

A CPD PROGRAMME FOR OUT-OF-FIELD MATHEMATICS TEACHERS IN IRELAND: PROGRAMME OUTLINE AND INITIAL EVALUATIONS BY PARTICIPANTS

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Overview of Talk



- Mathematics Education: The Irish Context.
- Out-of-field Mathematics Teaching in Ireland.
- Professional Diploma in Mathematics for Teaching (PDMT).
- Participants' Evaluation of the PDMT: Some Initial Findings.
- Conclusions and Future Research.

MATHEMATICS EDUCATION: THE IRISH CONTEXT

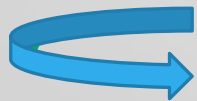
- 'Project Maths' – new mathematics curriculum at second level education
 - Change of focus: Less didactic pedagogy.
- Effective implementation of 'Project Maths' - suitably qualified teachers.

Out-of-field Mathematics Teaching in Ireland

"teachers assigned by school administrators to teach subjects which do not match their training or education"
(Ní Ríordáin & Hannigan, 2011).

Ní Ríordáin and Hannigan (2009) report:

- 324 mathematics teachers in Ireland surveyed.
- 48% did not have a mathematics teaching qualification.
- Predominately qualified to teach Science or Business.
- Assigned to lower Junior Certificate years



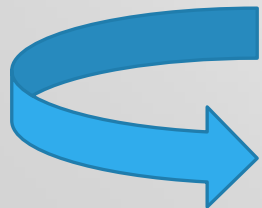
Impact on uptake of Higher Level Maths at Leaving Certificate

Professional Diploma in Mathematics for Teaching (PDMT)

- EPI-STEM (University of Limerick, Ireland)
- National Level 8 Programme
- Free of charge
- Blended Learning platform (face-to-face and online)
- 10 Lecture and 15 Tutorial Venues
- Offered through the medium of Irish



National Centre for STEM Education



Initial Evaluation of the Programme carried out.....

PARTICIPANTS' EVALUATION OF THE PDMT – SOME INITIAL FINDINGS

- Online questionnaire was compiled by the PDMT team along with the Centre for Teaching and Learning in UL:
 - programme particulars,
 - module specifics and
 - overall satisfaction.
- 65.6% of all participants enrolled in the programme completed the questionnaire.

PARTICIPANTS' EVALUATION OF THE PDMT – SOME INITIAL FINDINGS

- Of the students in the first 3 cohorts who completed the questionnaire, a significant proportion of them (**33.5%** on average) stated that they either disagreed with the statement that they were satisfied with the programme as a whole or were unsure of their opinion:
 - Compulsory, resulting in a lot of stress for
 - Too demanding across different time periods
 - Inconsistent across different time periods
 - Issues with time.



PARTICIPANTS' EVALUATION OF THE PDMT – SOME INITIAL FINDINGS

- **52.5%** of the participants either agreed or strongly agreed that they were satisfied with the programme as a whole (majority from latter cohorts of programme implementation):
 - Support for the training programme
 - Well positioned for the future
 - Improvements in mathematics - found the course both beneficial



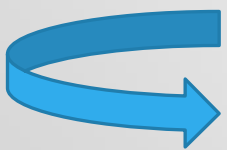
PARTICIPANTS' EVALUATION OF THE PDMT – SOME INITIAL FINDINGS

Advice to New Participants Enrolling on the Programme:

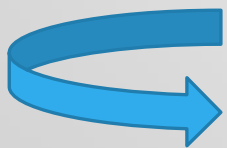
- High level of pre-requisite mathematical knowledge that is required for the programme – not light touch.
- High level of commitment combined with having a full time job and potentially a family.
- Importance of attending tutorials and encouragement was given to read lecture notes prior to attending lectures.
- The programme was an advantageous career move.

Conclusions

- Issues in the initial years of the PDMT, participant satisfaction has increased over time.
- Programme requires a significant time and work commitment:



Stressful for participants as they are also teaching full-time.



Positive means of achieving professional development and advancement as a mathematics teacher.

Future Research

- Research currently being conducted on the programme in the following areas also:
 - blended-learning,
 - mathematical content knowledge,
 - action research and
 - teacher identity (PhD)
- M-TAS Ireland
- TAS Collective International Group (Symposium Friday and Saturday) website: https://www.uni-due.de/TAS/?page_id=16

SUCCESS: To date, 528 graduates of the PDMT.



THANK YOU

The End