THE TEACHING QUALITY INDICATORS PROJECT

Literature Review: What constitutes ‘good’ teaching, and how do we know if we are doing it?

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INTRODUCTION:
The Teaching Quality Indicators (TQI) pilot project at UWA will focus its efforts on implementing the draft framework of teaching quality indicators developed by the Carrick Institute in the area of “promotion, recognition and reward” of teaching. For information on the TQI Project nationally and at UWA please refer to www.teachingandlearning.uwa.edu.au/indicators. This literature review has been prepared to inform and assist the Project Officer (TQI) and the Administrative Assistant (TQI) in their efforts to successfully implement the project at UWA, by providing a summary of the research literature, key findings of the TQI project so far and various practices at UWA and other higher education institutions in order to ensure that the project is evidence based and focused in areas of need. This literature review concludes with a number of observations arising out of the literature which are relevant to the TQI project at UWA.

Key to any focus on ‘promotion, recognition and reward’ of teaching, is a shared understanding of what good teaching is – what is it that we want to promote, recognise and reward? Once we have defined good teaching, equally important for the Teaching Quality Indicators project is to ask how we can measure it. This review draws heavily from the research undertaken by Denise Chalmers of the Carrick Institute in developing the new framework for measuring quality teaching, and also from a number of papers prepared at UWA. It is necessarily brief and draws from a few main sources rather than attempting a broad sweep of the field. In addition to considering research undertaken in the sector the paper also considers current practice at the University of Western Australia and at other higher education institutions in the sector.

GOOD TEACHING: WHAT IS IT?
In 1987 AW Chickering and ZF Gamson published their “Seven Principles for Good Practice in Undergraduate Education”\(^1\). The authors contend that their seven principles are ‘common sense’ and rest on 50 years of research on the way teachers teach and students learn. It is clear from the number of citations which this work receives\(^2\), that the seven principles have been overwhelmingly taken up by the teaching research sector, and the fact that they do come across to the average reader as fairly obvious statements emphasises the extent to which they have been widely accepted in to University teaching over the last 20 years. The seven principles are:

Good practice in undergraduate education:
1. Encourages contact between student and faculty,
2. develops reciprocity and cooperation among students
3. encourages active learning
4. gives prompt feedback
5. emphasizes time on task
6. communicates high expectations, and
7. respects diverse talents and ways of learning

In addition, Chickering and Gamson identified that equally as important as teaching staff using the ‘seven principles’ was the development of an environment within the institution conducive to good practice. They suggested that a higher education institution should have the following qualities

- A strong sense of shared purpose
- Concrete support from administrators and faculty leaders for those purposes
- Adequate funding appropriate for the purposes
- Policies and procedures consistent with the purposes
- Continuing examination of how well the purposes are being achieved.

Again, many of this seems like common sense – however it is still relevant to note the emphasis that the authors put on each institution finding its own sense of shared purpose, demonstrating an

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\(^2\) ISI Web of Knowledge Citation Index – 155 citations since 1982.
understanding that higher education institutions are not (and should not be) homogenous: each has its own guiding mission.

Chickering and Gamson recognised that there is not one ‘right way’ to teach. Good teaching practices will be discipline specific, and will exist within the pedagogy of the discipline. The seven principles were not designed to be prescriptive, but instead to provide a framework around which staff could consider their teaching practices, and adhere to the principles in their own way.

In 1990 E.L Boyer published “Scholarship Reconsidered” a seminal work which considered the construct of ‘scholarship’ and suggested that scholarship should be considered in four dimensions – discovery, integration, application and teaching. His intention was to move away from a ‘teaching vs research’ paradigm, and by giving the term scholarship a broader meaning, bring teaching fully in to the scope of academic work. One of Boyer’s intentions was to re-instate teaching as one of the core activities at higher education institutions in America, where in the early 1990’s systems of reward and recognition focused almost exclusively on research outputs. Another of Boyer’s missions was to encourage higher education institutions in America to more fully define their roles, missions and values – Boyer talks about the idea of “diversity with dignity” within the sector – that different types of institutions can legitimately focus their efforts on different aspects of scholarship, and that these differences should not produce a hierarchy of universities but that institutions who chose to focus on the scholarship of teaching could be considered as legitimate as the traditional research institutions.

