

**EVALUATION STUDY of the IMPACT of
PROFESSIONAL LEARNING on TEACHER CAPACITY
in IMPLEMENTING CURRICULUM PLANNING and
ASSESSMENT FRAMEWORKS , incorporating
CONNECTED OUTCOMES GROUPS (COGs)**

**Final Report
to the
NSW Department of Education and
Training**

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Executive Summary

The *Connected Outcomes Groups (COGs) curriculum planning framework* project ran from 2006-2009 and was funded by the Australian Government Quality Teacher Programme (AGQTP) to support professional development for teachers around the implementation of the *COGs framework*¹ as developed by the Curriculum K-12 Directorate of the NSW Department of Education and Training (NSWDET). The first cohort of schools (*Cohort 1*) joined the project in 2006. It consisted of 113 schools divided into five focus areas or *networks*. Sixty new schools joined the project in 2007-08 (*Cohort 2*). It is with evaluating the effect of the project on professional learning that the report is concerned. Specifically, the evaluation was designed to determine the impact of teachers' involvement in the COGs framework and associated professional learning on their *confidence* (teacher attitudes) and *capacity* (teacher outcomes) with respect to:

- curriculum planning processes;
- syllabus knowledge;
- understanding of pedagogy and assessment;
- productive engagement in collegial networks, and
- increased capacity to measure, analyse and report learning outcomes.

In doing this, it should be noted that the evaluation explored teachers' *perceptions* of the impact of the COGs framework on their own learning and practice. No objective measures were taken of student outcomes although the evaluators were able to observe COGs units being taught in some of the schools visited.

The specific research questions explored were:

1. Is there a good understanding among teachers of the purposes and of the curricular and pedagogical possibilities of the COGs framework?

¹ The *Curriculum planning, assessing and reporting framework, incorporating COGs* is referred to throughout this Report as 'COGs'. When the units of work are specifically referred to, the term 'COGs units' is used.

2. Is there strengthened depth of curriculum planning processes?
3. Is there deepened Syllabus knowledge?
4. Is there deepened understanding of pedagogy?
5. Is there deepened understanding of assessment?
6. Have teachers engaged productively in collegial networks that extend and support knowledge and skills?
7. Have teachers an increased capacity to report learning outcomes?
8. To what extent are these perceived outcomes a result of engagement with the COGs project, the associated professional learning and the role of the project officers?

The study adopted a multi-method design which had four phases: two qualitative and two quantitative. The qualitative phases involved the UWS evaluation team visiting three schools from *Cohort 1* in July and August 2008. These schools were part of Network 1 (one school) and Network 3 (two schools). A further two schools from *Cohort 2* were visited in July 2009. Visits were, on average, of two days' duration. Focus groups and individual interviews were conducted at each of these sites. Relevant documentation such as schools' strategic plans, curriculum Scope and Sequence documents, work samples and other documentation related to the implementation of the COGs project were also analysed. In one school, a number of classes teaching COGs units were observed across Stages.

The quantitative phases aimed to survey as many of the teachers who had been involved in the COGs project as possible. The questions asked explored the research questions set out above and provided an overview of staff experiences of COGs implementation project. All teachers, principals and members of the executive at the 173 schools who participated across the two cohorts were invited to complete a

questionnaire on-line. The survey was identical for both Cohort 1 (113 schools) and Cohort 2 (60 schools) to facilitate comparison.

The detailed findings with respect to the eight research questions posed are set out in the attached report. This executive summary points to the overarching themes which emerged across those questions and the recommendations which flow from the detailed analysis of the data.

Overarching themes derived from the data:

1. *Collegiality.* Teachers in the case study schools, in particular, expressed an enthusiasm for COGs which seemed to largely derive from their being part of the project and therefore part of a team. Especially important for many was their being part of the professional learning experiences that were organised by the DET COGs team.
2. *Enhanced balance and depth in programs and in student experience in the relevant Key Learning Areas.* Teachers saw the beneficial role of the COGs framework for their teaching particularly as it allowed them more opportunity to concentrate on pedagogy. This was an intended consequence of the framework and has clearly been met. However, it must also be noted that teachers did express concern about the degree of repetition amongst the units: a perception that needs to be addressed
3. *Deepened understanding of assessment.* Assessment was one area in which the teachers were virtually unanimous in their positive responses to the professional learning activated by being in the COGs project. The collegial planning, and its attendant advantages, which is central to the COGs framework was seen as especially useful for developing rubrics and assessment proformas. Moderation, and the ‘tightness’ of assessment tasks was universally seen as a positive development from the COGs process.
4. *Impact of teacher’s own experience and the mix of ‘hand-on’ involvement and learning led by those with expertise.* Years teaching and role did not emerge as significant factors in the professional learning of those in the project. What was apparent was that learning led by those seen as having expertise and the opportunity to also lead through being part of the project per se were

perceived as vital. Getting this mix right is always a challenge but one which has been achieved in this project.

5. *COGs as content, COGs as outcomes.* A frequent issue for those in the case study schools was the extent to which the units should be seen as content and/or outcomes. If the emphasis was placed on COGs as content, the perception amongst the teachers seemed to be that they could then be modified. If they were seen predominantly as outcomes, there was a tendency to maintain that they could not be changed. These differing views and emphases have implications for the extent to which teachers believed they could contextualise the units and also related to issues around reporting.

Recommendations:

As previously noted, these recommendations derive from the data gathered and the interpretation of it. It is recommended that:

1. *the COGs project be continued.* Teachers appreciated their teaching lives being relieved of some of the burden of programming and their having more time to spend on pedagogy and assessment. Paradoxically, perhaps, teachers believed the structure offered by COGs resulted in greater creativity in their teaching and in their students' learning.
2. *the DET COGs team at the Curriculum Directorate continue at least in its present form and even that their work be extended.* The data provide significant support for the critical role of the COGs team both in implementing and facilitating professional learning opportunities and in assisting in the establishment and growth of local networks.
3. *there be further opportunities offered for professional learning with respect to:*
 - a. *how best to marry current DET reporting policy with COGs structures.* Teachers at the case study schools consistently drew attention to their difficulties in doing this.
 - b. *the issue of perceived repetition within the units.* There is a need for professional development on the spiral curriculum and on the ways repetition can be exploited to enhance student learning.
 - c. *existing teacher views of the extent to which the COGs units can be modified to local needs.* There was considerable variation across

teachers and schools as to whether and how the units can be adapted to particular school and student contexts.

The COGs project has been influential in the ways in which it has engaged teachers, their schools and their broader professional communities in professional learning. Whilst, as with any such project, some criticisms can be made and further modifications suggested, the outcomes for the teachers, students and communities involved have been very positive.

Background

The NSW Board of Studies Syllabuses provide for a common curriculum for all students in NSW. The NSW Department of Education and Training (NSWDET) then works to assist effective implementation of these Syllabuses through setting out specific requirements for NSW public schools in the document *Curriculum Planning and Programming, Assessing and Reporting to parents K-12* (cf:

<http://www.curriculumsupport.education.nsw.gov.au/timetoteach>

and

<http://www.curriculumsupport.education.nsw.gov.au/timetoteach/cogs/index.htm>)

For those teaching in Primary schools, further support for curriculum planning and programming for the years K – 6 in the areas of Creative Arts, HSIE, PDHPE, Science & Technology, is offered through the *Connected Outcomes Groups (COGs) curriculum planning framework* which organises outcomes in COGs within and across each K – 6 Stage. Each Connected Outcomes Group unit is designed to be taught over one term and, where essential for learning, there is adequate repetition of outcomes. This *framework* of Connected Outcomes Groups can be used by Primary schools as a curriculum plan for the relevant KLAs.

The *Curriculum planning, assessing and reporting framework, incorporating COGs*, was developed in response to the Eltis report: *Time to teach, time to learn*. While the government accepted all the Eltis recommendations, the major outcomes of the report were around the workload of a Primary teacher and the overcrowded curriculum. The recommendations included the development of a curriculum framework to make primary teaching more manageable. The framework was to be especially aimed at supporting teachers in rural and remote areas and New Scheme teachers. As a result, the Curriculum K-12 Directorate of the NSWDET developed the both the *COGs framework* and the policy, *Curriculum Planning, Programming, Assessing and Reporting to parents K-12*.

The *COGs framework* provides 3 levels of support:

- The curriculum outline (in the form of a poster) which provides an overview of all Connected Outcomes Groups as well as providing a suggested Scope and Sequence
- Connection descriptions, ‘unpacking’ each of the Connected Outcomes Groups and showing how the outcomes are connected across the four KLAs of Creative Arts, HSIE, PDHPE and Science & Technology
- 30 units of work for Stages within K-6 and 34 units of work for multi-Stage classes.

Thus, units of work were developed for each Connected Outcomes Group and these units were to provide teachers with a well balanced teaching program based on Syllabus requirements. The key motivation here was to take away the need for teachers to develop their own teaching programs as part of the framework. The units of work are designed to demonstrate how class programs can be organised by using a focus which connects groups of outcomes and contains teaching and learning activities with literacy and numeracy links and planned assessment. Links are made with key concepts, skills and understandings as well as Syllabus content. The units of work, cover HSIE, Science & Technology, Creative Arts and PDHPE outcomes from Early Stage 1 to Stage 3. Each is designed to be taught over one term.

(<http://www.curriculumsupport.education.nsw.gov.au/timetoteach/cogs/unitsintro.htm>)

The identification of planned assessment in the units of work is also seen as assisting in ensuring assessment is manageable for both students and teachers. The use of a focus and connected outcomes for each unit is seen as meeting the challenge of a crowded curriculum and enabling teachers and students to engage with issues on a deeper level.

The project under evaluation here ran from 2006-2009 and was funded by the Australian Government Quality Teacher Programme (AGQTP) to support professional development for teachers around the implementation of the *COGs framework* as developed by the Curriculum K-12 Directorate of the NSWDET. The *Curriculum planning, assessing and reporting framework, incorporating COGs* is not mandatory so schools implement it as a matter of choice.

The terms of reference of the AGQTP project were as follows:

The project, *Implementing the curriculum planning framework, incorporating COGs*, was designed to support cohorts of teachers in planning, programming, assessing and reporting to parents using clearly defined statements of student achievement. Through local and state networks, teachers were to refine their assessment processes and moderation strategies to consistently report student achievement against the state standard. Teachers were to be supported to enhance and extend their ICT skills and to embed ICT into their teaching and learning programs. Professional development was to model quality practice using ICT. ICT was to be used to support networks of schools and to deliver professional learning support packages.

