

15.12.07 NCCA REPORT FOR NPC-pp FROM M. LYON

Project Maths – update

You will have read the results of the recent OCED study by now – it has been covered extensively in the national newspapers.

You will have noted the comments that parents can “rely on high and consistent performance standards across schools in the entire education system and may, therefore, be less concerned about choice between schools in order to attain high performance for their children than parents in countries with large performance differences between schools.” That statement has been consistent since the 2000 study and we are fortunate to have such good schools but we must remember that we need to develop more flexible programmes of education to meet the needs a growing minority of our students.

No progress has been made in our students’ performances in maths since the OCED reports in 2000 and 2003. Ireland ranked 22nd of the 58 participating countries. This year fewer than 7,000 of the 50,000 LC students gained grade C in higher-level maths. Up to 4,000 students fail the subject annually.

As reported previously the NCCA has been planning a new revised syllabus for maths from 1st year LC and not jus LC maths as reported in the Irish Times Wednesday 8th Dec. In a nutshell the aim is to place a greater emphasis on problem solving and on application of knowledge and to create a link to maths in the primary school curriculum. Up dating teachers skills will be a critical element and the project will be rolled out in schools on a topic-by-topic basis.

Although the Minister for Education acknowledges that the results in maths is disappointing the DES has not given the go ahead for Project Maths and the whole project is now some months behind schedule.

Current work

- Ongoing discussions with the DES, SEC (state examination commission) – implementation, schedule of costing. No decisions yet.
- Maths cttee meetings and the Board of Studies meeting.

- Appointment of education Officer
- Communication to schools – currently being developed - documentation will go to all schools. They will receive an invitation to submit their names of inclusion in the project. 24 schools will be selected with regard to size, type, and geographic region. (See below)

5 strands of mathematics

1. Data, statistics and probability
2. Geometry and trigonometry
3. Algebra and functions
4. Calculus
5. Number and number theory

Note: There will be greater linkage to primary school maths. In 4th/5th class in primary school pupils will study the concept of chance and will do some work on statistics, they will never come across it again in second-level. Post-primary students do not study geometry until 3rd year – they do it in primary school – so they should study it in 1st year.

Bridging Framework

- Overview of strands and strand units in fifth and sixth class mathematics
- Teaching and learning approached in primary school maths
- Links to mathematics topics in the junior cycle
- Gradual progression to more formal/abstract mathematics during junior cycle
- Common course in fifth year post-primary

Syllabus development

- Syllabus aims & objectives
- Inclusion of learning outcomes at strand level
- Focus on developing higher-order skills
- Addition/removal of topics or sub-topics
- Details of Strand 1: data, statistics and probability
- Assessment issue re participating schools (LC Maths)
- Syllabus levels: meeting the needs of lower performing students.

Note: Re looking at aims & objectives of current syllabus. The detail in aims & objectives will become the learning objectives – more generalised learning outcomes. Each strand unit will have 6/8 learning outcomes. Most students can answer questions on exam papers very well but the quality of understanding is poor according to 3rd level institutions. Higher-level syllabus is too crowded. No final decision on Foundation Level for LC. Assessment - equity issue re 24 schools, 3% of student population in project maths school. ASTI has written to NCCA re commencing the project just with 1st year, NCCA has responded.

Communicating with schools

- Documentation re project to all schools
 - invitation to participate
 - 24 schools representative sample to be selected
- Follow-up documentation for participating schools, parents, students, etc.
- In-school meetings, cluster meetings
- Focus day for teachers
- Web updates on progress

Note: NCCA will be expecting to receive feedback from schools on any additional support they may need. NCCA will be working with all maths teachers in each of the 24 schools including those teachers who teach mathematics but do not have a maths degree. There needs to be a commitment from all teachers and there is a need for a core of qualified Maths teachers. NCCA will be customising programmes to suit the needs of Maths teachers in each school.

Broader Issues

Supporting Project Maths – NCCA's role

- NCCA structure
- Implementation management group
- Maths support service
- Education partners

Communication strategy

Junior Certificate – rebalanced syllabuses

Re-balancing

- Overload, overlap, modernisation, out-dated
- 10 subjects began
- 3 (History, Home Economics, Geography), 4 to follow
- Drafts circulated

Structure of syllabus

- Template
 - Introduction
 - Rationale aims
 - Objectives
 - Differentiation
 - Assessment
 - Structure
 - Links
- Applied
- Evolving

Rebalancing JC Home Economics

Key changes:

- A considerable amount of out-of-date or unnecessary content removed
 - e.g. How to devise and keep a filing system
 - e.g. Shelter, cleaning management, services to the home, first aid treatment and cleaning agents
- Reduction in repetition of similar skills
 - e.g. Make a household item or a garment in textiles (rather than both)

Content brought up-to-date

- e.g. Energy labelling on electrical appliances
- e.g. Folate is included in list of nutrients

- e.g. Terminology in relation to disabilities has been made politically correct

Content is more specific

- e.g. Vitamins and minerals to be covered are specified
- e.g. Limit food poisoning bacteria to two
- e.g. elective detailed study given clearer guidelines

Some areas of content are moved within the syllabus

- e.g. Care labelling has moved to the Textiles section

Areas of over-lap between subjects removed

- e.g. The organs of the male and female reproductive systems
- e.g. Gross and net income, saving options.