The impact of his work on raising the status of teaching can be seen through growing acceptance at higher education institutions that teaching quality should be assessed in promotion & tenure applications. However, whilst Boyer’s work was very successful in gaining acceptance of the legitimacy of teaching as part of the core of an academic’s work, and that recognition of teaching efforts was important to the continued improvement of higher education institutions, Boyer’s concept of the scholarship of teaching itself has been a contentious one, and has generated vigorous debate over a number of years. Whilst there is acceptance that teaching is important, and should be valued, there is little consensus surrounding what constitutes the scholarship of teaching specifically, and how it should be measured. There does seem to be consensus that such scholarship does enhance student learning and should be encouraged.

Boyer’s description of the scholarship of teaching is quite vague, and seems to be simply encouraging faculty to raise the status of teaching, and engage in great teaching. Boyer states that teachers must, above all, be well informed, and steeped in the knowledge of their field; pedagogical procedures should be carefully planned and continuously examined; lastly, great teachers create a common ground of intellectual commitment, stimulating active learning and encouraging students to be critical, creative thinkers. Boyer goes on to talk about the scholarship of teaching in terms of research about teaching and learning and classroom researchers who evaluate their own teaching as it takes place. Boyer suggests that in some universities it may be appropriate that the scholarship of discovery (research) become about the scholarship of teaching – that staff use a research model to evaluate and improve their teaching, and that staff undertake research in to their pedagogy.

This then is a very wide definition for the scholarship of teaching, which incorporates both the act of good teaching, and engagement in acts which have the potential to improve teaching and student learning outcomes. Some research drawing on Boyer’s work has differentiated between ‘scholarly teaching’ which consists of an explicit awareness of teaching as an act, the reflection of the teacher on their practice, and evaluation of their techniques; and the ‘scholarship of teaching’ as a more

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4 Paulsen MB, Feldman, KA “Exploring the Dimensions of the Scholarship of Teaching and Learning: Analytics for an Emerging Literature” New Directions for Institutional Research, no. 129, Spring 2006
5 Boyer Op Cit p28
6 Ibid. p64
7 Ibid p23-24
8 Ibid p60-61
9 Ibid p64
formal concept which requires that teaching be a public act (for example through publication). However, Boyer’s Scholarship Reconsidered doesn’t make this distinction, and whilst vague, seems to indicate that Boyer would consider ‘scholarly teaching’ to be subsumed by the concept of the ‘scholarship of teaching’. It is this broad definition of the ‘scholarship of teaching’ that has made it such an intense focus for discussion amongst researchers in the field over the last 15 years, as it is possible to interpret Boyer’s intentions in many different ways.

Taking a framework which separates ‘scholarly teaching’ from the ‘scholarship of teaching’, Chickering and Zamson’s seven principles are an example of engagement with ‘scholarly teaching’, but are not necessarily engagement with the ‘scholarship of teaching’ in and of itself. It becomes such engagement at the point that the academic shares their new understandings of their teaching practices, through the teaching process itself, with their colleagues, and uses this understanding to further enhance their teaching. This may occur in the form of a published paper, but it may not. Braxton, Luckley and Helland contend that the ‘goal of the scholarship of teaching should be the development and improvement of pedagogical content knowledge’. Shulman explains that ‘scholarship entails an artefact, a product, some form of community property…’, which means that for teaching to be accepted as scholarship, it must also be provided with the same kind of documentation and transformation, the artefacts of teaching must be created and preserved so that they can be judged by communities of peers.

Boyer’s description of the scholarship of teaching was sufficiently vague as to create a vast body of literature around it, and there are many differing views on what the scholarship of teaching actually is; and what an academic need do to be able to claim that they are engaged in such scholarship. However, most researchers seem to agree that the idea itself is very powerful, and the concept is one that is often employed by higher education institutions, even if implicitly, when considering how to measure excellence in teaching.

