



Professional Learning Micro-credential Course Handbook

Driving data-informed practice

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Driving data-informed practice

Data Driven Practice is currently offered wholly online due to COVID-19 travel restrictions.

About this course

ACER's work in school improvement using the National School Improvement Tool© for almost a decade - throughout Australia and internationally - with diverse schools and education systems has provided us with unique insights into school's practices in the use of data to improve learning. Our research through the Centre for School and System Improvement shows that schools and teachers often struggle with data planning and data use.

This highly practical course has been designed by ACER experts in school improvement and data planning to support school leadership teams to use data effectively to improve student learning and implement evidence-based strategies to monitor student growth and the effectiveness of programs and interventions.

Schools are encouraged to have a small group of leaders working together to complete this course. The Learning Assurance Tasks (LATs) are skills-based and practical, and designed to support school leaders and teachers in reviewing current approaches to data collection, data analysis, and to use and develop a whole-of-school data plan. These tasks provide opportunities for expert feedback on individual school-based strategies through the learning assessment tasks.

The course is particularly useful for schools where there is a good understanding of how to use the NSIT© to collect evidence of performance against the nine Domains, or in schools and education systems where the NSIT© has been used to review schools as the next step in school improvement planning.

ACER micro-credentials

Successful completion of all four modules and learning assurance tasks (LATs) in this ACER micro-credential is equivalent to one subject/unit of postgraduate study at AQF level 8. A grade of 50% or more is required for each LAT. ACER micro-credentials are designed to upskill you in specialist areas of your work without the time and cost commitment of enrolling in a full degree.

Course content

The content of this course specifically addresses the characteristics of Domain 2: Analysis and Discussion of Data from the *National School Improvement Tool* © and draws upon the characteristics of Domain 5: Driving data-informed practice from the Principal Performance Improvement Tool © and relevant to school and system leaders and teachers which wish to deepen their knowledge and practice in using data systematically to:

- Inform school-level decision making
- Strengthen a culture of self-evaluation and reflection using data
- Lead key stakeholders in using multiple sources of data to evaluate their impact on learning.

There are four modules in the course. The modules support you to:

- Investigate and identify reliable data to inform *your* school improvement agenda.
- Conduct an evaluation and audit of the range of existing data sets in your school used to monitor student learning and growth over time.
- Develop a systematic plan for the collection, analysis and use of your data to underpin your school improvement agenda. This data plan will inform your school professional learning plan.
- Evaluate the current role school leadership teams, teachers and key stakeholders have in analysing and discussing key data sets, including your school's data culture and routines for the use of data to improve student learning.
- Decide how and when to share data with your school community.

Module One: The theory and process of data-informed practice and using multiple sources of evidence to inform decision making.

In this module we explore the evidence base for data-informed improvements in student learning in schools. This module discusses the multiple sources of evidence schools can use to monitor performance. We will consider what data are important for continuous school improvement and how analysing multiple sources of evidence strengthens evidence-based decision making.

Module Two: Assessment as data sources

This module will look at assessment and grading as data sources and will include an exploration of the fundamental purpose of assessment. This module will introduce ACER's distinctive approach to assessment.

Module Three: Data plans in schools

In this module we discuss how a school can establish and enact a clear vision for using data to inform decision making by developing a data plan. We examine the key elements of an effective data plan and the conditions that support data use in schools. This module will also discuss assessments as an integral data set, and how ACER's understanding of learning progressions is emblematic of our approach to assessment. We discuss how learning progressions can be used to understand and monitor growth in learning.

Module Four: Building a data culture

In this module we focus on evidence-based theories, strategies, and practices for building a data culture in a school, including professional learning communities, communities of practice and the spiral of inquiry. This module also investigates how the inclusion of key stakeholders – teachers, staff, Board/Council members and students – are critical to this culture and the success of the school's data plan and improvements in student learning.