Assessment for certification

JC Home economics will be assessed through three different methods of assessment:

- Food studies practical examination
- An elective study project
- A terminal written examination

Assessment arrangements

Food and Culinary Skills Exam

Food and culinary skills practical examination, marks: Ordinary level: 45% Higher level: 35%

Elective Study Project Work

One elective study project presented by each pupil chosen from one of the three elective areas:

1. Childcare
2. Design and Craftwork
3. Textile Skills

Marks: Ordinary level: 15% Higher level: 15%

Written Examination

A terminal written examination, marks: Ordinary level: 40% Higher Level: 50%

History (last revised 1989)

- Changes to structure
- Induction, aims and objective revised
- Overview table
- Statements of context
- “Approach” column in the original syllabus document
- Learning outcomes – there were no learning outcomes
- Statement of links

Reduction in scope – Section 1

Reformation.. “How different people went about reform” now confined to four named individuals, Luther, Calvin, Henry VIII and Ignatius Loyola

Plantation in Ireland... two named plantations – Munster and Ulster (although JC cttee members asked should it not be Ulster and Laois/Offaly)

Revolutionary movement (French & American)

Limit the coverage to their influence on events in Ireland (this area may need further work)

Special Study ... the revolutionary must be Irish

From farm to factory... change title and description of topic and special study (Now Industrial England and Rural Ireland)

Assessment in history

The syllabus will be assessed at two levels, Both Ordinary and Higher levels by means of terminal written papers. Ordinary level will be allocated 1 1/2 hrs and 2 hrs for higher level. The paper at higher level will test both those parts of the syllabus to be taken by all candidates plus those parts designated for higher level only. All of the assessment objectives may be tested, but the weighting given to certain objectives will differ between Higher and Ordinary levels. Whereas the language on papers at both levels will be simple, clear and unambiguous, particular care will be taken to ensure that the language at Ordinary level will reflect the reading abilities of the candidates at that level. I don't have the detail on

the weightings, I'll try to ascertain the detail and report on it at a later date.

Geography (syllabus is 15 years old)

Addressing overload (content has been reduced by approx 20%)

The reduction of content has been achieved by:

- The number of units has been reduced from 11 to 10
- The number of key statements has been reduced from 54 to 50
- Many of the statements themselves have been simplified and the content reduced
- The number of settings required to be studied within statements has been reduced
- More settings have been designated at higher level only
- Linkages within the syllabus have been identified
- Use of the same setting to illustrate different statements has been clearly indicated through footnotes
- The particular setting need only be studied once.
- In one area the content has been extended
- Students are now required to study all three agents of erosion and deposition to obviate the need for setting alternative questions. This will shorten the exam paper.
- Shorter exam paper recommended.

Dealing with obsolescence

- Some statements re-worded to reflect changed reality
- Outdated settings replaced
- More appropriate alternative settings introduced

Assessment - Two assessment modes

The objectives of the geography syllabus will be tested by means of two assessment modes: terminal examination and field study (optional).

Terminal examination

Students will be examined at one of two levels, namely Ordinary and Higher. There will be two examination papers, one for each level.

The examination paper for H&O will consist of two parts:

- A folder consisting of 25 short type questions (20 to be answered) – 60 marks (40% of paper)
- Five longer multi-part questions of which three must be answered – 90 marks (60% of paper)

Field study option

A proportion of the total marks may be allocated to the Field Study option. Those who avail themselves of this option may be exempted from answering part of the exam paper. I don't have the detail on weighting – I'll have to enquire further. No student took the Field Study option in 2006 in Geography and I'll inquire about History.

Implementation and next steps

Potential approached to implementation

Limited Change

Geography
History
Home Economics
Art, Craft, Design
Music
English
ESS

Consultation

- Notify
- Online
- Some

Implementation

- Focused communication – existence of rebalancing

Substantial Change

Business Studies
Irish
Mathematics

Classics – new subjects
Jewish Studies

Consultation

Implementation

- Specific support (subject association) – voluntary/out of school time

Note: in-service will happen in the way that we currently know.

