

PDIG 2018-2019 Final Report

Project Name: Joint Adult Education PDIG - Situational Problems for Math 4S

Project Number: PD 18557

September 4, 2018 – May 3, 2019

Type: Professional Development

1. Project Description Describe/show to what degree the project was carried out as planned. Include what went well and what proved to be a challenge. Include a synthesis of your journal entries.

The goal of this project was to create a bank of learning situations for the new Adult Education Math 4S program. A network of math adult education teachers was created throughout the province of Quebec. This was a joint project including the following school boards:

- Eastern Townships School Board
- English Montreal School Board
- Lester B. Pearson School Board

This project was important because it provided the opportunity for teachers across the province to collaborate to design material that is imperative for the successful implementation of the math program. Teachers worked together in a stimulating and exciting environment conducive to creative end results.

Three inter-board teams were created:

Team 1: Joshua Peters (LBPSB), Fiona Spence (EMSB), Brian Rideout (LBPSB)

Team 2: Jisu Yoon (LBPSB), Maria Abdallah (EMSB), Nima Aliahmad (LBPSB)

Team 3: Julie Vallée (ETSB), Sarah Padner (ETSB)

In 2017-2018, an identical grant was developed for Math 4CST. The teachers who participated worked diligently to produce 9 situational problems for Math 4CST. They appreciated the experience so much and found the tools that they created so useful that they requested a similar project for Math 4S.

We started the project by analyzing different models of math learning situations. We explored the elements of a complex task and rated given tasks according to their complexity. Since the Math 4S exams have highly complex situational problems, we felt that it would be best to create situational problems with the same level of complexity in order to best prepare the students.

The teachers divided themselves into three teams and started working on one course per team for math 4S (MTH 4271-2, MTH 4272-2, MTH 4273-2). They looked at the Definition of Evaluation Domains (DEDs), program documents, and exams in order to brainstorm appropriate and complex situational problems.

After their first resource was completed in their small groups, we met again as a large group to try out the different situational problems and give feedback. The teachers were so happy with their work that they decided to switch courses and repeat the process. They met another 2 times in small groups so that every group created situational problems for every course. At our last meeting, we met as a large group to give each other feedback, identify the essential knowledge covered in each situational problem and assess the PDIG process. The teachers went above and beyond the objective by creating a total of 18 situational problems for math 4S, as well as explicit knowledge questions for 2 of the modules.

In addition to the creation of materials for the classroom, one of the added benefits of the PDIG was the opportunity for teachers to form a provincial network of math teachers and work together. Although it was sometimes a challenge for each of the smaller groups to find a convenient meeting time, the exchange between teachers was efficient and fruitful.

2. Project Goals Describe/show to what degree the goals of the approved project were met. If the goals were only partially met or not met at all, describe the reasons for this.

Three teams of teachers and consultants created the following:

MTH 4271-2: 7 situational problems and 20 explicit knowledge questions

MTH 4272-2: 6 situational problems

MTH 4273-2: 5 situational problems and 20 explicit knowledge questions

These situational problems and explicit knowledge questions (if applicable) can be accessed here: <https://drive.google.com/open?id=1jcTI7TXR9AauYLNfPiRpjZKoo8GhjCbX>

The situational problems were created as modifiable documents and also saved as PDF's for easy printing.

3. Project Outcomes Describe/show the gains that the participating teachers achieved through this project.

Teachers who participated in this project gained expertise in several ways:

- They received training by qualified pedagogical consultants.
- They collaborated provincially and learned from each other's experiences with respective implementation practices.
- Through working with the program, course DEDs, and other relevant documents, teachers developed a deeper understanding of each course in the program, and can re-invest this learning as they continue to develop open, complex and meaningful learning situations.

4. Reinvestment: Clearly describe how the resources created and/or the learning achieved by the participants can be of benefit to the educational community at large. If applicable, comment on whether or not this project should be carried out by other teams and if so, how it could be improved.

The educational community can benefit from the resources created through this PDIG as there are currently not enough math materials or resources to support teachers, especially in adult education. In order to ensure the success of our students and to meet the different realities and needs of our specific centres, the collective participation of teachers from across the province was imperative.

The learning achieved and resources created will be shared in the following ways:

- Teachers will bring this learning back to teachers at their respective centres.
- Depositing of each situational problem and explicit knowledge questions (if applicable) on the DBE implementation website in order to share with all school boards.
- Teachers expressed interest in sharing their experiences at provincial workshops. (AQIFGA and QPAT)

The teachers were extremely satisfied with this project and have applied for a similar PDIG for math 5S next year.