Course details

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| Time commitment | 16 weeks (a notional 150 hours of work) including contact hours, online community contributions, attendance at online sessions, personal study, embedded research, and authentic assessment tasks. |
| Assumed knowledge/exclusions | A Bachelor's degree in education, or equivalent study combined with prior teaching or training. Meet the minimum English language entry requirements: if you are not a native English speaker, an International English Language Testing System (IELTS)(Academic) assessment with an average band score of 7.5 across all four skill areas of listening, speaking, reading and writing is assumed. |
| Learning Outcomes | On successful completion of all modules in this course, you will be able to: <ul style="list-style-type: none">• Critically reflect on theory and professional practice in the use of a range of data to inform decision making and improvement in student learning in schools• Investigate, interrogate, and select a range of data that will objectively inform improvement in student learning and a school agenda/strategy• Formulate and execute a whole-of-school data plan to drive data-informed practice. |
| Assessment and weighting | There are two practice-oriented assessment tasks: Assessment Task 1: Review Report: 2000 (equivalent) (40 per cent) Assessment Task 2: Data Plan: 3000 (equivalent) (60 per cent) |
| Census date | Friday 19 September 2020 is the final date that you can withdraw from this course without financial penalty. It is your responsibility to ensure that your enrolment and payment details are correct by the census date. |

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| Course coordinator | Christina Rogers Christina.rogers@acer.org |
| Subject matter experts | Professor Pauline Taylor-Guy Rob Hassell Christina Rogers |
| Online facilitators | Rob Hassell r.hassell@learn.acer.edu.au |
| Student administration | Student administrator ACER Institute t: 61 3 9277 5202 e: courses@acer.org |

Course structure and calendar

| Week/contact hours | Lesson | Notes |
|--|--|---|
| Week 1 | Getting Started Module One The theory and process of data-informed practice and multiple sources of evidence to inform decision making | Video conference using Big Blue Button, please check Moodle for details. Tasks One and Two (discussion forums) |
| Week 2 7.5 contact hours online learning | Module One The theory and process of data-informed practice and multiple sources of evidence to inform decision making | Tasks Three and Four (discussion forums) Journal Reflection |
| Week 3 7.5 contact hours online learning | Module Two: Assessment and grading with an introduction to assessment reform and the purpose of assessment Introduction to LAT 1 - You will develop a review process and conduct this in your school, generating an investigative report with the findings. | Tasks Five and Six (discussion forum) Journal Reflection |
| Week 4 | You will be working on developing your review process | |
| Week 5 | You will be conducting your review of school-based practices. LAT 1 Check In 1 | Task Seven (discussion forum) Big Blue Button optional check in Journal Reflection |
| Week 6 | You will be conducting your review of school-based practices. | Big Blue Button optional check in |
| Week 7 | LAT 1 Check In 2 Milestones and Challenges. Review progress on the school data set audit and the investigative report. | Task Eight (discussion forum) Journal Reflection |
| Week 8 | Participants finalise review of school-based practices | LAT 1 Submission due, Friday week 8. |

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|---|---|---|
| Week 9 7.5 contact hours – online learning | Module Three Data Plans in Schools - Initiate and collaboratively develop a whole-of-school data plan Introduction of LAT 2 | Task 9 (Discussion Forum) Journal Reflection |
| Week 10 7.5 contact hours – online learning | Module Four Building a data culture | Task Ten (discussion forum) |
| Week 11 | School teams working on LAT 2 | Big Blue Button optional check in |
| Week 12 | School teams working on LAT 2 | |
| Week 13 | School teams working on LAT 2 LAT 2 check in 1 | Optional Discussion forum |
| Week 14 | School teams working on LAT 2 | Big Blue Button optional check in |
| Week 15 | School teams working on LAT 2 Lat 2 check in 2 | Discussion Forum |
| Week 16 | Finalisation of data plan (LAT 2) | LAT 2 submission due, Friday week 16. |

Learning Assurance Tasks

Your learning assurance tasks provide opportunities to receive expert feedback on your data review and your data plan. Successful completion of the LATs requires a minimum grade of 50% for each task. Expert feedback will be provided for each LAT submitted.

Online community contributions are expected as part of the learning process; giving and receiving peer and expert feedback on your ideas assists with developing knowledge. Research shows that collaboration and discussion are an important part of the process of learning (Bruffee, 1999; Bruner, 1985; Palloff & Pratt, 1999; Vygotsky, 1978¹) and a benefit of participation in a professional learning community. Your online facilitator contributes to these discussions and is an important touchpoint for clarification and questions.

¹ Bruffee, K. A. (1999). *Collaborative learning: Higher education, interdependence, and the authority of knowledge*. Baltimore, MD: Johns Hopkins University Press.

