

Methods research on the evaluation of teaching practice in higher education

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The purpose of this paper is to report on a methods research project investigating the evaluation of diverse teaching practice in higher education. The research method is a single site case study of an Australian University with data collected through published documents, surveys, interviews and focus groups. This project provides evidence of the wide variety of evaluation practice and diverse teaching practice across the University. This breadth identifies the need for greater flexibility of evaluation processes, tools and support to assist teaching staff to evaluate their diverse teaching practice. The employment opportunities for academics benchmark the University nationally and position the case study in the field. Finally this reaffirms the institutional responsibility for services to support teaching staff in an ongoing manner.

Keywords: academic staff, education developers, methods research teaching

Introduction

The purpose of this paper is to report on a methods research of a project investigating the evaluation of diverse teaching practice in higher education. The research method is a case study of one Australian University with data collected through published documents, surveys, interviews and focus groups. The paper is one of several papers emanating from one research project (Alderman, 2007a, 2007b, 2007c) with final analysis and results available in due course.

Importance of study

When it comes to the evaluation of teaching there is an expectation that teaching staff can and do reflect on practice and review their teaching. Then again there is little written evidence available of intuitive or everyday evaluation of teaching practice made by teaching staff to adapt the evaluation process to suit their personal teaching situation.

The following examples suggest that the formal evaluation tools may not capture the true picture or intent of diverse teaching practice. The first example is in Problem Based Learning (PBL) courses where teaching staff would consider assessment outcomes as evidence of the quality of their teaching practice and curriculum development. It is difficult for teaching staff to locate evidence of the quality and subtlety of this practice within the student feedback surveys.

The second example is a PBL program where there is mixed feedback from evaluation tools like the Graduate Destination Survey (GDS) and Course Experience Questionnaire (CEQ). In this situation the employment results for graduates is

significantly higher than the University and national average. This result is in complete contrast to the teaching and learning outcome that is significantly lower. This disparity is not easily understood by teaching staff trying to review their practice and is often dismissed as irrelevant. However it is not so easy to dismiss this result when new government policy use the results from the GDS and CEQ inform the mechanism to benchmark Universities at a national level (Australian Government Department of Education Science and Training, 2006). In this situation teaching staff are under increasing pressure to perform and are not necessarily well resourced to address these mixed results.

The third example is where students initiate a change in the learning environment, activity or teaching approach that results in higher levels of engagement and promotes independent learning. Teaching staff recognised these creative and innovative initiatives from students and subsequently change their own practice and reinvigorated the curriculum. This subtle level of teaching practice is not captured by the formal evaluation process and it is difficult for teaching staff to identify how to document this in an effective way to demonstrate good practice.

The fourth example highlights a significant difference in the background of teaching staff within the Discipline of Education and other Disciplines across the University. The Discipline of Education will often advertise for teaching staff with formal education qualifications and work experience in teaching and learning. These qualifications and experience may be from early childhood, primary, secondary, technical or adult sectors and represent the specialist qualifications that are warranted to meet the needs of this Discipline. However, teaching staff employed in other Disciplines like Physics or Engineering are unlikely to be employed on formal education qualifications but rather on Discipline specific formal qualifications and work experience in teaching and learning in the higher education sector. As formal education qualifications usually include curriculum development and evaluation of teaching as part of coursework, this means that teaching staff from Discipline of Education are advantaged over other Disciplines and may need additional support to engage in the evaluation process.

These four examples illustrate how teaching staff need support to interpret survey results, additional evaluation tools, assistance in collecting alternative evidence of their teaching practice or with strategies to reaffirm or reinvigorate their teaching practice through evaluation. This project is well timed to provide evidence of current practice by teaching staff, to identify support services and establish the depth and variety in the evaluation of teaching at this University.

Definitions

The term “teaching staff” refers to all staff at the University who engage in teaching practice in a variety of settings (face-to-face, online or distance). Therefore, in this project, “teaching staff” will include academic staff and all other staff who deliver content to students, for example librarians, learning support, academic developers, teachers and sessional tutors.

