

Panel of chairpersons, ladies and gentlemen :

Or,

Mr./Madam Chairman, thank you for your introduction.

Ladies and gentlemen :

It's a pleasure to be here in Helsinki.

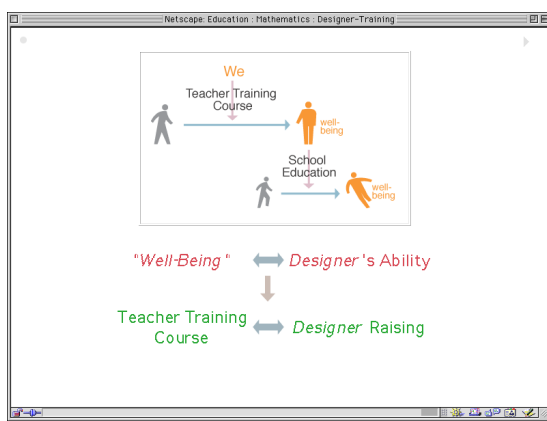
In this presentation,

We would like to propose a concept of "*well-being*" which is adaptive to the new period.

And we describe an idea of

conforming teacher-training course to this well-being.

Finally, we report our practice in our teacher training course.



We would like to start off by showing the context where our subjects of "*well-being*" and "*teacher training course*" are placed.

The teacher training course is related to the subject of "*well-being*" in a dual structure.

It trains college students so that

they will be "*well*" when they become teachers.

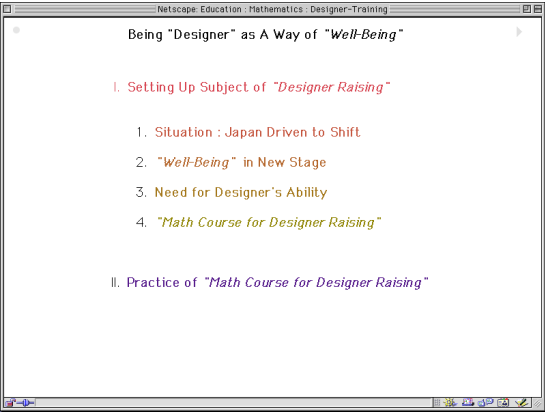
And this "*well-being*" implies that

they, in school education, bring, on their students, "*well-being*".

We regard the "*well-being*" in the new period is closely related to our ability for designing.

We simply call this ability "*designer's ability*".

Thus, teacher training course should be conformed to the new period, in such a form as "*designer raising*".



Here is the content we are to present.

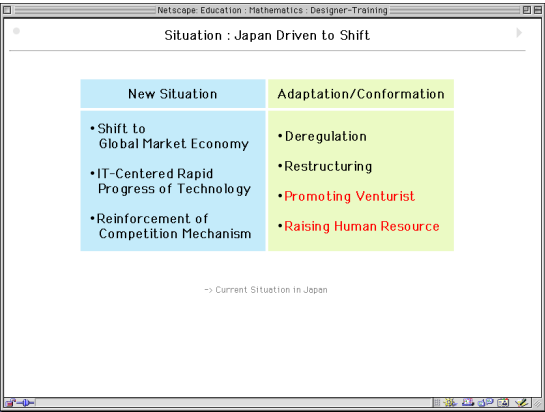
I.Firstly, we talk about the reason by which we reach our current practice.

- 1. The reasoning starts from our understanding on the new situation in our country, Japan.

Then we consider

- 2. the concept of "well-being" in this new stage,
- 3. and the ability which realizes this "well-being". We characterize the ability as "designer's ability".
- 4. And we, as faculty in a teacher training college, set up the subject of "math course for designer raising".

II.Finally, we report our practice on "designer raising".