Bruner, J. (1985). Vygotsky: An historical and conceptual perspective. In James V. Wertsch (Ed.), *Culture, communication, and cognition: Vygotskian perspectives*, (pp. 21-34). London, England: Cambridge University Press.

Palloff, R. M., & Pratt, K. (1999). *Building learning communities in cyberspace: Effective strategies for the online classroom*. San Francisco, CA: Jossey-Bass.

Vygotsky, L. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press. Retrieved from <https://www.ebscohost.com/ebooks/academic/subscriptions/academic-ebook-subscriptions>

LAT matrix

| Learning Assurance Task (LAT) details | Learning Outcomes | Due date | Weighting % |
|--|--|--|-------------|
| <p>LAT 1: Investigative Report</p> <p>An audit, analysis and critical examination of the current types, purpose and use of data in schools, using the readings and your school's context.</p> <p>Notional 2000 words</p> | <ul style="list-style-type: none"> Critically reflect on theory and professional practice in the use of data to inform decision making and teaching in schools Investigate, interrogate, and select a range of data that will objectively inform improvement in student learning and a school agenda | Friday of Week 8 before 11.55 pm AEST | 40% |
| <p>LAT 2: Data Plan</p> <p>Initiate and collaboratively develop a whole-of school data plan in the context of the NSIT and your school's explicit improvement agenda.</p> <p>Notional 3000 words</p> | <ul style="list-style-type: none"> Formulate and execute a whole of school data plan to drive data-informed practice Investigate, interrogate, and select a range of data that will objectively inform improvement in student learning and a school agenda | Friday of Week 16 before 11.55 pm AEST | 60% |

LAT submission

- Assessment tasks are submitted in electronic format using the Moodle LMS.
- Successful submission of assessment tasks will be reflected on the LMS, with accounts showing a confirmation of submission.
- Please submit your assessment as one document unless indicated otherwise.
- References must be accurately cited; APA 7 is ACER's preferred referencing style.
- Marking criteria (rubrics) are provided in Moodle to outline how each task will be assessed.
- Please note that all student-facing policies can be viewed at <https://www.acer.org/professional-learning/postgraduate/students/policies>
- If you are unable to submit the assessment by the date specified, you should notify your course facilitator in the first instance.
- Submitted work will be kept in accordance with the ACER Institute's *Records Management and Information Security Policy*.

Marking

The marking rubric for each assessment is available in Moodle.

Academic integrity

Academic integrity means the commitment to act ethically, with honesty, respect, and fairness in creating and/or publishing and/or otherwise communicating information in an academic environment. It involves the use, production, and dissemination of information in a respectful and responsible way. Using the ideas of someone – unintentionally and intentionally – without giving proper credit is a breach of academic integrity. For example, *you must avoid*:

- Copying part of a sentence, whole sentence(s) or paragraph(s) from an article, book, lecture notes, essay, report, or any other source without using quotation marks and acknowledging the source.
- Paraphrasing or reusing the ideas of others and expressing them in different words without acknowledging the source.

Technical information

- You will need access to a desktop or laptop computer.
- Moodle runs best on the following browsers: Google Chrome, Firefox, Safari, and Internet Explorer. Please ensure you are using the latest version of your browser.
- Your login details will be emailed to you - Login directly to Moodle at:
<https://onlinelearning.acer.edu.au>
- BigBlue Button is a web conferencing system accessed in your Moodle course website. BigBlue Button orientation and help sheets are available through student support in Moodle.

Joining Moodle sessions using a mobile device:

- Moodle App - Download the Moodle App to access Moodle on your mobile device:
<https://moodle.com/moodle-app/>
- BigBlue Button works well with an Android (6.0+) or iOS (12.2+). When you join a webinar session using your mobile device (phone or tablet), the mobile browser automatically loads the BigBlue Button HTML5 client and adjusts to your device.

