

Using NEMP assessment tasks in the classroom

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Using NEMP assessment tasks in the classroom: Three schools' experiences

“The primary purpose of school-based assessment is to improve students’ learning and the quality of the learning programmes” (Ministry of Education, 1993, p.24). However, this noteworthy aim has often been submerged by the increasing accountability and its accompanying tide of paperwork that has characterised the educational reform of the last few years. Greater emphasis has been placed on the assessment and reporting of student progress, with teachers reporting that the greatest challenge resulting from educational reforms has been the changes to assessment practices (Gordon & Bonilla-Bowman, 1996). Teachers and schools are in the position of trying to reconcile the competing demands of assessment **for** learning and assessment **of** learning. In some cases, the necessity of gathering data for accountability purposes has been at the expense of assessment primarily aimed at improving learning and teaching (Hill, 1999). Principals and teachers struggle to find a way of gathering and reporting information on student achievement that remains true to the purpose of improving learning, is valid and reliable, and yet manageable within a reasonable teaching workload.

As part of managing the competing and often conflicting demands of assessment, some schools are choosing to use assessment tasks for a number of purposes. These can include providing feedback to students about their performance, developing school-wide expectations of achievement and reporting to the school community and Board of Trustees. However, the primary aim of classroom assessment should remain that of improving teaching and learning, and it is essential that the integrity of the original purpose of the assessment is maintained as we find ways of making it useful for accountability purposes.

This issue is being heightened with the introduction of the new Education Standards Act. This Act requires schools to be explicit in their expectations of student achievement. A critical factor for this to be successful is that the assessment information should enable sound judgements about achievement and progress to be made. The current National Assessment Strategy seeks to increase the range of assessment tools and advises schools to gather high quality externally referenced information for analysis and planning (Ministry of Education, 2002, p.4). To this end, it is recommended that schools use a national assessment tool to gather information school-wide, thus enabling reliable and consistent judgements to be made about student achievement. The use of externally referenced information can also help address teachers' concern that they are pitching their teaching at the correct level.

One national assessment tool that can be used for this purpose is the assessment tasks used in the National Education Monitoring Project (NEMP). NEMP began in 1995 with the goal of obtaining a detailed national picture of the educational achievement and attitudes of New Zealand primary and intermediate school students. Each year 3200 students from 280 schools are chosen at random to participate, half in year 4 and half in year 8. Different curriculum-related areas and skills are assessed each year, over a four year cycle. NEMP provides “ a snapshot of children’s knowledge, skills and motivation, and a way to identify which aspects are improving, staying constant or declining” (Flockton and Crooks, 2001, p.5). The results from each year’s assessments are presented in the NEMP reports that are posted to schools each year.

The assessment tasks included in each NEMP report can provide a rich resource for use for school-wide or classroom-based assessment. There are a number of reasons for this. Firstly, the tasks have been developed in consultation with New Zealand curriculum experts. The assessment tasks have been developed with New Zealand children and the New Zealand curriculum in mind. They also use a range of assessment formats, from

performance-based “hands on” tasks, performed individually or in groups, to more traditional paper and pencil tests.

NEMP activities provide a national picture. For each question, the national average for the performance of year 4 and year 8 students is presented as a percentage. Schools are therefore able to determine a direct comparison of their results with the national average.

Within each curriculum area, the NEMP assessment tasks cover a wide range of important skills, knowledge and understandings. The tasks and materials used to support them are shown in detail in the report. The tasks can be used in the classroom with little modification. The marking criteria used by NEMP are also shown in the report so teachers are able to quickly see how they can analyse student work.