Methodology

The main approach to research for teaching has three traditional approaches: research on teachers' characteristics, methods research, and teacher behaviour research (Doyle, 1987, p115). Research on teachers' characteristics "*focuses on personal qualities such as intelligence, experience, attitudes, expectations, knowledge and beliefs*" (for example studies collecting evidence through self-assessment by teachers). While methods research in teaching is a well known approach used by curriculum developers, teacher educators, and teachers and is a further way to "*answer the effectiveness questions*" (for example a comparative approach where two or more teaching methods are compared, like lecture versus discussion). Finally teacher behaviour research is synonymous with research on teaching effectiveness and "*the emphasis is on establishing prescriptions for teachers by relating behaviour measures to some criterion of effectiveness*" (for example observation of teacher/student interaction leading to a standard of learning).

This project will be located within the "research methods" area of research into teaching and will explore the diversity in approaches to teaching in higher education and the ways in which the teaching staff evaluate these approaches. It is intended to provide evidence of detailed approaches to evaluation of teaching and offer a depth of information to describe the diversity within the different approaches to teaching at this site. This exploratory study will provide a foundation of diverse practice leading to future research to focus on one specific approach.

The research design

The overall design of this project is based on the idea that the quality of teaching in higher education can be evaluated by teaching staff through both formal and informal evaluation strategies. This research project will investigate how teaching staff evaluate their diverse teaching practice at one University. The primary question "How do teaching staff at the University evaluate their diverse teaching practice?" will be explored through the following sub-questions. As shown in Table 1 Research Design Matrix indicates how the research design sub questions will be addressed through the data collection instruments.

Research Design Matrix		Teaching Staff Survey	Interviews		Teaching Staff Focus Groups	Published Advertisements
			Teaching Staff	Service Unit Managers		
1	How do teaching staff engage with formal evaluation instruments and support services offered by the University?	✓	✓	✓	✓	
2	Do teaching staff find the formal evaluation survey tools robust and flexible enough to accommodate diverse teaching?	✓	✓	✓	✓	
3	What other evaluation strategies do teaching staff use to evaluate and reflect on their own teaching?	✓	✓		✓	
4	What services support teaching staff to evaluate their own teaching at the University?	✓	✓	✓	✓	
5	What are the ongoing issues surrounding evaluation of diverse teaching practice at this University?	✓	✓	✓	✓	
6	Do recent employment practices reaffirm institutional responsibility for academic and educational development of teaching staff?		✓			✓
7	How does the employment practice at this University compare to other Australian Universities?		✓			✓

Table 1 Research Design Matrix

Data Collection

Data will be collected through multiple sources: survey, interviews, focus groups and document analysis. The two phases of the project are outline below.

Phase 1: Benchmarking academic opportunities across Australia Universities

This phase will build a database of academic opportunities for employment over an 18 month period from published advertisements in a national newspaper (The Australian Newspaper, 2006-2007) with the selected University's website data investigated for essential selection criteria.

Phase 2: Case Study

This phase will detail a single site case study on the University of Newcastle through a review of the institution, the teaching staff and support services.

The University: Review a range of published documentation on University of Newcastle like Learning and Teaching Performance Fund (2006), Strategic Plan (2006), Teaching and Learning Plan (2004), Audit Report (Australian Universities Quality Agency, 2003) and Statistical performance and reporting 2002-2006.

Teaching Staff: There will three methods of data collection in this section: an online survey, interviews and focus groups. Firstly an online survey of 150-200 teaching staff will elicit details on higher education experience, educational background, University role, evaluation practice, and range of diverse teaching and engagement with support services. Secondly, structured interviews with 10-20 teaching staff filtered from the online survey will document the teaching approach against Biggs "constructive alignment" model, 3P model of teaching and learning (Biggs, 1996,

2003) and representing different blend of delivery, class size, and range of disciplines. The interview questions were designed by HERDSA (2007) as “prompts for good teaching” including areas like designing for learning, relating to students, teaching for learning, assessing and giving feedback, evaluating teaching, developing professionally and influencing the context of your institution. Thirdly, data about ongoing issues surrounding evaluation of diverse teaching practice will be collected from 2-3 focus groups for teaching staff. The “Open Space Technology” Workshop format where group of individuals meet without a predetermined agenda (Owen, 2005) and where the participants in each focus group direct the progress and classify their own data.

Service Units: The final interviews will be with the managers of service units: Teaching and Learning; Learning Support; Library; and Human Resources. The interview questions will include the support strategies and practices to assist teaching staff and how the services of their unit integrate with other service units.