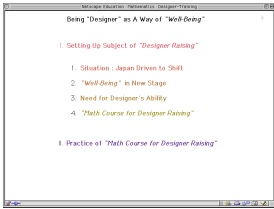


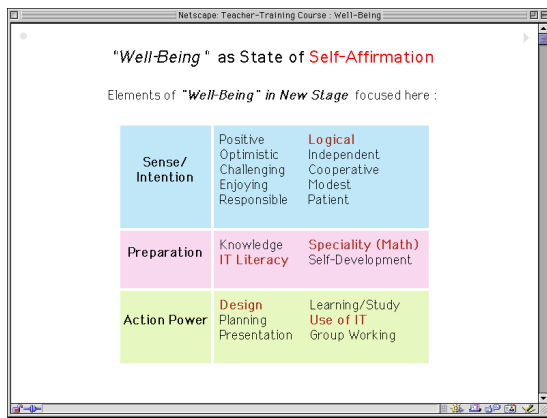
Current situation in Japan is abstracted like this. And it may be a global trend.

Shift to Global Market Economy
IT-Centered Rapid Progress of Technology
Reinforcement of Competition Mechanism

Accordingly,
the conformation of our system to this situation has been our problem. That is,
Deregulation
Restructuring
Promoting Venturist
Raising Human Resource

And the latter two,
"Promoting Venturist" and "Raising Human Resource" are subjects the education concerns.





Here we consider the concept of *"well-being"* which is meaningful in the new situation.

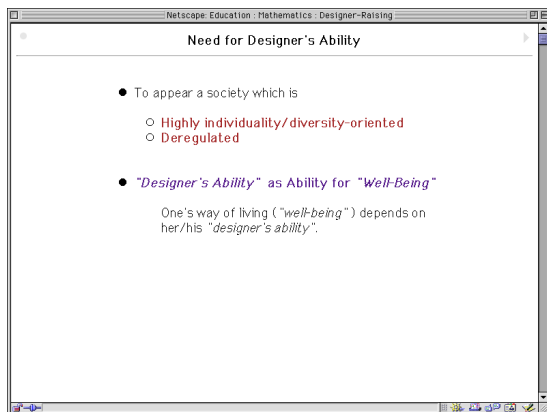
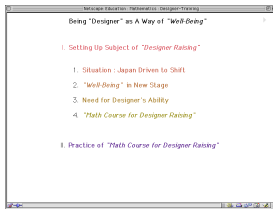
First of all, we regard *"well-being"* as a state of our self-affirmation.

Then, we consider the elements, or conditions, of this self-affirmation.

In this sequence, we focus these categories.

And, in our practice, we especially focus these categories colored red.

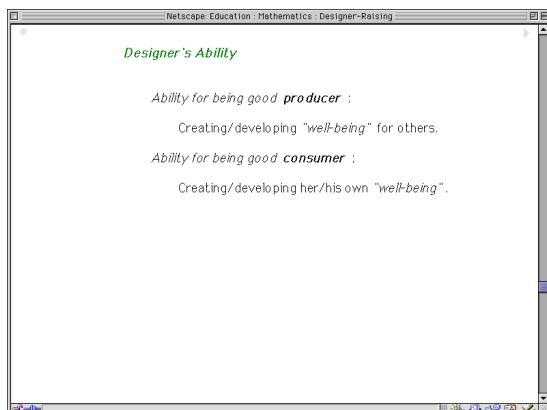
Logical
Speciality (that is, Math)
IT Literacy
Design
Use of IT



Here let us consider the ability for being well in the new period. We abstract it as *"designer's ability"*.

Indeed, a highly individuality/diversity-oriented, and deregulated society is to come.

In this situation, our way of living depends on our *"designer's ability"*.



The *"designer's ability"* would be approached from two sides :

Ability for being good producer :

That is, creating/developing *"well-being"* for others.

And ability for being good consumer :

That is, creating/developing her/his own *"well-being"*

Netscape Teacher-Training Course: Well-Being

"Designer" as "Person Who Can Design Total Solution"
(An Implication: "Good Problem Solver")

Obligation	To conceive an outcome (product-out) which is sound, working, and welcome
Trait/Ability	<ul style="list-style-type: none">• See matter in perspective• Introduce structure/frame/module/flowchart ("from global to local", "from top to bottom")• Simulate solution with strictly logical calculation• Do presentation effectively• IT literacy as technical skill• Intuition/Imagination
Action	<ul style="list-style-type: none">• Identify needs and seek innovative solutions• Collect, analyze and interpret facts• Design solution
Self-Develop	<ul style="list-style-type: none">• Realize her/his own adaptation and progress

Here we consider *"designer"* as *"person who can design total solution"*.