The first cohort of schools (*Cohort 1*) joined the project in 2006 . It consisted of 113 schools divided into five focus areas or *networks*. The original focus areas were:

Network 1 : collecting work samples to be used as models for teachers across the state as they began to implement COGs (2006 only);

Network 2: trialling and evaluating and providing feedback on COGs units;

Network 3: developing and evaluating COGs units in multi-Stage classes;

Network 4: adapting and trialling COGs for communities with high proportions of Aboriginal and/or LBOTE and /or GAT students

Network 5: developing case studies using COGs (this focus area was developed through the previous focus areas 1-4).

Sixty new schools joined the project in 2007-08. These are *Cohort 2*. In addition, many schools throughout NSW took up the COGs framework independently of the official project, some of whom chose to attend professional development workshops on a user-pays basis. These latter schools are not included as part of the evaluation.

Aims of the evaluation

The NSWDET Curriculum Support website sets out the benefits of COGs as:

- making programming manageable by connecting similar content, processes and skills;
- allowing the curriculum to be taught more efficiently;

- enabling effective planning across key learning areas;
- ensuring that the KLA is able to be effectively taught in an integrated approach and
- ensuring a balanced coverage of all key learning areas.

In effect, this list constitutes the aims of the COGs project. Whilst designed to facilitate the implementation of the Syllabuses, the COGs framework also has an emphasis on professional learning. Through using the framework, implementing those units in the classroom and assessing connected outcomes, it is intended that teachers will become more able to, and ‘freed up’ to, better consider issues related to pedagogy in the context in which they work. If the COGs project could be said to have one central aim, this would be it. Importantly, the COGs framework also provides for teachers and schools to develop networks which will further aid in professional learning and development.

The present evaluation is thus also concerned with the extent to which the COGs framework and the project flowing from it facilitate professional learning and teacher development. The general aim of the evaluation was therefore to determine the impact of teachers’ involvement in the COGs framework and associated professional learning on their *confidence* (teacher attitudes) and *capacity* (teacher outcomes) with respect to:

- curriculum planning processes;
- syllabus knowledge;
- understanding of pedagogy and assessment;
- productive engagement in collegial networks, and
- increased capacity to measure, analyse and report learning outcomes.

In doing this, it should be noted that the evaluation explored teachers’ *perceptions* of the impact of the COGs framework on their own learning and practice. No objective measures were taken of student outcomes although the evaluators were able to observe COGs units being taught in some of the schools visited.

The specific research questions explored were:

1. Is there a good understanding among teachers of the purposes and of the curricular and pedagogical possibilities of the COGs framework?
2. Is there strengthened depth of curriculum planning processes?
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6. Have teachers engaged productively in collegial networks that extend and support knowledge and skills?
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8. To what extent are these perceived outcomes a result of engagement with the COGs project, the associated professional learning and the role of the project officers?

Methodology

The study adopted a multi-method design which had four phases: two qualitative and two quantitative. Both *Cohorts 1* and *2* were involved in the COGs evaluation. When *Cohort 1* were surveyed (see below), they had been part of the COGs project for two years. When *Cohort 2* were surveyed, they had been part of the project for less than one year. *Cohort 1* schools were given more professional learning opportunities offered externally than were *Cohort 2* schools.

The qualitative phases involved the UWS evaluation team visiting three schools from *Cohort 1* in July and August 2008. These schools were part of Network 1 (one school) and Network 3 (two schools). A further two schools from *Cohort 2* were visited in July 2009. In each instance, the schools chosen for case studies were nominated by the COGs AGQTP project team from the DET. However, we felt that there was no evidence of particular bias in favour of COGs and its associated learning that resulted from this. Staff who took part in the case studies felt no reluctance to be critical of COGs when they deemed it necessary and we have no reason to believe that the data were particularly skewed because of this selection process.

Focus groups and individual interviews were conducted at each of these sites. Relevant documentation such as schools' strategic plans, curriculum Scope and Sequence documents, work samples and other documentation related to the implementation of the COGs project were also analysed. In one school, a number of classes teaching COGs units were observed across Stages. The questions used in the focus groups and for individual interviews are set out in Appendix B. These targeted teachers' involvement in the project, their experience of, and reaction to, the project and their perceptions of its effectiveness. These case study visits were of two - three days' duration, the program for each being determined by the school. A relief teacher was made available to enable teachers to participate in the interviews and focus groups.

The quantitative phases aimed to survey as many of the teachers who had been involved in the COGs project as possible. This was achieved through the development of a questionnaire which was completed online. The survey was the same for both *Cohort 1* (113 schools) and *Cohort 2* (60 schools). Teachers were contacted by the DET COGs project officers by email and invited to complete the survey. The first presentation (*Cohort 1*) was hosted on a DET site but teachers reported that it was difficult to access. Indeed, 23 protocols had to be rejected because of gaps in the data set. As a consequence, the second presentation (*Cohort 2*) was hosted on a site set up by the evaluation team. In both instances, no identifying data were gathered on those completing the survey.

Demographic information on those who completed the surveys

The *Cohort 1* survey was completed by 162 teachers with, as noted above, 23 protocols being rejected because of gaps in the data recorded. There were thus 139 completed surveys from this group and 149 for *Cohort 2* (no protocols were rejected in this instance).

The demographic information is instructive. The vast majority of those completing the survey were female (84.3% *Cohort 1* and 87.2% *Cohort 2*) and the majority had considerable teaching experience with only 2.1% in *Cohort 1* and 2.7% in *Cohort 2* having taught for less than 3 years. As indicated in Figure 1 below, the majority of those responding were working in regional towns or cities. A smaller percentage of teachers working in rural and remote schools responded in *Cohort 2* than in *Cohort 1*.

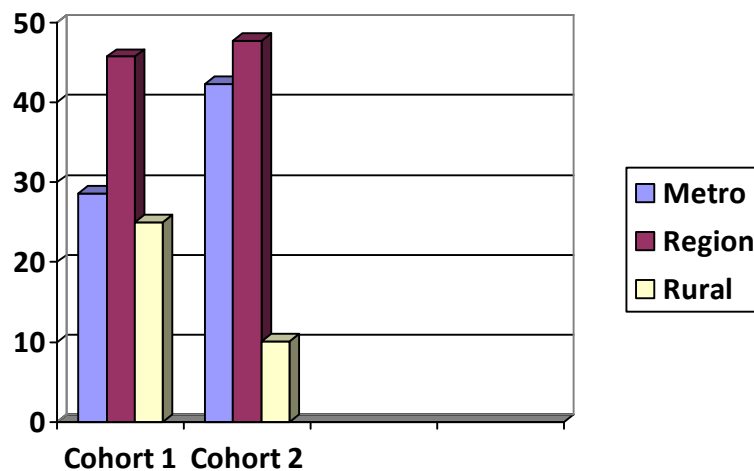


Figure 1: Location of respondents as a percentage of the total for each Cohort

Differences were also found between the two surveys with respect to the socio-economic status of the areas in which the schools at which they worked were located - with a much higher percentage of those responding in *Cohort 2* working at schools in high socio-economic areas (see Figure 2 below).

Of importance in interpreting the responses received is the role of those responding to the questionnaires. Here, too, differences are apparent between the two Cohorts with a far greater percentage of principals and those in executive positions responding from *Cohort 1* than *Cohort 2* (see Figure 3 below). The invitations to respond to the survey were sent to all teachers, principals and those in executive positions in the 173 schools involved. Therefore, no reason can be postulated for the differences in response rates among the roles. It is likely to be due to chance factors.

Those responding taught across the full range of grades (K – 6) with many stating that they had taught a number of grades since being involved in the COGs project.

Finally, the focus for the majority of those who responded from *Cohort 1* was the trialling and evaluating of, and providing feedback on, COGs units. For those who responded from *Cohort 2*, 44.3% had had that focus. Few respondents had worked on developing and evaluating the units for communities with high proportions of Aboriginal and/or LBOTE and/or GAT students (6% in *Cohort 1* and 2% in *Cohort 2*).

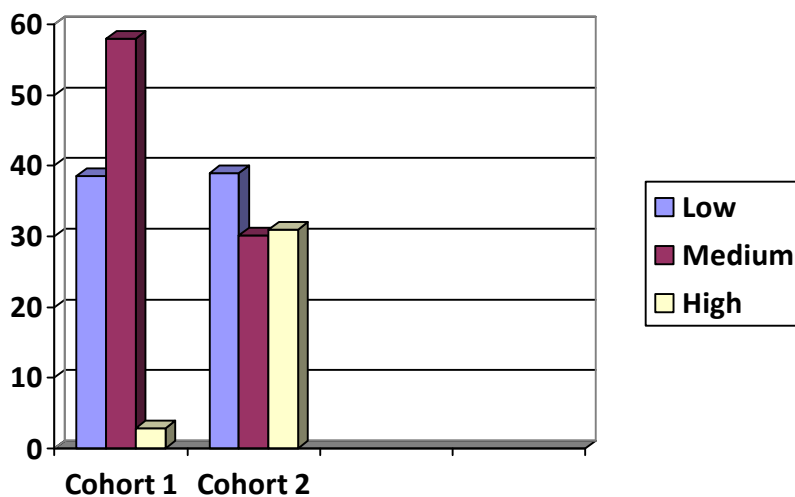


Figure 2: Socio-economic status of the areas in which the respondents teach expressed as percentage of total respondents

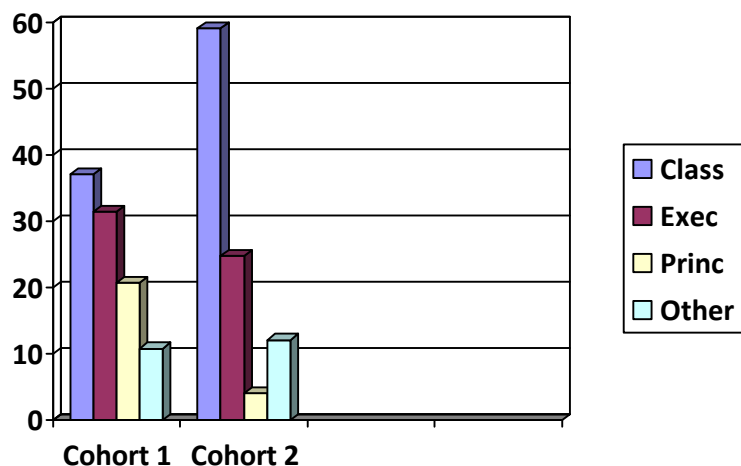


Figure 3: School roles of those responding as percentage of total

There were thus a number of demographic differences between the two groups. These were considered in the analyses to determine if they had an impact on respondents' perceptions of the project and of their own professional learning.

Results

The data obtained from both the case studies and the survey are considered together to facilitate interpretation of the research questions posed.

Multiple comparisons were made with the quantitative data to determine what factors were significant in affecting teachers' perceptions of their capacity and attitude to the COGs framework and the professional learning they had undertaken. Gender, whether the teacher had postgraduate qualifications, school size and the socio-economic status of the area in which the school was located were not found to be significant. Some differences were found with respect to years of experience, location and role within the school but, overall, the reaction to COGs was positive.

