Personal Background

- Currently a PhD Candidate and Senior Research Assistant at Griffith University
- PhD Supervisors are Dr Sarah Prestridge and Dr Ray Smith
- Master Business Administration (Hon) 2010; Master Learning & Development, 2014
- 20+ year career (resources industry)
  - Executive management roles, then educator
  - International postings India, China, Indonesia

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Why Research Online VET?

- Online education is one of the fastest growing fields within education (Bawa, 2016)
- VET is Australia’s largest education sector (Atkinson & Stanwick, 2016)
- Much online education research is in higher education contexts (Jaggars & Xu, 2013; Nguyen, 2015)
- VET lacks research about its teaching practices (Waters, Simon, Simons, Davids, & Harreveld, 2015), the issues facing its teachers (Martin, 2012), and about its online education (Chang, 2016)
<table>
<thead>
<tr>
<th>Asynchronous, not in real-time</th>
<th>Lacks immediacy and visual cues of face-to-face teaching</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Dabbagh, 2005)</td>
<td>(Fear &amp; Erikson-Brown, 2014; Hewson &amp; Hughes, 2005)</td>
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<tr>
<td>Increased teacher workload</td>
<td>Many teachers are ill-prepared for teaching online</td>
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<tr>
<td>(Sutherland-Smith &amp; Saltmarsh, 2010)</td>
<td></td>
</tr>
<tr>
<td>Overwhelmed, frustrated, isolated, and uncertain teachers</td>
<td>Lower student grades and retention rates remain an issue</td>
</tr>
<tr>
<td>(Regan et al., 2012)</td>
<td>(Bawa, 2016; Drouin, Stewart, &amp; Van Gorder, 2015)</td>
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</table>

Teaching online: *More than simply learning technology*

Teachers are central to the future success of online education

(Seaton & Schwier, 2014)
Agenda

- Key terms
- Investigating pedagogy within online VET
- Participant demographics
- Online VET teacher pedagogical orientations and practices
- Teaching context influences practice
Key Term: Teachers

Teachers; Lecturers; Instructors; Facilitators; Tutors; Trainers; Practitioners; Educators

- Instruction and learning guidance
- Curriculum development and course design
- Learning material development
- Assignment design and implementation
- Grading
- Administration

(Dickie et al., 2004; Palmieri, 2004; Sun & Chen, 2016)
Key Term: Online education

Online Education

■ An evolution of distance education and is where “web-based technologies are exclusively used to deliver instruction, learning, and interaction” (Dabbagh, 2005, p. 23).

Learning Management System (LMS)

■ Computer and internet technologies link students and teachers who are often physically distance from each other (Fathema, Shannon, & Ross, 2015)
Key Term: Pedagogy

How any teaching is practiced is based upon pedagogy, that is, how teachers think, plan, structure and implement their teaching practices

(Beetham & Sharpe, 2013; Clark & Peterson, 1986)
Ensuring the success of online education requires focused research about online teachers (Sun & Chen, 2016), particularly their online pedagogy (Prieto-Rodriguez, Gore, & Holmes, 2016; Wang & Reeves, 2007).

Knowledge of online pedagogy will support development of improvement strategies and interventions (Baran, Correia, & Thompson, 2011).
Pedagogical Orientation

Teacher-Centred  Toward Teacher-Centred  Toward Student-Centred  Student-Centred

**Content-oriented**
- Direct students to structured content
- Students study the content individually

**Learning-oriented**
- Facilitate student collaboration
- Students develop knowledge together

(Gonzalez, 2009)
Pedagogical Orientation

Teacher-Centred  Toward Teacher-Centred  Toward Student-Centred  Student-Centred
The pedagogical orientations of teachers do not necessarily align with their pedagogical practice.

(Clark & Peterson, 1986; Sullivan, Clarke, Clarke, Farrell, & Gerrard, 2013).
Methodology

Stage 1 “What”:
Online survey

Stage 2 “How”:
Digital teaching observation

Stage 3 “Why”:
Intervews

RQ1: Who are VET’s online teachers?

RQ2: What pedagogical orientations and pedagogical practices are represented among online VET teachers?