In 2006 the National Postsecondary Education Cooperative (NPEC) in America commissioned five reports for presentation at a national symposium aimed toward reviewing and synthesising the diverse literature on student success. Again, the outcomes of those reports agreed on very similar criteria for success – high expectations; coherence in the curriculum; integration of experiences, knowledge and skills; opportunities for active learning; assessment and frequent feedback; collaborative learning opportunities; time on task; respect for diversity; frequent contact with Faculty; emphasis on the first-year experience; and the development of connections between classroom work and learning opportunities outside the classroom. The similarities between these identified factors in student success and Chickering’s seven principles are clear – and indeed many of the contributing authors to the NPEC symposium draw heavily from the work of Chickering and of Boyer. The NPEC also recognised the importance of institutional support for good teaching – in his report; Braxton starts with indicators of student success, and aspects of faculty role performance which ensure such success, but concentrates on how institutions, state and national bodies can support a culture of teaching scholarship which will encourage staff to participate in good teaching activities.

At UWA, the trend in the last few years has been to align criteria of good teaching with the Carrick Institute of Learning and Teaching in Higher Education’s criteria for the Carrick Australian University Teaching Awards (and in particular with the criteria for the excellence in teaching awards). These criteria are:

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10 Paulsen & Feldman, Op Cit. p27
1. Approaches to teaching that influence, motivate and inspire students to learn
2. Development of curricula and resources that reflect a command of the field
3. Approaches to assessment and feedback that foster independent learning
4. Respect and support for the development of students as individuals
5. Scholarly activities that have influenced and enhanced learning and teaching

Commonalities can be seen between these criteria and Chickering and Zamson’s Seven Principles; and criteria 2 and 5 are directly related to the concept of ‘scholarship of teaching’.

Denise Chalmers, from the Carrick Institute for Learning and Teaching in Higher Education, has recently undertaken extensive research in developing the new Teaching Quality Indicators Framework which attempts to pull together the current research in to measuring teaching quality in to a framework which can be used by higher education institutions in Australia. Her research suggests that there are four dimensions where improved quality has a high likelihood of positively affecting student learning outcomes:

- Assessment
- Engagement and Learning Community
- Diversity and Inclusivity
- Institutional Climate and Systems

The emphasis is on systems and processes to enhance the probability of quality teaching practices rather than on individual staff practices. The challenge set out by Chalmers is for institutions to explicitly fund and support quality teaching practices to give their academic staff the best opportunity to practice the scholarship of teaching, and use the best teaching practices available to them.

However, it must be recognised that the best intentions of institutions will not affect the actual quality of teaching without some emphasis on the individual teachers themselves – we not only need to provide the support and infrastructure; but explicitly expect a certain level of teaching quality from our staff, and reward such quality where it is evident. To do this requires explicit understanding of what we consider to be high quality teaching; and in this instance Chalmers refers us back to the existing literature. In addition however, we also need to be able to measure and record quality teaching when we find it – how do we demonstrate our adherence to the seven principles, or undertaking the scholarship of teaching; how do we demonstrate our adherence to the Carrick criteria? This is the essence of the Teaching Quality Indicators project.

Professional development in teaching of academic staff is increasingly recognised as a key way to improve the quality of teaching practices. Chalmers’ work indicates that academic staff with teaching qualifications engage in higher quality teaching than those without such qualifications. There is still significant resistance in the higher education sector within Australia to the concept of qualifications in higher education teaching, but significant numbers of universities are now introducing formal teaching qualifications for their staff, and encouraging staff to engage in professional development of some kind to enhance their teaching practices.

In 2003, Chalmers undertook a study on support for sessional teaching staff; and concluded that professional development for such staff is also crucial for the student learning experience. The “Training, Managing and Supporting Sessional Teaching Staff” project was undertaken by the University of Queensland and the Queensland University of Technology and funded by the Australian Universities Teaching Committee (AUTC) in recognition of the increasing casualisation of the workforce in higher education and issues associated with integrating casual academic staff in to the teaching culture of institutions, to ensure a high quality of teaching was maintained. It resulted in the

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16 Ibid.
18 Ibid p83
19 Of eight pilot universities participating in the Carrick project UWA is the only one which does not offer a qualification in higher education. All Go8 universities, except UWA, also offer a qualification in higher education.
The literature on good teaching in higher education is wide-ranging but this review concludes that a consensus does seem to have been reached on those aspects of teaching in a higher education environment which are likely to improve the quality of learning outcomes for students.

