

TEDS-M 2008 User Guide for the International Database



Edited by Falk Brese with Maria Teresa Tatto





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The International Association for the Evaluation of Educational Achievement, known as IEA, is an independent, international consortium of national research institutions and government research agencies, with headquarters in Amsterdam. Its primary purpose is to conduct large-scale comparative studies of educational achievement with the aim of gaining more in-depth

understanding of the effects of policies and practices within and across systems of education.

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SUPPLEMENT 1:

International Version of the TEDS-M Questionnaires

Overview

The Teacher Education Study in Mathematics (TEDS-M) International Database includes data for all questionnaires administered as part of the TEDS-M study. These consisted of questionnaires administered to future teachers, educators, and institutions with teacher preparation programs. This supplement contains the international version of the TEDS-M questionnaires in the following three sections:

- Section 1: Institutional Program Questionnaire
- Section 2: Educator Questionnaire
- Section 3: Future Teacher Questionnaire (Parts A, B, and D)¹

Each section contains the international version of the questionnaire with variable names labeled next to the corresponding question. The TEDS-M questionnaires were designed so that individual countries could make modifications to some questions or response options. This allowed countries to include appropriate wording or options most consistent with their own national systems, languages, and cultures. In the international version of the questionnaires, questions that needed such an adaptation contain instructions to the National Research Coordinators (NRC) to substitute the appropriate wording for their country or to modify or delete any inappropriate questions or options. These instructions were indicated in the questionnaires by text inserted within angle brackets (<country-specific>). The NRC was to substitute, if necessary, an appropriate national adaptation that would retain the same basic interpretation as the text within carets. These national adaptations of the questionnaires are documented in Supplement 2 of the TEDS-M User Guide of the International Database.

Copyrights

Questionnaire items were received from several sources, including study investigators, national research coordinators, and mathematics consultants. Several items were also provided by other studies. TEDS-M has received publication copyright for those items from the following: Copyright 2006, Study of Instructional Improvement (SII) Learning Mathematics for Teaching/Consortium for Policy Research in Education (CPRE), University of Michigan, School of Education, Ann Arbor, MI. Measures development supported by NSF grants REC-9979873, REC- 0207649, EHR-0233456 & EHR 0335411. MSU copyright 2006, Developing Subject Matter Knowledge in Math Middle School Teachers (P-TEDS/MT-21) supported by NSF Grant to Michigan State University REC-0231886. Knowing Mathematics for Teacher Algebra (KAT) supported by NSF Grant REC-0337595.

The instruments and assessments developed by TEDS-M were the result of the collaborative efforts of the international centers at Michigan State University and the Australian Council for Educational Research, under the direction of Professor Maria Teresa Tatto at Michigan State University with support from a grant from the National Science Foundation Award No. REC-0514432.

¹ The Future Teacher Questionnaire Part C containing the released assessment items can be found in Supplement 4 of this User Guide.

Section 1: TEDS-M 2008 Institutional Program Questionnairet



Identification Label

IEA – Teacher and Development Study in Mathematics (TEDS-M)

TEDS-M 2008

MAIN STUDY INSTITUTIONAL PROGRAM QUESTIONNAIRE

<TEDS-M National Research Center Name>
<Address>

<date>

Dear Colleague,

To secure confidentiality, no TEDS-M result will be reported for individuals. All publications will refer to aggregate data. All data collected will be maintained confidentially and securely in the International Research Centers.

You indicate your voluntary agreement to participate by completing and returning this questionnaire.

We value your support highly and appreciate your cooperation in this important survey. If you have any questions concerning the project, please do not hesitate to contact the project leaders in the [name of international center and country], [name of the project leaders], [phone number of project leaders]. You may also contact the international project director at the International Study Center, Dr. Maria Teresa Tatto at Michigan State University (+1-517-353-6418, mttatto@msu.edu) or Dr. Peter Vasilenko, at (+1-517-355-2180, email: irb@msu.edu).

Thank you for helping collect the information to complete this questionnaire.

Sincerely,

[country project leaders signature]

Institutional Program Questionnaire

Remember, if TEDS-M data are being collected in more than one of your Teacher Preparation Programs, separate questionnaires should be completed for each of these programs.

This questionnaire should be completed by the TEDS-M Institutional Coordinator at the institution in question, drawing on interviews with and data provided by responsible staff member(s) at the institution.

This form is therefore <u>not</u> intended to be filled out by one individual acting alone. If possible, the information requested in this questionnaire should be obtained from documents published by the institution and/or available on the web. Any information not readily available from a published source will need to be obtained by asking an appropriate administrative or staff source from the institution. Obtaining answers to all the questions is likely to require talking to more than one person in each institution.

For the purposes of this questionnaire, the term "program" refers to the set of <courses> or units of study and other learning activities that constitute the formal preparation provided to future <pri>primary> or <lower-secondary> teachers. These will be the programs (TPUs) from which <future teachers> will be recruited to complete the TEDS-M <Future Teacher> Questionnaire.

For the few open-ended questions in the questionnaire, space is provided to answer the question. If more space is required, please attach additional sheets as required.

Institutional Program Questionnaire

IEA Teacher Education and Development Study in Mathematics INSTITUTIONAL PROGRAM QUESTIONNAIRE

<Primary and Secondary> Initial Preparation Programs
Cover Sheet

The Interviewer (Name of Institutional Coordinator) Date of Interview: ___/___ The Institution Name: Address: The Program Name of program to be described: (Use the title that identifies the program within the institution) The Interviewee(s) Name(s): Title (e.g. Dean, Director of Teacher Education.): Contact details:

Working definitions for this questionnaire

ISCED levels	International name for this level	<grades number="" of="" years=""> in your country corresponding to this level</grades>		Credential(s) acquired upon successful completion of this level
		From	To	
ISCED 0	Pre-primary	<country specific=""></country>	<country specific=""></country>	<pre><country specific=""></country></pre>
ISCED 1	Primary	<country specific=""></country>	<country specific=""></country>	<country specific></country
ISCED 2	Lower secondary	<country specific=""></country>	<country specific=""></country>	<pre><country specific=""></country></pre>
ISCED 3	Upper secondary	<country specific=""></country>	<country specific=""></country>	<pre><country specific=""></country></pre>
ISCED 4	Post-secondary non- tertiary	<country specific=""></country>	<country specific=""></country>	<pre><country specific=""></country></pre>
ISCED 5B	Tertiary practical/technical occupation	<country specific=""></country>	<country specific=""></country>	<country specific></country
ISCED 5A	1 st degree of tertiary education	<country specific=""></country>	<country specific=""></country>	<country< td=""></country<>
1 st degree	I .			specific>
ISCED 5A 2 nd degree	2 nd degree of tertiary education	<country specific=""></country>	<country specific=""></country>	<pre><country specific=""></country></pre>
ISCED 6	Tertiary education, advanced research qualification	<country specific=""></country>	<country specific=""></country>	<country specific></country

1.		
This	program prepares <future teachers=""> to teach in</future>	
		Check <u>one</u> box.
A.	<pre><primary> schools only</primary></pre>	\Box_1
B.	<secondary> schools only</secondary>	\square_2
C.	both <primary> and <secondary> schools</secondary></primary>	\square_3
This	study uses the following definitions of program types	
Α	. Concurrent	1 4 4 1 1
	A concurrent teacher preparation program consists of a sin studies in subjects <future teachers=""> will be teaching (aca</future>	
	preparation), studies of <pedagogy> and education (<pedagogy></pedagogy></pedagogy>	
	studies), and practical experience in the classroom.	mBoBioni mim bioiossionmi
Е	3. <u>Consecutive</u>	
	A consecutive teacher preparation program consists of a p	
	<pedagogical> and professional studies and practical expedience.</pedagogical>	, 1
	separate program for academic or subject-matter preparati separate degree or diploma), which may or may not occur	
C	2. Apprenticeship	in the same institution.
	An apprenticeship teacher preparation program consists p	redominantly of school-
	based experience with other institutions playing only a mi	
	role.	

☐₁ **GO TO QUESTIONS 3–4.** Concurrent Program Modality

 \square_2 GO TO QUESTIONS 5–8. Consecutive Program Modality

Concurrent

Consecutive

A. B.

C.

MIA003A MIA003B

If you checked the box for <u>Concurrent</u> Program Modality in Question 2, please answer Questions 3–4 and then skip to PART B.				
3.				
How many years and months does it take for a typical <future teacher=""> to complete this concurrent program?</future>				
years and				
months				

What credential is earned in this concurrent program? Please also enter ISCED level, using the chart at the beginning of this questionnaire.

MIA004AT Name of credential in language of country _______
MIA004B ISCED level _____

If you checked the box for $\underline{Consecutive}$ Program Modality in Question 2, please answer Questions 5-8 and then skip to PART B.

	How many years and months does it take for a typical <future teacher=""> to compacademic or subject-matter preparation of this consecutive program?</future>	olete the
MIA005A	years and	
MIA005B	months	
MIA006	6.	
	Does this academic or subject-matter preparation take place in your institution?	Check <u>one</u> box.
	A. Yes, for all <future teachers=""> in the program</future>	\square_1
	B. Yes, for most <future teachers=""> in the program</future>	\square_2
	C. Yes, for a minority of <future teachers=""> in the program</future>	\square_3
	D. No	\square_4
	7. How many years and months does it take for a typical <future teacher=""> to comp <pedagogical> and professional studies (including practical experience) of this program?</pedagogical></future>	
MIA007A	years and	
MIA007B	months	
	8.	i (i 1 4i
	What credential is earned at the end of the <pedagogical> and professional stud practical experience) of this consecutive program? Please also enter ISCED lever chart at the beginning of this questionnaire.</pedagogical>	
MIA008AT MIA008B	Name of credential in language of countryISCED level	

ISCED level

MIA012B

answer Questions 9-12 and then continue to PART B. How many years and months does it take for a typical <future teacher> to complete this apprenticeship program? MIA009A __years and MIA009B __months MIA010 10. Is your training institution (other than the <primary> or <secondary> school in which the practical experience takes place) responsible for coordinating the learning program for <future teachers> during this apprenticeship program? Check one box. A. Yes \square_1 В. No \square_2 MIA011T If you selected 'No', please explain who is responsible for the practical experience. 12. What credential is earned in this apprenticeship program? Please also enter ISCED level, using the chart at the beginning of this questionnaire. Name of credential in language of country MIA012AT

If you checked the box for Apprenticeship Program Modality in Question 2, please

Now please proceed to PART B.

PART B. <FUTURE TEACHER> BACKGROUND

Note: Question 1 refers specifically to <future teachers> who are undertaking a program that

		secondary> school.	ach mathematics in a
1A	1.	What is the minimum level of mathematics that these south	ura taaahara> ara raquirad ta
111		What is the minimum level of mathematics that these <fut completed in <secondary> school?</secondary></fut 	ure teachers> are required to
	nave	completed in "secondary" sensor.	Check <u>one</u> box. Minimum Level Completed
	A.	<year 12=""> (Advanced level)</year>	
	B.	<year 12=""></year>	\square_2
	C.	<year 11=""></year>	\square_3
	D.	<year 10=""></year>	\square_4
	E.	Below <year 10=""></year>	\square_5
	F.	No minimum level of mathematics is required	\square_6
1B		What is the most advanced mathematics <course> that <fu< td=""><td>ture teachers> in this program</td></fu<></course>	ture teachers> in this program
1B		What is the most advanced mathematics <course> that <fu equired to have completed in <secondary> school?</secondary></fu </course>	Check one box. Most Advanced
1B	are re	equired to have completed in <secondary> school?</secondary>	Check one box. Most Advanced <course></course>
1B	are re	equired to have completed in <secondary> school? <country specific=""></country></secondary>	Check <u>one</u> box. Most Advanced <course> □ 1</course>
1B	A. B.	equired to have completed in <secondary> school? <country specific=""> <country specific=""></country></country></secondary>	Check one box. Most Advanced $<$ Course> \square_1 \square_2
1B	A. B. C.	<pre>equired to have completed in <secondary> school? <country specific=""> <country specific=""> <country specific=""></country></country></country></secondary></pre>	Check one box. Most Advanced <course></course>
1B	A. B. C. D.	<pre>equired to have completed in <secondary> school? <country specific=""> <country specific=""> <country specific=""> <country specific=""> <country specific=""></country></country></country></country></country></secondary></pre>	Check one box. Most Advanced <course></course>
1B	A. B. C. D. E.	<pre>equired to have completed in <secondary> school? <country specific=""> <country specific=""> <country specific=""> <country specific=""> <country specific=""> <country specific=""> <country specific=""></country></country></country></country></country></country></country></secondary></pre>	Check one box. Most Advanced <course></course>
1B	A. B. C. D. E. F.	<pre>cquired to have completed in <secondary> school? <country specific=""> <country specific=""></country></country></country></country></country></country></country></country></country></country></secondary></pre>	Check <u>one</u> box. Most Advanced <course> □ 1 □ 2 □ 3 □ 4 □ 5 □ 6</course>
118	A. B. C. D. E. F.	<pre>cquired to have completed in <secondary> school? <country specific=""> <country specific=""></country></country></country></country></country></country></country></country></country></country></country></country></country></secondary></pre>	Check one box. Most Advanced <course> □ 1 □ 2 □ 3 □ 4 □ 5 □ 6 □ 7</course>
1B	A. B. C. D. E. F.	<pre>cquired to have completed in <secondary> school? <country specific=""> <country specific=""></country></country></country></country></country></country></country></country></country></country></secondary></pre>	Check <u>one</u> box. Most Advanced <course> □ 1 □ 2 □ 3 □ 4 □ 5 □ 6</course>

MIB002	2. What is the minimal qualification normally required for entry into the progra						?		
	VV I		one box.						
	A.	Completion of	Completion of <isced 2="" level=""></isced>						
	B.	Completion of	SISCED 16	evel 3>					\square_2
	C.	Completion of	<isced 1<="" td=""><td>evel 4></td><td></td><td></td><td></td><td></td><td>\square_3</td></isced>	evel 4>					\square_3
	D.	Completion of	<isced 16<="" td=""><td>evel 5, 1st d</td><td>legree></td><td></td><td></td><td></td><td>\square_4</td></isced>	evel 5, 1 st d	legree>				\square_4
	E.	Completion of	SISCED 1	evel 5, 2 nd	degree or h	igher>			\square_5
	of t	chers> to teach. (Che he four subject-matt any of the grades she Grade Levels	ers listed;	check "No beginning	t applicable of a row).	e" <u>only</u> if		s no prep	
MIB003A1-7	A.	<pre-primary></pre-primary>		$\square_{\scriptscriptstyle 2}$	\square_3	$\square_{\scriptscriptstyle 4}$	\square_{5}	$\square_{\scriptscriptstyle 6}$	
MIB003B1-7	B.	<grades 1-3=""></grades>		\square_2	\square_3	$\square_{\scriptscriptstyle 4}$	\square_{5}	$\square_{_6}$	\square_{7}
MIB003C1-7	C.	<grades 4-6=""></grades>		\square_2	\square_3	$\square_{_4}$			\square_{7}
MIB003D1-7	D.	<grades 7-9=""></grades>		\square_2	\square_3	\square_4	\square_{5}	\square_6	\square_7
MIB003E1-7	E.	<grades 10-12=""></grades>			\square_3	$\square_{_4}$	\square_{5}	$\square_{_6}$	
MIB003F1-7	F.	<grades 13-14=""></grades>	\square_1	\square_2	\square_3	$\square_{\scriptscriptstyle 4}$	\square_{5}	$\square_{_6}$	\square_{7}

MIB004	(By scien	w many fields are graduates of this program normally qualified to to "field" we mean the following six groupings of school subjects: (ince, (3) an official language of the country, including literature, (4) uages, (5) social studies, (6) other (art, music, physical education,	1) mathematics, (2) foreign or second
	Í		Check <u>one</u> box.
	A.	Only one	\sqcup_1
	В.	Two	\square_2
	C.	More than two	\square_3
		he <future teachers=""> currently in their final year, about what fraction time? None More than 0, less than ½ More than ½, less than ½ More than ½, less than ¾ More than ¾, but not all</future>	Check one box. \Box_1 \Box_2 \Box_3 \Box_4
	F.	All of them	\square_5 \square_6
MIB006	A. B.	Mostly on-campus Mostly by distance (including on-line)	Check one box. \Box_1 \Box_2
	C.	Mostly in schools	\square_3

7.			
For each of the following years, how many	<future teachers=""></future>	began or will	begin this
program?			

		Year	Number of beginning <future teachers=""></future>
MIB007A	A.	2008 (please estimate)	
MIB007B	B.	2007	
MIB007C	C.	2006	
MIB007D	D.	2005	
MIB007E	E.	2004	<u></u>
MIB007F	F.	2003	

8.

a) For each of the following years, how many <future teachers> <u>completed</u> this program successfully? (If the 2007 and/or 2008 cohort has not yet finished, please estimate)

		Year		Number of completing <future teachers=""> (in total)</future>
MIB008A1	A.	2008 (p	olease estimate)	
MIB008A2	B.	2007 (p	please estimate if necessary)	
MIB008A3	C.	2006		
MIB008A4	D.	2005		
MIB008A5	E.	2004		
MIB008A6	F.	2003		

b) Of these <future teachers>, how many finished with a qualification that made them eligible to teach Mathematics (either as a generalist or specialist teacher)?

