

ALBERTA CHINESE LANGUAGE CONSORTIUM

Project to Support the Teaching of Mathematics in Chinese Bilingual Programs In Alberta

BACKGROUND:

At a recent meeting of the Alberta Chinese Language Consortium, a discussion was held on the challenges of teaching mathematics in Chinese within the Chinese bilingual programs in Edmonton and Calgary.

The practice of teaching mathematics in Chinese has been well established in the CBE and in EPSB. This practice was initiated to permit more time in the target language, and mathematics was selected as a subject for delivery in the target language after considerable research had been done by the Language Research Centre of the University of Calgary. Initially mathematics was implemented in the Spanish Bilingual programs to help meet the time requirements for the designation of International Spanish Academies. However, it was soon applied to other bilingual programs when it was realized that earlier practices of using Social Studies, as a subject of delivery in the target language, was proving inappropriate.

Given it is intended by both CBE and EPSB that elementary and junior high schools offering the Chinese bilingual program will be consistent in program offering, the Consortium agreed that a project to assist this implementation would be in order.

Some challenges that have been noted include:

1. **Parent perception:** Some parents on occasion express the view that they do not feel students learning mathematics in Chinese are properly learning the math skills and math vocabulary they will need in later years. This causes some to be concerned and others to desire to withdraw students from the Bilingual program at the end of grade 6.
2. **Teacher acceptance:** There remain a few teachers of Chinese who feel the approach is not appropriate, and do not see the need for mathematics to be the subject for teaching Chinese as opposed to other subjects. This despite the large amount of research that was provided showing that neurolinguistic research supports this approach.
3. **Teaching strategies:** There is a consensus that teachers can benefit from additional training or professional development in learning new approaches for teaching mathematics in the bilingual target language.
4. **Teaching Resources:** Resources that can support the teaching of mathematics in Chinese exist in the elementary program, although they are not widely applied, or felt to be the most useful. In junior high few suitable resources identified, and teachers are making up their own supports.

Hence, subsequent to discussion, the Confucius Institute in Edmonton offered to sponsor a project designed to specify issues and needs, and to develop a strategy that would then be implemented with funding from the Confucius Institute in Edmonton.

GOALS OF THE PROJECT:

The goals of the project are:

1. To provide an opportunity for teachers and administrators to clarify issues and provide direction in the development of a strategy to address identified needs.
2. Formulate a project to be submitted for funding by the Confucius Institute in Edmonton, that will address the needs identified.

Role of the Confucius Institute:

The CIE would, based upon the outcome of the project meetings, submit a budget proposal to Hanban, to support the implementation of the strategy approved by CBE and EPSB representatives.

The CIE would work to facilitate the project and complete on-going reports on the developments and implementation of the strategies, and apply for additional funding as required.

PROJECT STRUCTURE AND PROPOSED MEETING DATES:

Proposed date of Meetings:

Meeting 1: (Monday) January 20 9 am to noon
Meeting 2 (Monday) February 24 9 am to noon
Meeting 3 (Monday) March 10 4:30 to 6:30 pm

Structure and Costs:

Two ½ day committee meetings which would occur at the CIE and CBE (linked by video conference) would allow for:

- One representative from each school currently teaching mathematics in Chinese
- One school based administrator from each of the two school districts
- One language consultant from each of the two school districts involved.
- One representative for the language Research Centre at U of C

Video conferencing will be used to reduce travel and substitute costs for those in different cities. One after school meeting to review and amend drafts that result from the two previous meetings.

Costs:

-Teacher substitute costs: ½ day x 10 x2 (apx = \$4 000)
-Costs of coffee, tea, lunch 14 x \$12/da x 2da = \$ 336
-Lunch cost for third meeting 12 x \$15 x 1 da = \$ 168
-Secretarial costs and translations = \$ 500
Estimated cost: \$5 004

Respectfully submitted,
Stuart Wachowicz, Chairman – Confucius Institute in Edmonton