Case study - University of Newcastle

The University of Newcastle (Newcastle) is a multi-campus institution with a student body of over 26,000 students and approximately 700 academic staff (equivalent full-time staff). It has a long history of diverse teaching practice with Problem Based Learning (PBL) at school, program and course level fully supported by academic staff of well known international standing and notable research publications in this teaching approach. It has a strong quality assurance process and practice, well established diverse teaching practice and strong vision to improve teaching and learning by 2011. Newcastle is well regarded in terms of research output but does not rate highly in terms of teaching and learning through national Performance Indicators (PIs).

At a program level, the evaluation process includes formal evaluation instruments like Graduate Destination Survey (GDS) and Course Experience Questionnaire (CEQ) conducted four months after completion and Composite Student Questionnaire (CSQ) conducted annually for commencing and continuing students.

As shown Figure 1, there are well established evaluation processes to review teaching, assessment and content through three established processes. There is an established assessment process where academic staff are required to complete a Course Assessment Return (CAR) offering opportunity to record specifics about the delivery, results and reflect on the process. Courses are automatically reviewed through student feedback surveys on the first and every subsequent second delivery, Student Evaluation of Course (SEC). Teaching staff may elect to evaluate their own teaching through Student Evaluation of Teaching (SET) surveys.

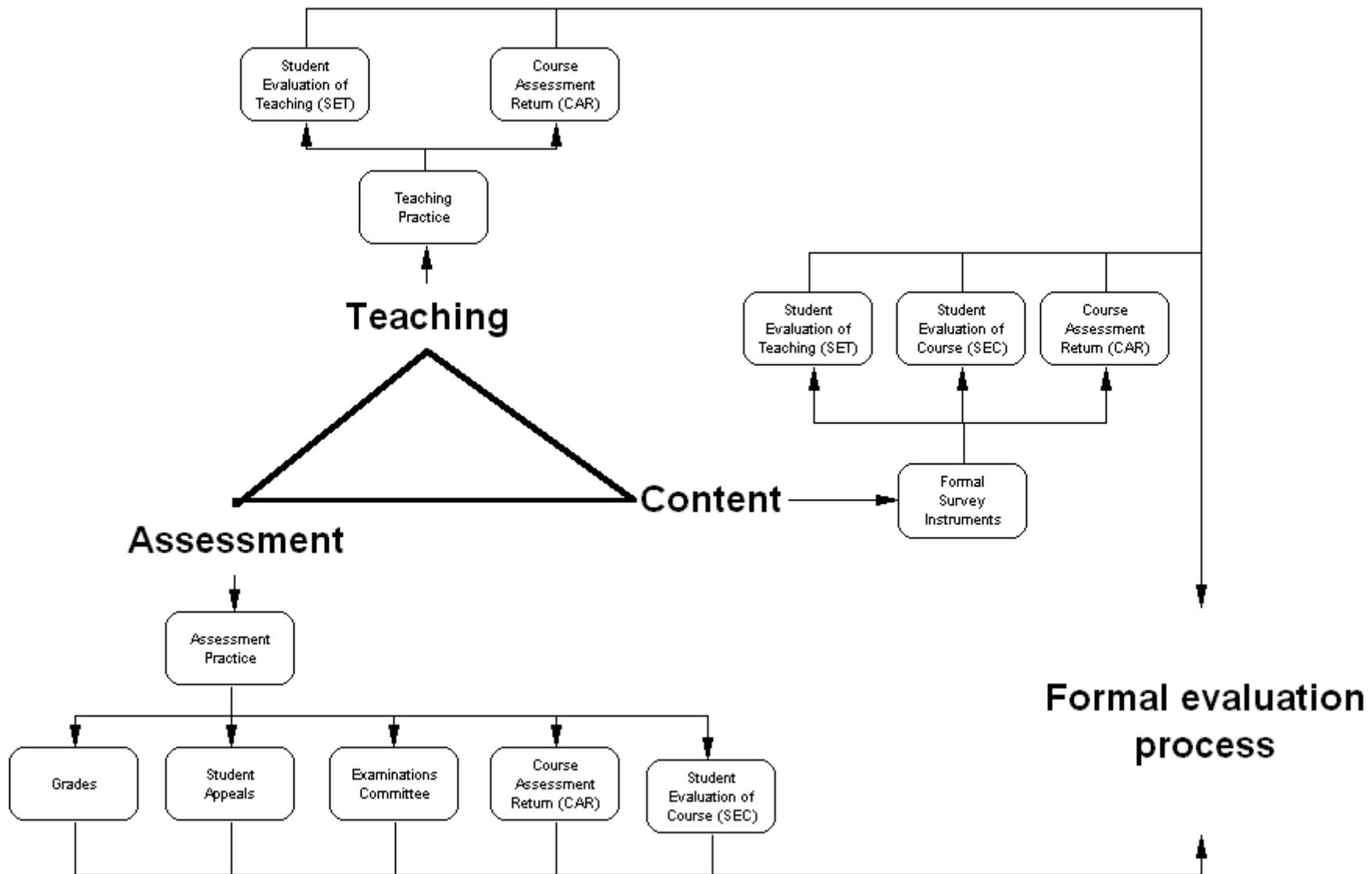


Figure 1 Formal Evaluation process at Newcastle at Course Level

Limitations of the project

As with all research projects there are limitations in this project. This project will not use observation as a tool to collect data from teaching staff for the simple reason that variety of practice is sought and when or where would the observation take place. There are established points for student feedback surveys already in place, however, different teaching staff may evaluate their teaching practice, in formal and informal ways, at multiple points: pre, post and during delivery. Therefore this project will explore the teaching practice of staff through surveys, interview and focus groups and classify similar points of evaluation leading to further study where observation of this similar practice, and/or at similar points, can occur.

Methods of analysis

The University case study will be organised around issues (Stake, 2000; Taft, 1987): topical issue, foreshadowed problem, issue under development and assertion. The nominated issues to identify compelling uniqueness are teaching practice, engagement in evaluation, support services, employment practice. Within the single case study there will be individual case studies organised around categories identified by HERDSA “good teaching tips” (Higher Education Research and Development Society of Australasia Inc, 2007). Advertised opportunities for academic staff will be analysed through comparative analysis on University, role, tenure, discipline, experience and qualifications (Stake, 2000; Weeks, 2000). The multiple sources of data will be managed through NVivo 7.

