SuperCourse International Planning Meeting
Zajaczkowo, Poznan, Poland
June 28-July 2, 2001

Press Release/June 2001 **Major Sponsors: Zibi/Casio & WSiP**

This Meeting …

- Will be the one of the **largest** and **most important** international meetings in **mathematics education** ever held in Poland.
- Will be one of the **most significant meetings** ever held for **innovation** in the teaching and learning of mathematics in school and university.
- Will begin with an evening welcome reception and dinner on Thursday, June 28th and after three full working days - Friday to Sunday - participants will depart on Monday, July 2nd after breakfast.
- Will be attended by **more than 90** school teachers and university lecturers, approximately **60** from all parts of Poland and **30** from **14 other countries**, including Australia, South Africa, Canada, Egypt, Jordan, Greece, Cyprus, Italy, Germany and Great Britain.
- Will begin work on a **5-10 year project** - **Super Course** - to prepare and publish innovative materials for mathematics teaching in Polish, English, German, Italian and Arabic.
- Will be sponsored locally by **ZIBI/CASIO (Poland)** leaders in technology, especially graphic calculators and **WSiP (Warsaw)** Poland's leading educational publisher.
- Will be organised by The Mathematics Education into the 21st Century Project.

The Mathematics Education into the 21st Century Project…

- Was founded in 1986 as an international educational initiative to promote and disseminate **innovative ideas** in mathematics education.
- Is coordinated by **Dr. Alan Rogerson** (Australia/Poland) and **Professor Fayez Mina** (Egypt) and has the support of many of the world's leading mathematics educators.
- Published in 1992 with **UNESCO** a collection of papers which summarised the Present State of the Art of Mathematics Education globally, including a chapter by **Professor Wacek Zawadowski** of the University of Warsaw.
- Has collected many practical new ideas and **Futurist Trends in Mathematics Education** which are being presented at a series of **International Conferences**: Cairo, **Egypt 1999**, Amman, **Jordan 2000**, Palm Cove, **Australia 2001**, Palermo, **Sicily 2002**, Finland 2003, Mexico 2004, Canada 2005, etc.

- Works internationally with The Third World Forum, The Hong Kong Institute of Education, The Australian Association of Mathematics Teachers, The Virtual School for the Gifted, and many other organisations and universities throughout the world.

Some Background Information

What are the aims and objectives of this "Super Course"?

- We will use our extensive international contacts and experience to create a large database of innovative ideas, useful materials and software that have **already** been found successful in schools to create new and better courses for students around the world.
- These courses will be written by independent but cooperative **national** teams of writers in different countries.
- Each **national** team will be able to select from the database what is best for **their** country, to produce a state-of-the-art **Super Course** in their own language.
- Each national **Super Course** might be a series of text-books, or resource materials, or books/ideas for teachers, or provide good **models** of text books for centralised systems of education.
- The overall objective for each group in each country would be to make available **for the first time** the very best materials/ideas that have already been developed, often in isolation, in all parts of the world.

What is Our Philosophy?

- Our **educational** aim is to help students learn mathematics better and to enjoy and to find more interesting and relevant the mathematics they learn.
- Our **humanistic/political** aim is to help eliminate barriers and prejudices based on gender, race or social class and to empower our students to change for the better the world they live in.
- Our **pragmatic** aim is to produce a course and/or ideas and materials for students and teachers that will be successful in terms of school adoption **because** it is the best course available in each country.
- We are a very **open** project and welcome assistance and cooperation from everyone, whatever their experience or expertise.
- Super Course needs creators, writers, teachers, testers, editors, reviewers and just plain critics and observers - SuperCourse will be a 5-10 year initiative!

What will be the role of New Technology?

- We believe that the role of new technology will be crucial in future educational innovation.

- Using the now familiar miracle of email and internet, it will be possible to communicate much of our database of innovative ideas and materials quickly and easily throughout the world.
- Our four years experience with the **world's first and only interactive virtual school -** the **VSG -** will be invaluable in incorporating in Super Course the very best and most recent technological innovations as they develop.