How staff came to be involved in COGs

A range of experiences on this issue emerged from the five case study schools. These fell into a number of obvious groups:

- staff who came new into a school as the COGs framework was being implemented and who joined a school culture that included COGs;
- staff who were in a school at the time of the change to COGs;
- staff in *Cohort 1* who were part of a team that went to Sydney for COGs assessment moderation and /or adapting and trialling units (these staff uniformly reported on the positive value of that process and saw the support given by the DET COGs team as both very supportive and on-going)
- staff in *Cohort 2* who had also received some external training.
- staff who had been the beneficiaries of teacher professional learning from those who had been trained externally.

Some staff became involved because of a perception that areas other than literacy and numeracy² were being badly taught, others because of a desire to take part in professional learning at every opportunity, while others joined the project because of a belief in the crowded curriculum and COGs being seen as a solution to that problem. For most who replied to the survey, however, the decision to be involved with COGs was made for them, as can be seen in Figure 4 below.

² While teachers tended to readily use the terms ‘literacy’ and ‘numeracy’, it needs to be recognised that sometimes these terms may refer to the KLAs ‘English’ and ‘Mathematics’, rather than to ‘literacy’ and ‘numeracy’ as skills which should be implemented across all KLAs. This is probably one such example. In fact, when ‘literacy’ and ‘numeracy’ are referred to in such a way as to suggest that a school subject or KLA is intended, ‘English’ and ‘Mathematics’ are probably the correct terms. However, since it is impossible to know on any one occasion whether teachers are referring to ‘literacy’ and ‘numeracy’ or ‘English’ and ‘Mathematics’, the terms used at the time by the interviewees are retained. This in itself may be an issue about teacher curriculum perception, or it may equally be an issue about how literacy and numeracy have come to effectively replace English and Mathematics as a backwash effect of national testing in these areas. We cannot know the answer to this.

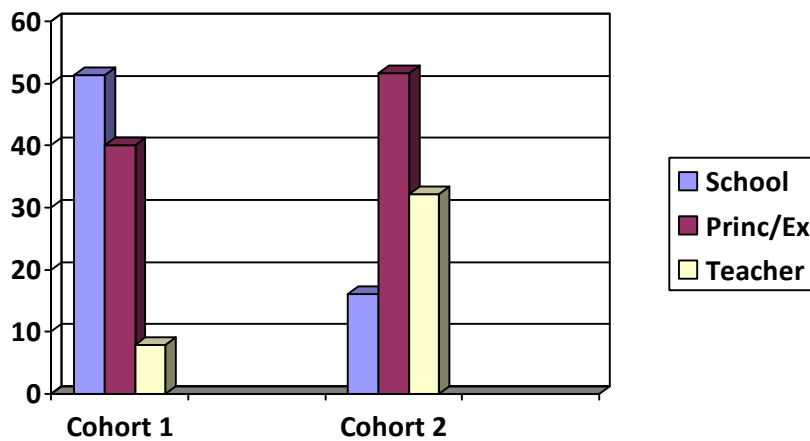


Figure 4: How did you come to be involved in COGs? (whole school decision, Principal/executive decision or individual teacher decision – as percentage of total)

Of interest here is the difference between the two samples. For those who responded from *Cohort 1* the main reasons given for being involved were that it was a whole school decision or that the decision had been made by the Principal and executive. Few said that the decision had been an individual one. For those in *Cohort 2* the situation was quite different. For them, participation was most likely to be the result of a decision by the Principal and executive or one that they themselves had made. Whole school decisions were less evident. It can be argued that these differences are due to the timeline for the project itself. The decision to be part of the COGs project in *Cohort 1* may have been seen as involving a different commitment to begin the project. For those in *Cohort 2*, COGs had become better known and more developed with its implementation not perhaps requiring the same degree of whole school commitment.

The Research Questions

1. *Is there a good understanding among teachers of the purposes and of the curricular and pedagogical possibilities of the COGs framework?*

Both the staff in the case study schools and those who responded to the survey clearly saw the beneficial role of the COGs framework for their teaching. In the survey, this conclusion is drawn from responses to the statement, ‘The COGs framework is a

useful and effective approach to curriculum planning’. Their responses are set out in Figure 5 below. It is interesting to note that the assessment of COGs, at a general level, is less positive amongst those in *Cohort 2*. The difference is significant ($U = 7616.5$, $z = -3.98$, $p < .000$). Whether this may be due to their not having had as much direct project officer support due to being in the project for a shorter time cannot be tested. ‘Out-of-school’ (‘external’) professional development sessions as part of the COGs process were also fewer for this cohort. If there is a connection here, then this is a strong argument for targeted, out-of-school professional development.

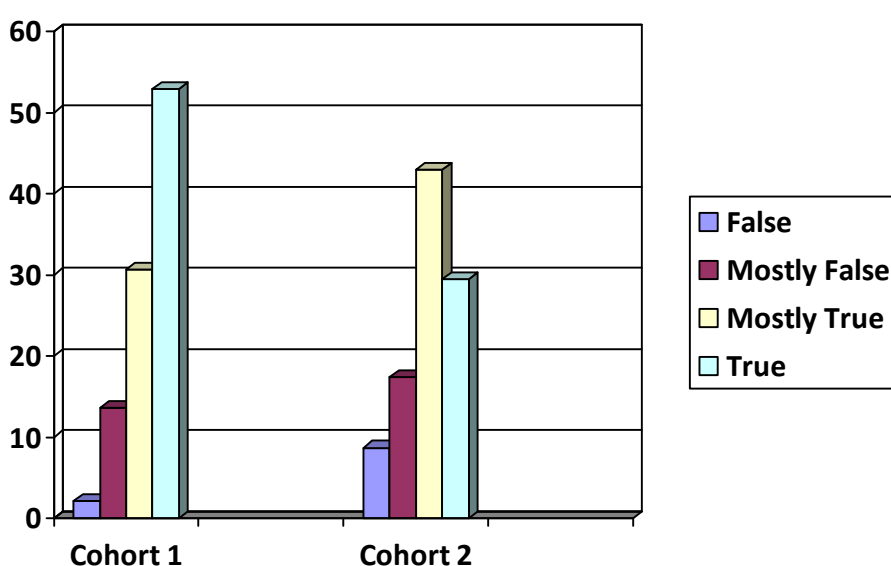


Figure 5: ‘The COGs framework is a useful and effective approach to curriculum planning’ (as a percentage of the total)

A more detailed picture of teachers’ views of the effect of the COGs framework is seen through the case studies. Firstly, the integration of subjects within units was regarded as a positive in itself. In general, the case study groups gave warm endorsement to the COGs process and the COGs units. One teacher summed up what we saw as a general attitude: ‘If you really get in and teach it well, you know you are covering the areas and covering them well...it’s better than separate Syllabuses’. Some people argued that COGs had helped, paradoxically, to develop them as a planner/programmer, with the COGs units demonstrating how integration could work, which could then carry over into other areas. In at least one Stage in one case study

school, for example, COGs drives both the writing and the reading material that is used in 'literacy' sessions.

Integration as a curriculum organising principle was seen to benefit students by not parcelling Science & Technology, HSIE and PDHPE into separate school terms or days. Moreover, students who favoured areas in which teachers might have felt inexperienced – Science, Dance, Drama – were now seen to be catered for. There was more balance to the program and to these students' experiences (the question of a perceived 'imbalance' by some teachers, however, is discussed below). Some teachers felt that that student experiences were 'more structured, more focused'. (As a minor aside, the term 'integration' as a description of COGs itself raised some conceptual issues for one teacher who was a very influential driver of COGs in his school. He argued that if teachers saw the COGs units as just more 'integrated' units, this reflected a content-driven view of the units, whereas in COGs, according to this view, outcomes drive the content, not the reverse. The question of where content was derived from in COGs - unit topics or unit outcomes- became a question of some debate in the case studies, as will be seen below in the discussion on the degree to which the units can be varied).

In a school where people felt confident to innovate around the COGs units, the integration of the units was a strong positive because it was seen to allow students to view a topic from so many angles. Integration was seen to implement depth and to free up teachers to think in terms of pedagogy.

COGs was also seen as having provided a mandate to do things that may have been relatively neglected (areas mentioned here by different teachers included PDHPE, ICT, Drama and Science). One teacher argued that the sheer amount of content in COGs allowed her to pick and choose among aspects of a unit to suit her class needs. Another commented on previously lacking confidence in Visual Arts and Drama, but she now felt that COGs had given her permission to try things and provided the necessary detail and resources to make these things work.

One of the strongest responses in the case studies to the question of the most important things to come out of the COGs process was the growth in the level of professional collegiality in the schools driven by the corporate planning of COGs. At

one school, within Stages, there was shared planning to develop team programs. This extended to unit plans and rubrics for assessment tasks, as well as the development and allocation of resources. What is inherent in COGs that potentially drives collaboration even across Stages are the *strings*. The change of culture that came along with whole-school planning towards COGs implementation was also seen as a benefit to students.

Staff and students in at least three of the schools are said to have picked up the language of COGs (and at one of those, the parents too), the units have grown and teachers plan extensively together, which is universally seen as a good thing, including for pedagogy. Corporate planning did raise problems of ‘resource clash’ in one site, but this was seen to be ‘coped with’ in most sites and was far outweighed by the advantages.

Sharing of resources and collegial planning has been seen to ‘bond’ staff in one school in ways that have advantages for accomplishing other things successfully in the school beyond COGs. One staff member argued that COGs promotes teamwork and *needs* teamwork, especially to get over the problem of teacher avoidance of material that is unfamiliar or unappealing to them. Another school argued that with consistency of programming across Stages facilitated by COGs, the staff is able to turn outward and involve the community more in the school. This was very apparent in one of the schools visited where the staff had worked actively to inform parents of the COGs framework and where families were invited to see the work their children were producing through the units. It was in this school that parents were able to use the jargon of COGs and were very supportive of its further implementation.

To summarise, a teacher from *Cohort 2* typified her school’s attitude when she said she ‘loved COGs’ because it covered everything, had a good overview, had the planning done in advance and contained innovative units and much higher order thinking.

In addition, a number of other factors were mentioned less frequently in the case studies as positive by-products of the COGs project. These included:

- Indigenous boys becoming prouder of their heritage;

- boys generally being less hesitant about Dance and Drama;
- aiding the implementation of IT because of links to websites and videos in the COGs units;
- there being more reading of factual texts occurring;
- the excellence of online resourcing;
- cross-Stage composite classes being more easily planned for;
- an opportunity provided by COGs to individualise the curriculum in areas other than literacy and numeracy;
- assessment data following students from Year to Year;
- cross-school benchmarking being done and
- easy and seamless integration of IT.