In particular, *"designer"* implies "good problem solver".

We would be interested in the condition for being designer, with such viewpoints as,

Obligation
Trait/Ability
Action
Self-Development

but here, let us skip this subject to spare time.

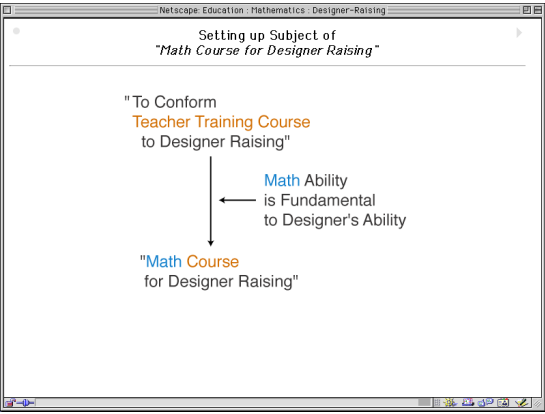
Netscape Education: Mathematics: Designer-Raising

Being "Designer" as A Way of "Well-Being"

I. Setting Up Subject of "Designer Raising"

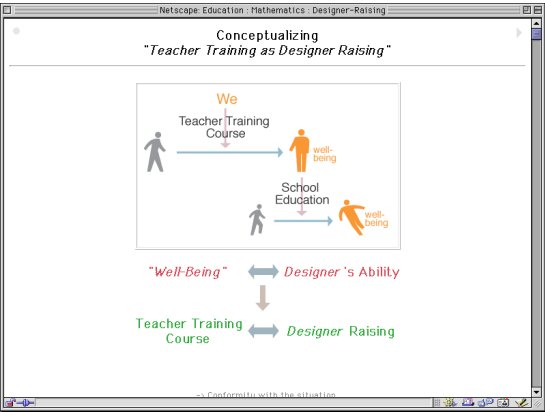
1. Situation : Japan Drives to Shift
2. "Well-Being" in New Stage
3. Need for Designer's Ability
4. "Math Course for Designer Raising"

II. Practice of "Math Course for Designer Raising"



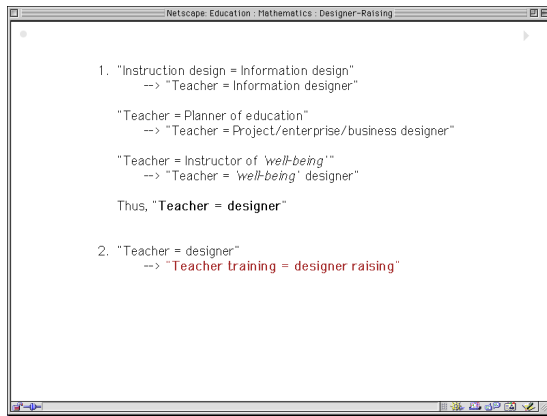
Now we show the logic by which the subject of *"Math Course for Designer Raising"* is set.

We reach the subject:
"To conform teacher training course to designer raising" by the reason we previously described.



This is the reason.

We won't repeat this.
Would you please just scan quickly?



And, this is a rough, and not necessarily strict, inference that deduces the proposition:

"Teacher training is designer raising"

Let us see.

1. "Instruction design is Information design"
Thus, "Teacher is information designer"

"Teacher is planner of education"

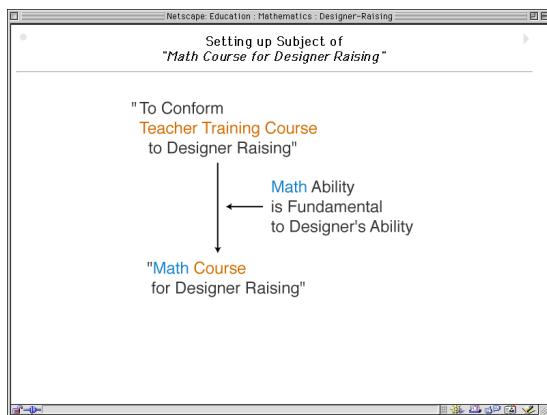
Thus, "Teacher is project/enterprise/business designer"

