Invited Paper

I Phone, therefore I Can

Use of iPhones as Augmentative and Alternative Communication Devices to Facilitate Social Inclusion of People with Autism Spectrum Disorders

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SAHK

Presentation Outline

- Challenges for people with autism spectrum disorders
- New solutions in the new paradigm.

SAHK

- ◆ NGO with 46 years of history

- ◆ Supports people with a physical or intellectual disability due to impairment of the nervous system

- ◆ 52 services units, serving more than 4 500 persons with a disability annually.

SAHK

香港耀能協會

People with Autism Spectrum Disorders (ASD) 自閉症

- Significant impairments in social communication and interaction skills
- Interests are restricted
- Activities are repetitive.

People with Autism Spectrum Disorders (ASD) 自閉症

- Tend to be visual learners
- A picture is better than a thousand words
- They understand what they see much better than what they hear
- Augmentative and alternative communication aids are required
- Visual strategies and video modelling are popular training methods.

Visual Strategies

◆ Social story boards
◆ More appropriate for young children.

Visual Strategies

◆ Activity procedure or schedule

乘坐港鐵的程序

Taking the MTR

◆ Not suitable for outdoor activities.

Communication Book

◆ Personalized book systematically categorized to express users' needs
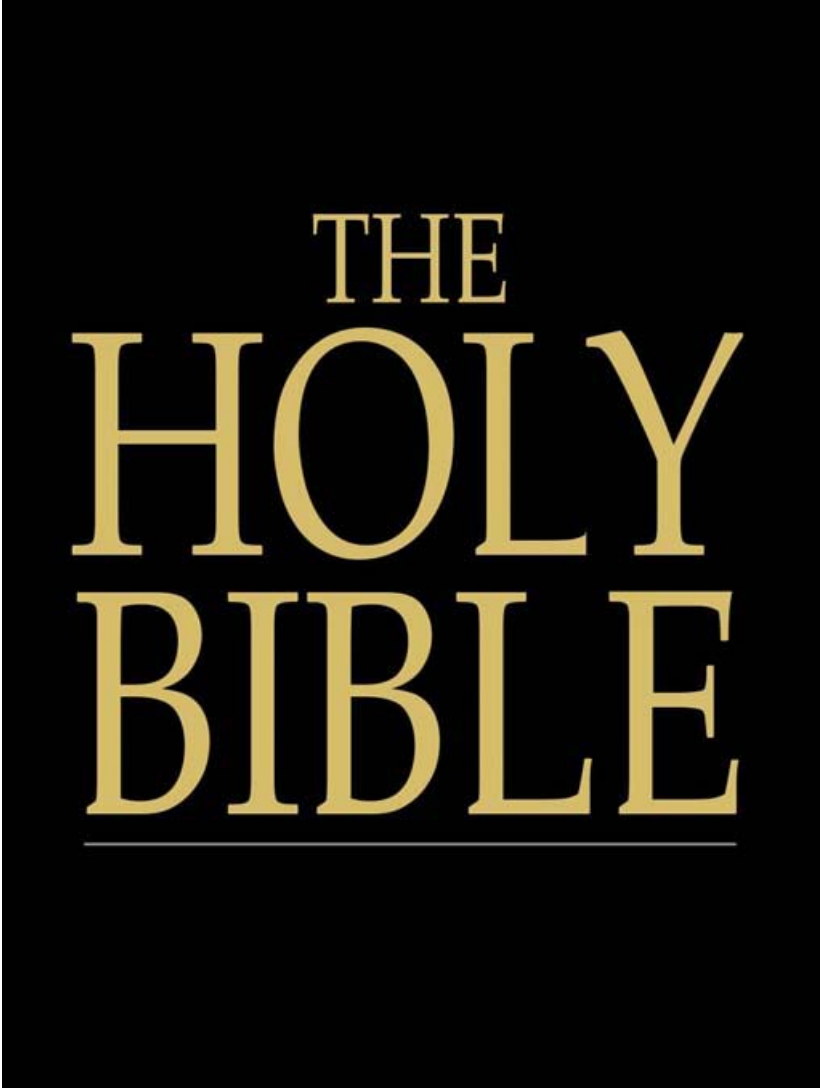
◆ Trains the clients to interact with other people.