		Year	Number of completing <future teachers=""> (Mathematics)</future>
MIB008B1	A.	2008 (please estimate)	
MIB008B2	B.	2007 (please estimate if necessary)	
MIB008B3	C.	2006	
MIB008B4	D.	2005	
MIB008B5	E.	2004	
MIB008B6	F.	2003	

PART C. SELECTION POLICIES

MIC001	1.					_		
	Wh	o sets the policies that govern which applicants	are <u>admitted</u>	d to this pro		neck <u>one</u> box.		
	A.	The policies are set by each institution without requirements.	out reference	e to any ou		□ ₁		
	B.	The policies are set by regional or national a	uthorities.			\square_2		
	C.	The policies are set by each institution, with or national authorities.	in guideline	s set by reg	gional	\square_3		
	D.	D. There is no selection for this phase; all applicants are admitted.						
	<fu< th=""><th>ich of the following characteristics or sources of ture teachers> for this teacher preparation progra h of the characteristics or sources is in the select</th><th>am? Please ion process.</th><th>indicate be</th><th>low how i</th><th>mportant</th></fu<>	ich of the following characteristics or sources of ture teachers> for this teacher preparation progra h of the characteristics or sources is in the select	am? Please ion process.	indicate be	low how i	mportant		
MIC002A	A.	The candidates' overall level of attainment in their final year of <secondary> schooling, as measured by school marks or grades</secondary>				$\square_{\scriptscriptstyle 4}$		
MIC002B	B.	The candidates' performance at the end of their final year of <secondary> schooling, as measured by their performance on a national or state examination</secondary>	□ ,			\square_4		
MIC002C	C.	The candidates' performance on an examination specifically for admission to this training institution				\square_4		
MIC002D	D.	Suitability for teaching, including matters such as personal qualities, experience, motivation, etc. May be assessed by interview, or by written application			\square_3			
MIC002E	E.	Demonstrated high level of achievement in mathematics		\square_2	\square_3	\square_4		
MIC002F	F.	Gender	\Box	\square	\square_3			
MIC002G	G.	Belonging to groups under-represented in the teaching profession		\square_2	\square_3			
MIC002H	Н.	The order in which the candidates apply		\square				
MIC002I	I.	Region of residence						
MIC002J	J.	The age of the candidates						

	your institution have special strategies in place to attract < future am to become:	ure teachers	> into this
		Check <u>one</u> b	
А. В.	<pre><primary> or <secondary> school teachers in general? Teachers of mathematics?</secondary></primary></pre>	Yes \square_1 \square_1	N C
4.			
	reference to national norms, how do <future teachers=""> entering</future>	ng this progr	am rate w
espe	ct to their prior academic achievement?		Check on
A.	They are generally very high achievers (e.g., the top 10 perceage group).	ent of their	
B.	They are generally high achievers (e.g., the top 20 percent of	f their age	\square_2
C.	group). They are generally above-average achievers (for their age gr	oup)	\square_3
D.	They are generally average achievers (for their age group).	о ч р).	
E.	They are generally below-average achievers (for their age gr	oup).	
F.	They are generally far below-average achievers (for their age	* /	\square_6
indiv	ecting <future teachers=""> for this program, do you make a speciduals who were working full-time in non-teaching occupation a career change? Yes No</future>		
	t what fraction of <future teachers=""> were working full-time be</future>	efore enterin	
Abou	t what fraction of <future teachers=""> were working full-time beam?</future>		g the Check <u>on</u> e
Abou progr	t what fraction of <future teachers=""> were working full-time beam? None</future>		Check <u>one</u>
Abou progr A. 3.	t what fraction of <future teachers=""> were working full-time beam? None More than 0, less than ½</future>		g the Check one
Abou progra A. B.	t what fraction of <future teachers=""> were working full-time beam? None More than 0, less than ½ More than ½, less than ½</future>		g the Check one
Abou progr A. 3.	t what fraction of <future teachers=""> were working full-time beam? None More than 0, less than ½</future>		g the Check one

PART D. PROGRAM CONTENT

This section is concerned with obtaining a description of the content requirements of the teacher preparation program. These content requirements may be contained in program documents, on a website, and in other forms. In addition to these documents, this section asks questions that are necessary for interpreting program requirements across the programs participating in this study.

MID001	If the program requirements are described on a website, please provide the address of the
	website. If the program is not on a website, please mark this box.
MID001T	
	
	2.
	If the program requirements are described in printed form, please provide a copy. If the
MID002	program is not in printed form, please mark this box. \Box
MID002T	

In order to answer Questions 3 through 9 in this section you will need the following definitions:

Required <courses> are the <courses> that all <future teachers> in the program must take to complete the teacher preparation program.

Elective <courses> are a limited set of <courses> from which <future teachers> must select in order to complete the requirements of the teacher education program.

Teaching contact hours includes lectures, class meetings, tutorial classes and any other required meetings that bring <future teachers> together to meet as a group with staff of the teacher preparation program. If the <courses> are on-line, estimate the number of hours <future teachers> are required to interact with the instructor and the material.

In Questions 3 through 9 below we ask you about your program's content requirements. Six types of <courses> are listed that <future teachers> are likely to take as part of their teacher preparation. For each, please indicate what is the minimum number of required or elective <courses> that <future teachers> would need to take to fulfill the requirements in the teacher preparation program. If there is no minimum number, please estimate the average number of <courses> that <future teachers> take in each of these six types. In addition, please indicate the number of teaching contact hours dedicated to these <courses> for the duration of the program.

Please note that Questions 3 through 9 refer to the <u>total</u> number of <courses> that <future teachers> are required to complete, whether they be required <courses> or electives. Thus, if a program requires <future teachers> to complete six compulsory mathematics <courses>, and another four electives from a set of eight, you should answer that the number of mathematics <courses> required for the whole program is <u>ten</u>. Please see the example below:

EXAMPLE

If a program includes 10 academic mathematics <courses>, and 3 (required) of these <courses> meet for 3 hours a week for 32 weeks in a given term, 3 (also required) for 3 hours for 16 weeks in a given term, and 4 (electives) for 4 hours for 16 weeks in a given term, Item B for hours attended per "academic mathematics <course>" for the duration of the program should read: 688 contact hours for the duration of the program.

Academic Mathematics < courses>

Definition: <Courses> that aim to provide mathematics knowledge to a more general population of university students, that may or may not include <future teachers>, and are designed to treat content beyond the mathematics learned at the <secondary> school level, that is, mathematics at the university level (e.g., "Abstract Algebra", "Functional Analysis", "Differential Equations", etc.).

If you do not have this information in the program, please mark the box below and proceed to the next question.

☐ We do not have this information in the program.

A. Number of academic mathematics <courses> for the duration of the program:

B. Number of teaching contact hours <future teachers> attend per academic mathematics <course> for the duration of the program:

10
<courses></courses>
688
contact hours
for the duration of the program

	3.	
	<liberal arts=""> <courses> (except Mathematics)</courses></liberal>	
	Definition: <courses> of a general or theoretical nature design understanding about human beings' relationship to the social environment (e.g., natural and social sciences, languages, dra religion, etc.).</courses>	l, cultural, and natural
	If you do not have this information in the program, please many	ark the hox below and proceed to
	Question 4.	ark the box below and proceed to
MID003	We do not have this information in the program.	
MID003A	A. Number of liberal arts> <courses> for the duration of</courses>	
	the program:	<courses></courses>
MID003B	B. Number of teaching contact hours <future teachers=""></future>	
	attend per liberal arts> <course> for the duration of the</course>	contact hours
	program:	for the duration of the program
	4.	
	Academic Mathematics <courses></courses>	
	Definition: < Courses > that aim to provide mathematics known that the state of t	2
	population of university students, that may or may not include designed to treat content beyond the mathematics learned at	
	that is, mathematics at the university level (e.g., "Abstract A	
	"Differential Equations", etc.).	igeora , i unetional imarysis ,
	If you do not have this information in the program, please many	ark the box below and proceed to
	Question 5.	•
MID004	☐ We do not have this information in the program.	
MID004A	A. Number of academic mathematics <courses> for the</courses>	
	duration of the program:	<courses></courses>
MID004B	B. Number of teaching contact hours <future teachers=""></future>	
	attend per academic mathematics <course> for the duration</course>	contact hours
	of the program:	for the duration of the program

	5.	
	Courses> in mathematics content related to the school of Definition: <courses> dealing mainly with the structure, see competence required from pupils to successfully learn from a curriculum (<primary> or <secondary> levels). Examples of and Content of the Lower <secondary> Mathematics Curriculum Understanding of the School Mathematics Curriculum", etc. If you do not have this information in the program, please mathematics of the School Mathematics Curriculum Understanding Office School Mathematics Office</secondary></secondary></primary></courses>	quence, content, and level of the school mathematics such <courses> are "Structure ulum", "Development and</courses>
MID005	☐ We do not have this information in the program.	
MID005A	A. Number of <courses> in mathematics content related</courses>	
	to the school mathematics curriculum for the duration of the program:	<courses></courses>
MID005B	B. Number of teaching contact hours <future teachers=""></future>	
	attend per <course> in mathematics content related to</course>	contact hours
	the school mathematics curriculum for the duration of the program:	for the duration of the program
	Mathematics <pedagogy courses=""> Definition: <courses> dealing with the methods of teaching mathematics <pedagogy>, didactics of mathematics). These treatment of pupils' cognition (e.g., how one learns mathemate relation to mathematics concepts. Examples of such types of Diversity and the Teaching of Subject Matter: Mathematics,' Mathematics: Teaching Developmentally', etc. If you do not have this information in the program, please mathematics of the program of the pr</pedagogy></courses></pedagogy>	<pre><courses> could include ntics) or pupils' thinking in units are <courses> like "Learner" '"<primary> and Middle School</primary></courses></courses></pre>
MID006		
MID006A	☐ We do not have this information in the program. A. Number of mathematics <pedagogy> <courses> for the duration of the program:</courses></pedagogy>	<pre><courses></courses></pre>
MID006B	B. Number of teaching contact hours <future teachers=""> attend per mathematics <pedagogy> <course> for the duration of the program:</course></pedagogy></future>	contact hours for the duration of the program

7.		
	ssional foundations and theories <courses></courses>	
	tion: <courses> on the study of education utilizing su</courses>	ich disciplines as history
	ophy, sociology, psychology, social psychology, anthro	
	e, or such interdisciplinary fields as comparative and in	
	ultural education, community and adult education, and	
	s diverse perspectives in understanding, analyzing, and	d implementing educational
	and practice.	
If you	do not have this information in the program, please ma	ark the box below and proceed
Questi	on 8.	
\square w	e do not have this information in the program.	
	mber of professional foundations <courses> for the</courses>	
	on of the program:	<courses></courses>
B. Nur	mber of teaching contact hours <future teachers=""></future>	
attend	per professional foundations <course> for the</course>	contact hours
	on of the program:	for the duration of the program
	1 0	r - F - 8
8. C	al analogo as to the state of t	
	al <pedagogy> (not mathematics) <courses></courses></pedagogy>	
	tion: <courses> on the "art or science of teaching" pr</courses>	
	teaching strategies. In addition these <courses> includ</courses>	
those t	eaching strategies with the instructor's own philosophi	ical beliefs of teaching and
pupils ³	'background knowledge and experiences, personal situ	uations, social and classroom
	nment, as well as setting learning goals.	,
	do not have this information in the program, please ma	ark the box below and proceed
Questi		ann and den den war proceed
Ò		
□ W	e do not have this information in the program.	
A. Nui	mber of general <pedagogy> <courses> for the</courses></pedagogy>	
	on of the program:	<courses></courses>
	mber of teaching contact hours <future teachers=""></future>	
	per general <pre>perdagogy> <course> for the duration</course></pre>	contact hours
	program:	
or the	program.	for the duration of the program
). What is	a the total assumber of consumaces that effective total area	and magnined to a complete as more
	s the total number of <courses> that <future teachers=""></future></courses>	are required to complete as par
of this	teacher preparation program?	
		<course< td=""></course<>
1.0		
10.		
	of the following statements best describes attendance	at scheduled <class times=""> by</class>
<future< td=""><td>e teachers> registered in your program?</td><td></td></future<>	e teachers> registered in your program?	
		Check <u>one</u> box.
A.	All the <future teachers=""> in the program normally at</future>	ttend all
	<pre><class times="">.</class></pre>	
В.	On average, the <future teachers=""> in the program att</future>	tend most
D.		tend most, \square_2
C	but not all <class times="">.</class>	_
C.	On average, the <future teachers=""> in this program at</future>	tena less
	1 1 10 0 1 1	2
	than half of <class times="">.</class>	\square_3

In the program requirements, guidelines and other documentation, how much weight is given to each of the goals listed below? (If the program prepares specialists in various subject-matters, answer in terms of persons preparing to be mathematics teachers.)

Check one box in each row.