Early results from advertised positions

There are some early results derived from the advertised employment opportunities for academics at Australian Universities. Analysis of the data shows that a total of 2,472 advertised positions were identified over the period July to December 2006. As shown Table 1, 57% fall within Lecturer, 41% in Research and the remaining 2% in Teaching and Learning (T&L). Another paper “Employment opportunities in Australia for educational researchers: a review of recent advertisements” (Alderman, 2007b) offers detailed analysis with a focus on the opportunities offered to researchers in the Discipline of Education.

<i>Categories</i>	<i>Positions</i>
Lecturer	1406
Research	1020
T & L	46
TOTAL	2,472

Table 2 Advertised Positions by Category

However it is important to note that Newcastle offers a similar profile to other Australian Universities as shown in Table 3. In terms of advertised positions Newcastle would be ranked 9th overall, with respect to Lecturer positions Newcastle would be ranked 5th and in terms of Research would then move to 15th. During this six month period Newcastle was one of 21 Universities (50%) who did not advertise any positions for Teaching and Learning. At this stage the data begins to identify some differences in terms of the number of Lecturer and Research positions across the sector, but it is too early to begin to identify profiles in terms Teaching and Learning. A further 12 months data will be collected to address this need to identify trends or patterns within all advertised positions.

<i>Australian Universities</i>	<i>Lecturer</i>	<i>Research</i>	<i>T&L</i>	<i>Positions</i>
Australian Catholic University	27	0	0	27
Australian National University	13	53	0	66
Bond University	6	4	1	11
Central Queensland University	46	2	9	57
Charles Darwin University	27	10	1	38
Charles Sturt University	59	5	1	65
Curtin University of Technology	36	22	1	59
Deakin University	28	6	3	37
Edith Cowan University	18	2	0	20
Flinders University	18	20	0	38
Griffith University	69	26	0	95
James Cook University	19	5	2	26
La Trobe University	32	19	0	51
Macquarie University	31	15	0	46
Monash University	116	74	2	192
Murdoch University	8	2	0	10
Queensland University of Technology	95	15	2	112
RMIT University	29	35	1	65
Southern Cross University	1	2	1	4
Swinburne University of Technology	13	6	0	19
University of Adelaide	46	24	0	70
University of Ballarat	21	3	0	24
University of Canberra	17	4	0	21
University of Melbourne	33	49	2	84
University of New England	21	4	0	25
University of New South Wales	51	59	0	110
University of Newcastle	65	20	0	85
University of Notre Dame Australia - The	19	0	0	19
University of Queensland	50	85	0	135
University of South Australia	44	15	1	60
University of Southern Queensland	38	0	3	41
University of Sydney	86	45	2	133
University of Tasmania	48	40	4	92
University of Technology Sydney	25	10	0	35
University of the Sunshine Coast	16	1	0	17
University of Western Australia	25	36	1	62
University of Western Sydney	35	12	1	48
University of Wollongong	37	16	0	53
Victoria University	8	4	0	12
Other	30	275	3	308
TOTAL	1,406	1,025	41	2,472