Stigmatization

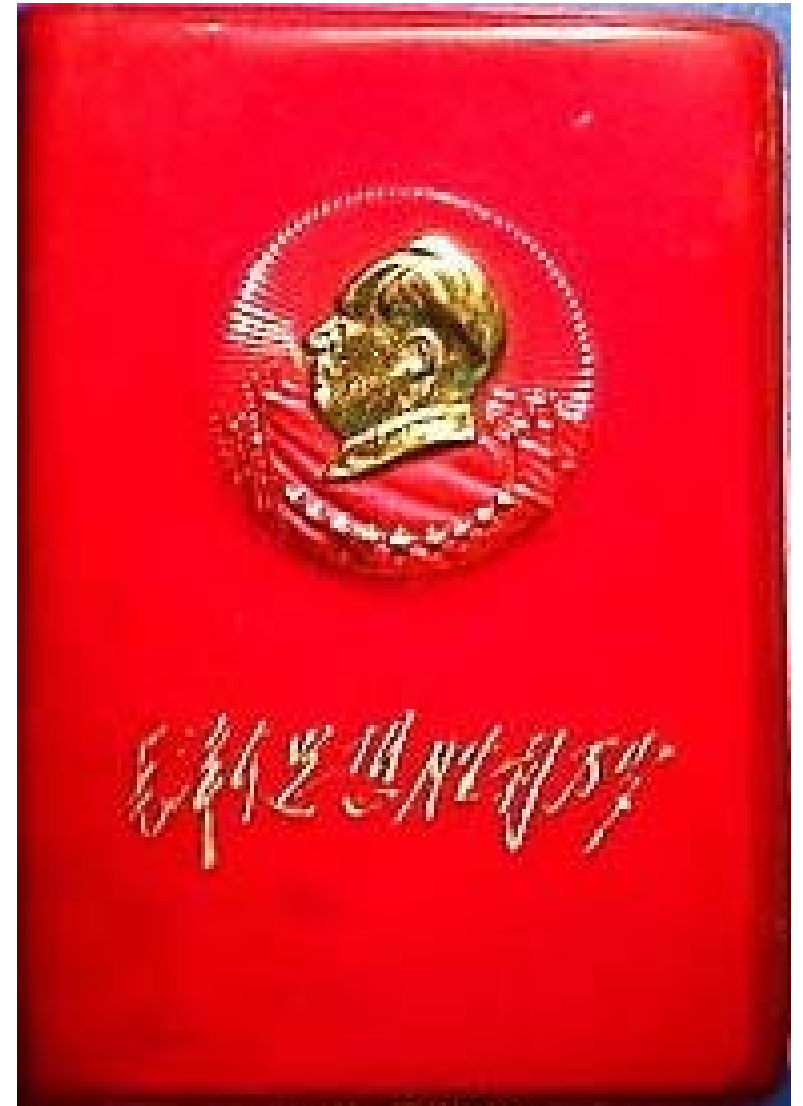◆ Does not help in social inclusion or dignity.