MEASURING TEACHING:

Three main ways of measuring quality teaching have been identified in the literature – student evaluations; peer review; and self-assessment.

Dr Paul Barrie, Dr Paul Ginns and Ms Rachel Symons from the Institute for Teaching and Learning at the University of Sydney are currently undertaking a project as part of the wider Carrick Teaching Quality Indicators project being led by Denise Chalmers to investigate the current practice in higher education institutions in Australia in using Student Surveys as an evaluation technique in teaching and learning. Barrie’s work suggests that student evaluations of teaching are a key indicator for measuring teaching quality, but are only useful when used in combination with other measures, and must be robustly analysed and their limitations accepted. Barrie also points out that the questions asked of students necessarily reflect an implicit or explicit set of beliefs about what constitutes quality teaching. Student evaluations are relied on more heavily in Australian higher education than is usual internationally, and this reflects in part the pervasive influence of student focused learning perspectives on conceptions of teaching quality in Australia, and in part a shift in the sector toward considering students as ‘clients’ of higher education services. The Course Experience Questionnaire (CEQ), which is a national student survey, is a key performance indicator in the sector and indeed is now employed by the Federal Government of Australia in allocating performance funding through the Learning and Teaching Performance Fund. This reliance on the CEQ and its increasing importance has raised a number of questions about the centrality of student evaluations in quality teaching indicators in Australia as universities increasingly have to justify their performance on such surveys.

The focus in many Australian higher education institutions has been on using performance indicators as a way of enhancing / developing the teaching skills of academic staff, rather than as a performance management tool. However, more and more institutions are moving toward a performance management model, and the current indicators used (such as student evaluations) may not be able to hold up to the new scrutiny to which they are now being subjected.

A number of indicators of quality teaching have been identified as being best measured through a process of peer review, rather than student evaluations. Student evaluations cannot provide an assessment of elements such as the teaching content, pedagogical content and ethical standards of practice – these dimensions of quality teaching are best assessed by colleagues. The University of Western Australia first considered the introduction of Peer Review of Teaching in 2005 with a paper prepared by Dr David Coall which provided an overview of possible approaches to a peer review scheme at UWA. Dr Coall identified some of the risk factors involved in introducing a peer review process, and encouraged the use of peer review as a formative (assessment for the purpose of self-improvement) rather than summative (evaluative assessment) evaluation process. In particular, the

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22 Ibid p6
23 Ibid p6
24 Coall, D, Peer Review of Teaching, Centre for the Advancement of Teaching and Learning, October 2005 Retrieved from [http://committees.intranet.uwa.edu.au/ _data/page/38547/atlth.pdf](http://committees.intranet.uwa.edu.au/_data/page/38547/atlth.pdf) (UWA staff only) on 29th November 2007, p1
25 Ibid p1
research appears to indicate that where peer review is linked to promotion & tenure decisions it suffers increased resistance and fear from academic staff. 26

However, peer review is considered to be a powerful tool in the enhancement of the student learning experience. Coall identifies that some of the resistance to peer review of teaching is a perception amongst academic staff that quality teaching cannot be defined – that we don’t know what it is. However, Coall points out that there is a wealth of literature which does define quality teaching, there is general acceptance amongst researchers in this area as to what constitutes good teaching, and that this perception amongst many academic staff comes about through a lack of knowledge of current research in the field, and the generally lower status of teaching compared to research which causes academic staff to think of it as a personal and private act, rather than a public act which can be subjected to rigorous standards 27.

Atwood et all suggest that to decrease resistance and fear amongst teaching staff, the focus of peer review should be on student learning, rather than teaching style. To assist with this, Atwood defines good teaching as

"purposeful activity designed to bring about learning in others, and it is good or successful in the degree to which it helps accomplish intended learning." 28

In this way, the focus of peer review becomes how to demonstrate that learning has occurred, rather than an evaluation of a particular academic staff member’s teaching style. 29