Table 3 Advertisements by University in alphabetic order

While the Research positions are collected to provide an overall framework to understand the profile of Newcastle against other Australian Universities, the Lecturer and Teaching and Learning positions are of major significance to this project. Figure 2 graphically illustrates the number of Lecturer and T&L advertised positions from July to December 2006 across the sector. Ongoing analysis will determine trends and patterns in the number of positions and more particularly benchmark practice through the detailed analysis of a Lecturer position in one Discipline identified in all Universities.

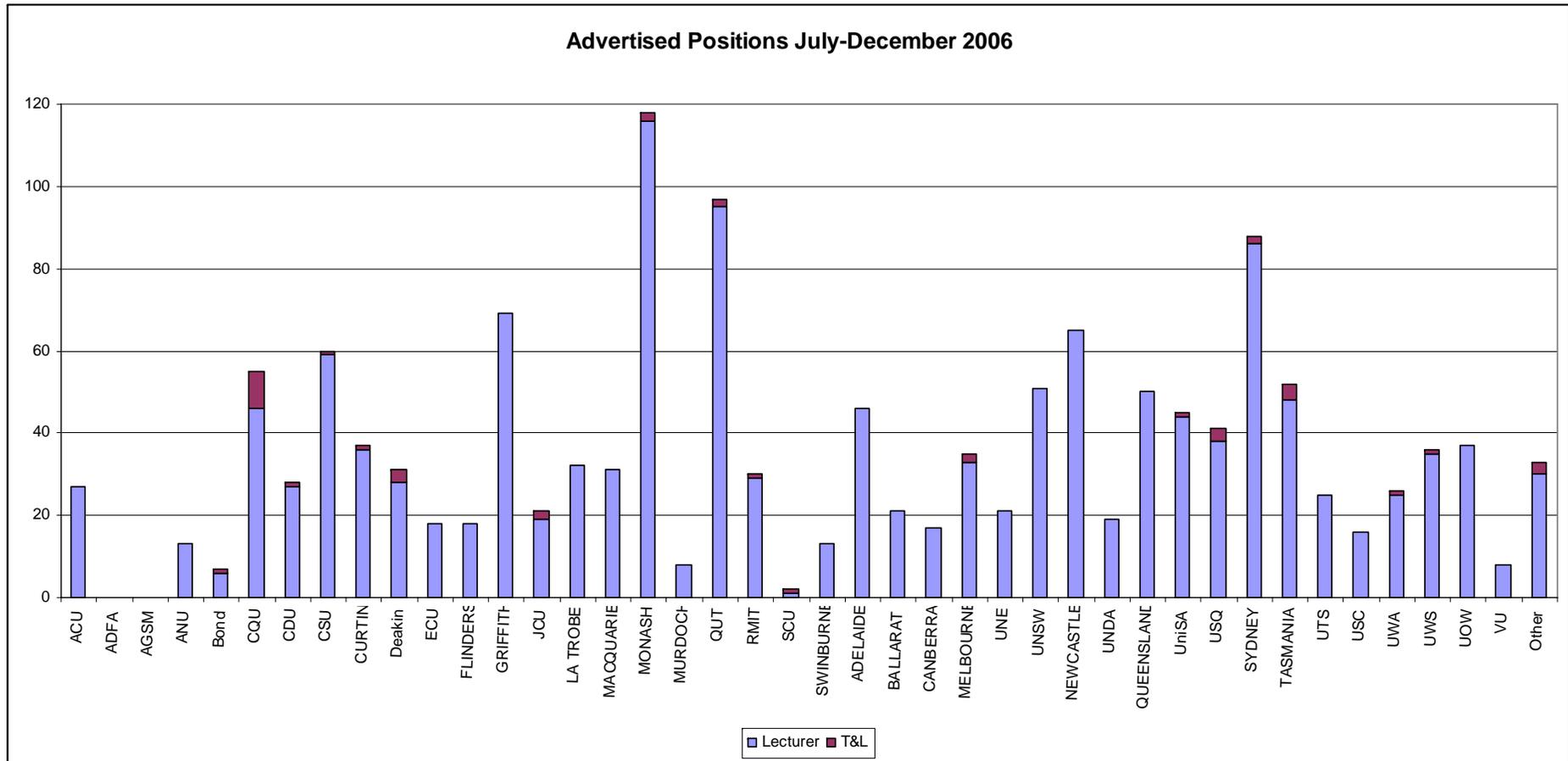


Figure 2 Advertised positions for Lecturer and Teaching and Learning: July-December 2006