		Program Goals:	Little or no weight	Some weight	Moderate weight	Major weight
		Curriculum Content Knowledge				
MID011A	A.	Study of the curriculum content to be taught in schools		\square_2		$\square_{_4}$
MID011B	B.	Study of the mathematics content in the school curriculum		\square_2	\square_3	\square_4
MID011C	C.	Study of mathematics at tertiary level	$\square_{\scriptscriptstyle 1}$	\square_2	\square_3	\square_4
MID011D	D.	Study of other disciplines at tertiary level		\square_2		\square_4
		<pedagogical> Content Knowledge</pedagogical>				
MID011E	E.	Study of <pedagogy>/teaching methods specific to the teaching of mathematics</pedagogy>		\square_2		\square_4
MID011F	F.	Knowledge about pupil learning in mathematics			\square_3	\square_4
MID011G	G.	Knowing common pupil misunderstandings in mathematics			\square_3	\square_4
MID011H	H.	Knowing how to build on pupils' prior knowledge in mathematics		\square_2		\square_4
		General <pedagogy>/Educational Foundations</pedagogy>				
MID011I	I.	Learning classroom management skills		\square_2	\square_3	\square_4
MID011J	J.	Managing disruptive pupils	$\square_{\scriptscriptstyle 1}$			\square_4
MID011K	K.	Planning lessons based on recommended <pre><pre>pedagogical> principles</pre></pre>		\square_2	\square_3	$\square_{\scriptscriptstyle 4}$
		Assessing Learning				
MID011L	L.	Knowing how to develop good assessment tools	\square_1	\square_2	\square_3	\square_4
MID011M	M.	Using formative assessment to plan learning activities		\square_2		\square_4
MID011N	N.	Conducting fair and valid summative assessments of pupil learning		\square_2		\square_4
MID011O	O.	Interpreting data from externally-conducted tests			\square_3	$\square_{\scriptscriptstyle 4}$

11. (continued)

In the program requirements, guidelines and other documentation, how much weight is given to each of the goals listed below? (If the program prepares specialists in various subject-matters, answer in terms of persons preparing to be mathematics teachers.)

Check one box in each row.

		Program Goals:	Little or no weight	Some weight	Moderate weight	Major weigh
		Knowledge of Pupils and Diversity				
MID011P	P.	Studying child development			\square_3	\square_4
MID011Q	Q.	Specific strategies for teaching pupils with behavioral and emotional problems		\square_2		\square_4
MID011R	R.	Specific strategies and curriculum for teaching pupils with learning disabilities			\square_3	\square_4
MID011S	S.	Specific strategies and curriculum for teaching gifted pupils		\square_2	\square_3	\square_4
MID011T	T.	Specific strategies and curriculum for teaching pupils from diverse cultural backgrounds				\square_4
MID011U	U.	Accommodating the needs of pupils with physical disabilities in your classroom				$\square_{\scriptscriptstyle 4}$
MID011V	V.	Working with children from poor or disadvantaged backgrounds		\square_2	\square_3	\square_4
		Preparation for Further Development as a Teacher				
MID011W	W.	Developing the knowledge and skills to do teacher action research		\square_2		\square_4
MID011X	X.	Learning to reflect on one's own learning and teaching practices		\square_2		\square_4
MID011Y	Υ.	Learning to improve one's own teaching by working with other teachers			\square_3	\square_4
		Understanding the School Environment				
MID011Z	Z.	Study of the communities in which <future teachers=""> are likely to teach</future>			\square_3	\square_4
MID011AA	AA.	Knowledge of the school system in a particular nation/state/district		\square_2		\square_4
MID011AB	AB.	Knowledge of legal and professional standards/ requirements for teachers			\square_3	\square_4

	12.			_
	Which ins	stitutional requirements do <future teachers=""> have to meet to sucam?</future>	ccessfully	y complete
		Check <u>one</u> t	box in ead Yes	<i>ch <u>row</u>.</i> No
MID012A	A.	Receive a passing grade on all the <courses subjects="" units=""> required by the program</courses>	\square_1	\square_2
MID012B	В.	Pass a comprehensive written examination/assessment	\square_1	\square_2
MID012C	C.	Pass a comprehensive oral examination/assessment	\square_1	\square_2
MID012D	D.	Pass an examination set by national or state/provincial authorities	\square_1	\square_2
MID012E	E.	Pass an examination set by this institution or program	\square_1	\square_2
MID012F	F.	Successfully demonstrate a required level of teaching competence in a classroom	\square_1	\square_2
MID012G	G.	Receive a passing grade on field experience	\square_1	\square_2
MID012H	Н.	Write and defend a thesis	\square_1	\square_2
MID013A MID013BT	If yes, ple space, or a If no, plea Refere	document that prescribes competencies or performance standard or performance and are expected to meet? Check one because A. Yes D. B. No D. asse provide a full reference and -if available—a website address alternatively attach a copy of the document. assessing to PART E. Ince: Mathematical Research of the competencies of performance standard or	s in the fo	
		cies or performance standards come from.		
		Check <u>one</u> bo	x in each Yes	<u>row</u> . No
MID014A	A.	National government	\square_1	\square_2
MID014B	B.	State/provincial government or regional education authorities	\square_1	\square_2
MID014C	C.	This institution		\square_2
MID014D	D.	There is no such document		П

PART E. FIELD EXPERIENCE

The following section contains questions about field experience, i.e. that part of teacher education programs in which <future teachers> are assigned to <primary> or <secondary> schools in order to learn about and from practice. We distinguish between two types of field experience as follows:

Extended teaching practice – two weeks or more of continuous work in schools when the main purpose is to prepare and enable <future teachers> to assume overall responsibility for teaching a whole class or classes of students.

Introductory field experiences – short term assignments in <pri>primary> and <secondary> schools for various exploratory and preparatory purposes, such as getting to know schools as organizations and how they work; learning about the work of teachers and whether it is an appropriate choice of career; observing and interviewing students, teachers, parents, etc; and assisting in the tasks of teaching in limited and closely supervised ways.

 $\overline{\text{MIE002D1}} \quad \overline{\text{MIE002D2}} \quad \overline{\text{MIE002D3}} \quad \overline{\text{MIE002D4}} \quad \overline{\text{MIE002D5}}$

1.				
Which of these types of field experience are in	ncluded in	your prog	gram?	
	Ch	eck <u>one</u> bo	ox in each	<u>row</u> .
			Yes No	
A. Extended teaching pr			\square_1 \square_2	2
B. Introductory field exp	periences		\square_1 \square_2	2
If you answered "No" to both options above	e, please ș	go to PAR	RT F.	
2.				
Although it may be difficult in some cases to				
indicate as best you can the number of days th				
expected to spend in <pre>sprimary> and <seconda< pre=""></seconda<></pre>		ol settings	by year (e	either in ex
teaching practice or introductory field experie	nces).			
	37 1	W 0	X/ 2	37 4
A. Number of days <future teachers=""> are</future>	Year 1	Year 2	Year 3	Year 4
expected to spend in <i>extended teaching practice</i>				
enperior to opena in emenaeu teaening praesie	MIE002A1	MIE002A2	MIE002A3	MIE002A4
			WIIL002/13	WIIE002A4
			WILLOUZAS	MIE002A4
			WILLOUZAS	WHE002A4
B. Estimated average number of hours per day for <i>extended teaching practice</i>	MIE002B1	MIE002B2	MIE002B3	MIE002B4
for extended teaching practice C. Number of days <future teachers=""> expected</future>				
for extended teaching practice			MIE002B3	
for extended teaching practice C. Number of days <future teachers=""> expected</future>	MIE002B1	MIE002B2		MIE002B4

for introductory field experiences

Question 3 below focuses on short field experiences only. If there are no short field experiences, skip to Question 4.

How often are the following activities assigned as part of the introductory field experiences in this program? Check one box in each row. Sometimes Not at all Don't know \square_3 \square_{4} MIE003A A. Plan lessons \square_2 \square_3 $\square_{\scriptscriptstyle 4}$ MIE003B B. Teach individual lessons to whole classes \square_4 MIE003C C. Tutor individual pupils \square_2 \square_4 \square_5 MIE003D D. Work with small groups of pupils $\square_{\scriptscriptstyle 4}$ \square_2 MIE003E E. Assist teachers in other ways $\square_{\scriptscriptstyle 4}$ MIE003F F. Assist in school activities outside assigned classroom (e.g. sports, field trips) MIE003G G. Carry out case studies of selected pupils MIE003H H. Carry out classroom observation $\square_{\scriptscriptstyle 4}$ MIE003I Collect data for research projects \square_2 \square_{4} MIE003J Visit families in their homes MIE003K K. Interview teachers and/or principals \square_4 \square_5 \square_2 MIE003L L. Observe and/or participate in teachers' meetings

The following Questions 4-15 apply only to extended teaching practice. If there are no extended teaching practices in your program, please skip to PART F.

	extended	teaching pra				
		ucator/superv	ctice, how often do y	you expect <future< td=""><td>e teachers> to be ob</td><td>served</td></future<>	e teachers> to be ob	served
υy a ≺ιι	action ou	ucator/superv	1801~!		Check <u>one</u> box.	
	A.	Every day	that the <future tea<="" th=""><th></th><th></th><th></th></future>			
		school			\square_1	
	B.	Not every	day, but at least one	ce a week	\square_2	
	C.	Every 2-3	weeks		\square_3	
	D.	Once a mo	onth or less frequent	aly	\square_4	
	E.	Once ever	ry 4 months		\square_5	
	F.	Never			\square_6	
5.						
	ising/ins		secondary> teachers toring> <future td="" teach<=""><td>hers> during their</td><td>extended teaching</td><td></td></future>	hers> during their	extended teaching	
		Α.	Yes	Cneck	one box.	
		A. B.	No			
		В.	INO		\square_2	
			have any responsib ram during their ext			toring>
				Check	one box.	
		A.	Yes		\square_1	
		B.	No		\square_2	
7.						
	latest col	hort to comple	ete the program, ple	ase provide the fol	lowing information	:
roi uic	10000000					
ror the	Tł		who gained a satisf		0/0	
ror the	Tł		who gained a satisf final extended teach		%	
8.	Th re:	sult for their f	final extended teach	ing practice —		their
8. What is	The res	sult for their f		ing practice —		their
8. What is	The res	sult for their f	final extended teach	hose performance		their
8. What is	The res	sult for their f	final extended teach	hose performance Check of	is unsatisfactory in ne box in each <u>row</u> .	their
8. What is	The residence of the police of	cy regarding on the succession of the succession	<pre><future teachers=""> wl ch policy on this ma rs> with performanc</future></pre>	hose performance Check of the control of the contr	is unsatisfactory in ne box in each row. Yes No $\square_1 \square_2$	their
8. What is	The rest of the police of teaching A. W B. <f <f<="" c.="" sp="" td=""><td>cy regarding ng practice? Te have no suc-</td><td>sfinal extended teach sfuture teachers which policy on this manager rs with performance ing about this problems who do not reach</td><td>hose performance Check of the check of the</td><td>is unsatisfactory in ne box in each row. Yes No $\square_1 \square_2$</td><td>their</td></f>	cy regarding ng practice? Te have no suc-	sfinal extended teach sfuture teachers which policy on this manager rs with performance ing about this problems who do not reach	hose performance Check of the	is unsatisfactory in ne box in each row. Yes No $\square_1 \square_2$	their
8. What is	The rest of the police of teaching the set of teaching the set of the set of teach	cy regarding on their factor of the succession o	<pre>ch policy on this ma rs> with performance ing about this proble rs> who do not reach il this requirement. rs> who fail this per</pre>	hose performance Check of the control of the contr	is unsatisfactory in ne box in each row. Yes No $\square_1 \square_2$ $\square_1 \square_2$ Id in $\square_1 \square_2$	their
8. What is	The rest of the police of teaching the set of teaching the set of the set of teaching	cy regarding on their factor of the surface of the	sfinal extended teach sfuture teachers which policy on this management rs with performance ing about this problem rs who do not reach il this requirement	hose performance Check of the control of the contr	is unsatisfactory in ne box in each row. Yes No $\Box_1 \Box_2$ $\Box_1 \Box_2$ Id in $\Box_1 \Box_2$ nent $\Box_1 \Box_2$	their
8. What is	The rest of the police of teaching the police of teaching the second teaching teaching the second teaching the second teaching the second teaching teaching the second teaching teaching the second teaching teaching the second teaching teaching teaching the second teaching teaching teaching teaching teaching teaching the second teaching t	ey regarding on their factor of the surface of the	<pre>ch policy on this ma rs> with performance ing about this proble rs> who do not reach il this requirement. rs> who fail this per tted from the <pre>cprogra</pre></pre>	hose performance Check of the control of the contr	is unsatisfactory in ne box in each row. Yes No \square_1 \square_2 \square_2 Id in \square_1 \square_2 nent \square_1 \square_2	their

Please indicate whether <supervisors/instructors/mentors> in the extended teaching practice are likely to assume each of the following responsibilities. Check <u>one</u> box in each <u>row</u>. Definitely Probably Probably Definitely yes yes not not Responsibilities for helping <future teachers> to plan The mathematics content of a lesson MIE009A \Box \square_{4} MIE009B B. The mathematics <pedagogy> of a lesson How to deal with pupils with learning problems MIE009C C. \square_3 \Box MIE009D How to deal with pupils with behavior problems \square_4 Responsibilities for observations MIE009E Observing <future teachers> performance in \square_4 classrooms to which they are assigned MIE009F Observing <future teachers> rehearsing their lessons Responsibilities for instructing, modeling, coaching, etc. MIE009G Teaching a lesson to <primary> or <secondary> school pupils that a <future teacher> is expected to \square observe Taking charge of a class of <primary> or MIE009H H. <secondary> school pupils to help a <future</pre> \square_4 teacher> who has run into difficulties with the Responsibilities for giving oral feedback and fostering reflection MIE009I Leading group discussions of what <future teachers> are experiencing during their extended teaching practice MIE009J Giving <future teachers> oral feedback on the adequacy of the mathematics content in their \square teaching MIE009K Giving <future teachers> oral feedback on their \square_4 \square <pedagogical> approach to teaching mathematics Assessment responsibilities MIE009L Providing formal summative assessments to <future teachers> for field experience performance MIE009M Writing narrative reports on the field experience \square_4 performance of <future teachers>

	10.								
MIE010	In extended teaching practice, who determines the structure and nature of the activities undertaken by <future teachers=""> in the school(s) to which they are assigned? Check one box.</future>								
	A.	Only	personnel from the school system						
	B.		ly personnel from the school system, with assistance the staff of the <university college=""></university>	\square_2					
	C.		stly the staff of the $\langle \text{University/College} \rangle$, assisted by onnel from the school system						
	D.	Only	the staff of the <university college=""></university>	\square_4					
	11. How often do <mentors instructors="" supervisors=""> of extended teaching practice or introductory field experiences provide written feedback (e.g., grades or reports) on individual <future teachers=""> to the program?</future></mentors>								
			N	Check <u>o</u>	_				
		A.	Never		\square_1				
		В.	Only at the very end of the last field experience in the program		\square_2				
		C.	At least once each year during which the <future experience<="" field="" some="" td="" teach=""><td>er> has</td><td>\square_3</td></future>	er> has	\square_3				
		D.	More frequently in each year for which the <future experience<="" field="" has="" some="" td="" tea=""><td>cher></td><td>\square_4</td></future>	cher>	\square_4				
		E.	More frequently in the last year of the program, but no earlier years	ot in	\square_5				

12.

Are the following persons assigned to mentor and assess <future teachers> during <field experience>?

- In the *mentoring* column below, check the category or categories of persons who are typically responsible in this program for <u>mentoring and/or supervising</u> <future teachers> in the school(s) to which they are assigned.
- In *the assessment* column, check the category or categories of persons who are typically responsible in this program for <u>overall assessment</u> of the <future teacher>.

Check <u>one</u> box in each <u>row for</u> the mentoring column and one <u>for the assessment column</u>.

