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Institute of Education
University of London

Date: School name: Post code:

UPMAP 2010 School Mathematics Questionnaire

Dear Head of Mathematics,

To further assist us in looking at possible relationships between school-related factors and post-16 participation in mathematics, please complete this questionnaire at a convenient time and return it with the student questionnaires. You can also complete this online, via the following link:

<http://www.surveymonkey.com/s/UPMAP-school-maths>

Your help so far with the project has been immensely appreciated. These questionnaires are the final stage of the project, and your input is crucial to help the project.

Contact telephone number: and/or email address:	<input type="text"/>
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A. About you

1. Your name:	<input type="text"/>
2. Your position:	<input type="text"/>
3. How many years' teaching experience do you have?	<input type="text"/>
4. For how many of these years have you taught mathematics?	<input type="text"/>

B. Opportunities for progression

1. Has your school taken part in any enrichment activities with a view to increasing AS and/or A2 participation in mathematics? No Yes

		Very frequently	Frequently	Occasionally	Rarely	Very rarely	Almost never
2.	How often would students in your school have the opportunity to participate in enrichment activities in mathematics of the following kinds?						
a.	Mathematics clubs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b.	Mathematics fairs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c.	Mathematics competitions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d.	Extra-curricular mathematics projects	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e.	External mathematics experts coming into the school, engaging with students about mathematics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f.	Students going out of school to external mathematics organisations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g.	Research in mathematics education conducted by teachers in the school	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h.	Research in mathematics education led by external organisations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

C. Is your school's capacity to teach mathematics hindered by any of the following?

	Strongly agree	Agree	Slightly agree	Slightly disagree	Disagree	Strongly disagree
1. A shortage of qualified mathematics teachers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. A lack of Teaching Assistants or HLTAs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. A lack of other support personnel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Shortage or inadequacy of teaching equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Shortage or inadequacy of library materials	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Shortage or inadequacy of audio-visual resources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Shortage or inadequacy of computers for teaching	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Shortage or inadequacy of computer software for teaching	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Lack or inadequacy of Internet connectivity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Limited time for professional development for mathematics staff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Lack of appropriate supply cover	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Shortage or inadequacy of textbooks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

D. Participation

		Strongly agree	Agree	Slightly agree	Slightly disagree	Disagree	Strongly disagree
1.	Which of the following factors do you believe contribute to AS and/or A2 participation in mathematics?						
a.	A student's natural predispositions for mathematics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b.	How highly valued among students it is to be good at mathematics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c.	How good the student is at mathematics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d.	How good the student thinks s/he is at mathematics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e.	The way mathematics is taught	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f.	Whether the student's parents/carers promote mathematics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g.	How relevant the student feels mathematics is to his/her life and career	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h.	The content of the school mathematics curriculum	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i.	The school's involvement in mathematics education research projects, e.g. through collaboration with universities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j.	The student's psychological and personality traits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k.	The student's involvement in extra-curricular activities in mathematics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l.	The student's enthusiasm for and enjoyment of mathematics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
m.	The importance attached by the school to mathematics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
n.	Their mathematics teachers' personalities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

E. About your school's mathematics department

1. What percentage of your maths KS3 teaching staff are maths specialists?
2. What percentage of your maths KS4 teaching staff are maths specialists?
3. What percentage of your maths staff (KS3 & KS4) left the maths department in the academic year 2009-2010?

	<25%	25-49%	50-74%	75-100%
4. What proportion of KS3 mathematics classes are taught by specialist mathematics teachers?				
5. What proportion of KS4 mathematics classes are taught by specialist mathematics teachers?				

6. For each of the questions please tick one choice that best represents your response to each statement.
- | | Strongly agree | Agree | Slightly agree | Slightly disagree | Disagree | Strongly disagree |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| a. Your schools mathematics department is much more important than the whole school in determining whether students go on to post-16 mathematics | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Ensuring students are taught mathematics so that they enjoy it is more important than ensuring they are taught it simply to get through exams | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Instilling students with the enthusiasm to enjoy mathematics as an end to itself is more important than ensuring they gain the knowledge to progress to mathematics-related careers | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Our department ensures all students have the opportunity to discuss what they can do with a post-16 mathematics qualification | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Our department ensures only those students who have the potential to go on to do post-16 mathematics have the opportunity to discuss what they can do with a post-16 mathematics qualification | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

7. In your department meetings, do you discuss the following?

	Very frequently	Frequently	Occasionally	Rarely	Very rarely	Almost never
a. Movements of students between sets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Resources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Problems students have learning mathematics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Revision sessions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Exam booster sessions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Extra-curricular activities for mathematics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Liaising with outside organisations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Professional development for staff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Teaching and learning mathematics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. Assessment and monitoring students' progress	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k. Progression to AS and A2 mathematics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

F. Your department's links with outside establishments

1. Does your department have links with mathematics departments in other schools? No Yes
2. Does your department have links with any 16-19 institutions (e.g. FE or Sixth Form Colleges)? No Yes
3. Does your department have links with any higher education institutions? No Yes
4. How much is your department involved with external projects in maths education?
Very often Sometimes Occasionally Almost never

G. Your school

1. Has there been any change of status of the school (e.g. you have become an Academy)? No Yes
2. Have there been any major changes of leadership in the school – in Senior Management (Head or Deputies)? No Yes

a. If yes, what has been the impact on the organisation of mathematics?

3. Have there been any major changes of leadership in the department? No Yes

a. If yes, what has been the impact on the organisation of mathematics?

4. Have there been any specific changes in the mathematics curriculum adopted in last 12 months? No Yes

a. If yes, why and what are the effects to date?

5. Have there been any specific changes in mathematics teaching organisation and approaches (e.g. streaming) in the last 12 months? No Yes

a. If yes, why and what are the effects to date?

H. Mathematics-related careers

In your opinion, to what extent do teachers in your school concentrate on developing in students the skills and knowledge that will help them progress towards mathematics-related careers?

	Strongly agree	Agree	Slightly agree	Slightly disagree	Disagree	Strongly disagree
1. These skills and knowledge are incidental to the teaching of mathematics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. These skills and knowledge occur within the teaching of mathematics but are not emphasised	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. These skills and knowledge are important aspects of the teaching of mathematics in our school	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

I. Continuing Professional Development (CPD)

How satisfied are the teachers of mathematics in your school with:

	Completely satisfied	Very satisfied	Somewhat satisfied	Somewhat dissatisfied	Very dissatisfied	Completely dissatisfied
1. their overall mathematics-specific CPD opportunities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. time to engage with CPD?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. funds to support specific CPD?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. the overall quality of the mathematics-specific CPD available?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. the availability of a variety of professional development opportunities for teachers?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. the overall focus of the mathematics CPD?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. the time and opportunity teachers have to learn with colleagues within the mathematics department?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. the time teachers have to engage in school-based research to improve the way they teach mathematics?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. the time and opportunity teachers have to participate in networking with mathematics teachers in other schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Thank You