## **LIST OF ACRONYMS**

<i>Acronym</i>	<i>Definition</i>
CD-ROM	Compact Disc – Read Only Memory
DOI	Diffusion of Innovations
ICT	Information and Communications Technologies
LMS	Learning Management System
PLATO	Programmed Logic for Automated Teaching Operations
TAM	Technology Acceptance Framework
TPACK	Technological Pedagogical and Content Knowledge
UTAUT	Unified Theory of Acceptance and Use of technology
WWW	World Wide Web