

Appendix

PFL - MATHEMATICS 1991 - 1993

Individual **preliminary work** of participants: Description and documentation of a typical learning situation.

Seminar I: Perspectives of Mathematics Education; Methods of Action Research

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
m o r n i n g		Discussion of individual preliminary work (analytic discourse in the regional groups)	Lecture/ discussion: "Demands on Schools" (plenary session) Statements/ discussion: "Aspects of Mathematics" (plenary session)	Lecture/ discussions, group work: "Interview Techniques" (plenary session, subgroups)	Presentation of the interview results (half plenary session) Lecture/ discussion: "Long-range perspectives of mathemat. instruction" (plenary session)	Planning of further work; planning of regional group meetings (regional groups) Resumé (plenary session)
a f t e r n o o n		Continuation of the analytic discourse	Lecture/ discussion: "Teachers as Researchers" Discussion: Evaluation of the first days of seminar I (plenary session)	Practical interview-activities on mathematical tasks with students (subgroups)	Lecture/ discussion: Mathematics in the First Forms of Vocational Schools (plenary session) Evaluation of seminar I (regional groups)	
e v e n i n g	Constituting three regional groups; "warming up", discussion of "mathematical curriculum vitae" (in regional groups)	Self-initiated continuation of the analytic discourse		Preparing a presentation (subgroups) Open staff (plenary session)		

First regional group meeting: Discussion of participants' research concepts.
Discussion on the chapter "Applications" from the book "Man and Mathematics" (Fischer/Malle 1985).

Seminar II: Concrete Didactic and Methodological Work

	Sunday	Monday	Tuesday	Wednesday
m o r n i n g		Lecture/discussion: "Mathematics as a Tool for Presentation and Communication" (plenary session) Introduction to the (parallel) workshops: 1. Exploratory Data Analysis 2. Assessment in Ma- thematics Instruction 3. Algebra in the First Year, Presentation and Interpretation (plenary session)	Continuation of the workshops (subgroups) Presentation of the re- sults of the workshops (plenary session)	Planning further work; planning of the regio- nal group meetings (regional groups)
a f t e r n o o n		Formation of the workshops Workshops (subgroups)	Discussion of the case studies; guidance (subgroups for studies on related issues)	
e v e n.	"warming up" (regional groups)	Continuation of the workshops (subgroups)		

Second regional group meeting: Discussion of research work of the participants. Planning, carrying out, and analyzing the data of classroom observation.

Seminar III: Basic Ideas and the Meaning of Mathematics Instruction

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
m o r n i n g		Presentation of participants' research work (plenary session, parallel sections)	Continuation of presentations	Introduction: "The Role of Applied Mathematics in Various Types of Secondary Education" (plenary session) Working in (small) groups (participants, team members)	Presentation of the results of the groups (plenary session) Lecture/Discussion: "The Meaning of Mathematics Instruction"	Planning of further work; planning of the regional group meetings (regional groups)
a f t e r n o o n		Continuation of presentations	Discussion of the presentations (regional groups) Demo: "Computers in Mathematics Instruction" (plenary session, led by participants)	Working in (small) groups	Discussion of the further work (second studies; regional groups)	
e v e n.	"warming up" (regional groups)		Demonstration or discussion of this topic (plenary session)	Open staff-meeting (plenary session)		

Third regional group meeting: Discussion of ideas and concepts of the second case studies.

Fourth regional group meeting: Discussion of research work of participants. Planning and preparing Seminar IV.

Seminar IV: Self Organized Teacher Training

	Monday	Tuesday	Wednesday	Thursday
m o r n i n g		Presentation by the participants (plenary sessions and parallel sections)	Continuation of the workshops (subgroups)	Ideas for further work (regional groups)
a f t e r n o o n		Continuation of presentations Introduction to the workshops - Didactic Aspects of Functions - Constructing a Questionnaire - Data Handling (plenary session) Workshops (subgroups; led by participants)	Discussion of PFL-mathematics; Resumé of the course (plenary session)	
e v e n.	Presentation of the participants' lectures (plenary session)	Continuation of the workshops (subgroups)	Farewell evening organized by participants	