By far the strongest criticism of COGs was the amount of content repetition both within and between units and within and between Stages. The spiral nature of the curriculum was uniformly thought to be a good thing, but even in view of this, repetition was still regarded as a problem. The degree of repetition, many argued, works against student engagement. The validity of this criticism depends on the view one holds about whether the units are driven by content or by outcomes and hence the degree of flexibility which there is to make adjustments to unit content. A group from one school who had taken part in the moderation process in Sydney was more prone to see the units as a guide, while the notion of COGs as a fixed Scope and Sequence was more likely to come from other staff in the school. Clearly there is a tension between the principle of adaptability of the units and not wanting to move too far away from their spirit. In addition, the nature of the spiral itself is a factor – one view was that the strings *do* widen and the units *do* broaden as they are driven by broadening outcomes. Thus, while there is a focus on skills at the beginning, empowered, articulate students are envisaged by the end of a string. However, even teachers who readily adapted units saw too much repetition *within* Stages. The team observed a positive correlation between those teachers who had been directly involved in COGs planning/development in Sydney and a willingness to adapt units.

It needs to be added that not all schools saw repetition as an issue, especially where Scope and Sequence planning within *and* between Stages was a strong feature of the

school. Repetition becomes a problem if content is seen to be inflexible. While people at one school were more readily willing to adapt units than not, repetition remained the most complained-of issue because of its resourcing implications. This resourcing problem was compounded by the fact that the same string in one Cohort 1 school tended to be taught at the same time *across* Stages as well as *within* Stages. The evaluation team saw a strong need in this school for the degree of cross-Stage planning that was evident *within* Stages to overcome this problem. In other words, there needs to be a *Scope and Sequence* in the school that takes more account of resourcing issues. (Ironically, too, the more corporate planning – universally seen as a good thing - that was done within Stages, the more resourcing became a problem while all the Stage taught the same units at the same time). Further to the resourcing issue was the common complaint that suggested unit resources were no longer easily available, such as websites being no longer active, and that a major revamping of resources was needed. Resource currency and availability were big issues across sites, with some teachers even expressing problems with ready classroom access to the Internet. One school recognised, however, that DET resources were prominent in the design of units and that these resources should be readily available in schools (however, another complained that the overuse of DET resources was too restricting).

In terms of the issue of resource ‘clash’ when the same strings were being taught at the same time, it was suggested by some that a more ‘elective’ approach might be adopted to overcome the problem of resourcing. This raises the question of whether more units are needed or more choice points within units. Presumably, the latter is more useful, otherwise the concept of strings, the integrity of the total COGs package and the spiral curriculum would each be at threat. The question of choice and variety is one that raises a number of possible investigations: looking across *strings* for repetition; looking across *Stages* and looking *within* Stages. Of course, repetition is only an issue if staff feel that content is fixed within the units and this in itself remains a contentious issue. In fact, in one *Cohort 2* school which worked on the same strings at the same time across Stages, the general feeling was that they just ‘worked around’ the resource problem. Some teachers at this school saw positive advantages in doing the same strings at the same time across Stages, such as in planning and sharing resources, but also in applying consistency of teacher judgement (CTJ) to assessment, such as through sharing work samples. Other schools felt quite comfortable adjusting

units with an eye on the outcomes - some talked about ‘tweaking to engage’, ‘tweaking to differentiate’ or ‘tweaking to include employability skills’. These schools saw adjusting the units as a quite natural, uncontroversial thing to do, seeing the COGs units themselves as ‘guidelines’.

2. Is there strengthened depth of curriculum planning processes?

To answer this question, one needs to consider teacher attitudes to curriculum planning. There were some contrasting attitudes towards the pre-planned nature of COGs among the case study schools. Our general impression was that staff did not want to go back to planning their own units. COGs were, after all, pre-developed partly in order to re-direct teacher time and effort. This is complicated, however, by the issue of adaptability. The frequent assertion that COGs were *able to be* adapted and *were* adapted to the school context in one respect is an assertion about the respect for teacher freedom to adjust the units. However, this is complicated further by the issue of integrity and comprehensiveness– COGs is planned as a total framework which covers all relevant Syllabus outcomes and adaptation of the units needs to ensure this principle is maintained. A related complicating issue was the view held in one school by a number of the teachers about wanting to retain the freedom to plan themselves. Perhaps the solution to this seemingly contrasted set of views is that the pre-planned nature of COGs provides the basis for fruitful discussion of how a unit will be designed. At one school, for example, the centralised nature of COGs planning was, paradoxically, seen as encouraging innovation, because it provided a structure that gave the confidence to innovate. In addition, other teachers commented on the fact that with less time spent on curriculum programming, more time could be spent on developing pedagogy and creating good resources. This is a very positive outcome and one that was intended as a consequence of the framework.

Stage leaders in one school felt that they now knew what their teachers were doing in these KLAs because of structure and consistency. Creating a common program across the school was again seen positively. In another school, the uncluttering of the curriculum achieved by dividing the day into literacy/numeracy/COGs was seen as a very positive offshoot of the COGs project. This school was particularly appreciative of the progression across the Stages achieved by the strings and the links to the DET

Foundation Statements. This same school had good communication across the Stages and the issue of resource 'clash' was less of a problem.

In another school, the spiral nature of COGs was seen to be very important and the degree of repetition across the Stages and across KLAs was seen as a positive thing. Teachers at this school had less negativity towards the repetition of unit content than did teachers from other schools. They were also more confident about being able to adapt the units to suit school needs and argued that the adaptability of COGs was an important aspect to be retained if the COGs project were to be sustainable.

Differences were again apparent between the different cohort respondents in the survey. Those in *Cohort 1* were more likely to agree with the statement that 'Being part of the COGs implementation has increased my skills in curriculum planning' ($U = 7049.5, z = -4.639, p < .000$) and to the statement that 'Through being part of COGs implementation I feel more confident when planning for my students' ($U = 7734.0, z = -3.657, p < .000$) than their colleagues in *Cohort 2*. Here, too, the impact of professional development was to increase perceptions of teacher capacity, with those who attended regional professional development more likely to feel confident with respect to curriculum planning.

3. Is there deepened Syllabus knowledge?

For those who completed the survey, involvement in COGs did result in a better understanding of the relevant Syllabuses although here once again differences were found between the two groups ($U = 8640.00, z = -2.511, p < .012$). That the overall assessment was positive is, however, shown in Figure 6 below.

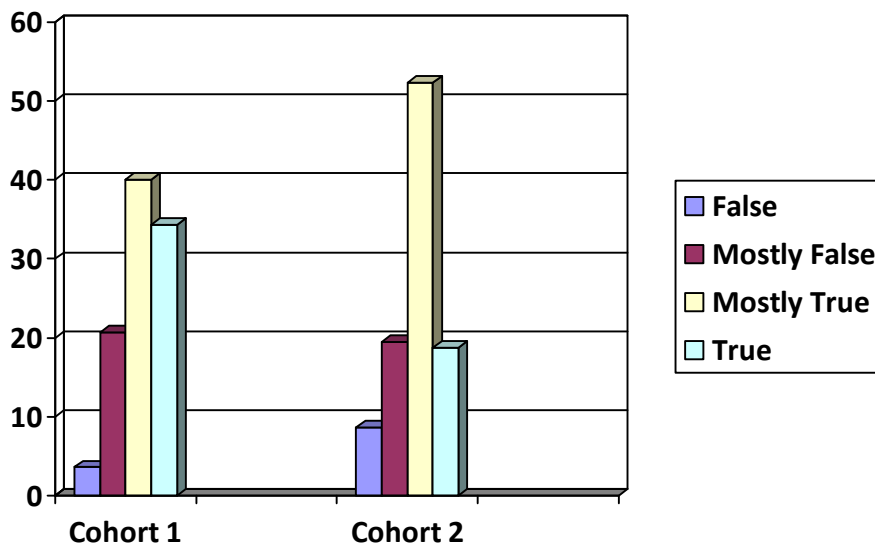


Figure 6: 'I now have a better understanding of the Syllabuses'

Involvement in COGs was certainly felt by teachers to lead to better understanding of individual Syllabuses and it needs to be stressed that this was the case in the context of a framework in which Syllabuses were integrated. A key teacher at one case study school argued that COGs had made Syllabuses more understandable to her, especially HSIE.

Discussion related to this topic in the case study schools, however, raised some paradoxical issues with respect to individual Syllabuses. There was criticism from some teachers that their 'favourite units' - those they had traditionally taught - were not present among the COGs units. This could be seen as simple nostalgia, but was sometimes expressed as the COGs units not covering all of the material in the relevant Syllabuses. In reality, however, all outcomes in the relevant Syllabuses *are* covered by COGs. Science & Technology in particular was quite often thought to be relatively neglected in the units compared to HSIE, especially in terms of lacking 'hands-on' activities, and this was a strong complaint, especially across those sites that had been in *Cohort 1*. 'Discussion' (usually HSIE) was seen to be dominating over 'hands-on' work (usually Science & Technology). Those units most 'hands-on' in terms of student activity are in this view seen as the most engaging and Science & Technology in the COGs units was generally thought to be potentially more engaging than HSIE. This view was partly held by those who felt the loss of previous units and who

sometimes argued that there were benefits to teaching units which opened up unfamiliar worlds to students. These people felt that always connecting to students' current lives could sometimes work against this potential benefit. Again, this partly depended on the willingness of teams to adapt/ change material.

Some schools rearranged the order of COGs units in order to give more balance to Science & Technology. On the positive side, some schools did argue that teachers had become more confident about changing units to achieve more balance and to adjust to the 'problem' of both too much and too little content – by, for example, adding Science & Technology content where they felt it was lacking. Another school went so far as to teach separate Science & Technology units in order to compensate for the perceived lack in this area. However, as all Science & Technology outcomes are covered in COGs, this seems to be largely a perception about the nature of the pedagogy that is being encouraged and either reveals some contestation over what constitutes engaging Science & Technology or is a mis-perception about the totality of the material across all of the units. The same imbalance was perceived between Creative Arts subjects *within* units and about the degree of Creative Arts generally *across* some units. Early Stage 1 and Stage 1 were cited as lacking craft activities, for example, in some schools while in others, there was sometimes a perceived lack in Visual Arts. It needs to be added that this view about imbalance conflicted with another view (held by fewer teachers) that there was too much content in the units to cover in depth and that units were too long and too detailed and not allowing for depth of coverage. It is also worth reiterating that all Syllabus outcomes are present in the COGs units and that ensuring 'balance' between KLAs is indeed one of the explicit aims of the COGs project.