Extended teaching practice

			Mento	ring	Assess	sment
			Yes	No	Yes	No
MIE012A1 MIE012A2	A.	Practicing classroom teacher in <primary> or <secondary> school</secondary></primary>	\square_1	\square_2	\square_1	\square_2
MIE012B1 MIE012B2	B.	Principal or other administrator in a particular <primary> or <secondary> school</secondary></primary>		\square_2	\square_1	\square_2
MIE012C1 MIE012C2	C.	Inspector, <pedagogical> advisor or other mid- level administrator in <pri>mary> or <secondary> school system</secondary></pri></pedagogical>		\square_2		\square_2
MIE012D1 MIE012D2	D.	Postgraduate students in a university	\square_1	\square_2	\square_1	\square_2
MIE012E1 MIE012E2	E.	Other more senior university/college teaching staff		\square_2	\square_1	\square_2
MIE012F1 MIE012F2	F.	Retired <primary> or <secondary> school teacher or administrator</secondary></primary>		\square_2	\square_1	\square_2
MIE012G1 MIE012G2	G.	Other personnel not included in the above categories		\square_2	\square_1	\square_2

13.								
	e assessment of extended teaching practice, what guidance is provided to those who do sessment?							
		Check <u>one</u>	box.					
	A.	Written guidelines						
	B.	Training sessions \square_2						
	C.	Written guidelines and training sessions \square_3						
	D.	Neither written guidelines nor training sessions are provided						
14.								
	-	onsible for finding extended teaching practice placements for your program?	the <future< td=""></future<>					
			heck <u>one</u> box.					
	A.	The <future teacher=""> finds all field placements by him or herself.</future>						
	B.	The institution and/or its educators take this responsibility.						
	C.	An agency outside the institution does this.	\square_3					
MIE014T	D.	Other (please specify):						
1.5								
		following statements best describes placement of <future practice?<="" td="" te="" teaching=""><td>eachers> in schools</td></future>	eachers> in schools					
	ck <u>one</u> box.							
	A	school and classroom placements that we consider						
	ъ	appropriate for our <future teachers="">.</future>						
	В.	Appropriate school and classroom placements are <u>not</u> readily available in sufficient number.						

PART F. PROGRAM ACCOUNTABILITY AND STANDARDS

1.

At what level are the decisions made about the curriculum of this program in your institution? If the appropriate answer lies between "State or Provincial" and "Institutional", please check the answer "Local district". If decisions are made at more than one of these levels, check the level that has the most influence on program policies for the area in question.

				Check <u>one</u> box in each <u>row</u> .			
			Institution	Local district	State or Provincial	National	Does not apply
MIF001A	A.	Program goals and emphasis			\square_3	\square_4	\square_{5}
MIF001B	В.	Selection of textbooks, teaching materials, readings	□ ,	\square_2	\square_3	\square_4	\square_{5}
MIF001C	C.	Standards of classroom performance expected of graduates		\square_2	\square_3	\square_4	\square_{5}
MIF001D	D.	Standards of content knowledge expected of graduates		\square_2	\square_3	\square_4	\square_5
MIF001E	E.	Subject-matter knowledge to be covered in mathematics	\square	\square_2	\square_3	$\square_{\scriptscriptstyle 4}$	\square_{5}
MIF001F	F.	Mathematics <pedagogy> curriculum</pedagogy>		\square_2	\square_3	\square_4	\square_{5}
MIF001G	G.	General <pre>pedagogy>/educational foundations curriculum</pre>		\square_2	\square_3	\square_4	\square_{5}
MIF001H	H.	<liberal arts=""> curriculum</liberal>			\square_3	\square_4	\square_5
MIF001I	I.	Number of credits required in program areas			\square_3	\square_4	
MIF001J	J.	Length of practical training		\square_2	\square_3	\square_4	\square_5
MIF001K	K.	Location of practical training		\square_2	\square_3	\square_4	\square_{5}
MIF001L	L.	Monitoring of <future teachers="">' progress through the program</future>		\square_2	\square_3	\square_4	\square_{5}
MIF001M	M.	Quality and frequency of the supervision during practical training	□ ,	\square_2		\square_4	\square_{5}
MIF001N	N.	Type and content of assessments throughout the program		\square_2	\square_3	$\square_{\scriptscriptstyle 4}$	\square_{5}
MIF001O	O.	External examinations		$\square_{\scriptscriptstyle 2}$	\square_3	$\square_{\scriptscriptstyle 4}$	\square_{5}

I	PART	G. STAFFING	
	l. a) Pleas	se give the number of <u>full-time</u> staff assigned teaching responsibe	ilities <u>in this program.</u> ull-time staff members
t	o) Plea	se give the number of <u>part-time</u> staff assigned teaching responsib	pilities in this program. art-time staff members.
C	e) Plea	se calculate or estimate the percentages of the <u>full-time</u> staff mer responsibilities <u>in this program</u> who hold the following crede	
		A. <isced 6="" level=""> B. <isced 2<sup="" 5a,="" level="">nd degree> C. <isced 1<sup="" 5a,="" level="">st degree> D. Other credentials at <isced 4="" 5b="" levels="" or=""> or less TOTAL</isced></isced></isced></isced>	% % % 100%
F		calculate or estimate the percentages of the <u>full-time</u> staff membersibilities in this program who hold the following academic ranks.	
		Academic rank	% of full-time staff
	A.	Very senior (e.g., <full professor="">)</full>	%
	B.	Senior (e.g., <senior associate="" lecturer="" or="" professor="">)</senior>	
	C.	Junior (e.g., <assistant lecturer="" or="" professor="">)</assistant>	
	D.	Assistant (e.g., <tutor assistant="" graduate="" junior="" lecturer="">)</tutor>	
	E.	Other (please explain below):	%
		TOTAL	100 %

	3.					
	Please indicate whether staff employed by your institution to teach <u>mathematics or</u>					
	mathematics related content to <future teachers=""> in this program would normally be required</future>					
	to have:					
		Check <u>o</u>	<u>ne</u> box in eac			
			Yes	No		
MIG003A	A.	<isced 5b="" level=""></isced>				
MIG003B	B.	<isced 1<sup="" 5,="" level="">st degree></isced>				
MIG003C	C.	<isced 2<sup="" 5,="" level="">nd degree></isced>				
MIG003D	D.	<isced 6="" level=""></isced>				
MIG003E	E.	A teaching qualification for <primary> or <secondary> school</secondary></primary>				
MIG003F	F.	Experience teaching in <pri>primary> or <secondary> school(s)</secondary></pri>		\square_2		
MIG003G	G.	A current cross-appointment in a school		\square_2		
	4. Please ind	his box if you do not have information to answer Question icate whether staff employed by your institution to teach <u>r</u> teachers> <u>in this program</u> would normally be required to l	nathematics	<pedagogy></pedagogy>		
			ne box in eac	h row.		
		_	Yes	No		
MIG004A	A.	<isced 5b="" level=""></isced>				
MIG004B	B.	<isced 1<sup="" 5,="" level="">st degree></isced>				
MIG004C	C.	<isced 2<sup="" 5,="" level="">nd degree></isced>		$\square_{_2}$		
MIG004D	D.	<isced 6="" level=""></isced>		$\square_{_2}$		
MIG004E	E.	A teaching qualification for <primary> or <secondary> school</secondary></primary>				
MIG004F	F.	Experience teaching in <pri>primary> or <secondary> school(s)</secondary></pri>		\square_2		
MIG004G	G	A current cross-appointment in a school				

		icate whether staff employed by your institution to <sur< th=""><th>pervise/mentor/i</th><th>nstruct> in</th></sur<>	pervise/mentor/i	nstruct> in
	<u>extended t</u>	teaching practice are normally required to have: Check	k <u>one</u> box in each	h <u>row</u> .
			Yes	No
MIG005A	A.	<isced 5b="" level=""></isced>		\square_2
MIG005B	B.	<isced 1<sup="" 5,="" level="">st degree></isced>		\square_{2}
MIG005C	C.	<isced 2<sup="" 5,="" level="">nd degree></isced>		
MIG005D	D.	<isced 6="" level=""></isced>		
MIG005E	E.	A teaching qualification for <pri>primary> or <secondary pre="" school<=""></secondary></pri>	>	\square_2
MIG005F	F.	Experience teaching in <primary> or <secondary> school(s)</secondary></primary>		\square_2
MIG005G	G.	A current cross-appointment in a school		\square_{2}
MIG005	☐ Mark t	his box if you do not have information to answer Questi	ion 5.	

MIH003B

1.	
What is the overall annual budget	of this program for this year?
<country currency=""></country>	(include only the costs of the teacher preparation program).
	include the cost contributed by other programs/departments future teachers> in your program.
2. How much is the budget for instr	uction (teaching staff salaries)?
<country currency=""></country>	
3.	
Are <future teachers=""> given direct</future>	e 1
Are <future teachers=""> given direct</future>	Check <u>one</u> box.

If yes, how much is the total budget for <future teacher> subsidies? ____<country currency>

PART I. REFLECTIONS ON THE PROGRAM

This section of the questionnaire is optional. This is your chance to tell us important things about your program that we have not asked about. While not required, the answers will help us greatly in understanding your program.

	us greatly in understanding your program.						
MII001A	1. Are there historical, social or cultural factors that you think are essential for understanding of this program?						
	Check <u>one</u> box.						
	A. Yes						
	B. No \square_2						
	If "Yes", please summarize them briefly below:						
MII001BT							
MII001CT	Source:						
MII002AT	What do you see as the most distinctive strengths of your program? (For example, funding, time allocated to learn the mathematics needed, time for practical experience, qualified faculty, connections with schools, materials, technology, teaching facilities, etc.)						
MII002BT	Source:						

MII003AT	What are the main problems facing your program/institution? (For example, problems with funding, time allocated to learn mathematics, time for practical experience, qualified faculty, connections with schools, materials, technology, teaching facilities, etc.)
MII003BT	Source:
MII004AT	4. Are there other important or unique aspects of your program/institution you think it is important for us to know about?
MII004BT	Source:



TEDS-M 2008

Thank you

FOR COMPLETING THIS SURVEY

Copyrights: Questionnaire items were received from several sources, including study investigators, National Research Coordinators, consultants, and previous studies.

Michigan State University
Australian Council for Educational Research
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Section 2: TEDS-M 2008 Educator Questionnaire



Identification Label

IEA – Teacher and Development Study in Mathematics (TEDS-M)

TEDS-M 2008

SURVEY FOR MATHEMATICS, MATHEMATICS <PEDAGOGY> & GENERAL <PEDAGOGY> EDUCATORS

<TEDS-M National Research Center Name>
<Address>



<date>

Dear [country appropriate term for educator]:

This questionnaire is part of an international study called the Teacher Education and Development Study in Mathematics (TEDS-M). TEDS-M is a research project on the mathematics preparation of <pri>primary and lower secondary> teachers in close to twenty countries. The study is designed to measure and interpret differences in national teacher education systems in order to help improve the education of mathematics teachers worldwide. This questionnaire includes questions about you and the opportunities to learn to teach mathematics, and to teach more generally, that you and your program provide for future <pri>primary and lower secondary> teachers. We are also interested in your beliefs about mathematics teaching and learning. The questionnaire is anticipated to require approximately 30 minutes for you to complete.

- ❖ To secure confidentiality, no TEDS-M result will be reported for individuals. All publications will refer to aggregate data. All data collected will be maintained confidentially and securely in the International Research Centers.
- ❖ You indicate your voluntary agreement to participate by completing and returning this questionnaire.

If you have questions about this questionnaire or about the study, you may contact the international project director at the International Study Center, Maria Teresa Tatto: mttatto@msu.edu

If you have any questions regarding your participation in this study, contact [name of project leaders] in the [name of national research center in the country], [e-mail of the project leaders], [phone number of project leaders].

Thank you for taking the time to complete this questionnaire.

Sincerely,

[country project leaders signature]

Other mathematics related

Other discipline or field

discipline or field

MEA003D

MEA003E

D.

E.

PART A: GENERAL ACADEMIC BACKGROUND MEA001 Which one of the following best describes your current academic rank at your <college/university/institution>? Check one box. A. <Professor> В. <Associate Professor> \square C. <Assistant Professor/Senior Lecturer> D. <Lecturer> \square_4 E. <Instructor/tutor> F. Not Applicable: No ranks designated at this <college/university/institution> for my position MEA001T G. Other (Please specify): 2. What is your gender? MEA002 Female A. \Box B. Male 3. What is the highest degree you have earned in each of the following areas? Check <u>one</u> box in each <u>row</u>. 3. <Masters level> degree 1. <Non-2. <First 4. < Doctorate 5. No degree in Highest Academic Qualification level> degree this field university> university. tertiary level> (also post or higher degree (e.g., (e.g., Specialist Undergraduate graduate Certificate) or Bachelors) diploma) <ISCED 5B> <ISCED 5A> <ISCED 5A> <ISCED 6> First degree Second degree MEA003A Mathematics A. \square_4 \square_2 MEA003B \square_4 B. **Mathematics Education** \square_2 C. MEA003C Education \square

MEA004	4.		
	Do y	ou consider yourself a mathematics specialist?	
	A.	Yes, mathematics is my main specialty.	Check <u>one</u> box. \square
	B.	Yes, mathematics is one of two or more subjects about which I am especially knowledgeable.	
	C.	No, but mathematics is a particular interest of mine.	
	D.	No.	\square_4
MEA005		you currently hold, or have you ever held, a <teaching <pri="" certificate,="" license="" n="">primary and/or secondary> grades?</teaching>	
	A. B. C.	Yes, I currently hold a <teaching certificate="" license="" registration="">. Yes, I had a <certificate license="" registration="">, which has expired. No, I have never held a <certificate license="" registration="">.</certificate></certificate></teaching>	Check <u>one</u> box. \Box_1 \Box_2 \Box_3
MEA006	your A.	you currently hold a teaching position in a <pri>rou current position in this institution? Yes</pri>	I in addition to Check <u>one</u> box.
	В.	No	

PART B: TEACHING BACKGROUND

	1. For how many years have you taught	
		(Write 0 if none)
		Number of years
MEB001A	A. in <primary> schools?</primary>	
MEB001B	B. in <secondary> schools?</secondary>	
	2. If you reported <primary or="" secondary=""> teaching experience in que these years did you teach mathematics</primary>	estion 1, for how many of
		Number of years
MEB002A	A. in <primary> schools?</primary>	
MEB002B	B. in <secondary> schools?</secondary>	
		(Write 0 if none)
MEB003	3. For how many years have you been employed, or otherwise profess	sionally engaged with this
	- teacher education institution>?	
		Number of years
		(Write 0 if none)
MEB004	4. For how many years have you prepared <future teachers=""> who will following levels?</future>	I teach at each of the
	☐ If you do not know if <future teachers=""> enroll in your <cou< td=""><td>irse>, please check this box</td></cou<></future>	irse>, please check this box
	and skip to question 5.	Number of years
MEB004A	A. <primary> schools</primary>	Trumber of years
MEB004B	B. <secondary> schools</secondary>	
		(Write 0 if none)
MEB005	5.	
	Are the <courses> that you teach currently composed entirely of <</courses>	
	A. Yes, all of my <courses></courses>	Check <u>one</u> box. \Box
	B. Yes, most of my <courses></courses>	
	C. Yes, some but not most of my <courses></courses>	
	D. No, none of my <courses></courses>	\square_4
	E. I don't know	\square_{5}
	6. At which of the following levels do you teach <courses> in your in</courses>	nstitution? Check <i>one</i> box in each <i>row</i> .
MEB006A	A SCED Loyal 5A first doorses or undergraduate loyal	Yes No
MEB006B	A. <isced 5a="" degree="" first="" level=""> or undergraduate level</isced>B. <isced 5a="" degree="" level="" second="">, postgraduate or masters le</isced>	evel \square_1 \square_2
MEB006C	C. <isced 6="" level="">, doctoral (Ph.D. or Ed.D.) level</isced>	evel \square_1 \square_2 \square_2