Why "Zajaczkowo" for our First International Planning Meeting?

Our Meeting will be held in a **former country house** converted to a **Teachers Conference Centre** in the tiny village of Zajaczkowo, near Poznan, Poland. The house is situated in a magical spot, in its own grounds overlooking a beautiful lake and amongst magnificent trees.

There is a unique feeling of peace and tranquility in this place which we believe will be conducive to our positive and constructive discussions, and will give us the energy to start planning one of the worlds most excting and challenging projects in innovation in the teaching and learning of mathematics!

Programme

THURSDAY JUNE 28th

19.15	**Welcome drinks** in the **Bar**
19.45	**Special Welcome Dinner** in the **Dining Room**

FRIDAY JUNE 29th

9.00-9.30	**Breakfast**
10.00-10.30	**CONFERENCE ROOM** Formal Opening of the Meeting by Karol Seifert, Wielkopolski Kurator Oswiaty Welcome from the Project and Sponsors Administration Announcements
10.30 - 11.00	**Morning Tea/Coffee (Dining Room)**
11.00 - 13.00	**Open Forum of Ideas 1 (Everywhere!)**
12.00---	**ONBOARD RADA (A203)**
13.30 - 14.00	**Lunch**
14.00 -14.30	**Meeting of Group Coordinators - A211 Seminar Room**
15.00- 16.00	**Group Meetings: English&German together and Italian**
16.00-16.30	**Afternoon Tea/Coffee (Dining Room)**
16.30-18.30	**Open Forum of Ideas 2**
17.00-17.30	**INTERNET SUPPORT GROUP (A203)**
19.00	**Dinner**
19.30	**Evening Relaxation**

SATURDAY JUNE 30th

9.00-9.30	**Breakfast**
9.30-11.0	**Group Meetings in Polish (3), English, Italian and German.**
11.00-11.30	**Morning Tea/Coffee**

11.30-13.00	**Group Meetings in Polish (3), English, Italian and German.**
13.00-13.30	**Lunch**
14.30-16.00	**Group Meetings in Polish (3), English, Italian and German.**
16.00-16.30	**Afternoon Tea/Coffee**
16.30-18.30	**Feedback Meetings in Polish (3), English, Italian and German.**
19.00	**Special Gala Dinner outside around the fire.**

SUNDAY July 1st

9.00 - 9.30	**Breakfast**
9.30 - 11.00	**Group Meetings in Polish (3), English, Italian and German.**
11.00-11.30	**Morning Tea/Coffee**
11.30-13.00	**Group Meetings in Polish (3), English, Italian and German.**
13.00-13.30	**Lunch**
14.30-16.00	**Group Meetings in Polish (3), English, Italian and German.**
16.00-16.30	**Afternoon Tea/Coffee**
16.30 - 17.30	**Reporting Back Plenary Session (Conference Room)**
17.30 - 18.00	**Closing Session**
18.30	**Dinner**
19.00	**Evening Relaxation**

MONDAY July 2nd

8.30 - 9.00	**Breakfast**
9.30	**Special Bus Departs for Poznan**

English Group Report
John Gillespie

members
John Bibby*
Vivien Budge*
Fayez Mina*
Sven Hansen
Hanan Innabi*
Maria J Peres*
Medhat Rahim*
Anastasia Evangelou
Mike Spooner
Alison Clark Jeavons
Stomatic Voulgaris
Robert Grisdale
Josephine Buskes
Gels ?
Kurt Klaner**
**did not take an active part in discussion apart from explaining his interest in the group's discussions from the point of view of future planning for Casio.

First some general points –

Although the group came from many countries and with no clear expectations of how the weekend's work was going to develop, and with no common links apart from a variety of connections with Alan, by the end of the three days there was a strong consensus of agreement with the outcomes of the weekend's work and a feeling of support form the direction of development that the group had formulated.

This was further reinforced by the members of the group who stayed for the discussions on Monday, marked * above.

I think this is significant – particularly since I think it is fair to say that people did not arrive with any clear feeling of buying into the project – but by the end people re rather surprised to find themselves having made much more concrete progress than they had expected in the first place.