Atwood identifies a number of strategies for lessening resistance and fear to peer review and engaging academic staff in the process – he draws parallels between peer review of teaching and peer review of research, and makes explicit links in the methodology of the two processes. Atwood asks the question “whether research is so different from teaching that a focused and intentional approach is effective in the former, whereas it would not be effective in the latter” 30 He also suggests that the choice of reviewer is key to success, and that there is no particular reason why a reviewer needs to be from the same discipline or the same institution as the reviewee. Atwood’s definition of peer review is broad – peer observation is only one aspect of a peer review process, which also includes the preparation of ‘reflective memos’, review of learning materials, mentoring arrangements, teaching circles (or teaching communities) and teaching folios 31. Lastly, he suggests that if peer review is eventually to be used for summative purposes, a beneficial approach would be to use it for formative purposes first. This approach allows academic staff to understand the process in a less pressured environment, iron out any perceived unfairness, and if the first staff to participate are senior academics has the potential to raise the status of teaching within the institution. 32

Atwood sees four reasons why teachers should engage in the peer review of teaching – as a motivation for self-improvement, to generate a more scholarly metric of teaching besides student evaluations, academic recognition of teaching, and as an alternative to bureaucratically decreed forms of accountability 33. In this schema peer review is ‘owned’ by the teacher and his peers, not by the ‘institution’, even if such review is being used for evaluative purposes. Lastly, Atwood echoes the views of Lee Shulman in stating that teaching should, like other scholarly activity, be shared community property. The driver of peer review is not that teaching is somehow deficient, but that it is invisible. This means that the responsibility which is taken for granted in other forms of scholarly work to document, share, seek out critique and feedback and contribute to the advancement of thinking and practice in the field is not evident in teaching. 34

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26 Atwood et al. “Why are Chemists and other scientists afraid of the peer review of teaching?” Journal of Chemical Education, 77.2, February 2000, p239
27 Coall Op Cit p7
28 Atwood op Cit p240
29 Ibid p240
30 Ibid p241
31 Ibid p239
32 Ibid p240-241
33 Ibid 241
34 Ibid p243
In 2007 Dr Allan Goody, the then Director of the Centre for the Advancement of Teaching and Learning proposed a peer review process for the University of Western Australia. The proposal was designed to be as flexible as possible and it was envisaged that the process would serve both as a formative tool for individuals to enhance their teaching, but also as a summative evaluation tool for promotion and development review purposes. For this reason whilst Goody’s paper sets out some thoughts and suggestions for undertaking peer review, he does not prescribe a set of guidelines / processes to be followed at UWA. Goody’s paper is currently being considered by relevant stakeholders at UWA.

At UWA the main instrument currently in use is self-assessment, although this may be more because of a lack of robust peer review and student evaluation mechanisms rather than a desired policy direction. The University relies on the academic staff members’ production of an academic portfolio, which whilst it may include other forms of evidence, is primarily a self-reflective document. In much of the literature, such forms of self-assessment are included in discussions of peer review if they are subjected to evaluation by a colleague. Atwood’s ‘reflective memos’ are of this type, and he also includes teaching folios in his description of peer review mechanisms.

**DIFFERENTIATING ‘GOOD’ AND ‘GREAT’ TEACHING**

One of the challenges of any set of criteria for measuring quality teaching for the purposes of promotion or performance management is that it must be able to differentiate between academic staff at different levels in their career. An academic just starting out in their teaching career with little or no formal training in teaching cannot be expected to meet the same levels of expertise as a professor with twenty years experience and training.

At UWA current promotion criteria take account of the need to recognise different levels of expertise through the use of generic single paragraph statements, which differentiate academic levels by the level of commitment to teaching (professional commitment; significant professional commitment; outstanding professional commitment); the maintenance of academic standards (committed to; active role in; leadership role in) their involvement in curriculum review and policy (not differentiated) and contributions to the advancement of teaching (performing academic and administrative responsibilities; original and/or innovative contribution; original, innovative and distinguished contributions). Unfortunately, there are no guidelines currently in use to indicate how to measure an academic staff members’ performance at each level, and the requirements are vague and do not actually refer to good teaching practice, but rather attitudes toward teaching. In addition, the guidelines in place to assist staff prepare applications (and demonstrate good teaching) do not relate to these stated criteria, but are instead linked to principles of good teaching (aligned with Carrick award criteria). New promotion criteria recently developed by the University set out clear expectations for good teaching, but do not differentiate between levels. Unfortunately, the draft framework of performance indicators developed by Carrick, whilst including evidence based performance indicators at the individual teacher level does not give an indication of the relative importance of each indicator in terms of their relationship to student learning outcomes, and its recommendations for potential ways to measure these indicators are vague.