PART C: PROFESSIONAL EXPERIENCE

	1.						
	Plea	se indicate whether you received special prep	aration fo	_			
					Check of	one box 11 Yes	n each <u>row</u> . No
MEC001A	A.	I received special preparation <u>prior</u> to starti <future teachers="">.</future>	ng work a	is a teache	r of	\square_1	\square_2
MEC001B	В.	I received special training or preparation <u>af</u> teacher of <future teachers="">.</future>	<u>ter</u> startin	g to work	as a	\square_1	\square_3
MEC001C	C.	I have <u>never</u> received any special training for square teachers.	or workin	g as a teac	her of	\square_1	\square_2
	2. Estimate the total amount of time you have participated as <u>a learner</u> in profess; development in each of the following areas <u>during the last 12 months</u> . (Include seminars, working groups, professional meetings, workshops, and conferences						h
				C	heck or	<u>ie</u> box in	each <u>row</u> .
			None	1-5 hrs	6-15	16-35	More
					hrs	hrs	than 35
MEC002A	A.	Mathematics		$\square_{\scriptscriptstyle 2}$	\square_3	\square_4	hrs □₅
MEC002B	B.	Mathematics < Pedagogy>		\square_2	\square_3	\square_4	\square_{5}
MEC002C	C.	General <pedagogy></pedagogy>	$\square_{\scriptscriptstyle 1}$		\square_3	\square_4	\square_{5}

PART D: RESEARCH EXPERIENCE

	1.		C 11 .	
	Indic	eate whether you have ever conducted research in each of the	tollowing areas: Check one box in eac	ch row.
MED001A	A.	Research in mathematics	Yes	No \square_2
MED001B	В.	Research in mathematics education or mathematics <pre><pre>pedagogy></pre></pre>	\square ,	\square_2
MED001C	C.	Educational research in areas other than mathematics <pre><pre>pedagogy></pre></pre>	\square ,	
		e past 12 months, approximately what percent of your working tollowing types of activities?	ng time was devoted to	
MED002A	A.	Teaching and teaching-related activities		
MED002B	B.	Research and research-related activities		%
MED002C	C.	<college university=""> administration</college>		% %
MED002D	D.	<service> to the profession (e.g. administration, mentoring</service>	<u> </u>	
MED002E	E.	officer in a professional organization, advisory boards) Other (Please specify):		%
				%
MED002ET		Total		100%

PART E: FIELD-BASED INSTRUCTION

	1. When <future teachers=""> are on <pre>practicum/field experience> ple</pre></future>	ease indicate which	of the
	following are part of your role?		
		Check one box	in <u>each</u> row.
		Yes	No
MEE001A	A. To observe them as they teach		\square_2
MEE001B	B. To provide advice and guidance about their teaching	\square ,	
MEE001C	C. To assess and/or report on their success in teaching		\square_2
	If you answered 'Yes' to any role, please proceed to THE NE go to PART F: OPPORTUNITIES TO LEARN IN YOUR <		therwise
MEE002	2.		
	How long have you been instructing or supervising <future <pre="" teach=""><pre><pre><pre><pre><pre><pre></pre></pre></pre></pre></pre></pre></future>	ners> during their	
		Che	eck <u>one</u> box.
	A. One year or less		\square ,
	B. 2-3 years		$\square_{\scriptscriptstyle 2}$
	C. 4-10 years		\square_3
	D. More than 10 years		\square_4

PART F: OPPORTUNITIES TO LEARN IN YOUR <COURSE>

As you answer the following questions we would like you to have in mind <u>one</u> particular required teacher preparation <course> that you teach during this <module/quarter/semester>. To select this <course>, please choose the first required teacher preparation <course> that you teach during a regular week.

If you did not teach a <course> this < module/quarter/semester>, please select a <course> you taught in the previous <module/quarter/semester>. To select this <course>, please choose the first <course> that you taught during a regular week.

1. Wh	at level of <future teacher=""> takes this <course>?</course></future>		
		Check one	<u>e</u> box in each
	Future (minum) too shore	Yes	No
A.	Future <pre> Futur</pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre></pre>		
B.	Future < lower secondary > teachers	<u></u> □,	
C.	Students preparing for careers other than teaching	$\square_{\scriptscriptstyle 1}$	
D.	I do not know the career aspirations of my students		
2.			
Wh	ich of the following best describes the main subject of this <cours< td=""><td>e>?</td><td></td></cours<>	e>?	
			Check one
A.	In this <course> students study mathematics only.</course>		
B.	In this <course> students study mathematics <pedagogy> only.</pedagogy></course>		
C.	In this <course> students study general <pedagogy> only.</pedagogy></course>		

If this <course> includes MATHEMATICS CONTENT or MATHEMATICS PEDAGOGY, please respond to PART G.

If this <course> includes <u>only</u> GENERAL <PEDAGOGY>, <u>skip</u> PART G and continue to PART H.

PART G: OPPORTUNITIES TO LEARN IN YOUR <COURSE> (MATHEMATICS AND MATHEMATICS <PEDAGOGY>)

MEG001A MEG001B MEG001C	A. B.	Learning mathematics at the level of the school curriculum Learning school mathematics topics at a deeper, more conceptual level than the school curriculum Learning mathematics beyond the school curriculum with no direct relation to the school curriculum	ck <u>one</u>		each I [row . No \Box_2 \Box_2
		e <course> you selected, how often do you give your <future teachers<br="">e following?</future></course>			each	
			Never	Rarely	Occasionally	Often
MEG002A	A.	Analyze and use national or state standards or frameworks for school mathematics			\square_3	\square_4
MEG002B	B.	Build on pupils' existing mathematics knowledge and thinking skills			\square_3	\square_4
MEG002C	C.	Explore how to apply mathematics to real-world problems		\square_2	\square_3	\square_4
MEG002D	D.	Explore how to use manipulative (concrete) materials or physical models to solve mathematics problems			\square_3	\square_4
MEG002E	E.	Explore mathematics as the source for real-world problems		\square_2	\square_3	\square_4
MEG002F	F.	Learn how to explore multiple solution strategies with pupils	\square_1	\square_2	\square_3	\square_4
MEG002G	G.	Learn how to show why a mathematics procedure works			\square_3	\square_4
MEG002H	H.	Make distinctions between procedural and conceptual knowledge when teaching mathematics concepts and operations to pupils			\square_3	\square_4
MEG002I	I.	Integrate mathematical ideas from across areas of mathematics		\square_2	\square_3	\square_4

If this <course> $\underline{does\ not}$ include GENERAL <PEDAGOGY>, \underline{skip} PART H and continue to PART I.

PART H: OPPORTUNITIES TO LEARN IN YOUR <COURSE> (GENERAL <PEDAGOGY>)

In the <course> you selected above, how often do you give your <future teachers> the opportunity to do the following?

Check one box in each row. Occasionally Rarely Never Often MEH001A \square_{3} Study stages of child development and learning \square $\square_{\scriptscriptstyle 4}$ A. MEH001B B. Develop research projects to test teaching strategies for \square_2 $\square_{\scriptscriptstyle A}$ pupils of diverse abilities MEH001C C. Consider the relationship between education, social justice \square_2 \square_3 \square_4 and democracy MEH001D D. Observe teachers modeling new teaching practices \square_2 MEH001E E. Develop and test new teaching practices $\square_{\scriptscriptstyle A}$ MEH001F F. Set appropriately challenging learning expectations for pupils MEH001G G. Learn how to use findings from research to improve \square_2 \square_4 knowledge and practice MEH001H H. Connect learning across subject areas \Box \square MEH001I Study ethical standards and codes of conduct expected of \square_3 \square_2 \square_4 teachers MEH001J Create methods to enhance pupils' confidence and self-J. esteem MEH001K K. Identify opportunities for changing existing schooling \square_4 \square_2 practices MEH001L L. Identify appropriate resources needed for teaching $\square_{\scriptscriptstyle A}$

	In this <course> how often do you give your <future teachers=""> the <u>opportunity</u> to do the following?</future></course>									
	101101	e e e e e e e e e e e e e e e e e e e	heck <u>on</u>	<u>ıe</u> box ı	in each	<u>row</u> .				
			Never	Rarely	Occasionally	Often				
MEH002A	A.	Develop specific strategies for teaching students with behavioral and emotional problems			\square_3	\square_4				
МЕН002В	B.	Develop specific strategies and curriculum for teaching pupils with learning disabilities			\square_3	\square_4				
MEH002C	C.	Develop specific strategies and curriculum for teaching gifted pupils			\square_3	\square_4				
MEH002D	D.	Develop specific strategies and curriculum for teaching pupils from diverse cultural backgrounds			\square_3	\square_4				
МЕН002Е	E.	Accommodate the needs of pupils with physical disabilities in their classroom		\square_2	\square_3	\square_4				
MEH002F	F.	Work with children from poor or disadvantaged backgrounds		\square_2	\square_3	\square_4				
MEH002G	G.	Use teaching standards and codes of conduct to reflect on their teaching	□,	\square_2	\square_3	\square_4				
МЕН002Н	Н.	Develop strategies to reflect upon the effectiveness of their teaching		$\square_{\scriptscriptstyle 2}$	\square_3	$\square_{\scriptscriptstyle 4}$				
MEH002I	I.	Develop strategies to reflect upon their professional knowledge	\square	$\square_{\scriptscriptstyle 2}$	\square_3	$\square_{\scriptscriptstyle 4}$				
MEH002J	J.	Develop strategies to identify their learning needs		□,						

Now please proceed to PART I.

problems

PART I: OPPORTUNITIES TO LEARN IN YOUR <COURSE> (ALL EDUCATORS)

1.

In the <course> you selected above, to what extent are your <future teachers> expected to do each of the following?

Check one box in each row. Occasionally Rarely Often MEI001A \Box \square $\square_{\scriptscriptstyle 4}$ A. Listen to a lecture MEI001B B. \square \square_2 Ask questions during class time MEI001C C. \square_4 Participate in a whole class discussion MEI001D D. \square . \square Make presentations to the rest of the class MEI001E E. $\square_{\scriptscriptstyle A}$ Teach a class session using methods chosen by the <future teacher> MEI001F F. $\square_{\scriptscriptstyle A}$ Teach a class session using methods demonstrated by the instructor MEI001G G. \square_3 \square_4 Work together in groups during class MEI001H Η $\square_{\scriptscriptstyle A}$ Read about research on mathematics MEI001I I. \Box \square Read about research on mathematics education MEI0011 J. \square_2 $\square_{\scriptscriptstyle A}$ Read about research on teaching and learning MEI001K K. \square_2 \square_3 \square_4 Analyze examples of teaching (e.g., film, video, transcript of lesson) MEI001L L. Write mathematical proofs MEI001M M. Solve problems in applied mathematics MEI001N N. \square_2 \square_3 \square_4 Solve a given mathematics problem using multiple strategies MEI001O O. Use computers or calculators to solve mathematics

MEI002	each	ing the <course> you selected earlier, how often do you require of the following? f these requirements do not apply to this <course>, check the next question</course></course>	nis box	-					
			Never	Rarely	Occasionally	Offen Offen			
MEI002A	A.	Observe models of the teaching strategies they are learning							
MEI002B	B.	Practice theories for teaching subject-matter content they are learning			\square_3	\square_4			
MEI002C	C.	Complete assessments that show how they had applied ideas they are learning		\square_2	\square_3	\square_4			
MEI002D	D.	Receive feedback about how well they had implemented teaching strategies they are learning		\square_2	\square_3	\square_4			
MEI002E	E.	Collect and analyze evidence about pupil learning as a result of their teaching methods		\square_2	\square_3	\square_4			
MEI002F	F.	Test out findings from educational research about difficulties pupils have in learning		\square_2	\square_3	\square_4			
MEI002G	G.	Develop strategies to reflect upon their professional knowledge		\square_2	\square_3	\square_4			
MEI002H	Н.	Demonstrate that they can apply the teaching methods they are learning		\square_2	\square_3	\square_4			

	3. In the <course> you selected, how often do you give your <future teachers=""> the <u>opportunity</u> to do the following?</future></course>							
MEI003		If these topics do not apply to this <course>, check this box at the next question</course>	nd go to					
			heck one	box i	n eacl	n row.		
			Never	Rarely	Occasionally	Often		
MEI003A	A.	Accommodate a wide range of abilities in each lesson		\square_2	\square_3	\square_4		
MEI003B	B.	Analyze pupil assessment data to learn how to assess more effectively		\square_2	\square_3	\square_4		
MEI003C	C.	Assess higher-level goals (e.g. problem-solving, critical thinking)		\square_2	\square_3	\square_4		
MEI003D	D.	Assess low-level objectives (factual knowledge, routine procedures an so forth)	d \square_1		\square_3	\square_4		
MEI003E	E.	Create learning experiences that make the central concepts of subject matter meaningful to pupils			\square_3	\square_4		
MEI003F	F.	Create projects that motivate all pupils to participate		$\square_{\scriptscriptstyle 2}$	\square_3	$\square_{_4}$		
MEI003G	G.	Deal with learning difficulties so that specific pupil outcomes are accomplished			\square_3	\square_4		
MEI003H	Н.	Develop games or puzzles that provide instructional activities at a high interest level	1		\square_3	\square_4		
MEI003I	I.	Develop instructional materials that build on pupils' experiences, interests and abilities		$\square_{\scriptscriptstyle 2}$	\square_3	$\square_{_4}$		
MEI003J	J.	Give useful and timely feedback to pupils about their learning		\square_2	\square_3	\square_4		
MEI003K	K.	Help pupils learn how to assess their own learning		\square_2	\square_3	\square_4		
MEI003L	L.	Locate suitable curriculum materials and teaching resources		\square_2	\square_3	\square_4		
MEI003M	M.	Use assessment to give effective feedback to parents or guardians		\square_2	\square_3	$\square_{_4}$		
MEI003N	N.	Use assessment to give feedback to pupils about their learning		\square_2	\square_3	\square_4		
MEI003O	О.	Use classroom assessments to guide decisions about what and how to teach			\square_3	\square_4		
MEI003P	P.	Use pupils' misconceptions to plan instruction		\square_2	\square_3	\square_4		
MEI003Q	Q.	Use standardized assessments to guide decisions about what and how teach	o		\square_3	\square_4		

PART J: COHERENCE OF THE TEACHER PREPARATION PROGRAM (ALL EDUCATORS)

1. Consider all of the <courses> in the program including subject matter <courses> (e.g.,

mathematics), mathematics <pedagogy courses>, and general education <pedagogy> <courses>. Please indicate the extent to which you agree or disagree with the following statements.

Check one box in each row.

