

Development of Education Program for Enhancement of Disaster Management Competency in High School

~“Problem-solution Enumeration Method” to Image and Manage Disaster~

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① Background - Purpose (Analyze)

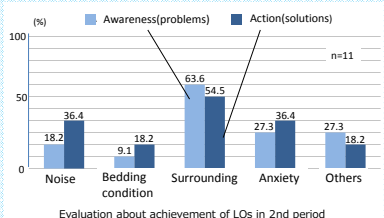
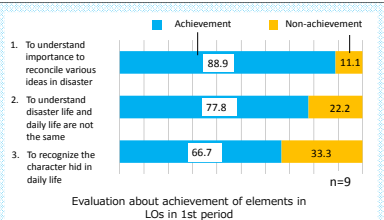
Standardized education program for disaster is insufficient in course of study in Japan. We developed education program for enhancement of disaster management competency of “high school students” who can be helpful to local residents in disaster responses. About the development, we adopted the **ADDIE model (Analyze→Design→Develop→Implement→Evaluate process)** to design education program efficiently using the concept of Learning Objects [LOs].

⑤ Result (Evaluate)

• Evaluation of 1st period
Almost of learners wrote about all LOs on reflection sheets. Therefore, learners could image disaster area specifically.

• Evaluation of 2nd period
There were descriptions about “Awareness(problems)” and “Action(solutions)” regarding all factors interfering “sleeping”. PEM led “Awareness” to “Action”.

Our education program is effective because all LOs are completed.



② Learning Objects (Design)

This program consists of two periods and has Learning Purpose and Learning Objects [LOs].

- Learning Purpose
To awake disaster victims can't behave in the same way as daily life
- 1st period Learning Objects
 1. To image disaster area specifically
 2. To understand importance of consensus building
- 2nd period Learning Objects
 1. To develop competency to image various problems and to consider solutions from various angles
 2. To consider “sleeping”: it is not difficult in daily life but it is difficult in emergency shelter

④ Lessons (Implement)

Kakogawa-Minami Senior High School of Hyogo students
1st period: 9 students, on May 28, 2014
2nd period: 11 students (two more students), on June 18, 2014



Scenes of lessons



Hiroaki NAGAMITSU
Kakogawa-Minami Senior High School of Hyogo

In 1st period, students learned difficulty of consensus building. In 2nd period, students understood big differences between daily life and disaster life.

ADDIE MODEL

①Analyze

②Design

③Develop

④Implement

⑤Evaluate

③ “Problem-solution Enumeration Method” [PEM] (Develop)

- 1st period : Using of crossroad
- 2nd period : Using PEM

To enumerate various problems and solutions
To encourage to understand relationships between problems and solutions

Original Method

問題	解決
1	(例) 〇〇を〇〇する。
2	
3	
4	
5	
6	

Problems

Solutions

1st period (Teaching Plan)

2nd period (Teaching Plan)

基礎データ	学習目的	対象	教科・イベント等	学習形態	準備	学習の流れ
タイトル 防災教育における「気づき」	1. 合衆国の災害を知る 2. 災害時の生活は日常生活と異なることを知る 3. 普段の生活では見られない人間の姿があるということを知り	高校生	クロスロード	座学(授業)	座学(授業)	1. アイスブレイク (5分)

基礎データ	学習目的	対象	教科・イベント等	学習形態	準備	学習の流れ
タイトル 避難所を考える～避難所で「寝る」～	1. 避難所での生活を知る 2. 避難所での生活は日常生活と異なることを知る 3. 避難所での生活は日常生活と異なることを知る	高校生	クロスロード	座学(授業)	座学(授業)	1. アイスブレイク (5分)

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Take here (Japanese ver.)