Readings by week

Week 1: Pre-reading

Masters, G. (2013). *Reforming Educational Assessment: Imperatives, principles, and challenges*. Victoria, Australia: Australian Council for Educational Research.
<https://research.acer.edu.au/aer/12/>

Matters, G. (2006) *Using Data to Support Learning in Schools: Students, teachers, systems*.
<https://research.acer.edu.au/cgi/viewcontent.cgi?article=1004&context=aer>

Week 2: Readings for Module One

Bernhardt, V., (2004) Continuous Improvement: It takes more than test scores. *ACSA Leadership* November/December 2004, 16-19

Bruniges, M. (2012, August 28). *Keynote 3 - Developing and implementing an explicit school improvement agenda* [Paper presentation]. 2012 - School Improvement: What does research tell us about effective strategies?
https://research.acer.edu.au/research_conference/RC2012/28august/1

Schildkamp, K. (2019). *Data-based decision-making for school improvement: Research insights and gaps*, *Educational Research*, 61:3, 257-273, Retrieved from
DOI: 10.1080/00131881.2019.1625716

Masters, G. N. (2012, August 27). *Continual improvement through aligned effort* [Paper presentation]. 2012 - School Improvement: What does research tell us about effective strategies?
https://research.acer.edu.au/research_conference/RC2012/27august/3

Readings for multiple sources of evidence to inform decision making

Bernhardt, V. L. (1998). Invited Monograph No. 4. California Association for Supervision and Curriculum Development (CASCD).
https://nces.ed.gov/pubs2007/curriculum/pdf/multiple_measures.pdf

Earl, L. and Fullan, M., (2003) Using Data in Leadership Learning *Cambridge Journal of Education* Vol. 33, No 3 November 2003. <http://michaelfullan.ca/wp-content/uploads/2016/06/13396056660.pdf>

Week 3: Readings for Module Two

Readings for assessment reform and the purpose of assessment

Brookhart, S., (2014, 31 July) *Assessment* <https://youtu.be/9OLVf6s7crE>

Brookhart, S., (2011). *Starting The Conversation About Grading - Educational Leadership*. [online] Ascd.org. <http://www.ascd.org/publications/educational-leadership/nov11/vol69/num03/Starting-the-Conversation-About-Grading.aspx>

Earp, J. (2015) Developing your assessment Skills ACER Teacher Magazine December 2015, Melbourne Australia. <https://www.teachermagazine.com.au/articles/developing-your-assessment-skills>

Griffin, P. and Robertson, P. (2014) Chapter 1: Professional learning teams and decision-making in *Assessment for learning* (pp. 13-20). Cambridge University Press, Port Melbourne, VIC 3207, Australia
http://assets.cambridge.org/97811076/36095/frontmatter/9781107636095_frontmatter.pdf

Masters, G. (2013). *Reforming Educational Assessment: Imperatives, principles, and challenges*. Victoria, Australia: Australian Council for Educational Research Retrieved from <https://research.acer.edu.au/aer/12/>

Week 9: Readings for Module Three

Readings for Data Plans in Schools

Bernhardt, V., (2005) Data Tools for School Improvement. *ASCD Educational Leadership* February 2005, Volume 62, Number 5. 66-69

Sharratt, L. & Fullan, M. (2012) *Putting Faces on the data*. <http://michaelfullan.ca/wp-content/uploads/2016/06/13396086040.pdf>

Timperley, H. (2018, June 13) How should schools determine their inquiry focus?
<https://www.youtube.com/watch?v=mfoYjQRbErs>

Timperley, H., et al., (2020) *Leading Professional Learning: Practical Strategies for impact in schools*. ACER Press. Melbourne, Australia. Pp. 63-77

[From Pre-Reading]

Matters, G. (2006) *Using Data to Support Learning in Schools: Students, teachers, systems*.
<https://research.acer.edu.au/cgi/viewcontent.cgi?article=1004&context=aer>

[From Module 2]

Masters, G. (2013). *Reforming Educational Assessment: Imperatives, principles, and challenges*. Victoria, Australia: Australian Council for Educational Research.
<https://research.acer.edu.au/aer/12/>

Week 10: Readings for Module Four

Readings - Building a Data Culture

Fisk, S., (2020) *Reimagining the future of education Podcast Episode 10 – Building a Data Democracy and Data storytelling*, June 9, 2020 <https://www.youtube.com/watch?v=Cdu02xgulis>

Moyle, K., (2016) *Using data, conversations and observations for school improvement*
https://research.acer.edu.au/professional_dev/11/

Timperley, H. (2018, June 12). How does evaluative thinking inform the spiral of inquiry?
<https://www.youtube.com/watch?v=3Zbn7FdBKZQ>