"Teacher is instructor of 'well-being'"

Thus, "Teacher is 'well-being' designer"

Thus, "Teacher is designer"

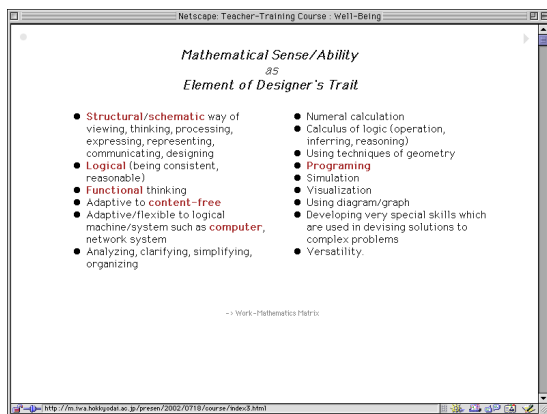
2. Since "Teacher is designer",
therefore "Teacher training is designer raising"



Here we relate *"designer's ability"* with "math ability".

Indeed, we think that

Math ability is fundamental to designer's ability.



Mathematical Sense/Ability is closely related to the designer's ability.

Here we list up some aspects of mathematical sense/ability. Would you just scan?

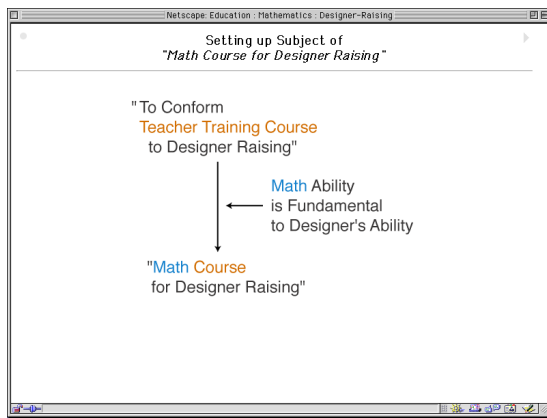
You see that they are just elements of designer's ability.

Here the subjects colored red are those which we especially focus in this research.

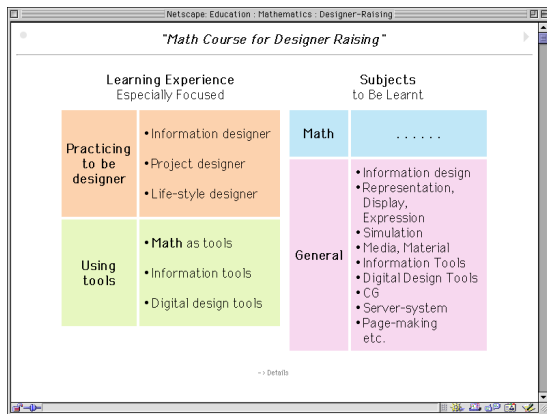
But, in fact, it is very difficult to express verbally the relation between mathematical sense/ability and designer's trait.

We can feel the relation and confident of it, but it is difficult to express it.

It remains as a kind of technical problem for us.



And, from these two,
the subject of
"Math Course for Designer Raising"
follows.



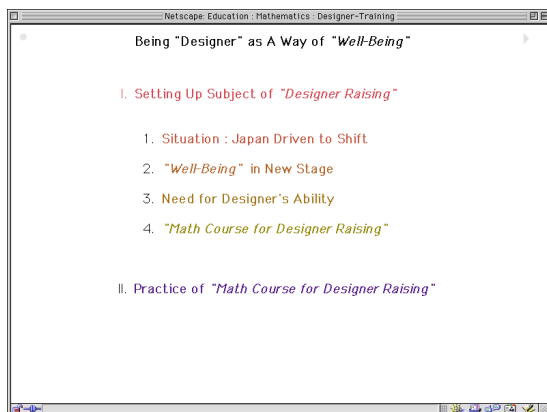
This is an abstract of
"Math Course for Designer Raising" we reached.