RQ3: Is there a gap? How and why do online VET teachers adapt their pedagogy?
Data Analysis Using SPSS

- Survey with >150 variables
- Analysis commenced with frequency data including histograms with standard deviation plotting the Gaussian density function to reveal patterns in distribution.
- Shapiro-Wilk tests of normality with a 95% confidence level is utilised.
- Cronbach’s alpha coefficient is applied when appropriate to report the internal consistency of a scale.
- Kruskal-Wallis H Tests were applied to analyse relationships between variables, seeking a significant result as indicated by <0.05.
- Many variables are categorical and ordinal and therefore numbers are assigned to represent the answer options however this does not indicate that one category is ‘better’ than another.
Target Participants

TAFE Queensland (TQ)
- Largest VET provider in Queensland with 122,245 enrolled students in 2016 (TAFE Queensland, 2016, p. 8 & 10)
- Ahead of national VET sector for rates of online education delivered (Reeson, et al., 2016)

TAFE Queensland Online (TQOL)
- 66 exclusively online teachers – 46 participated in the study
- Range of disciplines
  - Accounting; Business; Children’s services; Education and library; Information technology, Justice and government
Participant Demographics

Employment
- Full Time, 89%
- Part Time, 9%

Average Age 51
- <45 years: 20%
- 45-55 years: 48%
- >56 years: 32%
Participant Demographics

Teaching Discipline

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>Children's services</td>
<td>33%</td>
</tr>
<tr>
<td>Business</td>
<td>28%</td>
</tr>
<tr>
<td>Accounting</td>
<td>15%</td>
</tr>
<tr>
<td>Education and library</td>
<td>11%</td>
</tr>
<tr>
<td>Justice and government</td>
<td>9%</td>
</tr>
<tr>
<td>Information Technology</td>
<td>4%</td>
</tr>
</tbody>
</table>

Gender

- Male, 24%
- Female, 76%
Participant Demographics

Current Online Teaching Role

- Tutors: 22%
- Teachers Levels 1-4: 35%
- Teachers Levels 5-7: 24%
- LVTs: 20%

Average 131 Students Per Teacher

- <75 students: 29%
- 75-175 students: 49%
- >175 students: 22%
Professional Identity

30% Industry expert who teaches
28% Dual or Neither
42% Teacher with industry expertise

(Chappell, 1999, 2001)
33% report Certificate IV TAE is highest teaching qualification held

Teaching Qualifications

- University level, 41%
- Non-university level, 59%

Industry Qualifications

- University level, 43%
- Non-university level, 57%
Online Teacher Knowledge

Self-Rated Expertise

Discipline
- 11% Basic/Novice
- 89% Advanced/Expert

Pedagogy
- 36% Basic/Novice
- 59% Advanced/Expert

Technology
- 54% Intermediate
- 41% Advanced/Expert
Online Teaching Rarely Featured in Existing Qualifications

Age of Teaching Qualification

<table>
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<th>Duration</th>
<th>Percentage</th>
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<tr>
<td>&lt;5 years ago</td>
<td>28%</td>
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<tr>
<td>5-10 years ago</td>
<td>28%</td>
</tr>
<tr>
<td>10-20 years ago</td>
<td>18%</td>
</tr>
<tr>
<td>&gt;20 years ago</td>
<td>26%</td>
</tr>
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Teaching qualification included online teaching practices

- Yes, 15%
- No, 85%
Pursuing Own Professional Development

Of those currently studying:
- 70% to enhance teaching qualifications
- 58% university-level qualifications
- 62% studying online
Identifying Participant Pedagogy

Nine questions developed from:

- Berge’s Model of Instructor Roles as described by Baran, Correia, & Thompson’s four functions of the online teacher: pedagogical, social, managerial, and technical (2011)
- Bain’s ‘what the best college teachers do’ as adapted for online education by Brinthaupt, Fisher, Gardner, Raffo, & Woodard (2011)

**Pedagogical Orientation:** How important is each of these activities?

- Not at all
- Slightly
- Moderately
- Very
- Extremely

**Pedagogical Practice:** How frequently are each of these activities implemented?

- Never
- Rarely
- Sometimes
- Often
- Always
1 of 3: Use introductory videos or other self-disclosure methods to humanise self to students.

- **Orientation**: 37.0% Very/Extremely Important
- **Practice**: 34.8% Never/Rarely Applied

32.6% 32.6%
2 of 3: Utilise technology for real-time engagement with groups of students

- Kruskal-Wallis: Teachers with <75 students are more likely to report a higher frequency ($Md = 31$) than teachers with 75-175 students ($Md = 19$) or >175 students ($Md = 22$).
3 of 3: Facilitate discussion forums where students explore concepts and develop deep knowledge together.