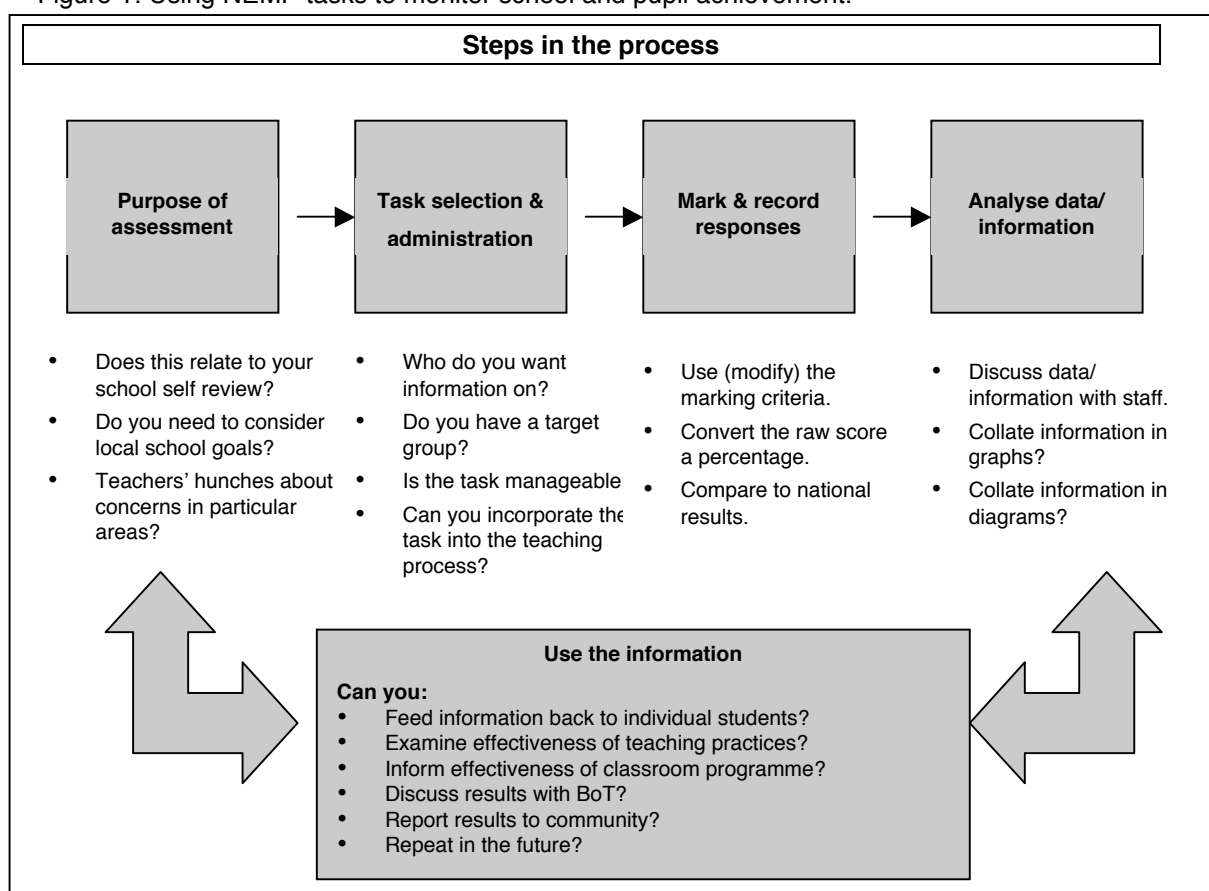
While the purpose of NEMP is summative, the question by question nature of the NEMP tasks are also useful for formative purposes.

How can a school use NEMP tasks?

- Identify the purpose for use
NEMP tasks can be useful for a number of purposes. The specific purpose needs to be identified and the assessment task chosen and modified appropriately.
- Identify and develop the specific learning outcome
- Select the activity that best fits the above from the NEMP report.
- Check the report to see how the task was administered for NEMP purposes (e.g. as an individual interview, as a written test or in a group)
- Modify the administration as required to meet requirements.
- Check the criteria for marking the task. Does this reflect the learning goal/intention, specific learning outcome or assessment outcome required?
- Modify the marking criteria as required to suit your purposes.

These processes are shown in Figure 1.

Figure 1: Using NEMP tasks to monitor school and pupil achievement.



Three schools have worked with the authors (an assessment advisor with Dunedin College of Education and a researcher with NEMP) to use NEMP tasks for school-wide assessment. Their experiences are reported here.