In summary

This project will contribute to the field in a number of ways: identify the range of teaching staff at the University; document the array of diverse teaching practice and evaluation practice (engagement and tools); and highlight ongoing issues surrounding evaluation of diverse teaching practice. In addition this project will reinforce the institutional responsibility to academic and educational development. Finally the methods research study into teaching in higher education will inform the field in the diversity of evaluation practice and teaching staff across one University.

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Methods research on the evaluation of teaching practice in higher education

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The UNIVERSITY
of NEWCASTLE
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Background

- Academic developer
- Curriculum develop coordinator
- Researcher

How can I best assist teaching staff to evaluate their teaching?



The problem

- Problem based learning (PBL) course where 12 lecturers are involved in one subject
- Mixed feedback from GDS and CEQ about PBL courses
- Teaching staff recognising innovative initiatives from students and modifying the subject delivery
- Teaching qualifications in Discipline of Education in comparison to other Disciplines in a University



Significance of the study

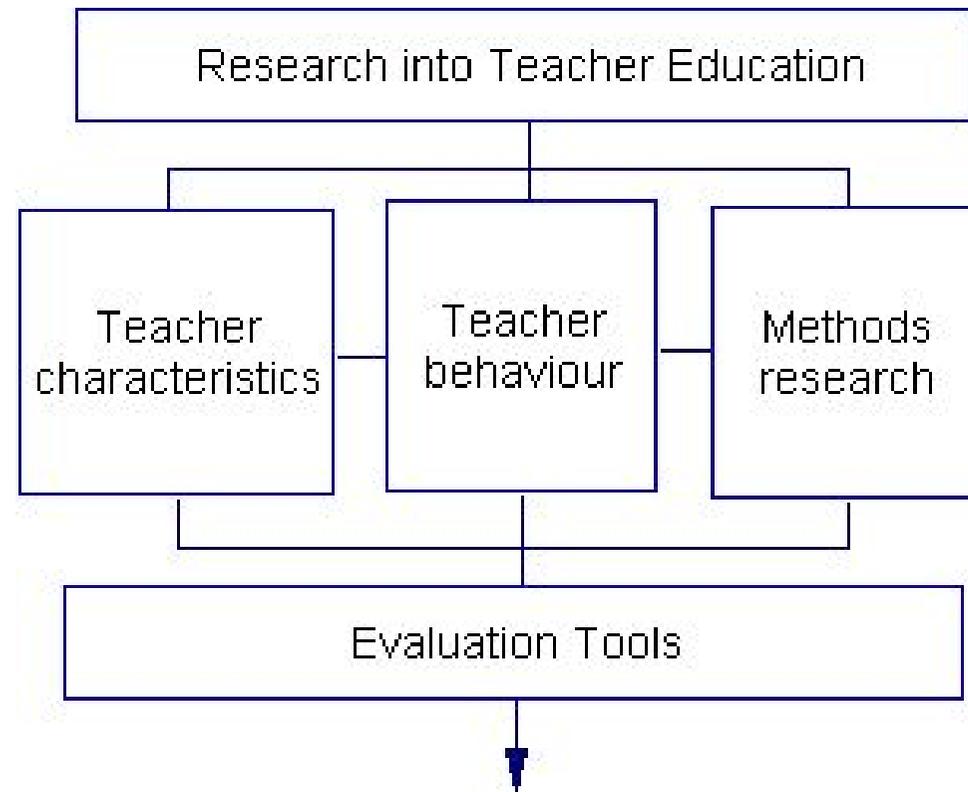
Teaching staff are expected to evaluate their own teaching practice in higher education. This study will:

1. Unpack the term “teaching” and identify who is doing the teaching
2. Explore the diversity of teaching approaches in practice
3. Gather evidence of informal and formal evaluation practices
4. Investigate the engagement of teaching staff in the evaluation process

Leading to the design and development of strategic assistance for teaching staff.