I also think it is significant that this resulted from such a multi-national group – each person with their own national agenda, background and immediate concerns and priorities.

It is also worth remarking on how well the group worked together.

Each of us in the group agreed to write up our own reports of the discussions which could be circulated so that subtleties, different understandings, nuances and gold nuggets of ideas would be recorded. In addition FM produced a detailed written analysis and development of ideas during part of the meetings which has been passed directly to Alan R.

Much of Saturday (day 2) was taken up with discussion and thinking around hopes and dreams (as we were asked to do). This proved to be very fruitful, and resulted in many statements centred around long term aims, visions and overall directions which provided a good foundation for the more practical work of Sunday (day 3). Because of the international nature of the group, this was probably more general than within the other groups, but we were convinced that this was time well spent.

The Sunday discussions produced a detailed and robust framework for Super course to be based around a free access electronically based global data bank. This would be in parallel with and supporting developments in individual countries where hard copy (including published materials) would also be developed. Indeed as we know this side of the development is already under way in Poland and in Italy. But the group was not interested in pursuing this publishing side of the project, certainly at this time – for us the vision was definitely centred in the global data bank (GLB). Rather we saw publishing as aiding the disemmination of GLB ideas and resources at a national level recognising that for many situations, hard copy would remain a principal and practical way of making some non-electronic-dependent materials available.

We were also very concerned that materials would be truly accessible and of use in the local situation. As well as requiring language translation, this would also require re-

presentation to fit with local cultural and educational backgrounds, existing frameworks and norms. We saw this 'versioning' as a major task – not at all obvious how it might be realised.

The GLB seemed to offer many benefits to maths and general society development and learning world-wide which together seemed to mark out this aspect of the project as unique. These benefits are rooted in and flow from the group's visions (see below). As the discussion flowed, the use of the title 'Super-course' seemed to become something of a mis-nomer for the aspect of the project we were interested in. Later discussions came with the place-holder of 'Phase 1" – as distinct from national only materials called Phase 2 – and then, after most of the group had dispersed- the title 'World Wide Maths' – for me, very attractive..

For this report, I will use the placeholder GLB to refer to what evolved in our discussions.

So – we saw the GLB as supporting , feeding into and from national (?Super-course) centres in individual countries or groups of countries e.g. Poland, Jordan, the Arab World, English speaking, South Africa, England, Canada, Portugal etc.

For the first year the GLB group would grow and make links informally through electronic contacts, continuing the way that the group at Zawa had formed. The vision statements would be at the centre of this development with new materials and contents of the GLB having to fit with them. There would be no refereeing system of filtering apart from this and the possible use of customer ratings. New users would be attracted by the high quality of resources and information in the GLB

The accounts by MP and others showed how accounts of what teachers have done and could do together had great potential. Community benefits from innovative teaching approaches and styles could be developed immediately.

The visions include
Make maths enjoyable and fulfilling
Support maths thinking, reasoning and discussion rather than just calculating
Can link with and support other subjects and the community in general
Help all people and countries
Have the enhancement of student motivation at the centre
Be practical and support practical work and exploration
Be refined and developed as a result of practical use and trialing in schools and colleges
Be for ordinary teachers
Be flexible and capable of being used in many ways to suit the user
Encourage high standards of work and thinking
Recognise that maths. development is often emotionally motivated – "I feel therefore I think"
Support the diversity of ways in which children learn
Support the development of maths modelling at all levels

Make full use of existing and yet-to-be developed electronic opportunities, whilst not excluding those users who did not have direct access to this

In addition, the global nature of the GLB would provide unique opportunities for exploring and supporting work in other broader areas such as equity and ethics, geography, international comparisons and understanding,
broadening of individual studetns' horizons etc.
National and international statistical comparisons – to compare with locally gathered stats
Supporting student exchange and understanding
Other (no time to explore this here!)