As the general principle being expressed here was units being seen as too heavily weighted towards one or two KLAs over another, it appears to be a case of teachers needing to be clearer about the totality of the units, including those outside their particular Stage group. In fact, this issue led some staff to question the degree of integration of COGs when some units could be identified as, for example, mostly HSIE. While the HSIE Syllabus does have Stage-specific mandatory content that is covered in the units, the COGs framework generally has a balanced set of units that address all outcomes.

One would not want to overstate the case here, especially as the survey results are so positive. Nevertheless, given the depth of this feeling, especially about Science & Technology, the issue seems a clear case of the need for further information / clarification / professional learning, especially if too much ‘tinkering’ with units does result in some outcomes being neglected

4. Is there deepened understanding of pedagogy?

It was argued by those in the case study schools that there were improvements in the quality of pedagogy in teaching the KLAs targeted by COGs and that this was ‘vastly superior’ to what had gone before. One teacher who was a school leader in the implementation of COGs felt that the teaching of areas other than literacy or numeracy had been a long-term system-wide problem in education. Generally these ‘other’ KLAs had been content-driven, not outcomes-driven, if they were covered in their entirety at all. Pressure from Basic Skills testing also compounded this problem. The system, argued this teacher, needed to move these ‘other’ KLAs forward. COGs provided the scaffolds for this, as well as the professional learning. ‘Designing’, ‘making’, being ‘hands-on’ were seen as driven by COGs, using very student-oriented, project-based material. Those who felt that the students were benefiting did see COGs as involving plenty of hands-on *and* cognitive work. These people felt that their pedagogy had changed, incorporating, for example, more groupwork. The quality of assessment was also seen as greatly improved.

In addition, the linking of COGs with the Quality Teaching agenda of the DET is thought to have focused staff attention on areas such as *deep knowledge* and *deep understanding* as an aspect of COGs planning. It was argued in this school that the NSW Quality Teaching model may have revealed a lack of *deep knowledge* and *deep understanding* in these KLAs. One Stage in this school deliberately focuses on *substantive communication* and this has led to more question-asking and more discussion, which staff see as easy to do in COGs.

Some Stage leaders in this school were confident that the opportunities provided by COGs did lead to deeper knowledge and understanding, with explicit task and

assessment criteria – and that students *were* engaged. They saw the units as ‘meaty’ and interesting. At another school, there was particular enthusiasm for the depth of student engagement and units were regarded as ‘the best I’ve ever taught’ and teachers at this school had no doubt that ‘the kids have been extended’ and at the same time, felt that COGs units were easily connected to the lives of the students. Moreover, students were now seeing connections between discipline areas. Another benefit was seen to be in the content of the units themselves – as one teacher commented, she may have covered ‘electricity’ in Science & Technology in the past, but not ‘sustainability’ and the COGs units were seen to open up a number of new perspectives

Students are seen as being potentially more challenged by COGs and one school argued strongly that students were learning at a higher conceptual level with more creative activities. One teacher who was critical of many aspects of COGs, still felt that she had never taught all the KLAs in such depth nor assessed in such depth. ‘Clear direction’ and ‘clear focus’ were common themes here.

Survey responses for *Cohort 1* were: ‘Mostly true’ 44% and ‘True’ 30% . Thus approximately 3/4 of *Cohort 1* respondents were positive about the impact of COGs on the pedagogy underlying curriculum development and implementation. The ‘Mostly true’ result was replicated in *Cohort 2*, but the equivalent total positive responses amounted to 55%. Thus *Cohort 2* were positive, but less so than *Cohort 1*. For *Cohort 2*, an increased understanding of pedagogy was associated with reporting use of the AGQTP website set up for the COGs project ($U = 2018.00$, $z = -1.979$, $p < .05$). The nature of this association is not clear and no such association was found for *Cohort 1*. The website was seen by teachers as more a medium of communication and support than professional development and it may be that ‘professional development’ is considered by teachers as residing in face-to-face teaching rather than in websites.

5. Is there deepened understanding of assessment?

The response to this research question contains some paradoxes. In terms of the quantitative data (see Figure 7 below), there is, on the one hand, a high rate of

‘Mostly true’ returns from both cohorts. For *Cohort 1*, this is substantiated by the rates of ‘True’ responses. Oddly, *Cohort 2*’s 40+% of ‘Mostly true’ responses is followed next in frequency by ‘False’ and ‘Mostly false’ responses. Thus, differences between the two cohorts are again apparent with the second cohort positive in their perceptions of their capacity to measure learning outcomes, but relatively less so than *Cohort 1* ($U = 7224.0, z = -4.523, p < .000$). This may again be explained by the lesser amount of external professional learning provided to *Cohort 2* and would seem to suggest that targeted professional learning is highly useful in assisting teachers in the task of assessment.

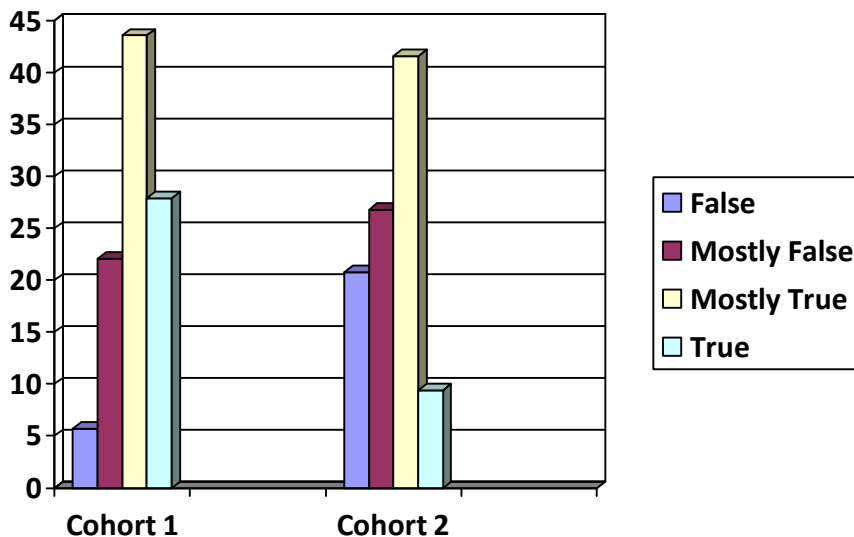


Figure 7: ‘I am now more able to measure learning outcomes’

Despite this finding from *Cohort 2*, however, assessment was one area in which the case study schools and teachers were virtually unanimous in their positive responses to the professional learning activated by being in the COGs project. Moderation of assessment tasks and use of assessment rubrics was seen to be important assessment practice in each school, especially as quality criteria become more explicit. The collegial planning, and its attendant advantages, which is central to the COGs framework was seen as especially useful for developing rubrics and assessment proformas. Moderation, and the ‘tightness’ of assessment tasks was universally seen as a positive development from the COGs process. One school thought that a number

of high profile factors came together fortuitously to facilitate improved assessment practice: the DET literacy strategy, A-E reporting, the DET Quality Teaching model and the drive for consistent teacher judgement - but COGs was critical. Another school commented that their approach to assessment tasks had become much 'higher order'.

There was also, however, some negative reaction to the assessment tasks within the COGs units. These included: a sense that tasks were not always related to the main focus of the unit being assessed; a belief that there were too many group tasks, making it hard to judge individual learning, and that there were too many 'discussion' tasks for Early Stage 1 and Stage 1.

6. Have teachers engaged productively in collegial networks that extend and support knowledge and skills?

The group of people from one rural school who took part in the assessment/moderation process at Sydney were uniformly of the view that that process around work samples was valuable for:

- introducing them to, or deepening their skills in, moderation
- dialogue with COGs co-ordinators in Sydney, especially the AGQTP project team
- having their work valued
- giving the opportunity to form school teams and bring other people 'on board'
- and above all, for inter-school networking

This last point is key - the collegial planning that has resulted from implementation of COGs was universally valued. At one school, two teachers led the process for the rest of the staff, who took on COGs readily and the key drivers at that school were confident that COGs would be sustainable if they left the school, because it had built people's confidence.

Teachers at one case study school particularly pointed to the rollout model of bringing clusters of schools 'on board' gradually through a network as a good model for curriculum change. In another school, while there was some enthusiasm for early

network links, the general view was that presently the networks did not effectively exist and only one staff member seemed to have retained links with schools from the official COGs network. Two of the three case study schools from *Cohort 1* had no contact with their network. One of the networks formed with a *Cohort 2* school was said by a school COGs leader to be functioning ‘very effectively’, running after-school meetings which discussed the units and their implementation. Other teachers in her school, however, did not feel themselves to be part of a network, but this was not necessarily seen as a problem, since teachers perceived their key networks to be within the schools.

For yet another school, the formation of an effective local network had become a focus for their ongoing engagement with the COGs framework. Those leading the implementation within that school had developed a survey to scope interest in pursuing a local network and distributed it to other schools in their area. They were also active in organising meetings and setting their agenda. The continuation and expansion of the COGs framework was seen as of considerable importance. Their leadership role was perceived as indicating the quality and innovation of their practice. In general, across all schools, there was a belief that more useful and effective networks would be local networks. It was also felt that the DET needed to nurture the networks more. The area in which we saw that the COGs process had most foundered was in the maintenance and nurturing of the cross-school networks, though this was not necessarily a problem for teachers.

From the survey responses, having been engaged with a local network or regional group, was associated with statistically significant higher ratings on understanding the syllabuses, curriculum planning, understanding of pedagogy, perceived ability to report learning outcomes and ability to integrate content and link assessment and planning. Where the networks were used, they were associated with positive professional development.

7. Have teachers an increased capacity to report learning outcomes?

As one might expect, there are resemblances between the pattern of survey answers to this question and that on assessment (Q. 5) There was again, on the one hand, a high rate of ‘Mostly true’ returns from both cohorts. On *Cohort 1*, this is again substantiated by the rates of ‘True’ responses. However, *Cohort 2*’s 35+% of ‘Mostly true’ responses is again followed next in frequency by ‘False’ and ‘Mostly false’ responses.

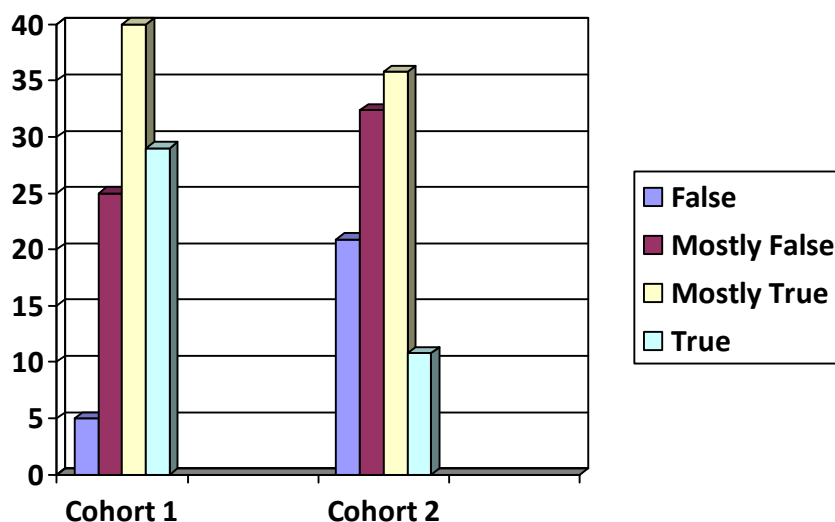


Figure 8: ‘I am now better able to report learning outcomes’

A note of caution is warranted in interpreting the relatively high ‘Mostly false’ scores. It may not be the case that the respondents are stating they do not have the skills to report but, rather, that:

- i) they have not gained these skills specifically from the COGs experience and/or
- ii) given the comments in the case studies, that the current DET reporting policy requires teachers to report on individual KLAs.