This course is practice-oriented, or
problem-solving-oriented.

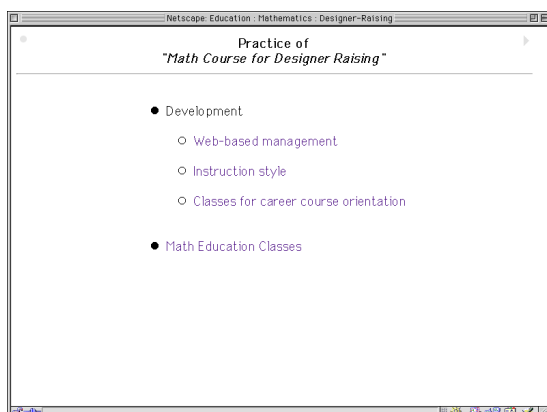
The learning is to act as

Information designer
Project designer
Life-style designer

And the general subjects to be learnt are such as these.
Would you please just scan quickly?



Now, we will report our practice of "designer raising".



Firstly, we report some development concerning

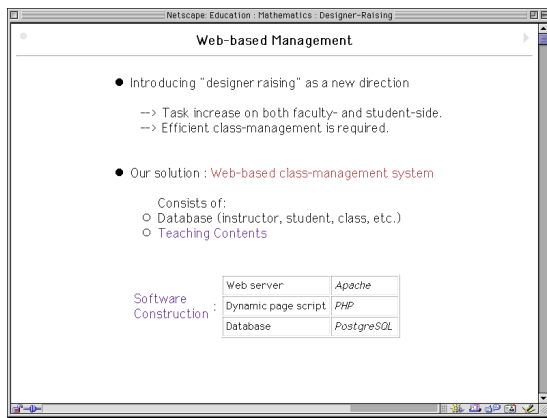
Our web-based management, and
Instruction style.

There is some development about

Classes for career course orientation

But, in the interest of time,
we are going to omit describing this subject.

And finally, we report our practice
in math education classes.



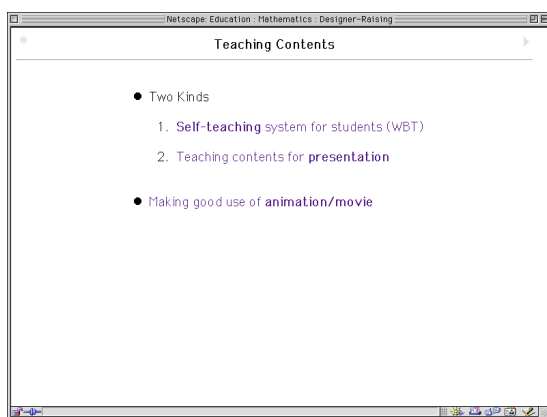
When we introduce "*designer raising*" as a new direction, task increase on both faculty- and student-side. Thus, the efficiency of class-management becomes our problem.

Our solution is a *web-based management system*.

It consists of :
Database, and
Teaching Contents

We will briefly show how the teaching contents are constructed and used.

But, about the construction of the system, we are going to omit describing, to spare time.

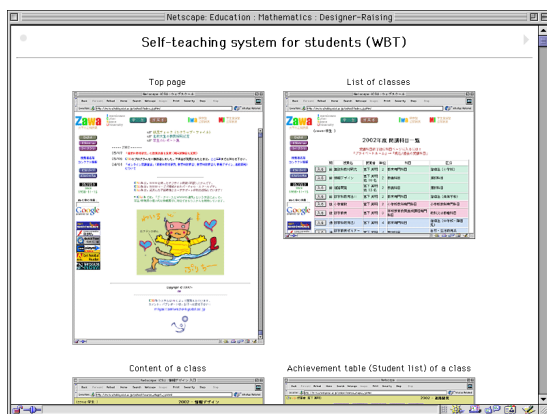


We prepare two kinds of teaching contents:

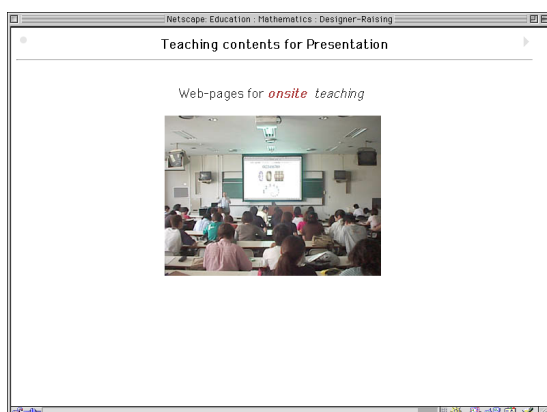
One is the self-teaching system for students (it is a kind of web-based training system).

And, teaching contents presented in onsite instruction.

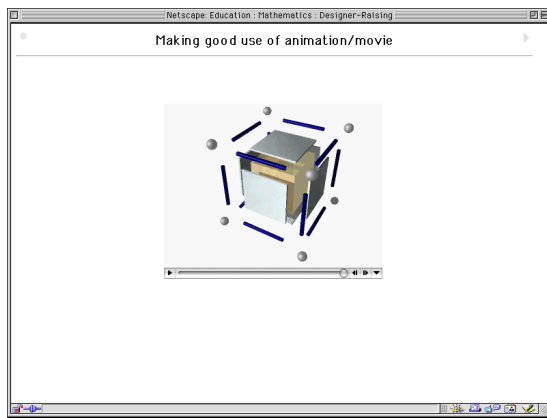
And for each, we intend to make good use of animation/movie.



The self-teaching system for students looks like this.

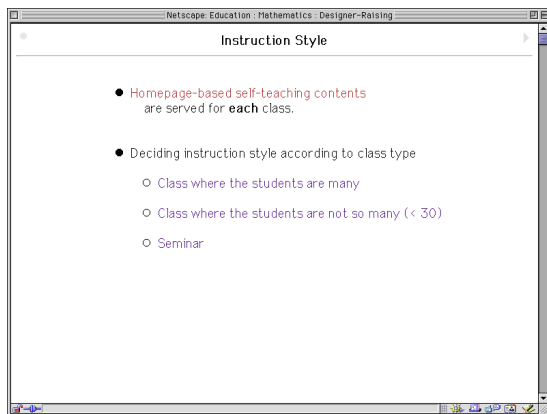


In parallel with web-pages for self-teaching, we have been making web-pages for the use of onsite instruction.



As a practice of information design,
we aim at making good use of animation and movie.

(It seems that the plug-in for displaying QT-movie
is not installed.
Ok, let us skip this.)

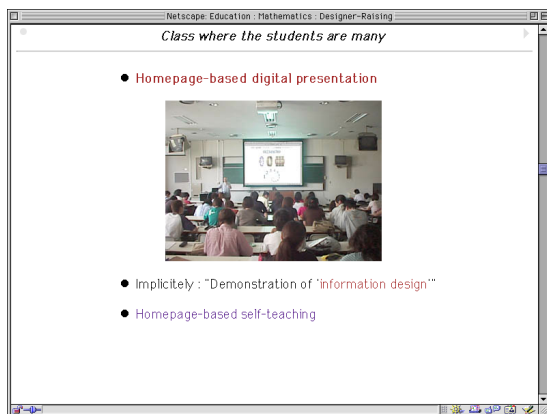


As to the instruction style,

Firstly, homepage-based self-teaching contents
are served for each class.

And, the instruction style is decided according to class type.
Here are three types.

Class where the students are many,
Class where the students are not so many, and
Seminar

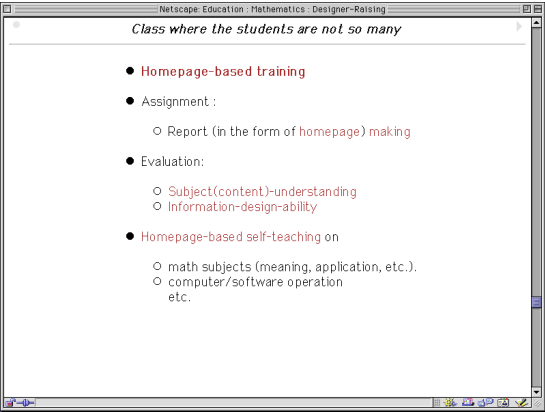


In the case of a class where the students are many,

Homepage-based digital presentation
is the style of instruction.