The makeup and contents of the GLB.
It would develop in sympathy with the vision statements (see above)
It would include references and also where possible links to existing high quality web-sites, software and other materials and sources of data,
It would have easy access with many search routes (good search engine)
It would include new as well as existing material including
Teaching ideas and accounts based on experience – what we did how we did it what went wrong what we learnt how we improved it
Materials for the classroom
Ideas and materials to broaden and enrich approaches to both summative and formative assessment
Facilities for electronic discussion – sharing of ideas and between user chat

There could periodic activities where several user / contributors might take part in simultaneous projects. One idea was for community projects around the theme of Our city/town /village with opportunities to share across countries – under the 'About us' theme. This could draw on geometry and statistics in the local scene including ? ethnomaths, aarchitecture, how people do things, envirtonm,ental issues ecology , what company x is doing to us. . . . . .

There are immediate questions and proposals for the development of the GLB – though some are now probably addressed in the meeting on Monday and then subsequently on Monday. These include
Use the year to grow naturally from this group and see where we are by next summer
Get a URL for the GLB (am I right that this is a web address?)
Find a server ? university based to save money
Seek some funding to pay for the server
For the immediate - do abstracts of everything in the GLB in English – but with translation into other languages essential and definitely not lost sight of
Find a person ? Alan? to be the chat intermediary / GLB administrator
Seek immediate or funding for and/or secure ways by which GLB can develop in year 1
The impetus of the project weas such that idmmediate ideas for shaiing across countries were formulated within the group – such as the MP/JB comenius idea
Longer-term questions still to be answered included

Securing longer-term funding
Locating a permanent electronic base and centre for the GLB
Responding to the needs of users as they present themselves
Securing technical support
Addressing the whole issue of translation as touched on above. We were clear that the GLB should NOT be seen as an only English/English culture centred and oriented project, even though this is what it might have to look like in some ways over the first year.

13 Regarding translation – we say the local centre in each country as needing to translate materials, edit or adapt for local cultural / curriculum demands.

In a final session group members outlined their own country's situations and the opportunities for meaningful and distinct input from the project into their own country's maths development. This confirmed what we had felt before – that situations were diverse and peculiar to individual countries. For some there would be needs for new programmes of course materials (though we did not identify this as a major need in our group that it would be worth putting our time This reinforced the need for the GLB to be flexible in use – capable of being used in appropriate ways in many different settings.

15 In the subsequent planning /reviewing meeting on Monday (which did not involve the whole group – only those marked *) I tried to tabulate 'what's in it for us / what can we give / where are we ' for the countries represented..

But IT NEEDS CHECKING PLEASE, EVERYONE!

a = doing, b = would like

country	Inteernational cooperation + sharing	Teacher training	Publishers lined up	Good material	Translation important	Have ideas for generating	Ideas teaching aids	assessment	Web support
Portugal – 3 teachers with MP starting a portuguease branch of maths for all ?	ab			a		ab		a	
Poland – well advanced with publishers but overshadowed by the change in school organisation			a	a		a			
Italy – will give their	(a)			a		a			

good ideas and approaches to others									
Canada – can help interest in teacher training - and teacher testingt and retesting (every 5 years)	ab	a					ab	b	
S Africa lots of local materials but perspectives of students could be narrow	ab							?b	
UK (england) lots already happeneing from ATM MA etc and also national directivces and initiatives Maths 2020 in 2003? Maths for all	ab	ab		ab				ab	a
Egypt – very constrained opportunities for non central curric development – thiyugh possibilities via the NGO networks	ab	ab		ab	ab				
Jordan – and UAE no clear idea yet – is translation into/from Arabic	ab	b			ab			b	