This latter point about the lack of linkage with the DET reporting system was a very common complaint. While staff taught COGs units, they still had to split reporting into outcomes for specific Syllabuses. Related to this was the issue reported earlier of a perceived imbalance in units. This impacts on reporting if not enough of a KLA has been taught in order to report on it in a semester – even if the imbalance is to be redressed in the content of the following semester. In other words, if COGs units are

balanced in terms of KLAs over a 2-year cycle, this was seen as not necessarily reflecting the school's reporting cycle. (The solution to this is that the school needs to develop a Scope and Sequence pattern which ensures that they cover all KLAs in a semester, so that this problem does not occur. Theoretically, adhering to the Scope and Sequence of COGs as suggested in the framework poster should work for reporting). The universal view amongst case study participants was that the DET reporting system should reflect COGs structures. Unfortunately this conflicts with current DET reporting policy, which mandates that parents be provided with 'information on a student's learning in each of the key learning areas'. As COGs is not a mandated framework, it is unlikely that there will be any minor revision to this policy to accommodate COGs, so it may be a case for some specific suggestions on ways of meeting this reporting requirement more easily.

8. To what extent are these perceived outcomes a result of engagement with the COGs project, the associated professional learning and the role of the project officers?

One school from *Cohort 1* was said to embrace COGs and most felt it went 'from strength to strength in the school'. Those who led Stage-based implementation in this school felt that the profile of the school had been heightened by its early introduction of COGs. The school was thought to be 'years ahead' of other schools in professional learning and in each of planning/assessment/delivery of COGs and this was a big boost to teacher's confidence. New teachers gained in confidence, while more experienced teachers saw the benefits of COGs. This rural school contained teachers who had been to professional learning sessions in Sydney in the early days of the project, as well as teachers who had benefited from in-school professional learning on COGs.

This school typified the fact that professional learning associated with COGs took two main forms:

- external, especially in the case of staff who had travelled to Sydney or to a major centre for professional learning in the early days of the project
- in-school, either

- formally presented, especially by those who returned from external ‘courses’ to pass on their training, or through a school-based COGs committee or
- picked up informally as part of the planning process for COGs. In this case, the design and teaching of the units mostly constituted the teacher professional learning.

The majority of teacher professional learning in the schools we visited was of the in-school variety.

Staff involved in the original design of COGs units saw that process as extremely positive professional learning, as were follow-up days in areas such as assessment/rubrics/markings. One teacher at one school commented that ‘COGs was definitely the best teacher professional learning I have had’, seeing the professional learning in the project as practical and ‘hands-on’. At this school, the staff who had been involved in introducing COGs felt that the professional learning they had been able to introduce to the rest of the school made the staff more keen to implement the framework. This view of the professional learning provided to other staff was confirmed by other members of the staff. A teacher leading COGs at this school felt that COGs gave her the impetus to become more inventive and that the staff in general was now doing more ‘new things’.

Staff in another school commented on the degree of professional learning that went with early implementation of COGs. This is not done any longer at one school, though it is felt that Stage discussions are adequate for schools’ needs. New staff at this school are not specifically inducted into COGs but pick it up because it is part of frequent Stage discussions. Learning together has been seen as a major positive aspect of this site. COGs gave an impetus to professional learning around pedagogy generally and made things happen sooner. COGs has also made integration easier.

As COGs is not a mandatory framework, there are no centralised funds for professional learning, nevertheless, teachers in general requested more centralised professional learning around COGs, along with the COGs units themselves continuing to be developed.

In discussing this aspect of COGs, the evaluation team asked staff the question, ‘Could you have achieved what you have in terms of your skill development without being part of COGs?’. Some staff argued that they were largely doing things they would have done anyway, especially staff who were familiar with aspects of moderation and imbued with the NSW Quality Teaching model prior to COGs. However, the majority view was that COGs had been a great help to them professionally – that COGs had given their pedagogy a direction by making certain areas more concrete and explicit. COGs, one staff member said, helped ‘with your *discomfort zone*’. COGs was especially credited with improving people’s assessing skills, not just vis a vis moderation and formalising tasks, but in reinforcing observation as important in assessing, and in confirming that teacher knowledge is of most importance in assessing students. The aspect of COGs as mandating certain areas of teaching was also seen as useful in making staff cover a range of material they might have avoided or covered less deeply. A key staff member in one school argued that COGs had given her much more confidence as a teacher of Science & Technology and Visual Arts. She thought that COGs had made her teaching more explicit through trying to integrate concepts from different KLAs, which each favour, she believed, different learning styles. Others commented on the degree to which COGs had led them into new areas of content, or how they had had to take on new skills, such as through ICT. While, as discussed earlier, some people missed their ‘Dinosaurs’ unit, most saw the value of having their horizons broadened.

For those who completed the surveys, professional learning was also an important part of the COGs implementation. Professional development opportunities offered externally were found to be consistently associated with more positive assessments of capacity and attitudes to curriculum planning, understanding of pedagogy and outcomes measurement. More professional learning opportunities provided by DET would clearly be welcomed. While in-school professional learning was valued, it was felt that being at ‘external’ professional learning events was generally preferable to having it passed on second hand : *doing* an assessment task, *developing* the rubrics were themselves valuable exercises. It is important to reiterate that the ‘external’ version of professional learning was universally endorsed and that schools were full of praise for the DET team charged with implementing COGs. There was a real sense in which teachers felt that they knew these people (ie the DET COGs team) well and

that the DET COGs team were highly responsive to their needs. This is not often the case, especially with rural schools whose teachers can often feel remote from the 'centre'. 'Accessible' and 'supportive' were the recurring descriptors of the DET COGs team. Increased opportunities for professional learning which is formal and targeted is seen by teachers to be of considerable benefit, especially if the leaders of such professional development are perceived as having genuine expertise in the field.

Further issues raised by teachers

The COGs website with its homepage at:

<http://www.curriculumsupport.education.nsw.gov.au/timetoteach/cogs/index.htm>

had varied reactions from teachers in terms of use and ease of navigation. Those teachers who had accessed the site regularly were very positive in their attitude. Those who found it difficult to navigate argued that support material needed to be more accessible.

The issue of sustainability was raised, related to the need for specific, focused professional learning for new staff. In addition, it was felt that there was a need to continue to revise, review and up-date the units in order to ensure sustainability.

Other areas commented on as problems by small numbers of teachers included:

- that there is little time to teach skills, especially where these do need to be taught directly and probably individually, such as in Creative Arts (eg drawing);
- there is some assumption in the COGs units that some prior learning has gone on, and time for skills development is not necessarily built into the units (The COGs team in Curriculum Directorate report that teachers have reported in turn that this does not occur when teaching the Stage cycle for the second time. In other words, students may not have the skills they would have if they had been taught the whole Syllabus. On the second occasion of teaching, students have the skills and the teachers have more time to teach new skills and content).
- some loss of creativity and imagination with the focus on 'factual' texts

- a lot of previously purchased resources, especially in HSIE, are not being used (a result, perhaps of the brief given to unit developers to use NSWDET and/or NSW Board of Studies and/or web resources only)

Discussion: Summary of the research questions

1. *Is there a good understanding among teachers of the purposes and of the curricular and pedagogical possibilities of the COGs framework?*

Teachers in both cohorts and in both modes of response (case study and questionnaire) clearly saw the beneficial role of the COGs framework for their teaching. Teachers in the case studies understood that the main purpose of COGs was to deal with the crowded curriculum through integration and at the same time to free them to some extent from programming in order to concentrate on pedagogy. The integration of subjects within units was regarded as a positive in itself. The case study groups endorsed the COGs process and the COGs units. Integration as a curriculum organising principle was seen to benefit students by not parcelling Science & Technology, HSIE and PDHPE into separate school terms. Many teachers saw more balance and depth to the program, and to student experience in the relevant KLAs.

By far the strongest criticism of COGs was the amount of content repetition both within and between units and within and between Stages. The spiral nature of the curriculum was uniformly thought to be a good thing, but even in view of this, repetition was still regarded as a problem. The validity of this criticism depends on the view one holds about the degree of flexibility which there is to make adjustments to unit content. Clearly there is a tension between the principle of adaptability of the units and not wanting to move too far away from their spirit or to destroy their integrity as a total package of Syllabus outcomes.

It may be, however, that there are mixed or unclear messages coming from the DET about the degree of flexibility allowed in the application of COGs units. Importantly, there needs to be some clarification of just what ‘modifying the units’ means. While flexibility might be seen on the one hand as a good thing at the local level, the integrity of the total ‘package’ that is the COGs units is important if all outcomes

from all KLAs are to be met. It seems to us that this issue of degree of flexibility in modifying the units is a clear case for further information/clarification/professional learning.

With respect to resourcing, a common complaint was that suggested unit resources were no longer easily available. In terms of the issue of resource ‘clash’ when the same strings were being taught at the same time, some schools saw this as more of a problem than others, with some seeing the advantages of corporate teaching of the same strings across the school at the same time as having more advantages than otherwise.

Differences were apparent between the different cohort respondents in the survey. This may be because of less time spent in the project by *Cohort 2* respondents or because of fewer external professional learning opportunities for *Cohort 2*. We cannot be sure, but it is a pattern across most questions and in each case we would speculate similarly about the reasons.

2. Is there strengthened depth of curriculum planning processes?

The answer to this partly depends on the definition of ‘curriculum planning processes’. COGs units were pre-developed partly in order to re-direct teacher time and effort. Many teachers commented on the fact that with less time spent on curriculum programming, more time could be spent on developing pedagogy and creating good resources. This is a very positive outcome in terms of curriculum planning processes and one that was intended as a consequence of the framework.