School A:

School A is a Year 1-8 school in Otago. The teachers wanted information on student knowledge about NZ. They had been concerned for a number of years that their pupils' New Zealand map knowledge was limited due to comparatively few opportunities for travel. Low achievement in this area was also confirmed by results from Progressive Achievement Tests -Maps and Graphs, which were lower than national levels.

A school goal was that children would learn about New Zealand and more specifically, about urban and rural communities. A specific learning outcome

for their Social Studies programme being that ‘pupils will be able to locate local and national places on a New Zealand map’ (Place and Environment Strand). The teachers considered this knowledge to be key information, relevant to everyday life in NZ and fundamental to furthering a pupil’s understanding of their world.

The teachers were keen to use a national assessment tool so that they could compare achievement information gained about their pupils to the national picture. For this reason they selected a NEMP task “The Map” (p.36-37, NEMP Social Studies Report 1997) which assessed pupils’ knowledge of the location of eleven prominent places in New Zealand. This knowledge-based task would provide a ‘snap shot’ of achievement that could then be added to the qualitative assessment information gained from teacher judgements in relation to the achievement objectives of Social Studies in the New Zealand Curriculum.

The staff then discussed a number of factors that would ensure the administration of this task was consistent across the school. They decided to administer it across Years 4-8 inclusive, and compare the Year 4 and Year 8 student’s results with the NEMP results. Teacher input was to be limited to assisting students with reading the place names and with pasting the names as required. All teachers checked their rooms to ensure no maps or atlases were on display during the assessment time. It was also decided that, as in NEMP, students should have opportunity to complete the task to the best of their ability rather than complete it within a given time frame. The teachers agreed to take note of the time different groups and classes needed for future reference.

The task was administered to all students within an agreed timeframe. Teachers marked individual work using the four point NEMP marking scale, then recorded a tally on a year group grid. The results were then converted to

a percentage so the school results could be compared to the national results provided in the NEMP Report.

The staff then met to discuss the results and their implications for the teaching and learning programme in the school. The following questions were considered:

- What was confirmed by the results?
- What was a surprise?
- Where do we go from here?

The teachers' initial reactions were that the students performed poorly, even for locating their home city on a map. The results confirmed the teachers' initial feelings that their students had little opportunity to develop a knowledge of New Zealand locations in their life experiences. Staff discussed the need for them to provide learning opportunities to explicitly introduce students to New Zealand places in interesting ways. However, the teachers were surprised by the relatively high proportion of students identifying the correct location of Waitangi, believing this to be the consequence of specific teaching during a unit of work on the Treaty of Waitangi.

From the information gained, staff decided to set school-wide targets and, to facilitate this, outlined a progression of expectations for students at their school. Units of work across the curriculum were identified that could include a map reading focus and strategies for encouraging more student involvement in the incidental teaching of 'current issues' were discussed. Some resource limitations were also identified that could have had an impact on achievement levels. The teachers thought the task provided relevant information that informed their practice and highlighted areas for improvement in individual student achievement. The information gained would also be of interest to the community and for providing pertinent information to the Board of Trustees.

School B:

One of the primary literacy aims for this Year 1-8 Otago school was to develop lifelong readers. The teachers believed that having good reading skills underpinned a child's ability to achieve in every other curriculum area; and inherent in this is developing good attitudes to reading. They were concerned about the impact of television, computer games and play stations on their students' recreational reading habits. They wanted the students to develop 'a love of reading' and become enthusiastic recreational readers.

Base-line information on reading achievement was already being gathered throughout their school but a richer picture of reading progress was being sought. It was decided that the Years 4 – 8 students in the school should complete the NEMP Reading and Speaking Survey (see NEMP Reading and Speaking Report, 2000, p.63-64). By doing an attitudinal survey the school would gain an insight into how pupils feel about reading. This school also wanted to check any differences in attitude between boys and girls.

Students were given the survey to complete at the same time. This was very quick to administer, the quickest class being finished within ten minutes, the youngest students taking 20 minutes. When the forms were gathered, it became apparent that the 21 questions asked had generated too much information to realistically analyse. It was then decided that there were six questions that would give the most useful information on student attitude at this time. The analysis of these questions did not prove too onerous. A tally of answers by year level and by gender within each year was taken. These tallies were then converted to percentages. (Graphs of these percentages were prepared and presented by the principal at a subsequent Board of Trustees meeting).