Timeline for ‘seven’ (limited change)

- Council... Jan & March 2008
- Consultation
- Finalise...before summer
- Forward to DES

Other syllabuses

- Jewish Studies ... Council Jan 2008
- Drafts of Business Studies and Classics.. before summer 2008
- Consultation autumn
- Finalise Dec 2008

Information for parents

There is a need for information on the aims and objectives of the Junior Cycle for parents. Parents now coming through the system from primary school will have had access to leaflets and DVD's on their children's experience in primary school and how parents can support their children's' learning. I believe parents as a result will be more demanding in the level of detail they will require on the experience their can expect in the junior cycle.

Curriculum framework for children detention schools, high support and special care units

I have reported on this area before – but just to bring you up-to-date.

Background to the framework

Survey of Learners
Survey of Teachers

Other Curriculum Frameworks

Consultative Group

A Curriculum Framework

Guiding Principles

- Flexibility
- Personalised learning
- Continuity/Progression
- Diversity
- Equality
- Collaboration/Partnership

Defining Features

Explicitly stated features relating..

- Teaching and Learning
- Culture and Climate
- Implementation

Note: A wheel mapping the learning is excellent and is probably available on www.ncca.ie

Next Steps

- Draft framework published online (NCCA website)
- Working with the schools and units
- Sub-group of education practitioners (guidelines)
- Finalise the framework and complete guidelines (May 2008)

The curriculum framework will reflect the background and experiences of the learners involved. This seems to be characterised in many cases by some combination of the following elements:

- Absenteeism throughout their schooling
- Poor experience of the transition from primary to post-primary schooling
- Marginalisation leading to underachievement in mainstream school settings

- The presence of significant difficulties in the areas of basic literacy and numeracy
- Related behavioural and emotional problems

If you require a background note on this framework contact me on marionlyon2002@yahoo.co.uk

Research on Diversity and Inclusive schools

Context

- HLO: NCCA Strategic Plan 2006-2008¹
- ‘To continue to provide for the education of all learners to enhance quality of access and participation, and attainment of outcomes for all.’
- Inclusion a major challenge facing schools
- Three groups of learners identified
 - Newcomers to Ireland
 - Learners with special educational needs
 - Learners who experience educational disadvantage as a dimension of socio-economic disadvantages

Towards defining an inclusive school

‘An inclusive school operates on the basis of policies and practices that aim to cater effectively for the full and diverse range of learning needs of its students. An inclusive school welcomes, recognises, respects and celebrates that diversity.’

‘From the learners perspective, it is a school where he/she feels comfortable engaging with all aspects of schooling; where the

¹ In support of its strategic plan for 2006-2009, the NCCA wishes to commission research to capture the experiences of a small number of primary and post-primary schools in serving a diverse student population and in meeting the challenge of being inclusive in this context.

learner has a sense that the school is working on their behalf; where he/she feels a genuine sense of belong and well-being.²

Nature of the research

- Emphasis on diversity and inclusion for all
- Purpose: capture the context, experiences, approaches and strategies
- Subject: primary and post-primary schools with a diverse school population
- Dynamics associated with policy and practice
 - School organisation, planning and policy
 - Teaching, learning, curriculum implementation

The Research

- Phase One
National picture (admission and inter-school differences) and review of literature
- Phase Two – three key strands
Generation of a factual profile of each school
Investigate how schools perceive the challenge of being inclusive
Capturing the main challenges, experiences and strategies
- Timescale
Tendering completed by early 2008
Research in 2008, report in 2009

For the NCCA, it is envisaged that the research will contribute to the ongoing work of the organisation in curriculum and assessment review, especially review in the areas of special educational needs, the Primary School Curriculum, the Junior Certificate School Programme and the LCA. It should enable the NCCA to be more sensitive to and responsive to the current needs of schools. It should build on and add to work already taking place with

² **In general terms, inclusive education is viewed as an element within the broader aim of social inclusion. The latter has been defined in government in recent years as aiming to address marginalisation that arises in the contexts of production, consumption, social networks, decision-making (parents input) and more general quality of life (NDP 2000-2006)**

networks of schools aimed at generating closer understanding of and exemplification towards effective implementation of the curriculum on the ground. It should offer further insights into the contribution that the flexible employment of a range of teaching and learning approached for all learners can offer in this context. More broadly, the research will inform the advice of the NCCA in the areas of pre-service teacher education and ongoing professional development of teachers.

The overall expectation is that the data gathered would not just give rise to specific examples and experiences of how schools are addressing diversity and inclusion and how they are being supported in so doing. Through comparison of schools within the study and understanding of how they see their relationships with other schools in their locality, the research will also offer some insights into inter-school differences in this context. While what is proposed is research on a small-scale, it may be the forerunner for a more extensive piece of work that could include the dynamics of transition into out of and between schools in a particular area.