Polish Secondary School Group Report

Agata Hoffman

In Poland we are now exactly in a time of change in our education system. These changes are connected with both structure and content. As far as the secondary teaching-learning level is concerned, in one year's time we will start to teach-learn mathematics in all 3 years of secondary school where a new curriculum will be introduced.
Dreams – wishes.
What could we do in our schools
to make mathematics for our pupils more interesting and understandable?
We would like to make the teaching-learning process more student-centred. We think that the best way to do this is to make students more aware and responsible for their educational development.
On the base of their knowledge and needs (supported by parents', teachers' and psychologist's advice) we would like to give them an opportunity to choose one of the following possible levels on which they could obtain mathematical knowledge:
level A – for those who are not particularly interested in mathematics and will not need it for their future studies,
level B – for those who will need mathematics for future studies, but it will not be their main subject,
level C – for those who are very interested in mathematics.
Everything which concerns level A should be in level B and correspondingly everything which concerns level B should be in level C. This kind of including construction could give students the opportunity to change their first decision during their school carriers.
We would also like to set two possible time of the year at which students will have an opportunity to take their final exam in mathematics (if they think they are ready).

Apart from structural changes we would like to give teachers an opportunity to change (if they want) this way of teaching. We want to do this by offering examples of using a variety of different teaching methods (including projects, games, competitions) and forms (including individual and group work). According to us the best way of facilitating students in mathematical knowledge is to start from carefully prepared (but very open) materials and associated tasks. By doing them students should reach certain final conclusions (appropriately advanced in mathematics dependent on the chosen level of teaching-learning). These materials (manuals – arranged according to topics not students' age, a well-prepared data base, exercise books, collections of tasks, books for teachers, checking materials and educational equipment – including multimedia) we would like to be as much as possible interdisciplinary, connected with real life and mathematical modelling.
In such a kind of teaching-learning process, access to different materials, multimedia techniques and good advisers could be very useful. But we also would like to stress that a friendly atmosphere, an equal and personal approach and positive assessment are also very important.
To help teachers to be better in their work we would like to suggest three things. The first one is the importance of improving co-operation with other colleagues (both mathematicians and others). The second one is the need to give teachers an opportunity to have after every 3rd year of work a fully-paid, year-long period of leave which teachers

will have to dedicate to improving their mathematical knowledge and teaching skills (for example in-service studies or research). The third important consideration is to have a satisfactory salary in order to be able to live.
Last, but not least, we would like to stress the importance of the way of preparing future teachers during their studies. We would like to suggest a positive selection of candidates which will also include psychologist's advise. We also think that it is extremely beneficial when universities include teachers (who at present work at school) in their teaching-learning process.
Plans for fulfilling our dreams-wishes.
What can we do to start to fulfil our dreams-wishes
and how can we put them into practice?
Our group is going to continue co-operation through regular working meetings (the first one at the end of October in Szczecinek).
We aim to start our work by making a list of issues which (according to the new curriculum) we would like to have in our future work. Then we will transform this list into a net in which one can easily see the connections between problems and their importance. Then we will select a few issues and try to prepare materials which could help teachers to put them into practice in a chosen way of teaching. We plan to prepare a wide range of materials connected with one issue, so that teachers will have an opportunity to choose the level connected with their needs (A, B, C) and the way of approach (the classical or the innovative one, using multimedia or not etc.).
We would also like to concentrate on preparing assessment materials, which could help both students and teachers with evaluating their work – especially suitable while using a new approach.
The next thing we would like to work on is a range of different competitions, games, plays for students who are not very interested in mathematics – in order to attract them to the subject and take away their fear of it.
Everything on which we are going to start to work we treat as starting points for our future work – the beginning of collections of useful materials and ideas.

Attendance List
Lista uczestników

1. **Evi Azzali (Italy)**
2. **Aleksandra Bachanowicz (Polska)**
3. **Anna Bazyluk (Polska)**
4. **Krzysztof Bestry (Polska)**
5. **John Bibby (UK)**
6. **Renata Bolek (Polska)**
7. **Marzena Brdak (Polska)**
8. **Josephine Buskes (Holland)**