Much work has been done at the primary and secondary school level to develop performance standards for teachers, and whilst the context of a higher education institution is very different, there is merit in considering the models used in the wider education sector. One lesson is the importance

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37 Atwood et al Op Cit p239


39 Draft Teaching Quality Indicator Framework Tables; provided by Denise Chalmers for the Carrick Institute to pilot project institutions.
of developmental standards\textsuperscript{40} – teachers must be able to see clear developmental links between criteria at one level and the next, and the criteria must reflect the natural developmental path of academic staff as they teach and learn how to teach. Lee Partridge has suggested that it is useful to use Bloom’s taxonomy of educational objectives\textsuperscript{41}, as although it was developed as a way of categorising how students learn, it is equally relevant as a system for categorising how teachers learn to teach, and develop their skills as educators.

CONCLUSION

In conclusion, whilst there may be a perception amongst academic staff and the university community that good teaching cannot be defined and is hard to measure, this is not supported by the research evidence, which indicates that in fact we do know what good teaching is; however we express it, and we can employ some robust mechanisms for measuring the success of our teaching and to encourage improvement.

Good teaching consists of: student-teacher interaction, and student-student interaction; engagement of the student with the subject matter (active learning); a combination of formative and summative assessment, and assessment practices which are aligned with the desired learning outcomes; prompt and meaningful feedback; a expert command of the field of study on behalf of the teacher; an understanding of the diverse needs of students, and effort to take account of such differences; engagement of the teacher with the scholarship of teaching – a constant effort to improve teaching through understanding the most current research, engaging in peer review with colleagues, and being part of a community of teachers both within the institution, and across the discipline.

Good teaching as outlined above can be measured in 3 main ways – student evaluation (satisfaction indexes; focus groups; student learning outcomes as evidenced by performance on ‘whole of unit’ examinations); peer review (peer observation, review of teaching materials, development of teaching communities, mentoring arrangements); and lastly self-assessment (teaching folios, reflective memos). All three are valid and important ways of measuring the success of an individual’s teaching and bringing about improvement. Some are ‘formative’ and some are ‘summative’ and some can be either, depending on context. It is important for any process of measuring good teaching that we employ both types of assessment – there must be a process whereby academic staff are encouraged to improve their teaching practices, both before and after any attempt at summative assessment of their performance, and that regardless of the outcome of a summative assessment, staff are supported and encouraged to improve their teaching practice through professional development and reward and recognition. In addition, it is equally important to measure and improve the support for good teaching provided by the institution, its faculties and schools, including systems for the recognition and reward of good teaching. Only with this institution-wide support for the practice of teaching will its status be improved in higher education institutions, and performance management tools accepted by academic staff.

The challenge for the TQI pilot project at UWA is not to identify good teaching practices, nor ways to measure such practice, but to develop robust tools which differentiate between different levels of teaching success and ways of interpreting the information provided by the three forms of measurement which are systematic and defensible.

\textsuperscript{40} Partridge, Lee; Dobowski, Shelda; “Defining Performance Expectations: A critical Review of Teaching standards and guidelines” University of Western Australia. Paper prepared as part of a research project undertaken on behalf of Scotch College and provided by the author. Page 6

IMPLICATIONS FOR THE TEACHING QUALITY INDICATORS PROJECT

For the Teaching Quality Indicators Project at UWA, the above analysis means a number of things –

1. That robust systems of both peer review and student evaluation of teaching are crucial to any system of measuring quality teaching, and are as equally relevant as self-assessment.

2. That acceptance of criteria of good teaching amongst academic staff may require a substantial culture shift to raise the status of teaching within the institution so that staff accept and understand that teaching can and should be subjected to the same intellectual rigour as research.

3. That it should be possible to identify criteria of good teaching on the individual level which can be measured and used as a performance management tool, alongside indicators of support for good teaching at the institution-wide, faculty, and school levels.

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