Research into teacher education



Teacher self-reporting surveys
Student feedback questionnaires
Mystery student observers
Peer observation
Reflection in and on practice
Portfolios



Primary Research question

“How do teaching staff at the University evaluate their diverse teaching practice?”



Research sub questions

Research Design Matrix		Interviews				Published Advertisements
		Teaching Staff Survey	Teaching Staff	Service Unit Managers	Teaching Staff Focus Groups	
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6	Do recent employment practices reaffirm institutional responsibility for academic and educational development of teaching staff?		✓			✓
7	How does the employment practice at this University compare to other Australian Universities?		✓			✓



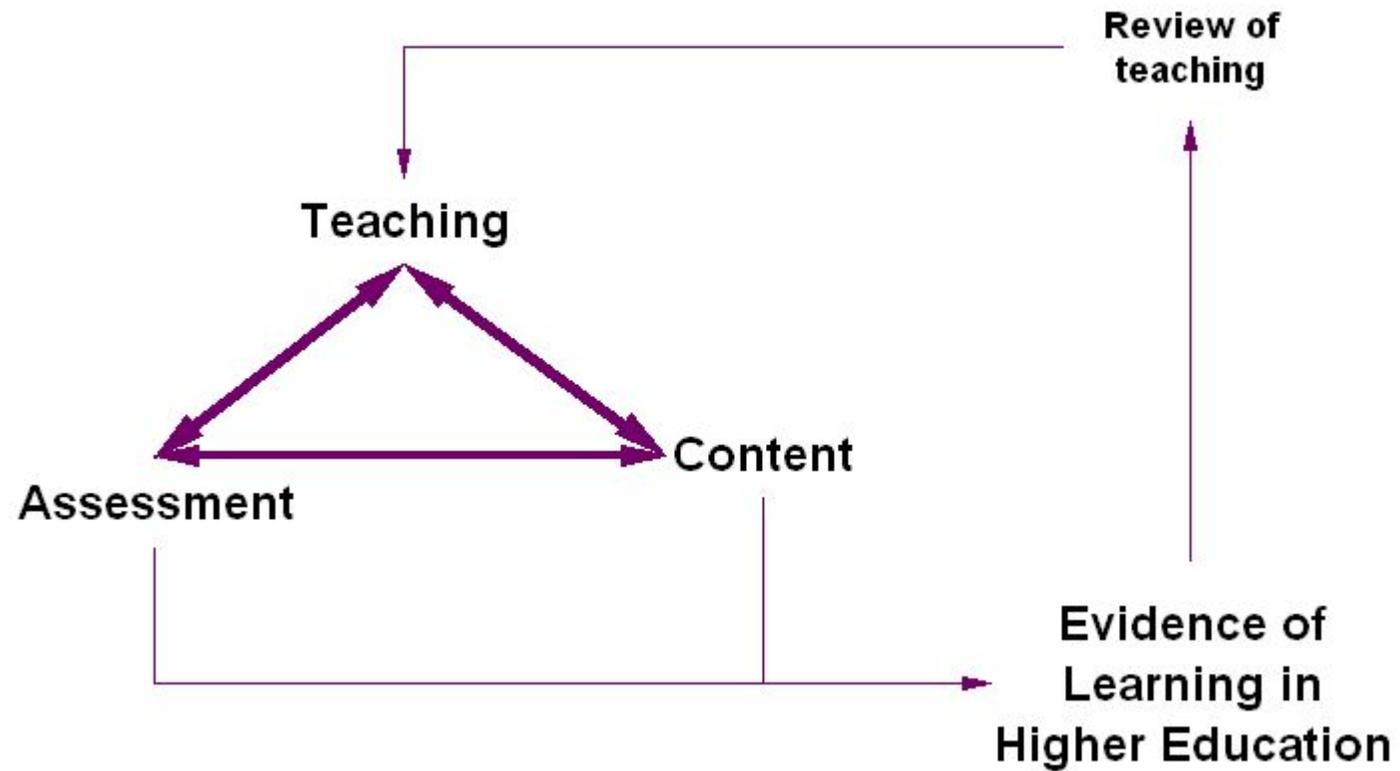
Data collection instruments

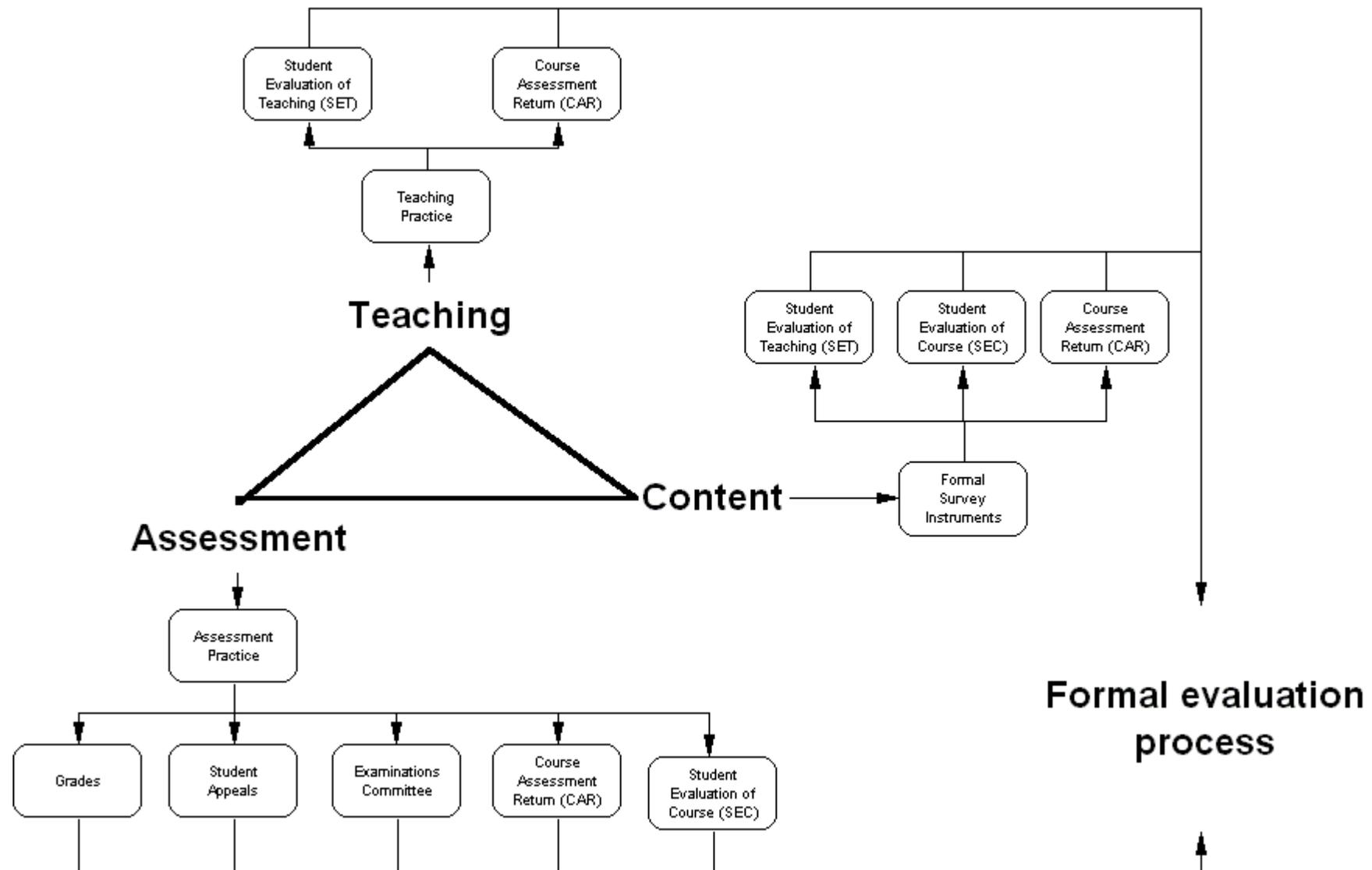
- Survey of teaching staff
- Interviews
- Focus groups
- Public advertisements



Case Study: University of Newcastle (UoN)

- Regional University
- Approximately 26,000 students
- 700 academic staff (full-time equivalent)
- Long history with Problem Based Learning
- Strategic plan focused on Teaching and Learning







Formal evaluation instruments at UoN

- Graduate Destination Survey (GDS)
- Course Experience Questionnaire (CEQ)
- Composite Student Questionnaire (CSQ)
- Student Evaluation of Teaching (SET)
- Student Evaluation of Course (SEC)
- Course Assessment Return (CAR)



Thank you, any questions?

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