9. **Vivien Budge (South Africa)**
10. **Roberto Cassibba (Argentina)**
11. **Katarzyna Chmurska (Polska)**
12. **Maria Cieńska (Polska)**
13. **Alison Clark-Jeavons (UK)**
14. **Krystyna Dałek (Polska)**
15. **Józef Daniel (Polska)**
16. **Carlo D'Argenzio (Italy)**
17. **Anna Dubiecka (Polska)**
18. **Barbara Dubiecka (Polska)**
19. **Krystyna Dudkiewicz (Polska)**
20. **Anna Drążek (Polska)**
21. **Anastasia Evangelidou (Cyprus)**
22. **Forner Fiorella (Italy)**
23. **Maria Fryska (Polska)**
24. **Justyna Fryska (Polska)**
25. **Aleksandra Gębura (Polska)**
26. **John Gillespie (UK)**
27. **Julita Górka (Polska)**
28. **Zbigniew Góralewicz(Polska)**
29. **Robert Grisdale (UK)**
30. **Marek Groszkowski (Polska)**
31. **Sven Hansen (Germany)**
32. **Agata Hoffmann (Polska)**
33. **Hanan Innabi (Jordan)**
34. **Barbara Jankowiak (Polska)**
35. **Edyta Juskowiak (Polska)**
36. **Wojciech Jędrychowski (Polska)**
37. **Kurt Klaner (Germany)**
38. **Maria Korcz (Polska)**
39. **Tomasz Kotula**
40. **Tamara Kowalewska (Polska)**
41. **Maria Kozielska (Polska)**
42. **Ewa Krysmann (Polska)**

43. **Marzena Kuć (Polska)**
44. **Barbara Kucharska-Szumigaj (Polska**
45. **Paweł Kwiatkowski (Polska)**
46. **Helena Lewicka (Polska)**
47. **Aneta Machnicka (Polska)**
48. **Jolanta Mądra (Polska)**
49. **Nicolina Malara (Italy)**
50. **Tomasz Malicki (Polska)**
51. **Paola Mangini (Italy)**
52. **Jadwiga Marciniak (Polska)**
53. **Mirek Majewski (Polska)**
54. **Marta Mejail (Argentina)**
55. **Urszula Mermon (Polska)**
56. **Fayez Mina (Egypt)**
57. **Gianfranco Moncecchi (Italy)**
58. **Ewa Mordel (Polska)**
59. **Jasia Morska (Polska)**
60. **Grażyna Niedośpiał (Polska)**
61. **Krzysztof Nowakowski (Polska)**
62. **Renata Nowakowska (Polska)**
63. **Igor Ostachowicz (Polska)**
64. **Bronisław Pabich (Polska)**
65. **Maria João Peres (Portugal)**
66. **Maria Pia Perelli (Italy)**
67. **Angela Pesci (Italy)**
68. **Krystyna Piekarska (Polska)**
69. **Jorge Poliszuk (Argentina)**
70. **Alicja Radek (Polska)**
71. **Medhat Rahim (Canada)**
72. **Maria Reggiani (Italy)**
73. **Silio Rigatti Luchini (Italy)**
74. **Alan Rogerson (Australia)**
75. **Leticia Noemi Rolando (Argentina)**
76. **Grażyna Rygał (Polska)**

77. **Halina Sabok (Polska)**
78. **Marta Samson (Polska)**
79. **Dorota Sikora (Polska)**
80. **Lidia Sokołowska (Polska)**
81. **Mike Spooner (UK)**
82. **Mirosław Strójwąs (Polska)**
83. **Czesława Susek (Polska)**
84. **Ewa Swoboda (Polska)**
85. **Irek Szubarczyk (Polska)**
86. **Jerzy Tocki (Polska)**
87. **Stefan Turnau (Polska)**
88. **Krzysztof Urbański (Polska)**
89. **Stamatis Voulgaris (Greece)**
90. **Monika Waszkiewicz (Polska)**
91. **Marzena Węcławska (Polska)**
92. **Jens Weitendorf (Germany)**
93. **Romi Weitendorf (Germany)**
94. **Bogusława Wiśniewska (Polska)**
95. **Maria Wójcicka (Polska)**
96. **Wacek Zawadowski (Polska)**
97. **Małgorzata Zbińkowska (Polska)**
98. **Elżbieta Zelmozer (Polska)**
99. **Beata Żmijewska (Polska)**
100. **Zofia Żyźniewska (Polska)**