Stigmatization

- Why stigmatize?
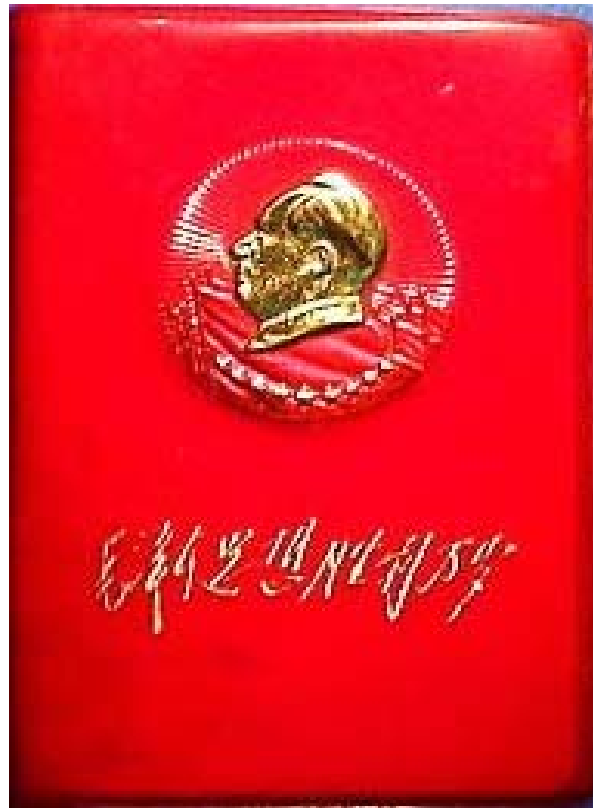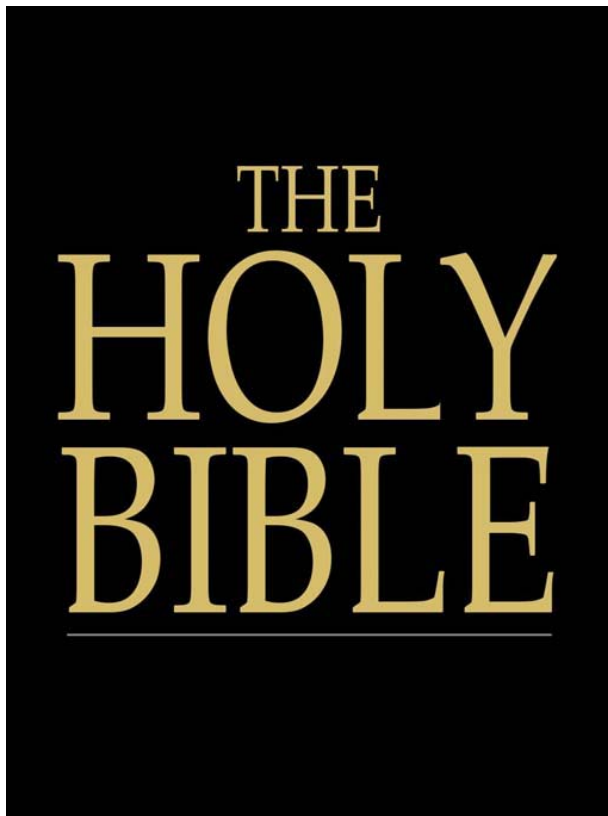- Do you and I rely on conventional wisdom anyway?

Stigmatization

◆ Why stigmatize?

◆ Do you and I rely on conventional wisdom anyway?

New Solutions in the New Paradigm

◆ Which one do you use every minute for advice?

New Solutions in the New Paradigm

➔ Social inclusion and dignity.

I Phone, Therefore I Can

We propose to use iPhone Apps to enhance the social and vocational aspects of clients with ASD:

◆ Handling daily routines
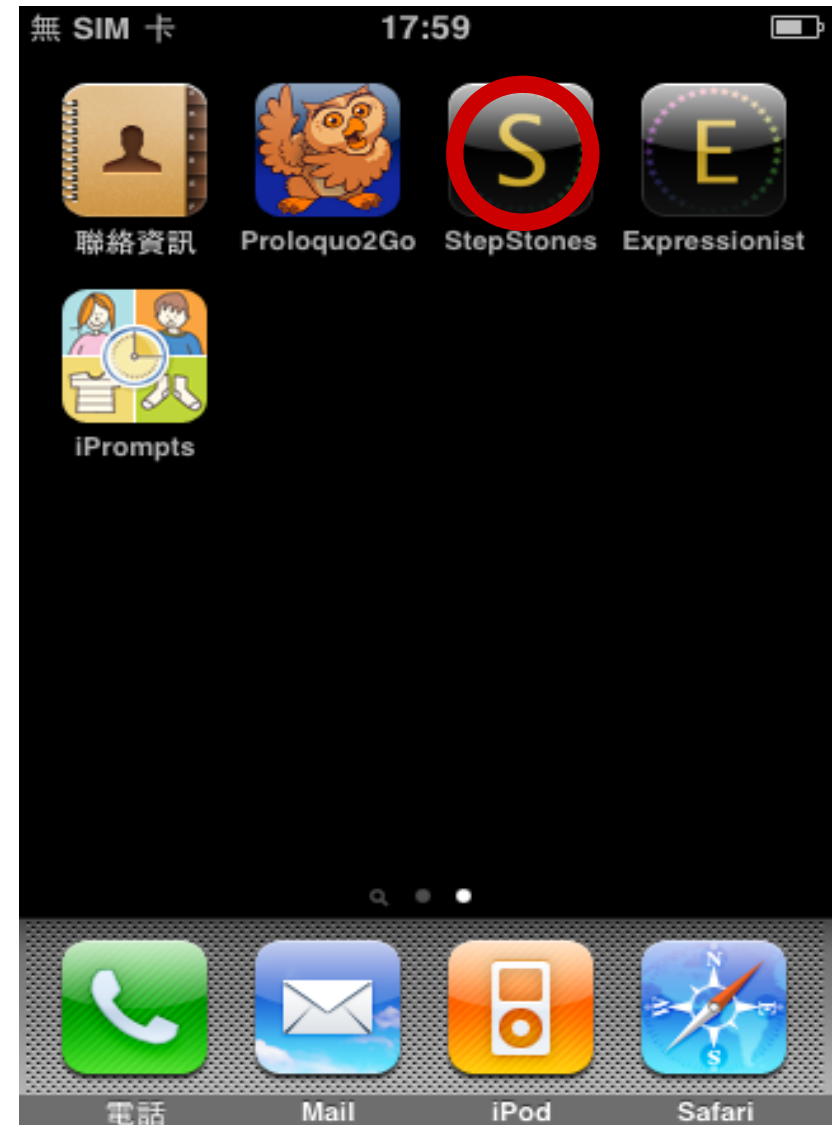
◆ Vocational training

◆ Scheduling

◆ Route finding.

App: Proloquo2go (US$189.99)

- Helps to compose sentences from pictures
- Provides text-to-speech support
- More suitable for people with speech impairment
- Spoken Chinese not supported.

App: StepStones (US$9.99)

◆ Augmentative learning tool for (visual) activity schedule.

Handling Daily Routines

◆ Go to the supermarket.

Case Study 1
Handling Daily Routines

◆ Get a trolley.

Case Study 1
Handling Daily Routines

◆ Locate the products.

Case Study 1
Handling Daily Routines

◆ Put the products into the trolley.

Case Study 1
Handling Daily Routines

◆ Line up at a sales counter.

Case Study 1
Handling Daily Routines

◆ Pay at the sales counter.

Handling Daily Routines

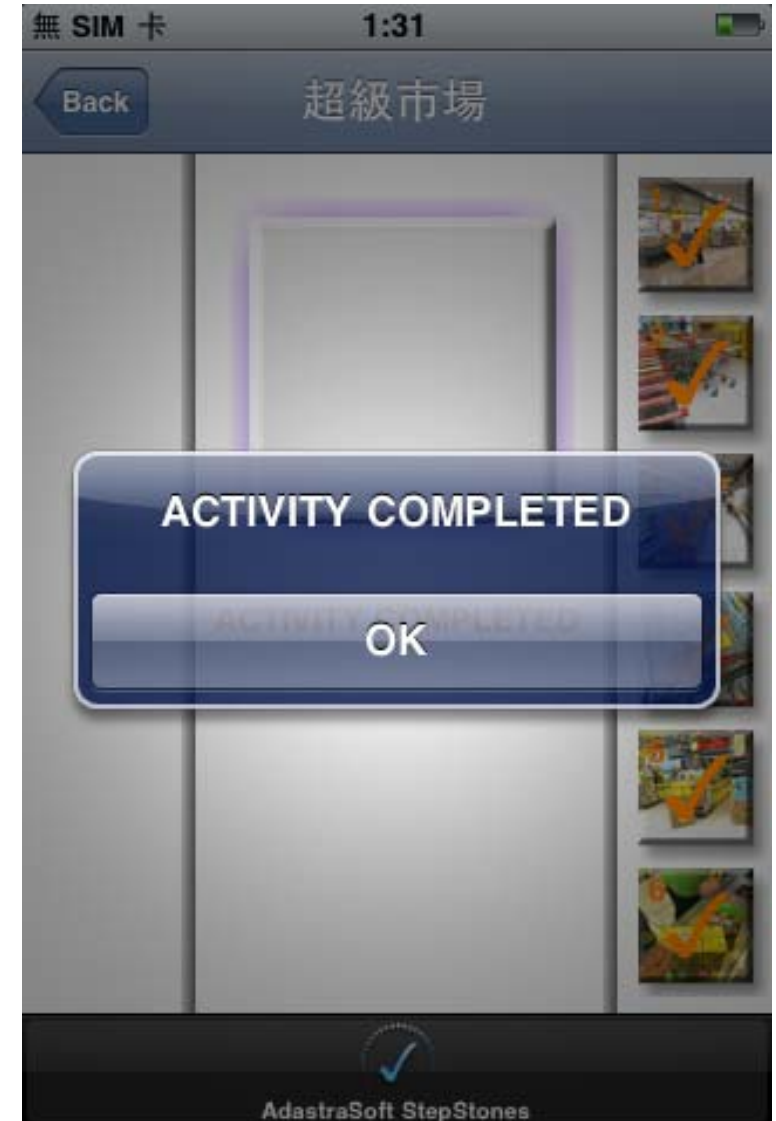◆ Put into the carrying bag.