This is also an implicit demonstration of
'information design'.

Homepage-based self-teaching system is
required in this case, too,
because instruction becomes rather quick
when digital presentation is its style.



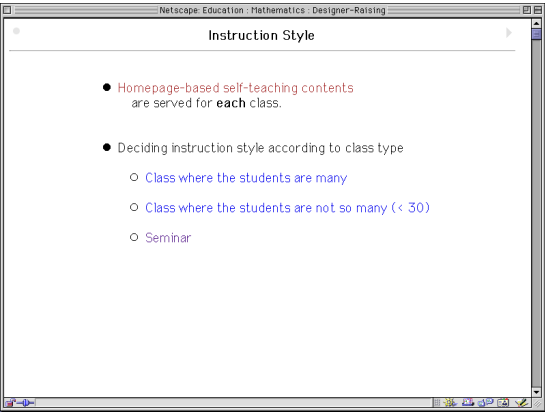
In the case of a class where the students are not so many,

We are now testing the homepage-based training style instruction. Here the students are assigned report making, in the form of homepage making.

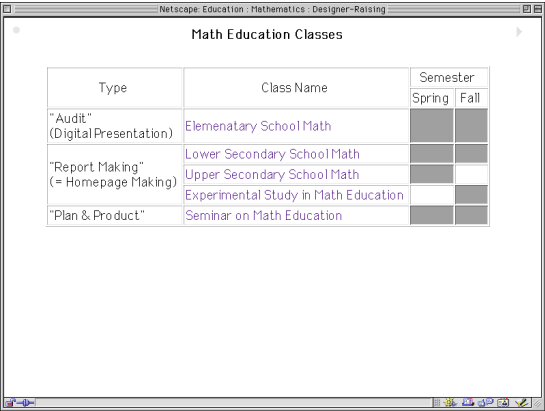
We evaluate:
if they reach a subject(content)-understanding aimed at in this stage.
if they reach an information-design-ability aimed at in this stage.

Homepage-based self-teaching system is prepared for :

Self-teaching on math subject.
And, for self-teaching on computer/software operation
-- This is required because report making is a work on computer.

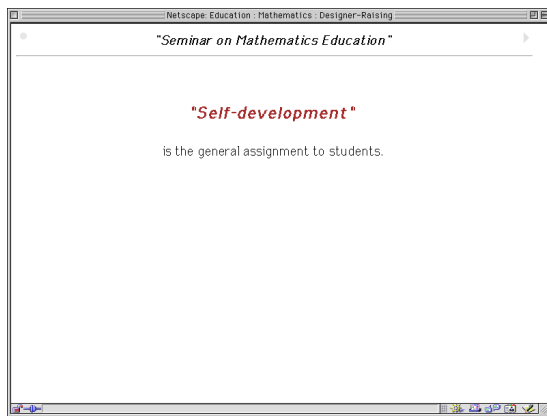


We have just talked about these two. About the "seminar", we will talk in a moment later.

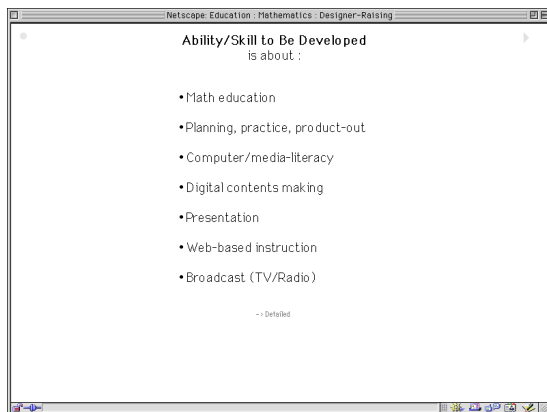


Here are classes I am in charge as a math education expert.

