

The “Good” French Immersion (FI) Mathematics Class: Secondary Students’ and Teachers’ Experiences and Perceptions

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Outline

- Background
- The Study
- Literature Review
- Methodology and Methods
- Participants
- Results
- Limitations
- Discussion/Conclusions
- References



Personal & Professional Background

- BA, BEd (French & Mathematics)
- High school teacher (FI Mathematics and Science)
- MEd (FSL Education)
- Faculty Associate at the Second Language Research Institute of Canada, University of New Brunswick (Fredericton)

The Study

- Master's Thesis

PENTE OR SLOPE? THE DECISION-MAKING PROCESSES OF SECONDARY STUDENTS CHOOSING TO REMAIN IN OR LEAVE FRENCH IMMERSION MATHEMATICS

- Four research questions

- #4 – Based on students' and teachers' experiences, what constitutes an effective FI Mathematics class at the high school level?

Literature Review (for Ques.#4)

- FI Program Attrition
 - Secondary level
 - Concerns (difficulty level, limited options, higher grades, postsecondary concerns)

(Halsall, 1994; Obadia & Theriault, 1995)

- FI Mathematics Achievement
 - FI students' results equal or exceed
 - Mathematics concept transfer L2 → L1

(Bournot-Trites & Reeder, 2001; de Courcy & Burston, 2000; Jappinen, 2005; Lapkin, Hart, & Turnbull, 2003; Turnbull, Lapkin, & Hart, 2001)

Methodology and Methods

- Phenomenology
 - Student and teacher voices
- Semi-structured interviews
- Interview question #4: ***In your experience, what makes a good FI Mathematics course?***

The Student Participants

- 16 Grade 12 Mathematics students¹
 - 10 opted for FI Mathematics in Grade 11
 - 6 opted for English Mathematics in Grade 11
 - Male/female, EFI/LFI, below average/average/above average academic achievement

¹out of a possible 63 (all had been enrolled in FI Mathematics up to and including Grade 10)

The Teacher Participants

- 4 FI Mathematics teachers²
 - 2 male, 2 female
 - 2 with 0-15 years experience, 2 with 15-30 years experience

²out of a possible 4



Results - Major Emergent Themes

1. A Good Math Course is a Good Math Course
2. Teacher Traits
3. Teaching Skills
4. Class Structure
5. Student Influences

1. A Good Math Course is a Good Math Course

- *“I don’t know, a good class is a good class, I guess. That’s what I’m getting to. And it lays on the teacher [laughs].” (Jack, EM11)*
- (5S)

2. Teacher Traits

- *“if they’re not interested in what they’re teaching, then you’re not interested in what they’re teaching...if they’re interested...if they’re all like, really, really passionate about it, then it’s a lot easier to understand” (Amanda, FIM11)*
- Enthusiasm(6S), Knowledgeable of French(3s, 2T), Caring(3S, 1T), Organized(1S)

3. Teaching Skills

- *“in French [Math] classes when it’s explained to you step by step...you’re learning more of the vocabulary...so you’re learning how to express yourself through each step...then you’re associating the words with the diagrams” (Grace, FIM11)*
- Effective explanations(8S), Teacher use of English(5S, 3T), Making real-life connection(3S, 2T), Speaking French slowly(2S), Encouraging the participation of all students (1S)

4. Class Structure

- *“an environment where you’re using your French, you’re practicing it, but it doesn’t get in the way of what you’re learning” (Susan, FIM11)*
- Opportunities for speaking French(6S, 2T), Group work(3S, 3T), Homework in class(6S, 1T), Classroom management(2S), Variety(2S)

5. Student Influences

- *“[FI] Math...you kind of come out of there every day and if you understood what you learned it was good, and if you didn’t, then ahhh, I don’t know...if you understand the Math, and you understand the French, then you come out of there feeling twice as good because you understood two things.” (Andrew, FIM11)*
- Success(3S), Desire(1S)

Limitations

- Human beings (interviewer effects, interviewee affected by outside factors, tendency to “please”)
- Single-site
- Low generalizability (nature of qualitative research)
- Personal biases (nature of qualitative research)

Discussion/Conclusions

- Students and teachers had difficulty answering this question.
- Large variety of answers indicates how challenging it is for teachers to meet the needs of all students.
- Nonetheless, main themes emerged
 - Focus on the main themes
 - Introduce a variety of approaches to try to ensure that all needs are being met
- Some traits relate specifically to FI Mathematics, while others give insight to best practices in either second language teaching, or mathematics teaching, or teaching in a general sense

Selected References

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Thank You.

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