The staff then discussed the results. As School A had done, they looked at what was confirmed by the survey, what surprised them and how the information gathered could inform their class programmes. They were very pleased with the highly positive attitude to reading and speaking shown by the

students, especially at year 8. Student perceptions of how good their teacher thought they were at reading surprised them and there was considerable discussion on how to improve on feedback to students about their reading. It was decided that the teachers could ask the students what kind of comments would help them see what they were doing well. It was also decided that the resources being used for reading in each class would be reviewed.

The staff agreed that the survey had generated very useful information. It was decided that the years 4 – 8 students would be surveyed using the same 6 questions next year. A staff member said

“We found the NEMP task very user friendly! We very quickly came up with a clear picture of the students’ attitudes towards reading and speaking . We would definitely repeat this NEMP task”

School C:

An art teacher at a Southland intermediate school wanted to develop the self assessment skills of her students. She also wanted to gather some information on the level of achievement of the classes she taught and set benchmarks to guide her teaching. By doing this she hoped it would provide her some support in her judgements about student’s work and also provide reliable information for the Board of Trustees.

The NEMP activity selected was an observational pencil drawing task (Teddy, Art NEMP Report, 1999, p.25). The teacher considered this task appropriate as she felt it covered an important basic skill and would also be suitable for students’ ongoing self-assessment during the unit. This task also provided support and guidance for the teacher in the making of subjective judgements in assessing artworks – as there are 5 pages of exemplars (low, middle and high) in the NEMP Report with detailed comments on the criteria.

As this teacher’s focus for the students was the development of self-assessment skills, she provided four opportunities for observational drawing

so students could set personal goals according to the set criteria. The third drawing done was the NEMP task, sketching a teddy bear.

Samples of the Teddy sketches were collected from each year level. The teacher used these samples to develop school standards in a Benchmark Portfolio. The portfolio proved to be a very useful resource. The pupils could look at the samples in it to identify features of effective observational drawings and also make decisions on how the criteria was being met. The teacher was able to quickly see the areas in which the students demonstrated skill and understanding and the areas needing development. The portfolio also provided an effective method for Board of Trustees' members to see the range of student abilities in art across the school.

The teacher found the exercise of using the NEMP task very effective. She has decided to repeat the exercise next year in order to monitor changes over time in the student achievement, and also to use as 'models' of expectation.

The use of externally referenced assessment tools to give information on student performance is useful for a number of reasons. Firstly, it is convenient – the test items and marking schedules have been developed and trialled by experienced people. Secondly, it helps teachers compare the achievement of their own students (and their own teaching programmes) against a national standard. Thirdly, in accordance with guidance given for the new Education Standards Act, it gives comparative data for the gathering of school-wide information.

However, the use of these tools also raises a number of questions. The reliable and valid information that can be gathered from a national test can not reflect many of the important goals and learning outcomes of a classroom programme. The kind of information that can be measured by the short answer or multiple choice questions typically asked in national tests does not tap the complexity of learning and teaching that is occurring in the classroom.

However, while recognising these limitations, the judicious use of high quality externally-referenced assessment items can supplement the school-based assessment programme and provide information for formative purposes. These items can provide support as teachers strive to satisfy the twin requirements of accountability and assessment for learning.

The multiple task formats and richness of activities used in NEMP provide a substantial base for the development of classroom assessment activities that can meet multiple goals. The three schools reported here used quite different NEMP activities to provide information on their students' performance and attitudes. In each case, the staff of the school reported that the NEMP tasks could be readily adapted to suit their purpose, were manageable within the restraints of a class programme and were worth repeating. Moreso, the teachers found that, not only the process of working through these activities, but the discussion generated in utilising them, was professionally rewarding as the quality of both teaching and assessment programmes were examined and improved.

For schools who want to manage their assessment more efficiently, it is in their interests to include in their assessment programmes reliable assessment tasks that can improve learning, inform teaching and provide valuable information that can be compared to national data.

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