Creating a common program across the school was also seen positively. Stage leaders in one school felt that they now knew what their teachers were doing in these KLAs because of structure and consistency. At another level, the centralised nature of COGs planning was seen in one case study school as, perhaps paradoxically, encouraging innovation in curriculum planning because it provided a structure that gave the confidence to innovate. Teachers in the school which was most positive about the advantages of the spiral curriculum were also more confident about being able to adapt the units to suit school needs (and argued that the adaptability of COGs

was an important aspect to be retained if the COGs project were to be sustainable). Again, this is a positive outcome in terms of depth of curriculum planning processes.

3. Is there deepened Syllabus knowledge?

Involvement in COGs was certainly felt by teachers in the survey to lead to better understanding of individual Syllabuses and it is worth noting the obvious point that this was the case in the context of a framework in which Syllabuses were integrated.

The case study schools, however, revealed some mis-perceptions by a noteworthy number of teachers about the extent to which individual Syllabus outcomes were adequately covered in the COGs framework and accompanying units. All outcomes in the relevant Syllabuses are covered by COGs and ensuring ‘balance’ between KLAs is indeed one of the explicit aims of the COGs project. Thus, when a lack is expressed as ‘not all Syllabus outcomes are being met’ (as opposed to simply ‘my favourite topics/units are not there’) there is a clear case for further professional learning about what the COGs framework does – and similarly with complaints about units being weighted more towards some KLAs than others.

4. Is there deepened understanding of pedagogy?

Similar patterns of response as in the other questions among survey respondents were evident in this question – positive, but somewhat less so among *Cohort 2*. It was argued by those in the case study schools that there were improvements in the quality of pedagogy in teaching the KLAs targeted by COGs. Those who felt that the students were benefiting did see COGs as involving plenty of hands-on *and* cognitive work. These people felt that their pedagogy had changed. Student engagement was commented on positively, as was the ability of students to see connections between discipline areas. Students were seen as being potentially more challenged by COGs. Given all of this feedback, it can be argued that the project aim of re-directing teacher time to pedagogical concerns has been substantially achieved.

5. Is there deepened understanding of assessment?

The same response pattern to the survey from the two cohorts occurred here as in earlier questions. Despite this difference between the cohorts, however, assessment was one area in which the case study schools and teachers were virtually unanimous in their positive responses to the professional learning activated by being in the COGs project. The collegial planning, and its attendant advantages, which is central to the COGs framework was seen as especially useful for developing rubrics and assessment proformas. Moderation, and the ‘tightness’ of assessment tasks was universally seen as a positive development from the COGs process.

6. Have teachers engaged productively in collegial networks that extend and support knowledge and skills?

The collegial planning within schools that has resulted from implementation of COGs was universally valued. Rural teachers who took part in the assessment/moderation process at Sydney were uniformly of the view that that process around work samples was valuable. If our speculations about the differences between cohort responses to the survey are correct, it would seem that the networks created between schools and the DET AGQTP team based on external professional development opportunities were also greatly worthwhile. However, in terms of networks as envisaged by the groupings of schools in *Cohort 1*, this was the area in which we saw the COGs process as having most foundered. The maintenance and nurturing of the cross-school networks was not obvious to us through the case studies, nor to many, perhaps most, of the teachers in case study schools. Nevertheless, it has to be said that this was not especially seen as a problem by these same teachers, who saw their most useful networks working within their schools. Where there was some demand for cross-school networks to operate, it was for local networks. For one case study school which was engaged in an effective network, this was a local one. From the survey responses, having been engaged with a local network or regional group, was associated with statistically significant higher ratings on understanding the syllabuses, curriculum planning, understanding of pedagogy, perceived ability to report learning outcomes, ability to integrate content and link assessment and planning. Where the networks were used, they were associated with positive professional development.

7. Have teachers an increased capacity to report learning outcomes?

As one might expect, there are resemblances between the pattern of survey answers to this question and that on assessment (Q. 5) There is again, on the one hand, a high rate of ‘Mostly true’ returns from both cohorts with *Cohort 2* less positive overall.

The lack of linkage between COGs as a framework for teaching and assessing and the DET reporting system was a very common complaint. While staff taught COGs units, they still had to split reporting into outcomes for specific Syllabuses. Somewhat related to this was the issue reported earlier of a perceived imbalance in units. The obvious solution to this is that the school needs to develop a Scope and Sequence which ensures that they cover all KLAs in a semester, so that this problem does not occur. Theoretically, adhering to the Scope and Sequence of COGs as suggested in the framework poster should work for reporting. The universal view amongst case study participants was that the DET reporting system should reflect COGs structures. Unfortunately this conflicts with current DET reporting policy, which mandates that parents be provided with ‘information on a student’s learning in each of the key learning areas’. As COGs is not a mandated framework, it is unlikely that there will be any minor revision to this policy to accommodate COGs, so it may be a case for some specific suggestions on ways of meeting this reporting requirement more easily.

8. To what extent are these perceived outcomes a result of engagement with the COGs project, the associated professional learning and the role of the project officers?

Staff involved in the original design of COGs units saw that process as extremely positive professional learning, as were follow-up days in areas such as assessment/rubrics/markings. This view of the professional learning provided to other staff by teachers returning from external professional learning was also seen as useful, but it is quite possible that the consistent differences in survey responses between the two cohorts is a result of the different external professional development opportunities provided to the two cohorts. Teachers in general did request more centralised professional learning around COGs, along with the COGs units themselves continuing to be developed.

In discussing this aspect of COGs, the evaluation team asked staff the question, ‘Could you have achieved what you have in terms of your skill development without being part of COGs?’. The majority view was that COGs had been a great help to them professionally – that COGs had given their pedagogy a direction by making certain areas more concrete and explicit. COGs was especially credited with improving people’s assessing skills. Teachers also commented on the degree to which COGs had led them into new areas of content, or how they had had to take on new skills, such as through ICT.

For those who completed the surveys, professional learning opportunities offered externally were found to be consistently associated with more positive assessments of capacity and attitudes to curriculum planning, understanding of pedagogy and outcomes measurement. More professional learning opportunities provided by DET would clearly be welcomed. Schools were full of praise for the DET team charged with implementing COGs. There was a real sense in which teachers felt that they knew these people (ie the DET COGs team) well and that the DET COGs team were highly responsive to their needs. This is not often the case, especially with rural schools whose teachers can often feel remote from the ‘centre’. ‘Accessible’ and ‘supportive’ were the recurring descriptors of the DET COGs team.

Discussion: Other

It is worth making some special mention of the COGs framework in relation to multi-stage classes – that is in relation to those units developed for (and with the help of teachers within) the schools in Network 3. While many states have curriculum support materials for multi-stage classrooms, it is possible that the degree of detail and the comprehensiveness of the COGs framework in providing all the teaching units, and recommendations for resources, may well be unique in Australia.

In identifying **critical factors that impact on teacher professional learning** and drawing conclusions about **effective professional learning in relation to curriculum planning, programming and integrated assessment**, the following points can be made in relation to the COGs project:

- 1) Both in-school and externally provided professional learning was valued by teachers, however, if the differences between cohorts on each question in the survey is indeed a result of the differences in external professional learning which they received (and we cannot be sure of this) then there is a case for teachers' particular valuing of external professional learning led by those seen as having expertise. This is especially so in the early days of a project.
- 2) Teachers appreciate the mix of 'hands-on' involvement and learning led by those with expertise. Getting the mix of these right is always a challenge for professional development leaders and this project seems to have done that.
- 3) The support of dedicated project officers is important, especially when teachers feel themselves as working in new areas and especially for rural, regional and remote schools.
- 4) Networks are important for professional learning. While the originally intended network structures in *Cohort 1* schools did not seem to function well in the case study schools, other networks formed of themselves – within schools, within Stages, within local groupings of schools - and were seen as universally valuable
- 5) Why networks are valuable seems to emerge from something akin to a Vygotskian zone of proximal development (Chaiklin 2003) – certain things become more concrete and explicit when others are seen to be doing them or some approach to them emerges from group discussion and teachers are then more willing to move out of their 'comfort zone'. As a group of professionals, teachers are willing to embrace new ideas if they see the value to their students and if they are supported in this move.
- 6) Somewhat related to points 4) and 5) is the idea that teachers may define worthwhile professional development as face-to-face encounters rather than as something provided by a website. Nevertheless, the delivery of professional learning online is not going to go away. In this case, targeted professional development may need to position relevant websites as 'complementary', rather than as 'central' and to brief teachers in professional development sessions about the best ways of using the website in a complementary mode.

In making more general **recommendations to guide other schools**, then, in terms of **good practice in curriculum planning and programming and assessment**, the following points seem to arise from this particular project:

- 1) A framework such as COGs does seem to deal to some extent with the issue of the crowded curriculum and also with the issue of freeing up teacher time from programming to be directed towards questions of pedagogy.
- 2) Integration of aspects of the curriculum also seems – at least in teachers’ perceptions – to allow students to engage in rich applications of the discipline knowledge and skills derived from the individual subjects/KLAs. Rather than keeping knowledge parcelled into disciplines, integration was seen here dealing with the higher order issue of synthesising knowledge from disciplines.
- 3) It seems obvious to state that corporate planning of curriculum Scope and Sequences across schools is necessary, however the issue of how the school builds in a spiral structure to the curriculum is perhaps not so obvious and needs to be the result of this corporate thinking.
- 4) Decisions need to be made early about the degree to which individuals can vary aspects of the curriculum so that a School scope and Sequence does not lose its integrity.
- 5) Following from the previous two points and strongly reflected in this project is the importance of the principle of collegiality in driving curriculum innovation. This is in keeping with other findings about highly effective programs within schools in terms of student outcomes. Sawyer et al (2007), for example, found that in secondary English Faculties achieving exceptional outcomes, teachers did not operate as isolated individuals, but rather as ‘mediators’ between the Faculty group and the students. Pedagogy was conceived of by these teachers as a phenomenon reflective of Faculty principles, practices and culture rather than solely a phenomenon of the interactions of individual teachers and students (cf pp. 68ff)
- 6) Assessment seems to be a particular area of interest generated by the project. Common assessment tasks, marking rubrics, assessment proformas, consistent teacher judgement and corporate marking – each of which have been long-standing practice in secondary schools and driven by the Higher School Certificate – are each practices that teachers in this project have again seen as worthwhile and have again highlighted the value of corporate practice but, more importantly, have been used to integrate assessment and curriculum.

Recommendations to the DET in relation to the COGs framework and its implementation

1) It appeared to the evaluation team that teachers appreciated the fact that their teaching lives had been relieved of some of the burden of programming and that they had more time to spend on pedagogy and assessment rather than programming and planning. Given the value which teachers place on the framework in terms of ‘freeing up’ time in this way, but also in terms of:

- dealing to some extent with the crowded curriculum
- the advantages for students of an integrated curriculum framework

it is desirable that the COGs framework continue

2) The issue of repetition – or perceived repetition – within the units needs to be dealt with. This may be by modifying the units or by focusing more directly some professional learning on the nature of the spiral curriculum and on the ways repetition can be exploited rather than simply opposed.