			Disagree	Slightly disagree	Slightly	Agree
MEJ001A	A.	Each stage of the program seemed to be planned to meet the main needs <future teachers=""> had at each stage of their preparation.</future>				$\square_{\scriptscriptstyle 4}$
MEJ001B	В.	Later <courses> in the program build on what is taught in earlier <courses> in the program.</courses></courses>			\square_3	\square_4
MEJ001C	C.	The program was organized in a way that covered what <future teachers=""> needed to learn to become effective teachers.</future>		\square_2	\square_3	\square_4
MEJ001D	D.	The <courses> seemed to follow a logical sequence of development in terms of content and topics.</courses>		\square_2	\square_3	\square_4
MEJ001E	E.	Each of the <courses> was clearly designed to prepare <future teachers=""> to meet a common set of explicit standard expectations for beginning teachers.</future></courses>		\square_2	\square_3	\square_4
MEJ001F	F.	There were clear links between most of the <courses> in the teacher education program.</courses>		$\square_{\scriptscriptstyle 2}$		$\square_{\scriptscriptstyle 4}$

1.

mathematics?

PART K: BELIEFS ABOUT MATHEMATICS (ALL EDUCATORS)

Dear colleague: We would like all educators to answer the following sections about beliefs, whether or not you teach mathematics or mathematics <pedagogy>. Since the learning of subject-matter is interrelated with all aspects of schooling and since mathematics is one of the main school subjects, the beliefs of all educators about mathematics are important.

To what extent do you agree or disagree with the following beliefs about the nature of

Check one box in each row. Strongly disagree Strongly agree $\square_{\scriptscriptstyle 4}$ MEK001A Mathematics is a collection of rules and procedures that prescribe how to solve a problem. \square_4 MEK001B Mathematics involves the remembering and application of В. definitions, formulas, mathematical facts and procedures. \square_4 MEK001C C. Mathematics involves creativity and new ideas. \square_{4} MEK001D D. In mathematics many things can be discovered and tried out by oneself. $\square_{\scriptscriptstyle A}$ MEK001E E. When solving mathematical tasks you need to know the correct procedure else you would be lost. \square_{4} MEK001F If you engage in mathematical tasks, you can discover new F. things (e.g., connections, rules, concepts). $\square_{\scriptscriptstyle A}$ MEK001G Fundamental to mathematics is its logical rigor and G. preciseness. \square_3 \square_{4} MEK001H Mathematical problems can be solved correctly in many H. $\square_{\scriptscriptstyle A}$ MEK001I I. Many aspects of mathematics have practical relevance. \Box \square_4 MEK001J Mathematics helps solve everyday problems and tasks. J. \square_{4} K. To do mathematics requires much practice, correct MEK001K application of routines, and problem solving strategies. $\square_{\scriptscriptstyle A}$ MEK001L L. Mathematics means learning, remembering and applying.

		m your perspective, to what extent would you agree or discements about learning mathematics?	agree	with o	each o	of the	follov	ving		
								ch row		
			Strongly disagree	Disagree	Slightly disagree	Slightly	Agree	Strongly agree		
MEK002A	A.	The best way to do well in mathematics is to memorize all the formulas.			\square_3	\square_4	\square_{5}	\square_{6}		
MEK002B	B.	Pupils need to be taught exact procedures for solving mathematical problems.		$\square_{\scriptscriptstyle 2}$	\square_3	$\square_{\scriptscriptstyle 4}$	\square_{5}	$\square_{_6}$		
MEK002C	C.	It doesn't really matter if you understand a mathematical problem, if you can get the right answer.		\square_2	\square_3	\square_4	\square_5	$\square_{\scriptscriptstyle 6}$		
MEK002D	D.	To be good in mathematics you must be able to solve problems quickly.			\square_3	\square_4	\square_{5}	$\square_{\scriptscriptstyle 6}$		
MEK002E	E.	Pupils learn mathematics best by attending to the teacher's explanations.		$\square_{\scriptscriptstyle 2}$	\square_3	\square_4		\square_6		
MEK002F	F.	When pupils are working on mathematical problems, more emphasis should be put on getting the correct answer than on the process followed.			\square_3	\square_4		\square_6		
MEK002G	G.	In addition to getting a right answer in mathematics, it is important to understand why the answer is correct.			\square_3	\square_4	\square_5	$\square_{\scriptscriptstyle 6}$		
МЕК002Н	Н.	Teachers should allow pupils to figure out their own ways to solve mathematical problems.		\square_2	\square_3	\square_4	\square_5	$\square_{\scriptscriptstyle 6}$		
MEK002I	I.	Non-standard procedures should be discouraged because they can interfere with learning the correct procedure.		\square_2	\square_3	\square_4	\square_5	$\square_{\scriptscriptstyle 6}$		
MEK002J	J.	Hands-on mathematics experiences aren't worth the time and expense.		\square_2	\square_3	\square_4		\square_6		
MEK002K	K.	Time used to investigate why a solution to a mathematical problem works is time well spent.		\square_2	\square_3	\square_4		\square_6		
MEK002L	L.	Pupils can figure out a way to solve mathematical problems without a teacher's help.		$\square_{\scriptscriptstyle 2}$	\square_3	$\square_{\scriptscriptstyle 4}$	\square_{5}	$\square_{_6}$		
MEK002M	M.	Teachers should encourage pupils to find their own solutions to mathematical problems even if they are inefficient.		\square_2		\square_4	\square_5	\square_6		
MEK002N	N.	It is helpful for pupils to discuss different ways to solve particular problems.			\square_3	\square_4	\square_{5}			

		To what extent do you agree or disagree with each of the following statements about <u>pupil</u> achievement in <pre>chievement in</pre> <pre>chievemen</pre>											
				Chec	ck one	box	in eac	h row.					
			Strongly disagree	Disagree	Slightly disagree	Slightly agree	Agree	Strongly agree					
MEK003A	A.	Since older pupils can reason abstractly, the use of hands-on models and other visual aids becomes less necessary.	□ ı	\square_2	\square_3	$\square_{\scriptscriptstyle 4}$	\square_{5}	$\square_{\scriptscriptstyle 6}$					
MEK003B	B.	To be good at mathematics you need to have a kind of "mathematical mind".	□ ı	\square_2	\square_3	$\square_{\scriptscriptstyle 4}$	\square_{5}	$\square_{\scriptscriptstyle 6}$					
MEK003C	C.	Mathematics is a subject in which natural ability matters a lot more than effort.		$\square_{\scriptscriptstyle 2}$	\square_3	$\square_{_4}$	\square_{5}	$\square_{_6}$					
MEK003D	D.	Only the more able pupils can participate in multi-step problem solving activities.	$\square_{\scriptscriptstyle 1}$	\square_2	\square_3	$\square_{\scriptscriptstyle 4}$	\square_5	$\square_{\scriptscriptstyle 6}$					
MEK003E	E.	In general, boys tend to be naturally better at mathematics than girls.	□ ı	\square_2	\square_3	$\square_{\scriptscriptstyle 4}$	\square_{5}	$\square_{\scriptscriptstyle 6}$					
MEK003F	F.	Mathematical ability is something that remains relatively fixed throughout a person's life.	П		\square_3	$\square_{\scriptscriptstyle 4}$	$\square_{\scriptscriptstyle 5}$	$\square_{_6}$					
MEK003G	G.	Some people are good at mathematics and some aren't.		\square_{2}	\square_3	$\square_{\scriptscriptstyle 4}$		$\square_{\scriptscriptstyle 6}$					
МЕК003Н	Н.	Some ethnic groups are better at mathematics than others.	\square_1	\square_2	\square_3	\square_4	\square_{5}	$\square_{\scriptscriptstyle 6}$					

D.

Very effective

PART L: PREPAREDNESS FOR TEACHING MATHEMATICS (ALL EDUCATORS)

1. Please indicate the extent to which you think the teacher education program has prepared <future teachers> to do the following when they start their teaching career. Check one box in each row. Not at all A minor extent \square MEL001A Communicate ideas and information about mathematics clearly to \square_4 MEL001B B. Establish appropriate learning goals in mathematics for pupils MEL001C Set up mathematics learning activities to help pupils achieve learning MEL001D \square_4 D. Use questions to promote higher order thinking in mathematics MEL001E \square_4 E. Use computers and ICT to aid in teaching mathematics MEL001F F. Challenge pupils to engage in critical thinking about mathematics \square MEL001G G. Establish a supportive environment for learning mathematics MEL001H \square_4 Use assessment to give effective feedback to pupils about their mathematics learning MEL001I \square Provide parents with useful information about pupils' progress in I. mathematics MEL001J J. Develop assessment tasks that promote learning in mathematics \square_2 MEL001K Incorporate effective classroom management strategies into mathematics teaching MEL001L Have a positive influence on difficult or unmotivated pupils MEL001M Work collaboratively with other teachers 2. MEL002 Overall, how effective do you believe your pre-service teacher education program was in preparing <future teachers> of mathematics? Check one box. A. Very ineffective B. \square_2 Ineffective C. \square Effective



TEDS-M 2008

Thank you

FOR COMPLETING THIS SURVEY

Copyrights: Questionnaire items were received from several sources, including study investigators, National Research Coordinators, consultants, and previous studies.

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Section 3: TEDS-M 2008 Future Teacher Questionnaire (Parts A, B, and D)



Identification Label

IEA – Teacher and Development Study in Mathematics (TEDS-M)

TEDS-M 2008

MAIN STUDY SURVEY FOR FUTURE TEACHERS OF MATHEMATICS

<TEDS-M National Research Center Name>
<Address>



1. Hov	old are you?	
1101	old are you.	
	years	
2.		
Wha	at is your gender?	
Α.	Female \square	
В.	Female \square_1 Male \square_2	
٥.		
3.		
Abo	ut how many books are there in your <parents' guardian's="" or=""> home? not count magazines, newspapers, or your school books.)</parents'>	
(D_0)	not count magazines, new spapers, or your school books.)	
(Do		
		Ch
A.	None or few (0-10 books)	Ch
A. B.	Enough to fill one shelf (11-25 books)	Ch
A.	Enough to fill one shelf (11-25 books) Enough to fill one bookcase (26-100 books)	Ch
A. B.	Enough to fill one shelf (11-25 books)	Ch

	4. Do	you have any of these items at your <parents' guardian's="" or=""> ho</parents'>	ome?	
	Do	journate any of these terms at your spatents of guardian so no	Check <u>one</u> be row	
MFA004A	٨	Calculator	Yes	No
MFA004B	A.			\square_2
MFA004C	В. С.	Computer (excluding TV/video game computers)		\square_2
MFA004D		Study desk/table for your use		\square_2
MFA004E	D.	Dictionary Encyclopedia (e.g. a book of CD)		\square_2
MFA004F	E.	Encyclopedia (as a book or CD)		\square_2
WIFA004F	F.	Playstation, Game Cube, Xbox or other TV/Video game system	\square_1	\square_2
MFA004G	G.	DVD player		\square_2
MFA004H	Н.	Three or more cars, small trucks or sport utility vehicles		\square_2
MFA004I	I.	Country specific>		\square_2
MFA004J	J.	<country specific=""></country>		\square_2
MFA004K	K.	<country specific=""></country>		
		Country specific		\square_2
MFA005		nat is the highest level of education completed by your mother (ourdian)?	r stepmother or f	emale
		,	Chec	ck <u>one</u> box.
	A.	<isced 1=""> primary</isced>		\square_1
	B.	<isced 2=""> lower secondary</isced>		\square_2
	C.	<isced 3=""> upper secondary</isced>		\square_3
	D.	<isced 4b=""> post-secondary non-tertiary</isced>		\square_4
	E.	<isced 5b=""> practical training</isced>		\square_5
	F.	<isced 5a=""> first degree</isced>		\square_6
	G.	<isced 5a=""> second degree</isced>		\square_7°
	H.	Beyond <isced 5a="">, first degree</isced>		\square_8
	I.	I don't know		\square_9
MFA006	6. Wh	at is the highest level of education completed by your father (or	stenfather or mal	Α
		rdian)?	stepramer or mar	.0
		,	Chec	k <u>one</u> box.
	A.	<isced 1=""> primary</isced>		\square_1
	В.	<isced 2=""> lower secondary</isced>		\square_2
	C.	<isced 3=""> upper secondary</isced>		\square_3
	D.	<isced 4b=""> post-secondary non-tertiary</isced>		\square_4
	E.	<isced 5b=""> practical training</isced>		\square_5
	F.	<isced 5a=""> first degree</isced>		\square_6
	G.	<isced 5a=""> second degree</isced>		\square_7
	Н.	Beyond <isced 5a="">, first degree</isced>		\square_8
	I.	I don't know		\square_9
NELOC-	7.			
MFA007	Hov	w often do you speak < language of test> at home?	Chec	k <u>one</u> box.
	A.	Always		\square_1
	B.	Almost always		\square_2
	C.	Sometimes		\square_3
	D.	Never		\square_4

	8.		
MFA008A	a)	What was the highest <year grade=""> level at which you studied mathem school>?</year>	natics in <secondary< td=""></secondary<>
			Check one box.
			Highest level
			completed
	Α.	<year 12=""> (Advanced level)</year>	\square_1
	B.	<year 12=""></year>	\square_2
	C.	<year 11=""></year>	\square_3
	D.	<year 10=""></year>	\square_4
	E.	Below <year 10=""></year>	\square_5
	F.	<country specific=""></country>	\square_6
	G.	<country specific=""></country>	\square_7
MFA008B	b)	What is the most advanced mathematics <course> that you took in <se< td=""><td>econdary school>? Check one box. Most advanced</td></se<></course>	econdary school>? Check one box. Most advanced
			course
	A.	<country specific=""></country>	\square_1
	B.	<country specific=""></country>	\square_2
	C.	<country specific=""></country>	\square_3
	D.	<country specific=""></country>	\square_4
	Е.	<country specific=""></country>	\square_5
	F.	<country specific=""></country>	\square_6
MFA009	9. In :	secondary school, what was the usual level of <marks grades=""> that you</marks>	received? Check one box.
	A.	Always at the top of my year level	\square_1
	B.	Usually near the top of my year level	\square_2
	C.	Generally above average for my year level	\square_3
	D.	Generally about average for my year level	\square_4
	D.	Generally about average for my year level	L 4

> m + 0 + 0	10.			_	_	
MFA010		r to commencing your teacher education program,				1 -1
		the purposes of this question, a career is having a sour life's work.	paid job the	at you regai	raea as ti	kely to
	A.	Yes \square_1				
	В.	No \square_2				
	11.	-				
	To v	what extent does each of the following identify you		or becoming eck <u>one</u> box		
				eck <u>one</u> box		<u>0 w</u> .
			Not a reason	7	A significant reason	≒
			a re	A minor reason	igni	A major reason
			Not	A minc reason	A signi reason	A m reas
MFA011A	A.	I was always a good student in school.	\square_1	\square_2	\square_3	\square_4
MFA011B	B.	I am attracted by the availability of teaching positions.	\square_1	\square_2	\square_3	\square_4
MFA011C	C.	I love mathematics.	\square_1	\square_2	\square_3	\square_4
MFA011D	D.	I believe that I have a talent for teaching.	\square_1	\square_2	\square_3	\square_4
MFA011E	E.	I like working with young people.	\square_1	\square_2	\square_3	\square_4
MFA011F	F.	I am attracted by teacher salaries.	\square_1	\square_2	\square_3	\square_4
MFA011G	G.	I want to have an influence on the next	\square_1	\square_2	\square_3	\square_4
MFA011H	**	generation.	_	_	_	_
MFA011I	Н.	I see teaching as a challenging job.		\square_2	\square_3	\square_4
WILLIAM	I.	I seek the long-term security associated with being a teacher.	\square_1	\square_2	\square_3	\square_4
	12					
	12.	any of the following circumstances hinder your st	udies durino	your teach	ner nrena	ration
		gram?	dures during	g your teach	ici picpai	ation
	1 .			Checi	k <u>one</u> box	in each
					<u>row</u> .	•
MFA012A	A.	Had family responsibilities that made it difficult	to do my	Yes		No
	A.	best	to do my		I	\square_2
MFA012B	B.	Had to borrow money			ı	\square_2
MFA012C	C.	Had to work at a job			1	\square_2
MFA013	13.	v do you see your future in teaching?				
	1100	v do you see your future in teaching?			Check	one box.
	A.	I expect it to be my lifetime career.				
	B.	It could possibly be my lifetime career.				\square_2
	C.	It is something I can do until I find the career that	at I really w	ant.		\square_3^-
	D.	I will probably not seek employment as a teache	r.			\square_4
	E.	I don't know.				\square_5

UNIVERSITY OR TERTIARY LEVEL MATHEMATICS

Consider the following topics in university level mathematics. Please indicate whether you have ever studied each topic.