Case Study 1
Handling Daily Routines

◆ Return the trolley.

Case Study 1
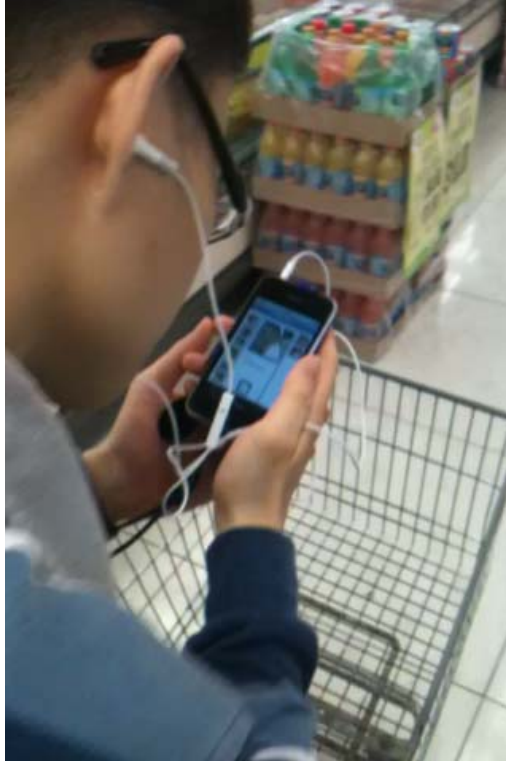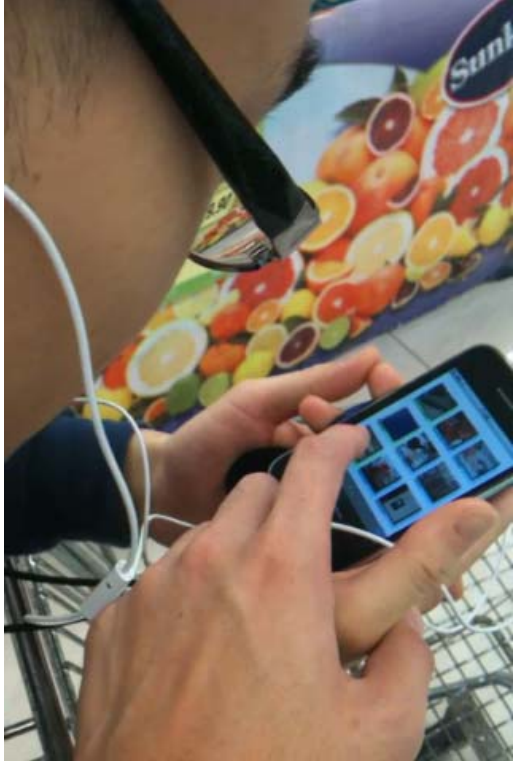# Handling Daily Routines

◆ Activity completed.

