National Newsletter: Technology

Information and resources for middle leaders in secondary schools | Term 1 2013

Kia ora koutou, welcome to the first newsletter for 2013.

Collecting, interpreting and using data to inform teaching

Middle leaders and teachers will, at this time of the year, have access to their NCEA data. Collecting student performance data and using it to inform instruction is key to successful curriculum design to support accelerated achievement for priority students. It is important all teachers are confident and skilled in applying this data in making future decisions about teaching and learning programmes and finding using this information to meet student needs.

Teaching as Inquiring that leads to professional learning and improvement in student outcomes begins with questions. The following are important questions that we as National coordinators believe you should be asking:

- What student focused data are you using that enable you and your department and teachers to gather feedback about their own practice and performance from peers and learners to inform planning and demonstrate effective pedagogy?
- How is data being used to answer questions about student achievement?
- How were your department results overall this year? Were they better or worse than previous years? What are the trends in achievement and engagement data?
- Did your students perform as well as students in another comparable school (using comparative functions in the NZQA data base search functions)?
- Is data being used to modify teaching and learning practices?
- Is data being used to interact with other teachers about student progress?
- How do you use data with each other at team meetings?
- How do you know that you are making a difference for students?
- How do you chart student progress?
- What strategies has your department found effective in working with students who are not progressing?
- What are the top 3 – 5 strategies that your department has found most effective?

By asking our own questions as part of the Teaching as Inquiry Cycle teachers become more open to new ways of teaching, and are more likely to come from thoughtful, experienced, confident teachers who are trying to find new or more effective solutions to meet student needs. "We need to move away from considering achievement data says something about the student and start considering achieving data as saying something about their teaching." (Hattie). It is well researched that the major influence on student learning is the teacher.

National workshops for Technology - key messages

A series of national workshops for Technology middle leaders are planned for terms 1 and 2. These will be consistent across the country and have been designed by Cheryl Pym and Lesley Pearce, the National Co-ordinators for Technology. We will be offering two workshops in each region and encourage middle leaders of Technology to attend both workshops.

National workshops schedule

Whangarei
Monday 6 May, Friday 21 June

Auckland
Friday 15 March, Thursday 30 May

Hamilton
Monday 18 March, Wednesday 12 June

Tauranga
Monday 25 March, Wednesday 5 June

Napier
Wednesday 27 March, Wednesday 19 June

New Plymouth
Wednesday 29 May, Thursday 4 July

Wellington
Thursday 30 May, Friday 5 July

Christchurch
Wednesday 10 April, Monday 24June

Dunedin
Thursday 11 April, Tuesday 25 June

More details soon...
Please note the relevant dates for your region. More details will be available soon about workshop content, venues and how to enroll. These workshops are supported by the Ministry of Education through the Secondary Student Achievement initiative. The workshops are free but participants will need to bring their own lunch.

Teachers need to dig down deep in order to gather and examine where their students and programmes is now, where it could be and the best path of getting there. NCEA data is not the only data teachers need to use to examine the effectiveness of their programmes and teaching. Other data can come from the school's demographics, attendance, behaviour, performance, learner achievement data (formative) perceptual and student voice. Possible data tools could include observation tools, rubrics and descriptions of pedagogy, class lesson plans and curriculum plans. Combined in different ways they allow teachers to see what is needed to improve student outcomes so a question: 'What teaching practices/processes achieve the most successful outcomes in technology for Year 11 student boys?' can be answered through a combination of process, achievement and demographic data.

All teachers need to develop a data culture and middle leaders need to support their department to be active players in this data rich environment and develop a system where collecting, interpreting and using data is integral in analysing the effectiveness of their programmes and consider adapting programmes, policies and procedures as necessary. The active data and evidence rich department will impact positively on student and teacher behaviour. The benefits to students are:

- Student centred programmes that addresses identified needs
- Helps to identify the strengths and weakness of students
- Improved programme performance
- Identifying strategies that are most likely to help students to learn
- Engaging students in their learning
- Understanding of programme context on student outcomes
- Student centered decision making.

Teachers need to develop a data culture where data is recognised as a necessary influence on informing practice and is an essential tool that should be used continually. Planning through teaching as inquiry should be a living document and therefore will need consistent adjustment as the programme unfolds and more data is analysed to better inform student learning and achievement. "A characteristic of good data is its potential to help teachers make good decisions about student learning. Data tell a story… The two questions uppermost in teachers' minds should be: What does it all mean and; how can we use it to improve student's achievements?"

http://www.trb.tas.gov.au/Shared%20Documents/Using%20data%20to%20inform%20teaching.pdf

Resources
For more information about producing NCEA result reports, and how to customise them, see How to create and print reports and Secondary statistics user manual.

Innovative Ways to Use Data to Inform Planning Of Teaching to Enhance Student Learning K. Rice, R. Smith University of Otago, Education Support Services, College of Education
http://library.iated.org/view/RICE2011INN

Quick guide to useful links and resources

Technology On Line
http://technology.tki.org.nz/

The Secondary portal on TKI
http://secondary.tki.org.nz/

Senior secondary teaching and learning guides
http://seniorsecondary.tki.org.nz/Technology

TKI NCEA Technology resources for aligned standards
http://ncea.tki.org.nz/Resources-for-aligned-standards/Technology

NCEA Technology on NZQA
http://www.nzqa.govt.nz/qualificationsstandards/qualifications/ncea/subjects/technology/levels/

NCEA Design and Visual Communication
http://www.nzqa.govt.nz/qualifications-standards/qualifications/ncea/subjects/graphics-dvc/levels/

National newsletters

These national newsletters are developed for every learning area by national co-ordinators from The University of Auckland and/or Te Tapuae o Rehua consortium (University of Canterbury, University of Otago and Te Rūnanga o Ngāi Tahu). For more information about Ministry-funded professional development for secondary middle leaders, visit this page on TKI:

http://nzcurriculum.tki.org.nz/Secondary-middle-leaders/Professional-learning-and-development

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