3) There needs to be some clarification of just what ‘modifying the units’ means and the degree to which this should or should not be done. While flexibility might be seen on the one hand as a good thing at the local level, the integrity of the total ‘package’ that is the COGs units is important if all outcomes from all KLAs are to be met. Clarification in this area would deal with a number of issues: whether the focus of units is content- or outcomes- driven; the issue of repetition, and the question of perceived imbalance between the KLAs.

4) It would be of value for the COGs team to facilitate the formation of further local networks given the value teachers placed on collegial work.

5) There was a strong call for the DET reporting system to reflect COGs structures. Unfortunately this conflicts with current DET reporting policy, which mandates that parents be provided with ‘information on a student’s learning in each of the key learning areas’. Given this policy and the depth of feeling from teachers in the case

study schools, this may be a case for some specific direction/suggestions for how to marry these conflicting requirements more easily.

6) Given the positive response to the relevant professional learning by teachers, it again seems important that the support currently provided by the DET COGs team at the Curriculum Directorate continue at least in its present form and even that their work be extended to enable Recommendation 4) to occur in meaningful and useful ways.

References

- Chaiklin, S. (2003), 'The zone of proximal development in Vygotsky's theory of learning and school instruction' in A. Kozulin, B. Gindis, V.S. Ageyev, & S.M Miller (eds.), *Vygotsky's educational theory in cultural context*, Cambridge: Cambridge University Press.
- Sawyer, W., Brock, P. & Baxter, D. (2007), *Exceptional outcomes in English education: Findings from AESOP*, Tenerife: Post Pressed.

APPENDIX A

COGs EVALUATION - QUESTIONNAIRE

(The questionnaire was completed online with participants' using radio buttons, drop down menus and text boxes to respond to the questions asked. No identifying information was recorded)

Part A: Demographic Data

1. Are you:
 - Male
 - Female

2. Qualifications: Undergraduate
 - B.Ed
 - B.Teach.
 - B.A.
 - BSc
 - Dip.Teach
 - Other

3. Qualifications: Postgraduate
 - Dip.Ed.
 - M.Teach.
 - M.Ed.
 - M.Sc.
 - M.A.
 - PhD
 - Other
 - None

4. My main role in the school is:
- Classroom teacher
 - RFF teacher
 - Teacher/Librarian
 - Executive
 - Principal
 - Other
5. What grade level were/are you teaching whilst involved in the COGs project?
(You may select more than one)
- Kindergarten
 - Year 1
 - Year 2
 - Year 3
 - Year 4
 - Year 5
 - Year 6
6. How long have you been teaching?
- 1 to 3 years
 - 3+ to 10 years
 - More than 10 years
7. Is your school in:
- the metropolitan area of Sydney
 - regional town/city
 - rural/remote area of NSW
8. Is your school located in an area of:
- Low socio-economic status
 - Medium socio-economic status
 - High socio-economic status

9. How many students attend your school?

- Less than 150
- 150 - 400
- 400+

Part B: Involvement in COGs

10. With what focus area were you involved?

- Trialling COGs units of work and providing moderated work samples
- Trialling and evaluating COGs units
- Developing and evaluating for communities with high proportions of Aboriginal and/or LBOTE and/or GAT students
- Modifying COGs units for multi-Stage classes

11. How did you come to be involved in COGs? (*Choose the most appropriate*)

- Whole school decision
- School Principal and/or executive decision
- Stage decision
- Individual teacher decision

12. What form did your involvement take? (*You may select more than one*)

- I led the school implementation
- I attended professional development
- I assisted with development of COGs materials e.g. multi-Stage units, moderated work samples
- I implemented COGs materials in my classroom

13. What form did your professional learning around the use of the COGs materials take? (*You can select more than one*)

- Region-based workshops and/or training sessions
- School-based workshops and/or training sessions

- Discussions within your network/regional group
- Use of the AGQTP project website set up around the COGs project
- Use of *Time to Teach* website (*Curriculum planning and programming, assessing and reporting to parents K-12*)

14. How often did your Stage/school meet over the course of the project?

- Daily
- Weekly
- Once a term
- Once
- Never

15. When did you generally meet?

- Before school
- After school
- During school hours
- Weekends/holidays

16. How would you rate the benefits of attending Stage/grade meetings?

- Excellent
- Very good
- Good
- Poor

Part C : Perceptions of the COGs process and framework

Please rate the following statements as a consequence of your having been involved in the COGs project where:

1 = False 2 = Mostly False 3 = Mostly True 4 = True

17. I now have a better understanding of the Syllabus.
18. I believe that the COGs framework enhances student learning.
19. Being part of the COGs project has increased my skills in curriculum planning.
20. The COGs framework is now used consistently throughout the school.
21. Through being part of COGs implementation, I feel more confident when planning for my students.
22. I found the professional learning which occurred through COGs implementation very useful.
23. Through being part of COGs implementation, I have a greater understanding of the pedagogy which underlies curriculum development and implementation.
24. The COGs framework is a useful and effective approach to curriculum planning.
25. I have formed networks with other teachers as a result of the COGs project.
26. I am now better able to report on learning outcomes.
27. Because of the COGs implementation project my curriculum and teaching will be grounded in evidence I gather from analysing student outcomes.
28. I am now able to measure learning outcomes.
29. The COGs framework has allowed me to integrate the curriculum in ways I had not previously considered.

30. I now have a better understanding of how to link authentic assessment to curriculum planning.
31. The COGs units leant themselves to modifications for my school needs.
32. Implementing the COGs framework has given me more time to concentrate on my teaching.
33. The project officers assisted me in my learning.
34. I learnt nothing new as a result of being part of the COGs project.
35. I am now more sure of my skills as a teacher as a result of the COGs project.
36. The teacher networks that arose from COGs have not assisted me with my teaching.
37. Are there any other comments you would like to make about your experiences with the COGs project? What examples or evidence can you give of your having increased your skills?

Thanks you for completing the survey.

APPENDIX B

FOCUS GROUP AND INTERVIEW QUESTIONS

1. How did you come to be involved in the COGs framework project?
2. What form did your involvement take?
3. What would you now see as the main aim of your network?
 - a. Is this in line with what was stated at the beginning? If not, why not?
4. What would you see as the most important things to come out of the COGs project?
 - a. Do you think that you now have greater skills? In what areas? How do you know this?
 - b. Do you now feel more confident in your teaching skills?
 - c. Were you able to establish a collegial network?
 - d. Can you give examples?
5. What would you see as the disadvantages of the COGs project?
6. How effective was the process that your group went through?
 - a. What was the process?
 - b. Was it well organised?
 - c. Who took responsibility for the process? How was this decided?
7. To what extent do you think your students have benefited from your being part of the COGs project?
 - a. Can you give any examples?
8. How much did the COGs framework assist your professional learning?
 - a. How did it do this?
 - b. How important do you think the professional learning was within your network?

9. Could you have achieved what you have in terms of your skill development without having been part of COGs?

10. How would you improve the COGs process?
 - a. What could be done better?
 - b. What would have led to better outcomes?
 - c. What should be the focus of COGs?

APPENDIX C – INFORMATION SHEET FOR ONLINE SURVEY

Locked Bag 1797
Penrith South DC NSW 1797 Australia

School of Education



Information Statement for School Teachers completing online questionnaire

We are undertaking a project sponsored by NSWDET to investigate the impact of professional learning on teacher capacity in implementing curriculum planning and assessment frameworks (COGs).

To do this, we would be grateful if you could take the time to complete the questionnaire that you will find at the attached link. It should take you no longer than 10 minutes to complete.

The information gained from this research will allow the DET to make informed decisions about the future delivery of professional learning for teachers and about the continuing implementation of the COGs framework for curriculum planning and assessment. A number of case studies at schools involved in the COGs project have also been undertaken. These have included on-site visits, focus groups and interviews with staff.

If you agree to take part in the research, your answering of the attached questionnaire will be taken as consent to that part of the research. Participation is voluntary. Your responses to the survey are anonymous and no individuals will be identified in the report to the DET. The officers responsible for the COGs project will determine how information on the research results will be distributed to participants.

If you wish to know more about the research, please do not hesitate to contact the members of the research team:

Associate Professor Christine Johnston 02 4736 0782 c.johnston@uws.edu.au

Associate Professor Wayne Sawyer, (02) 4736 2795, w.sawyer@uws.edu.au

Yours sincerely,

A handwritten signature in blue ink, appearing to read 'C. Johnston', written in a cursive style.

On behalf of the research team

This study has been approved by the University of Western Sydney Human Research Ethics Committee (HREC 08/033). If you have any complaints or reservations about the ethical conduct of this research, you may contact the Ethics Committee through the Research Ethics Officer, nominated as Complaint Officer k.buckley@uws.edu.au (tel: 02 47 360 883). Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.

APPENDIX D – INFORMATION SHEET FOR FOCUS GROUPS

Locked Bag 1797
Penrith South DC NSW 1797 Australia

School of Education



Information Statement for School Teachers involved in focus groups

Associate Professor Christine Johnston and Associate Professor Wayne Sawyer from the University of Western Sydney are currently undertaking a project sponsored by NSWDET to investigate the impact of professional learning on teacher capacity in implementing curriculum planning and assessment frameworks (COGs).

The first phase of the research was a questionnaire which you may have completed online. The second phase of the research is a set of focus group interviews at schools nominated by the DET officers responsible for the COGs project. We would like to interview you as part of a focus group in your school to find out your views on the COGs framework and, in particular, your views on the professional learning provided to implement the framework. We anticipate that the focus groups will take approximately two hours and will be conducted by one of the researchers named above. The focus group will be conducted at your school and will be taped.

If you agree to take part in the research we will ask you to sign a consent form. Participation is voluntary and you may withdraw at any time without explanation. No individuals will be identified in the report to the NSWDET.

The information gained from this research will allow the DET to make informed decisions about the future delivery of professional learning for teachers and about the continuing implementation of the COGs framework for curriculum planning and assessment. The officers responsible for the COGs project will determine how information on the research results will be distributed to participants.

The research has been approved by the University of Western Sydney Ethics Committee.

If you wish to know more about the research, please do not hesitate to contact any members of the research team: Associate Professor Christine Johnston 02 4736 0782 c.johnston@uws.edu.au; Associate Professor Wayne Sawyer, (02) 4736 2795, w.sawyer@uws.edu.au

Yours sincerely,

On behalf of the research team

This study has been approved by the University of Western Sydney Human Research Ethics Committee or the University of Western Sydney Human Research Ethics Panel. If you have any complaints or reservations about the ethical conduct of this research, you may contact the Ethics Committee through the Research Ethics Officer, nominated as Complaint Officer k.buckley@uws.edu.au (tel: 02 47 360 883). Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.