			Check <u>one</u> box in ed Studied	nch <u>row.</u> Not studied
MFB001A	A.	Foundations of Geometry or Axiomatic Geometry (e.g., Euclidean axioms)		
MFB001B	B.	Analytic/Coordinate Geometry (e.g., equations of lines, curves, consections, rigid transformations or isometrics)	nic	
MFB001C	C.	Non-Euclidean Geometry (e.g., geometry on a sphere)		\square ,
MFB001D	D.	Differential Geometry (e.g., sets that are manifolds, curvature of curves, and surfaces)	\square ,	\square_2
MFB001E	E.	Topology	\square ,	\square_2
MFB001F	F.	Linear Algebra (e.g., vector spaces, matrices, dimensions, eigenvalues, eigenvectors)	\square ,	\square_2
MFB001G	G.	Set Theory	\square ,	
MFB001H	H.	Abstract Algebra (e.g., group theory, field theory, ring theory, ideal	ls)	
MFB001I	I.	Number Theory (e.g., divisibility, prime numbers, structuring integers)	\square ,	\square_2
MFB001J	J.	Beginning Calculus Topics (e.g., limits, series, sequences)	\square ,	
MFB001K	K.	Calculus (e.g., derivatives and integrals)	\square ,	
MFB001L	L.	Multivariate Calculus (e.g., partial derivatives, multiple integrals)		\square_2
MFB001M	M.	Advanced Calculus or Real Analysis or Measure Theory	\square ,	\square_{2}
MFB001N	N.	Differential Equations (e.g., ordinary differential equations and partial differential equations)	\square ,	\square_2
MFB001O	O.	Theory of Real Functions, Theory of Complex Functions or Functional Analysis	\square	\square_2
MFB001P	P.	Discrete Mathematics, Graph theory, Game theory, Combinatorics Boolean Algebra	or \square_1	\square_2
MFB001Q	Q.	Probability		
MFB001R	R.	Theoretical or Applied Statistics		
MFB001S	S.	Mathematical Logic (e.g., truth tables, symbolic logic, propositional logic, set theory, binary operations)		

SCHOOL LEVEL MATHEMATICS

2.

Consider the following list of mathematics topics that are often taught at the <pri>primary> or <secondary> school level. Please indicate whether you have studied each topic as part of your current teacher preparation program.

			Check <u>one</u> box in Studied	each <u>row</u> . Not studied
MFB002A	A.	Numbers (e.g., whole numbers, fractions, decimals, integer, rational, and real numbers; number concepts; number theory; estimation; ratio and proportionality)		
MFB002B	B.	Measurement (e.g., measurement units; computations and properties of length, perimeter, area, and volume; estimation and error)		
MFB002C	C.	Geometry (e.g., 1-D and 2-D coordinate geometry, Euclidean geometry, transformational geometry, congruence and similarity, constructions with straightedge and compass, 3-D geometry, vector geometry)	□₁ or	
MFB002D	D.	Functions, Relations, and Equations (e.g., algebra, trigonometry, analytic geometry)	\square ,	\square_2
MFB002E	E.	Data Representation, Probability, and Statistics		$\square_{_2}$
MFB002F	F.	Calculus (e.g., infinite processes, change, differentiation, integration)	□,	\square_2
MFB002G	G.	Validation, Structuring, and Abstracting (e.g., Boolean algebra, mathematical induction, logical connectives, sets, groups, fields, linear space, isomorphism, homomorphism)		
	3. In you	ur teacher preparation program, at what level is emphasis giver	Check one box in	each <u>row</u> .
MFB003A	A.	Learning mathematics at the level of the school curriculum	Yes □₁	$ \mathbf{No} $
MFB003B	B.	Learning school mathematics topics at a deeper more conceptual level than the school curriculum		
MFB003C	C.	Learning mathematics beyond the school curriculum with no direct relation to the school curriculum	D	\square_2

MATHEMATICS EDUCATION/<PEDAGOGY>

4.

Consider the following list of mathematics education/<pedagogy> topics. Please indicate whether you have studied each topic as part of your current teacher preparation program.

	wiiet	ther you have studied each topic as part of your current teacher p	Check one box in	
			Studied Studied	Not studied
MFB004A	A.	Foundations of Mathematics (e.g., mathematics and philosophy, mathematics epistemology, history of mathematics)		\square_2
MFB004B	B.	Context of Mathematics Education (e.g., role of mathematics in society, gender/ethnic aspects of mathematics achievement)	□ ,	\square_2
MFB004C	C.	Development of Mathematics Ability and Thinking (e.g., theories of mathematics ability and thinking; developing mathematical concepts; reasoning, argumentation, and proving; abstracting and generalizing; carrying out procedures and algorithms; application; modeling)		
MFB004D	D.	Mathematics Instruction (e.g., representation of mathematics content and concepts, teaching methods, analysis of mathematical problems and solutions, problem posing strategies, teacher-pupil interaction)	□,	\square_2
MFB004E	E.	Developing Teaching Plans (e.g., selection and sequencing the mathematics content, studying and selecting textbooks and instructional materials)		
MFB004F	F.	Mathematics Teaching: Observation, Analysis and Reflection	n 🔲,	\square_2
MFB004G	G.	Mathematics Standards and Curriculum		\square_2
MFB004H	H.	Affective Issues in Mathematics (e.g., beliefs, attitudes, mathematics anxiety)		\square_2

5.
In the mathematics education < pedagogy/teaching methods > courses that you have taken or
are currently taking in your teacher preparation program, how frequently did you do any of
the following?

Check <u>one</u> box in each <u>row.</u>

			Never] Rarely	Occasionally] Often
MFB005A	A.	Listen to a lecture	□ ₁		□ ₃	
MFB005B	B.	Ask questions during class time			\square_3	
MFB005C	C.	Participate in a whole class discussion			\square_3	
MFB005D	D.	Make presentations to the rest of the class		\square_2	\square_3	
MFB005E	E.	Teach a class session using methods of my own choice	П		\square_3	
MFB005F	F.	Teach a class session using methods demonstrated by the instructor			\square_3	
MFB005G	G.	Work together in groups during class			\square_3	
MFB005H	Н.	Read about research on mathematics			\square_3	
MFB005I	I.	Read about research on mathematics education	$\square_{\scriptscriptstyle 1}$		\square_3	
MFB005J	J.	Read about research on teaching and learning			\square_3	
MFB005K	K.	Analyze examples of teaching (e.g., film, video, transcript of lesson)			\square_3	
MFB005L	L.	Write mathematical proofs			\square_3	
MFB005M	M.	Solve problems in applied mathematics			\square_3	
MFB005N	N.	Solve a given mathematics problem using multiple strategies	□ 1		\square_3	
MFB005O	0.	Use computers or calculators to solve mathematics problems			\square_3	

0.	
In your current teacher preparation program, how frequently did you engage in activities that	at
gave you the opportunity to learn how to do the following?	

			Never	Rarely	Occasionally	Often
MFB006A	A.	Accommodate a wide range of abilities in each lesson		$\square_{\scriptscriptstyle 2}$	\square_3	
MFB006B	B.	Analyze and use national or state standards or frameworks for school mathematics		\square_2	\square_3	
MFB006C	C.	Analyze pupil assessment data to learn how to assess more effectively		\square_2	\square_3	
MFB006D	D.	Assess higher-level goals (e.g., problem-solving, critical thinking)		\square_2	\square_3	
MFB006E	E.	Assess low-level objectives (factual knowledge, routine procedures and so forth)		\square_2	\square_3	
MFB006F	F.	Build on pupils' existing mathematics knowledge and thinking skills		\square_2	\square_3	
MFB006G	G.	Create learning experiences that make the central concepts of subject matter meaningful to pupils		\square_2	\square_3	
MFB006H	Н.	Create projects that motivate all pupils to participate		$\square_{\scriptscriptstyle 2}$	\square_3	
MFB006I	I.	Deal with learning difficulties so that specific pupil outcomes are accomplished		\square_2	\square_3	
MFB006J	J.	Develop games or puzzles that provide instructional activities at a high interest level		\square_2	\square_3	
MFB006K	K.	Develop instructional materials that build on pupils' experiences, interests and abilities		\square_2	\square_3	
MFB006L	L.	Explore how to apply mathematics to real-world problems		$\square_{\scriptscriptstyle 2}$	\square_3	

6. (continued.)

In your current teacher preparation program, how frequently did you engage in activities that gave you the opportunity to learn how to do the following? (Cont.)

			Never	Rarely	Occasionally	Often
MFB006M	M.	Explore how to use manipulative (concrete) materials or physical models to solve mathematics problems		$\square_{_2}$		\square_4
MFB006N	N.	Explore mathematics as the source for real-world problems		$\square_{\scriptscriptstyle 2}$	\square_3	$\square_{\scriptscriptstyle 4}$
MFB006O	O.	Give useful and timely feedback to pupils about their learning		$\square_{\scriptscriptstyle 2}$	\square_3	$\square_{\scriptscriptstyle 4}$
MFB006P	P.	Help pupils learn how to assess their own learning		$\square_{\scriptscriptstyle 2}$	\square_3	$\square_{\scriptscriptstyle 4}$
MFB006Q	Q.	Learn how to explore multiple solution strategies with pupils		$\square_{\scriptscriptstyle 2}$	\square_3	$\square_{\scriptscriptstyle 4}$
MFB006R	R.	Learn how to show why a mathematics procedure works		$\square_{\scriptscriptstyle 2}$	\square_3	$\square_{\scriptscriptstyle 4}$
MFB006S	S.	Locate suitable curriculum materials and teaching resources		\square_{2}	\square_3	\square_4
MFB006T	T.	Make distinctions between procedural and conceptual knowledge when teaching mathematics concepts and operations to pupils			\square_3	\square_4
MFB006U	U.	Use assessment to give effective feedback to parents or guardians		\square_2	\square_3	\square_4
MFB006V	V.	Use assessment to give feedback to pupils about their learning		\square_{2}	\square_3	\square_4
MFB006W	W.	Use classroom assessments to guide your decisions about what and how to teach		\square_2	\square_3	\square_4
MFB006X	X.	Use pupils' misconceptions to plan instruction		$\square_{\scriptscriptstyle 2}$	\square_3	$\square_{\scriptscriptstyle 4}$
MFB006Y	Y.	Use standardized assessments to guide your decisions about what and how to teach		\square_2	\square_3	\square_4
MFB006Z	Z.	Integrate mathematical ideas from across areas of mathematics		\square_2	\square_3	$\square_{\scriptscriptstyle 4}$

EDUCATION AND <PEDAGOGY>

7. Consider the following topics in education and <pedagogy>. Please indicate whether you have studied each topic as part of your current teacher preparation program.

Check one box in each row. **Studied** Not studied MFB007A A. History of Education and Educational Systems (e.g., historical development of the national system, development of international systems) \square MFB007B B. Philosophy of Education (e.g., ethics, values, theory of knowledge, legal issues) Sociology of Education (e.g., purpose and function of MFB007C C. \Box education in society, organization of current educational systems, education and social conditions, diversity, educational reform) MFB007D D. Educational Psychology (e.g., motivational theory, child development, learning theory) MFB007E Theories of Schooling (e.g., goals of schooling, teacher's role, E. curriculum theory and development, didactic/teaching models, teacher-pupil relations, school administration and leadership) MFB007F F. Methods of Educational Research (e.g., read, interpret and use education research; theory and practice of action research) MFB007G Assessment and Measurement: Theory and Practice \square_2 G. MFB007H Knowledge of Teaching (e.g., knowing how to teach pupils of H. different backgrounds, use resources to support instruction, manage classrooms, communicate with parents)

TEACHING FOR DIVERSITY AND REFLECTION ON PRACTICE

8.

In your teacher preparation program, how often did you have the opportunity to learn to do the following?

			Never	Rarely	Occasionally	Often
MFB008A	A.	Develop specific strategies for teaching students with behavioral and emotional problems		\square_2	\square_3	
MFB008B	B.	Develop specific strategies and curriculum for teaching pupils with learning disabilities		\square_2	\square_3	
MFB008C	C.	Develop specific strategies and curriculum for teaching gifted pupils		\square_2	\square_3	
MFB008D	D.	Develop specific strategies and curriculum for teaching pupils from diverse cultural backgrounds		$\square_{\scriptscriptstyle 2}$	\square_3	
MFB008E	E.	Accommodate the needs of pupils with physical disabilities in your classroom		\square_2	\square_3	
MFB008F	F.	Work with children from poor or disadvantaged backgrounds	\square_1	\square_2	\square_3	
MFB008G	G.	Use teaching standards and codes of conduct to reflect on your teaching		\square_2	\square_3	
MFB008H	Н.	Develop strategies to reflect upon the effectiveness of your teaching		\square_2	\square_3	
MFB008I	I.	Develop strategies to reflect upon your professional knowledge	\square_1	$\square_{\scriptscriptstyle 2}$	\square_3	
MFB008J	J.	Develop strategies to identify your learning needs		\square_2	\square_3	

9.	
In your teacher preparation program, how often did you have the opportunity to learn to c	ot
the following?	

			Never	Rarely	Occasionally	Often
MFB009A	A.	Study stages of child development and learning		\square_{2}	\square_3	
MFB009B	B.	Develop research projects to test teaching strategies for pupils of diverse abilities		\square_2	\square_3	
MFB009C	C.	Consider the relationship between education, social justice and democracy		\square_2	\square_3	
MFB009D	D.	Observe teachers modeling new teaching practices		$\square_{_2}$	\square_3	
MFB009E	E.	Develop and test new teaching practices		\square_2	\square_3	
MFB009F	F.	Set appropriately challenging learning expectations for pupils		\square_2	\square_3	
MFB009G	G.	Learn how to use findings from research to improve knowledge and practice		\square_2	\square_3	
MFB009H	H.	Connect learning across subject areas		\square_2	\square_3	
MFB009I	I.	Study ethical standards and codes of conduct expected of teachers		\square_2	\square_3	
MFB009J	J.	Create methods to enhance pupils' confidence and self-esteem		\square_2	\square_3	
MFB009K	K.	Identify opportunities for changing existing schooling practices		\square_2	\square_3	
MFB009L	L.	Identify appropriate resources needed for teaching	$\square_{\scriptscriptstyle 1}$		\square_3	

	OOL EXPERIENCE AND THE PRACTICUM uestions in this section focus on the school experience partum.	of your teacher education
_	ou spend any time in a <pri>primary or secondary school> on cum> as part of your teacher preparation program?</pri>	
If you	checked 'Yes', please continue the rest of the survey. checked 'No', please go to QUESTION 15.	□₁ Yes □₂ No
	hat proportion of this time were you temporarily in charge ed to observation, assistance, individual tutoring, etc.)?	of teaching the class (as
Α.	Less than ¼ of the time	Check <u>one</u> box. □
В.	½ or more, but less than ½	
C.	½ or more, but less than ¾	
D.	³ / ₄ or more	\square_4
	out how much of the time in the <field <mentors="" ed="" experience="" instructors="" practic="" supervisors=""> present in the same</field>	•
A.	Less than ¼ of the time	\square_1
B.	¹ / ₄ or more, but less than ¹ / ₂	
C.	½ or more, but less than ¾	
D.	³ / ₄ or more	

		ng the school experience part of your program, how often were e following?	you req	uired to	do eac	h
				one box	in each	<u>row</u> .
			Nev er	Rar ely	Occ asio	Oft G
MFB013A	A.	Observe models of the teaching strategies you were learning in your <courses></courses>			\square_3	\square_4
MFB013B	В.	Practice theories for teaching mathematics that you were learning in your <courses></courses>			\square_3	\square_4
MFB013C	C.	Complete assessment tasks that asked you to show how you were applying ideas you were learning in your <courses></courses>			\square_3	\square_4
MFB013D	D.	Receive feedback about how well you had implemented teaching strategies you were learning in your <courses></courses>		\square_2	\square_3	\square_4
MFB013E	E.	Collect and analyze evidence about pupil learning as a result of your teaching methods		$\square_{\scriptscriptstyle 2}$	\square_3	$\square_{\scriptscriptstyle 4}$
MFB013F	F.	Test out findings from educational research about difficulties pupils have in learning in your <courses></courses>			\square_3	\square_4
MFB013G	G.	Develop strategies to reflect upon your professional knowledge				$\square_{\scriptscriptstyle 4}$
MFB013H	Н.	Demonstrate that you could apply the teaching methods you were learning in your <courses></courses>		\square_2	\square_3	\square_4

14.