In the interest of time, here we report only the seminar on math education.



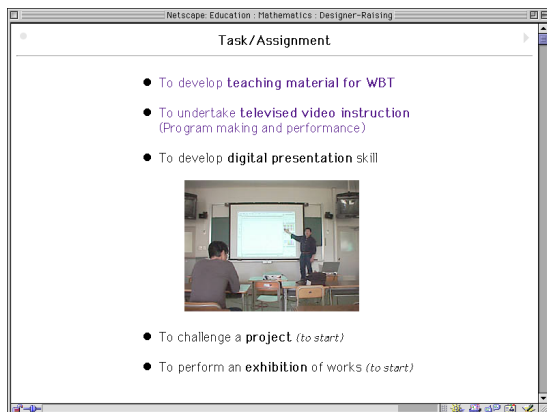
Our purpose in this class is to promote student's self-development.



Here are ability/skill we are aiming at, in this class.

Ability/skill for

Math education
Planning, practice, product-out
Computer/media-literacy
Digital contents making
Presentation
Web-based instruction
Broadcast (TV /Radio)



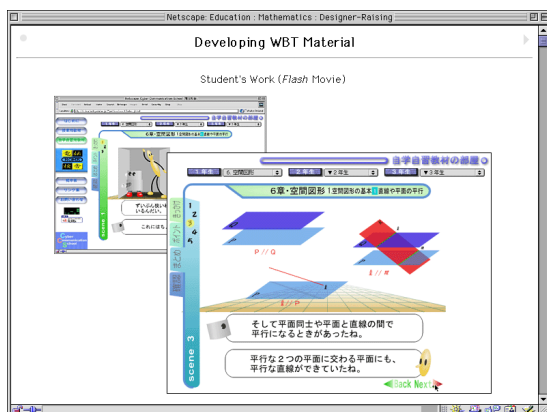
And for the purpose of student's self-development, we assign students these tasks.

The first three are in progress.

To develop teaching material for web-based training.
To undertake televised video instruction.
(That is, to make program and to perform.)
And, to develop digital presentation skill.

And the last two are in the planning stage.

To challenge a project
To perform an exhibition of works



Students develop Web-based training material, in the form of Flash movie.

You can guess the subject of this page, though the text is in Japanese.
It is the merit of mathematics and the visual image.

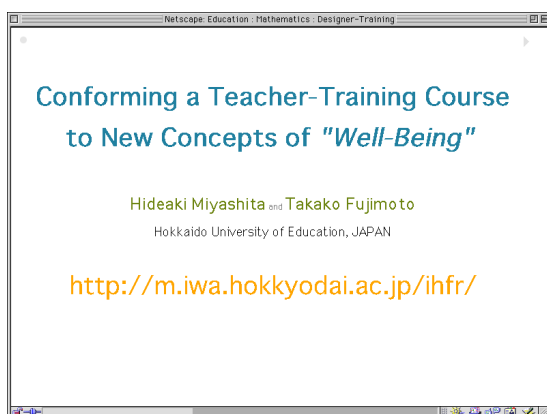
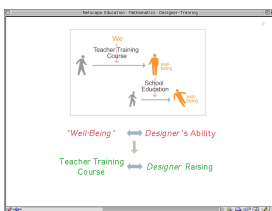
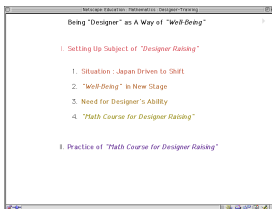
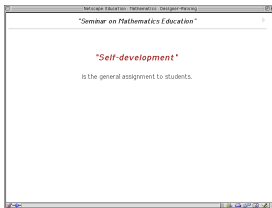


Students are assigned to make and broadcast a program of "Distance Learning via Communication Satellite", which is presided by the Iwamizawa City.

Iwamizawa is the city our campus is located.

This broadcast was done in February, this year.

And my students ought to broadcast today, 8 hours ago. I hope they were in successful.



Now we close our presentation.

The document used in this presentation was made in the form of the homepage, and you can access it with this address.

Thank you very much for your kind attention.