School Activities With Multimedia-Enabled Dot Codes as Communication Technologies

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Multimedia-Enabled Dot Codes as Communication Technologies and School Activities

In collaboration with many schoolteachers in Japan, USA, Oman, UAE, and China.
Aim of our collaboration project is to provide reasonable accommodations for each student with individual needs and desires through creating handmade original teaching materials and school activities.
Four technologies, today!

Multimedia-Enabled Dot Codes and School Activities

EPUB3 e-Books with Media Overlays and School Activities

Contents with Augmented Reality and School Activities

Paper Application created by Ricoh Company Ltd., Japan and school activities
To overlap dot codes on a designed sheet, we need (1) a specially designed software, Gridmark Authoring tool and (2) a specially designed Konica Minolta printer. These two are fairly costly!

All the schoolteachers cannot buy them!
The present author created “magical sheet” with “Post-it” sticker icons on which dot codes were overlaid beforehand.

The “Post-it” sticker icons can be taken off and pasted on any real items.

These magical sheets are shared with schoolteachers and colleagues free of charge.
Original "Magical Sheet" with 107 Post-it sticker icons!

Take off Post-it sticker icons and paste them to any real items
Multimedia like movies are also linked to each dot code in addition to the audios
Let’s create original handmade contents

We have two methods to create original handmade contents

The first method is very simple.

Just speak and touch the Post-it sticker icon

Sound pen has a recording functionality!
The first method is very simple!

(a) Touch the “Start REC” icon on the paper controller on the magical sheet.
(b) Once a red LED lamp on the sound pen appears, the voice can be recorded using the microphone on the sound pen.
(c) After recording, touch a “Post-it” sticker icon (No. 1) and the first voice is then linked to the sticker icon.
(d) Steps (a) through (c) can be repeated as many times as needed. The second voice recording should be linked to the next “Post-it” sticker icon, as shown in “No. 2.”
The second method takes a bit of time, but still very easy to handle.

This method can create lovely content with less noise!
Steps to create original contents

1. Record your voices using IC recorder
2. Edit and save them as separate files corresponding to each sticker icon
3. Edit a linkage table, filelist.csv
4. Execute NANA.exe and then a content folder “Private” will be created.
5. Copy the created content folder to the internal memory or SD card in a pen

NANA.exe and filelist.csv files may be obtained from the present author.
One day, Mama had to go to the store, so she called her babies.

ある日 お母さんは 買いものに 出かけるので
みんなを よびました

1, 2, 3, 4, 5, 6, 7, whatever you do, don’t open the door.

7ひきのみんな
どんなときも せったいに
ドアを 開けないでね！
“New multimedia-enabled dot codes” that can be used with tablet/smartphone

Apollo Japan has recently published smartphone and tablet application in which the built-in camera of the smartphone and tablet, using a specially designed lens, can identify ScreenCode and reproduce linked multimedia such as movies, audio files, photos, and Web pages on their screen.
E-Books with Media Overlays (Read Aloud)

E-books with Media Overlays help the students with reading disability develop their reading skills.
E-Books with Media Overlays and School Activities

We use the following two kind of software

1. Software to create .epub E-Books
   *FUSEe, PLEXTALKProducer, Oxgen XML Editor*

2. Software to read .epub E-Books
   *iPad/iBooks & Android/Sony Reader, kobo Reader*
UNIT 1-1
NICE TO MEET YOU.

Emi: Hello. I'm Emi. What's your name?

Alex: Hello. I'm Alex. Nice to meet you.

Emi: Nice to meet you, too.

UNIT 1-2
WHERE ARE YOU FROM?

Emi: Where are you from?

Alex: I'm from New Zealand.

Emi: Wow, New Zealand! What's it like?

Alex: It's a beautiful country.
Foreign Language Activities required at 5th and 6th grades at all elementary schools in Japan
山田さんは、田中さんと食事をしました。おさいふがあります。

...あ、...。カードもお金もありません。

先生と学生が教室にいます。授業中です。

先生は女性です。

男子学生が三人、女子学生が一人います。

うちには、...小鳥がいます。ねこも、犬もいます。

(ごきぶりも、はえも、かも、います！)

それから、...おばけもあります！！！
Japanese at 1st grade elementary school
思いを見つめて読む

場面のうつりかけに気をつけて
登場人物の気持ち。

七

思い出しきつねが歩いていると、
やせたひよこがやってきた。

「よし、だれがここにいる？'

やあ、ひよこ。

「お兄ちゃん？やめてくれよ。

「ひよこは目を丸くして言った。

 tidakかなあ。こまっているんだ。

 Nabeshii。おれのうちになきや。

お兄ちゃん。

「ええ、お兄ちゃん。どこかにいきな。

ねえ。

「お兄ちゃん。

いつも、心の中でやりとわった。

いうい。

目：

お兄ちゃん

すぬか

(すぬか)
思い出をつかって読む

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日本語 2年生の児童に

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Japanese at 2nd grade elementary school
Contents with Augmented Reality (AR) and School Activities

Handmade AR content: an unit of the second grade "Japanese" textbook

“Salmons grow bigger and bigger”
春になるころ、五センチメートルぐらいになったとき、さけの子どもたちは、海に出て、おびれをぶらぶらにします。
たまごからうまれる
“Paper Application”
developed by Ricoh Japan
Paper Application

1. Paper Aquarium
2. Paper Racer
3. Paper Eco-town
4. Paper Battle
5. Paper Fireworks
Photos at several elementary schools
Thank you for coming to my presentation!

Monday, June 27, 11:00 am-1:00 pm