To what extent do you agree or disagree with the following statements about the <field experience and/or practicum> you had in your teacher preparation program?

			Disagree	Slightly disagree	Slightly agree	Agree
MFB014A	A.	I had a clear understanding of what my school-based <supervising instructors="" mentor="" teacher=""> expected of me as a teacher in order to pass the <field experiences="" practicum="">.</field></supervising>		\square_2	\square_3	\square_4
MFB014B	B.	My school-based <supervising instructors="" mentor="" teacher=""> valued the ideas and approaches I brought from my <university college=""> teacher education program.</university></supervising>			\square_3	\square_4
MFB014C	C.	My school-based <supervising instructors="" mentor="" teacher=""> used criteria/standards provided by my <university college=""> when reviewing my lessons with me.</university></supervising>			\square_3	\square_4
MFB014D	D.	I learned the same criteria or standards for good teaching in my <courses> and in my <field experiences="" practicum="">.</field></courses>		\square_2	\square_3	\square_4
MFB014E	E.	In my <field experience="" practicum=""> I had to demonstrate to my supervising teacher that I could teach according to the same criteria/standards used in my <university college=""> <courses>.</courses></university></field>		\square_2	\square_3	\square_4
MFB014F	F.	The feedback I received from my <supervising instructors="" mentor="" teacher=""> helped me to improve my understanding of pupils.</supervising>			\square_3	\square_4
MFB014G	G.	The feedback I received from my <supervising instructors="" mentor="" teacher=""> helped me improve my teaching methods.</supervising>			\square_3	\square_4
MFB014H	Н.	The feedback I received from my <supervising instructors="" mentor="" teacher=""> helped me improve my understanding of the curriculum.</supervising>		\square_2	\square_3	\square_4
MFB014I	I.	The feedback I received from my <supervising instructors="" mentor="" teacher=""> helped me improve my knowledge of mathematics content.</supervising>		\square_2	\square_3	\square_4
MFB014J	J.	The methods of teaching I used in my <field <br="" experiences="">practicum> were quite <u>different</u> from the methods I was learning in my <university college=""> <courses>.</courses></university></field>			\square_3	\square_4
MFB014K	K.	The regular supervising teacher in my <field experiences="" practicum=""> classroom taught in ways that were quite <u>different</u> from the methods I was learning in my <university college=""> <courses>.</courses></university></field>		\square_2	\square_3	\square_4

COHERENCE OF YOUR TEACHER EDUCATION PROGRAM

15.

Consider all of the <courses> in the program including subject matter <courses> (e.g., mathematics), mathematics <pedagogy> <courses>, and general education <pedagogy> <courses>. Please indicate the extent to which you agree or disagree with the following statements.

			Disagree	Slightly disagree	Slightly agree	Agree
MFB015A	A.	Each stage of the program seemed to be planned to meet the main needs I had at that stage of my preparation.		\square_2	\square_3	
MFB015B	B.	Later <courses> in the program built on what was taught in earlier <courses> in the program.</courses></courses>			\square_3	
MFB015C	C.	The program was organized in a way that covered what I needed to learn to become an effective teacher.			\square_3	
MFB015D	D.	The <courses> seemed to follow a logical sequence of development in terms of content and topics.</courses>			\square_3	
MFB015E	E.	Each of my <courses> was clearly designed to prepare me to meet a common set of explicit standard expectations for beginning teachers.</courses>				
MFB015F	F.	There were clear links between most of the <courses> in my teacher education program.</courses>	П ₁		\square_3	

1.

BELIEFS ABOUT THE NATURE OF MATHEMATICS

To what extent do you agree or disagree with the following beliefs about the nature of mathematics? Check one box in each row. Strongly disagree | Slightly disagree Strongly agree Disagree | Slightly agree Agree \square \square_3 MFD001A Mathematics is a collection of rules and procedures \square_{6} A. \square_4 that prescribe how to solve a problem. MFD001B B. Mathematics involves the remembering and \square_4 $\square_{\scriptscriptstyle 6}$ application of definitions, formulas, mathematical facts and procedures. MFD001C C. Mathematics involves creativity and new ideas. \square_2 MFD001D In mathematics many things can be discovered and D. \square tried out by oneself. MFD001E E. When solving mathematical tasks you need to know the correct procedure else you would be lost. MFD001F F. If you engage in mathematical tasks, you can discover new things (e.g., connections, rules, concepts). MFD001G Fundamental to mathematics is its logical rigor and \square_4 preciseness. MFD001H Н. Mathematical problems can be solved correctly in \square_4 many ways. MFD001I I. Many aspects of mathematics have practical $\square_{\scriptscriptstyle A}$ relevance. MFD001J J. Mathematics helps solve everyday problems and \square_4 tasks. MFD001K K. To do mathematics requires much practice, correct application of routines, and problem solving strategies. MFD001L Mathematics means learning, remembering and \square_4 applying.

BELIEFS ABOUT LEARNING MATHEMATICS

2.

From your perspective, to what extent would you agree or disagree with each of the following statements about <u>learning mathematics</u>?

MFD002A	Α.	The best way to do well in mathematics is to memorize	Strongly disagree	☐Disagree	☐ Slightly ~ disagree	Slightly agree	Agree	Strongly agree
		all the formulas.	ш,	— 2	— 3	— 4	— 5	— 6
MFD002B	B.	Pupils need to be taught exact procedures for solving mathematical problems.		\square_2	\square_3	\square_4	\square_{5}	\square_6
MFD002C	C.	It doesn't really matter if you understand a mathematical problem, if you can get the right answer.		\square_2	\square_3	\square_4	\square_{5}	\square_6
MFD002D	D.	To be good in mathematics you must be able to solve problems quickly.	$\square_{\scriptscriptstyle 1}$	\square_2	\square_3	$\square_{\scriptscriptstyle 4}$	\square_{5}	$\square_{\scriptscriptstyle 6}$
MFD002E	E.	Pupils learn mathematics best by attending to the teacher's explanations.	$\square_{\scriptscriptstyle 1}$	$\square_{\scriptscriptstyle 2}$	\square_3	$\square_{\scriptscriptstyle 4}$	\square_{5}	$\square_{\scriptscriptstyle 6}$
MFD002F	F.	When pupils are working on mathematical problems, more emphasis should be put on getting the correct answer than on the process followed.		\square_2	\square_3	\square_4	\square_{5}	\square_6
MFD002G	G.	In addition to getting a right answer in mathematics, it is important to understand why the answer is correct.	$\square_{\scriptscriptstyle 1}$	$\square_{\scriptscriptstyle 2}$	\square_3	$\square_{_{4}}$	\square_{5}	$\square_{_6}$
MFD002H	H.	Teachers should allow pupils to figure out their own ways to solve mathematical problems.	$\square_{\scriptscriptstyle 1}$	$\square_{_{2}}$	\square_3	$\square_{_{4}}$	\square_{5}	$\square_{\scriptscriptstyle 6}$
MFD002I	I.	Non-standard procedures should be discouraged because they can interfere with learning the correct procedure.	$\square_{\scriptscriptstyle 1}$	\square_2	\square_3	\square_4	\square_{5}	$\square_{\scriptscriptstyle 6}$
MFD002J	J.	Hands-on mathematics experiences aren't worth the time and expense.	$\square_{\scriptscriptstyle 1}$	$\square_{\scriptscriptstyle 2}$	\square_3	$\square_{_4}$	\square_{5}	$\square_{\scriptscriptstyle 6}$
MFD002K	K.	Time used to investigate why a solution to a mathematical problem works is time well spent.			\square_3	$\square_{\scriptscriptstyle 4}$	\square_{5}	\square_6
MFD002L	L.	Pupils can figure out a way to solve mathematical problems without a teacher's help.			\square_3	$\square_{\scriptscriptstyle 4}$	\square_{5}	\square_6
MFD002M	M.	Teachers should encourage pupils to find their own solutions to mathematical problems even if they are inefficient.		$\square_{\scriptscriptstyle 2}$	\square_3	\square_4	\square_{5}	$\square_{\scriptscriptstyle 6}$
MFD002N	N.	It is helpful for pupils to discuss different ways to solve particular problems.	$\square_{\scriptscriptstyle 1}$	\square_2	\square_3	$\square_{\scriptscriptstyle 4}$	\square_{5}	

BELIEFS ABOUT MATHEMATICS ACHIEVEMENT

3.

To what extent do you agree or disagree with each of the following statements about <u>pupil</u> <u>achievement</u> in sprimary/lower secondary> mathematics?

			Strongly disagree	Disagree	Slightly disagree	Slightly agree	Agree	Strongly agree
MFD003A	A.	Since older pupils can reason abstractly, the use of hands-on models and other visual aids becomes less necessary.				\square_4		\square_6
MFD003B	В.	To be good at mathematics you need to have a kind of "mathematical mind".		\square_2	□ 3	\square_4		\square_{6}
MFD003C	C.	Mathematics is a subject in which natural ability matters a lot more than effort.		\square_2	\square_3	\square_4		$\square_{\scriptscriptstyle 6}$
MFD003D	D.	Only the more able pupils can participate in multi-step problem solving activities.	\square_1	\square_2	\square_3	$\square_{\scriptscriptstyle 4}$	\square_{5}	$\square_{\scriptscriptstyle 6}$
MFD003E	E.	In general, boys tend to be naturally better at mathematics than girls.	\square_1	\square_2	\square_3	$\square_{\scriptscriptstyle 4}$	\square_{5}	$\square_{\scriptscriptstyle 6}$
MFD003F	F.	Mathematical ability is something that remains relatively fixed throughout a person's life.		\square_2	\square_3	\square_4	\square_5	$\square_{\scriptscriptstyle 6}$
MFD003G	G.	Some people are good at mathematics and some aren't.	$\square_{\scriptscriptstyle 1}$	\square_2	$\square_{\scriptscriptstyle 3}$	$\square_{\scriptscriptstyle 4}$		$\square_{\scriptscriptstyle 6}$
MFD003H	H.	Some ethnic groups are better at mathematics than others.		\square_2	\square_3	$\square_{\scriptscriptstyle 4}$		$\square_{\scriptscriptstyle 6}$

BELIEFS ABOUT PREPAREDNESS FOR TEACHING MATHEMATICS

4. Please indicate the extent to which you think your teacher education program has <u>prepared</u> you to do the following <u>when you start your teaching career.</u>

			Check <u>one</u> box in each <u>i</u>				
			Not at all	A minor extent	A moderate extent	A major	
MFD004A	A.	Communicate ideas and information about mathematics clearly to pupils	$\square_{\scriptscriptstyle 1}$	\square_2	\square_3	$\square_{\scriptscriptstyle 4}$	
MFD004B	B.	Establish appropriate learning goals in mathematics for pupils				\square_4	
MFD004C	C.	Set up mathematics learning activities to help pupils achieve learning goals	□,		\square_3	\square_4	
MFD004D	D.	Use questions to promote higher order thinking in mathematics			\square_3	\square_4	
MFD004E	E.	Use computers and ICT to aid in teaching mathematics				\square_4	
MFD004F	F.	Challenge pupils to engage in critical thinking about mathematics			\square_3	\square_4	
MFD004G	G.	Establish a supportive environment for learning mathematics		\square_2	\square_3	\square_4	
MFD004H	H.	Use assessment to give effective feedback to pupils about their mathematics learning		\square_2	\square_3	$\square_{\scriptscriptstyle 4}$	
MFD004I	I.	Provide parents with useful information about your pupils' progress in mathematics	□ 1		\square_3	\square_4	
MFD004J	J.	Develop assessment tasks that promote learning in mathematics		\square_2	\square_3	\square_4	
MFD004K	K.	Incorporate effective classroom management strategies into your teaching of mathematics	□ 1		\square_3	\square_4	
MFD004L	L.	Have a positive influence on difficult or unmotivated pupils			\square_3	\square_4	
MFD004M	M.	Work collaboratively with other teachers				\square_4	

BELIEFS ABOUT PROGRAM EFFECTIVENESS

5.

To what extent do you agree or disagree with the following statements? The instructors who teach mathematics-related <courses> in your current teacher preparation program:

			 -						
MFD005A MFD005B	A. B.	Model good teaching practices in their teaching Draw on and use research relevant to the content of their <courses></courses>	☐ ☐ Strongly disagree	Disagree	☐ Slightly disagree	☐ ☐ Slightly agree	□ Agree	☐ ☐ Strongly agree	
MFD005C	C.	Model evaluation and reflection on their own teaching	□.	\square	□ ,	\Box .			
MFD005D	D.	Value the learning and experiences you had prior to starting the program							
MFD005E	E.	Value the learning and experiences you had in your field experience and or practicum		\square_2	\square_3	\square_4	\square_{5}	\square_6	
MFD005F	F.	Value the learning and experiences you had in your teacher preparation program	□ ₁		\square_3	\square_4			
MFD006		erall, how effective do you believe your pre-service teac paring you to teach mathematics?	her ed						
	A.	Very ineffective			Check [<u>one</u> bo 7.	x.		
	B.	Ineffective	\square_2 \square_3						
	C.	Effective							
	D.	Very effective							



TEDS-M 2008

Thank you

FOR COMPLETING THIS SURVEY

Copyrights: Questionnaire items were received from several sources, including study investigators, National Research Coordinators, consultants, and previous studies.

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