**Orientation**
- 17.4% Very/Extremely Important
- 23.9% Rarely Applied

**Practice**
- 52.2% Very/Extremely Important
- 26.1% Rarely Applied
- 21.7% Never

[Graph showing percentages for Orientation and Practice]
Summary

Pedagogical Orientation

Create friendly learning atmosphere
Utilise engaging tasks
Consciously build rapport
Utilise variety of technologies
Real-time student engagement
Teacher humanising self
Discussion forums (knowledge)
Facilitate group cohesion
Discussion forums (social)

Pedagogical Practice
“Tina”

■ 1.5 years online teaching experience
■ 20 years face-to-face teaching experience
■ 150-200 students
■ Bachelors degree in education (1990s)
■ Self-rated expertise
  - Discipline = EXPERT
  - Pedagogy = INTERMEDIATE
  - Technology = ADVANCED
■ Identifies as “an industry expert who happens to teach”
<table>
<thead>
<tr>
<th>Importance</th>
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<tbody>
<tr>
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**Importance:**
- Not at all
- Slightly
- Moderately
- Very
- Extremely

**Frequency:**
- Never
- Rarely
- Sometimes
- Often
- Always
“Tina”

- Assessment feedback is rarely personalised
  - *Workload issues*

- “Read this \ write that” tasks
  - *Material developed by face-to-face teachers*
  - *Tina wants more control or input*
  - *Lacks time and skill to address*

- “I would love to develop my practice … however, the workload associated with the large number of students prohibits me from doing this”
■ 5 years online teaching experience
■ 10 years face-to-face teaching experience
■ Currently studying masters degree online
■ ~150 students
■ Self-rated expertise
  - Discipline = EXPERT
  - Pedagogy = EXPERT
  - Technology = EXPERT
■ Identifies as a “teacher with industry expertise”
<table>
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<th>Importance</th>
<th>Activity</th>
<th>Frequency</th>
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<tbody>
<tr>
<td>Extremely</td>
<td>Create friendly learning atmosphere</td>
<td>Rarely</td>
</tr>
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<td>Always</td>
</tr>
<tr>
<td>Very</td>
<td>Consciously build rapport</td>
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<tr>
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<td>Never</td>
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“Sally”
Personalises feedback to every student for every assessment
  - Works weekends to make time for this

Frustrated not having time to use experience and training to effectively model student-centred practice to her colleagues

“It would be ideal if I was provided with time to design the teaching materials and pedagogy to effectively deliver the content of the units and share practical skills with the students”
“Geoff, Gina, Greg, Gert”

Create friendly learning atmosphere
Utilise engaging tasks
Consciously build rapport
Utilise variety of technologies
Real-time student engagement
Teacher humanising self
Discussion forums (knowledge)
Facilitate group cohesion
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Geoff Gina Greg Gert
Influence of Small Class Sizes (<5 students)

- “Small classes allow more one-to-one teaching/attention”
- “I like to encourage lots of interaction amongst students ... this is not achievable with limited numbers”
- “With online delivery the class size has no impact. If extra activities are produced, they can be sent to many students just as easily as a few”
Influence of Large Class Sizes (>75 students)

- Student “feedback becomes robotic and not personalised”
- “Creates stress and detracts from my teaching”
- “The workload impacts of me having the opportunity to get to know and meet student needs”
Units of Competency

Compliance prevents implementation of teaching practices

<table>
<thead>
<tr>
<th>Category</th>
<th>Never\Rarely</th>
<th>Sometimes</th>
<th>Often\Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compliance prevents</td>
<td>32%</td>
<td>51%</td>
<td>17%</td>
</tr>
</tbody>
</table>

Units are easily adapted to online

<table>
<thead>
<tr>
<th>Category</th>
<th>Never\Rarely</th>
<th>Sometimes</th>
<th>Often\Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>Units are easily adapted</td>
<td>15%</td>
<td>22%</td>
<td>63%</td>
</tr>
</tbody>
</table>
We do not teach online, we are a marking factory

A heaving workload means less time engaging with students

We want to prepare videos for our units but workload makes it difficult

So many students, so little time for unit improvements

How often does workload prevent you from implementing a teaching practice you think would be beneficial?

- Never\Rarely: 7%
- Sometimes: 26%
- Often\Always: 67%
Workload Tasks (High-Medium-Low)

Three Highest Workload Tasks
(Sorted by Mean)

1 - Marking assessments
2 - Reviewing draft assessments
3 - Administration and reporting
Would Like **More** Time On

Tasks Teachers Would Like **More** Time For
(Sorted by Mean)

1 - Actively facilitating learning
2 - Building rapport
3 - Group student interaction

- More Time
- Stay The Same
- Less Time
Would Like **Less** Time On

Tasks Teachers Would Like **Less** Time For
(Sorted by Mean)

1 - Technical issues
2 - Administration and reporting
3 - System management (setting up the LMS)
Summary
This project has started to discover:

- Who are VET’s online teachers?
- What pedagogical orientation and practices are represented?
- Is there a gap?
- How and why do online VET teachers adapt their pedagogy?

Ongoing Analysis

- Final analysis and refinement of survey data
- Ongoing analysis of practice observations
- Continued exploration of interview transcripts
References


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References