Case Study 1
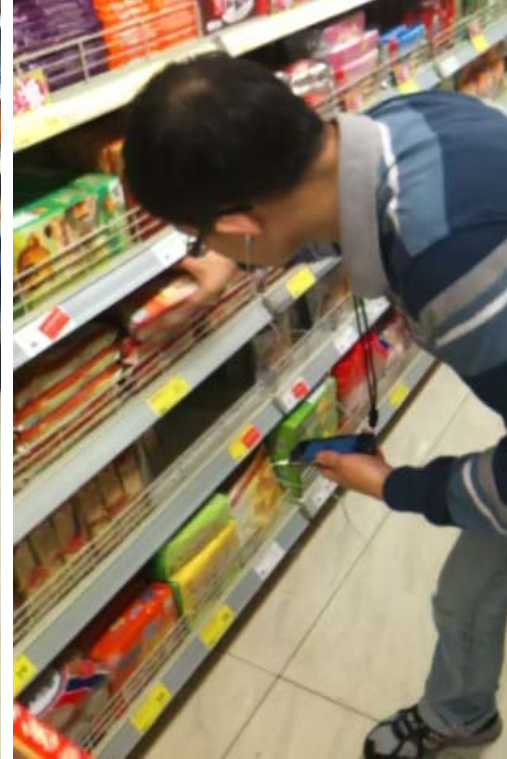# **Getting a Trolley**

Case Study 1
Following the Procedure

Case Study 1
Locating the Products

Case Study 1
Paying at the Sales Counter

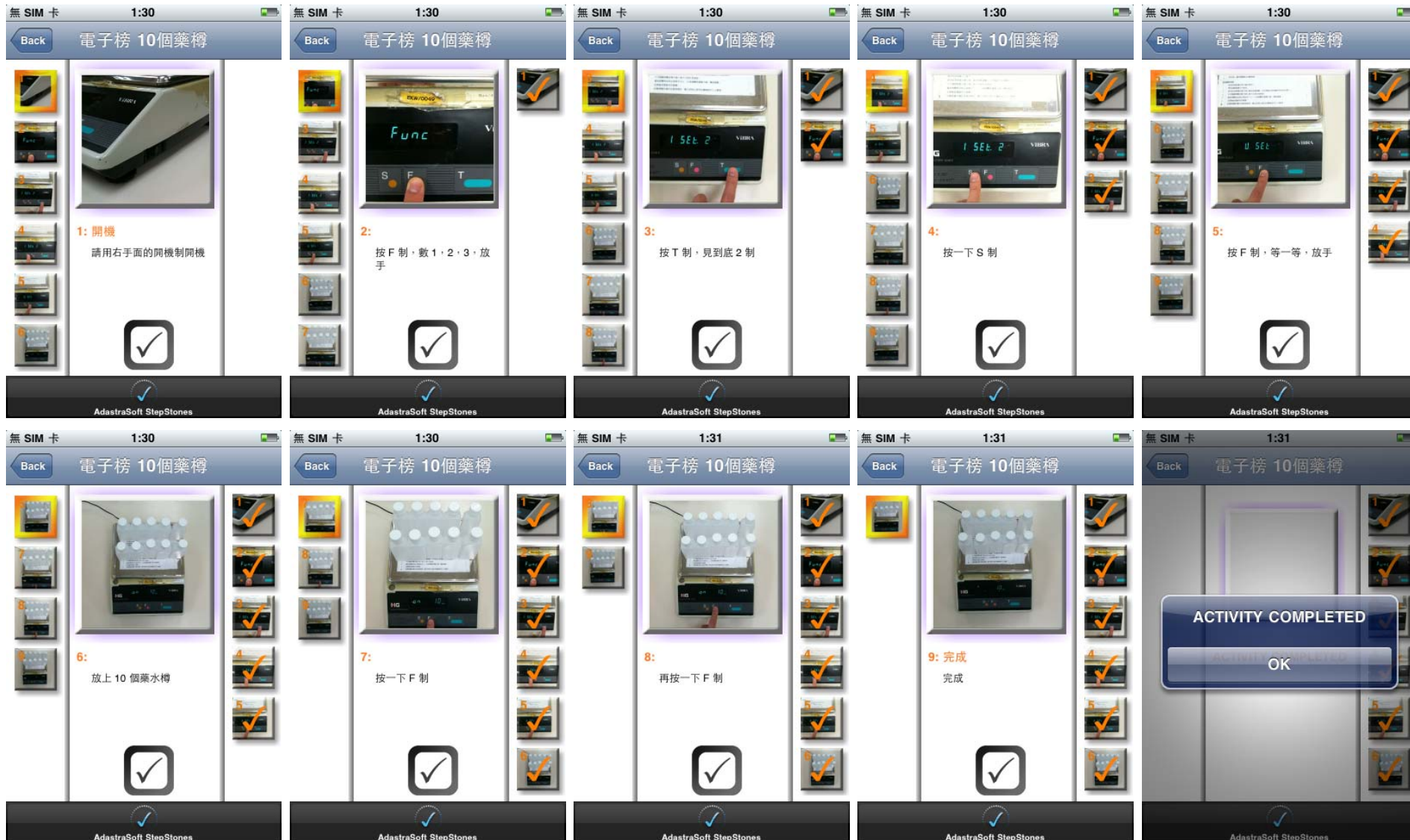## *Case Study 1*
Returning the Trolley

Case Study 2
Vocational Training
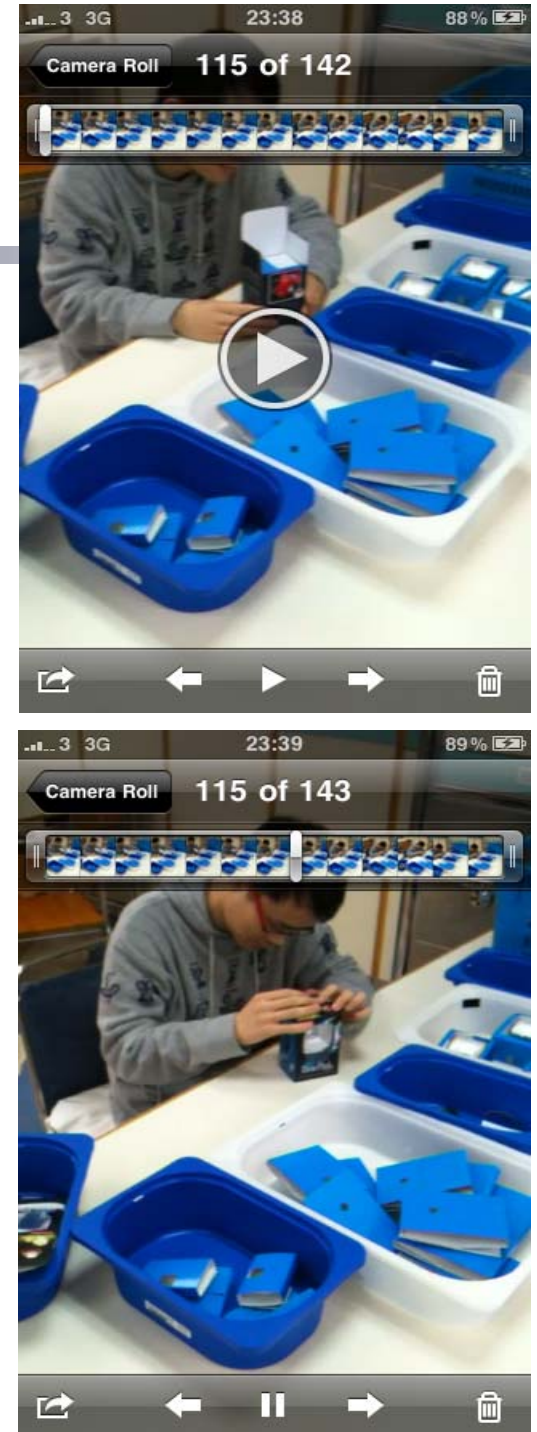
Vocational Training

App: Clock

- ◆ Standard built-in Apps
- ◆ Set alarm clock for events
  - ■ such as daily schedule or taking of medicine.

App: Video Playback

- Standard built-in App
- Facilitates clients to learn new job skills
- Not practical for clients who need step-by-step on-the-spot reminders of the procedure.
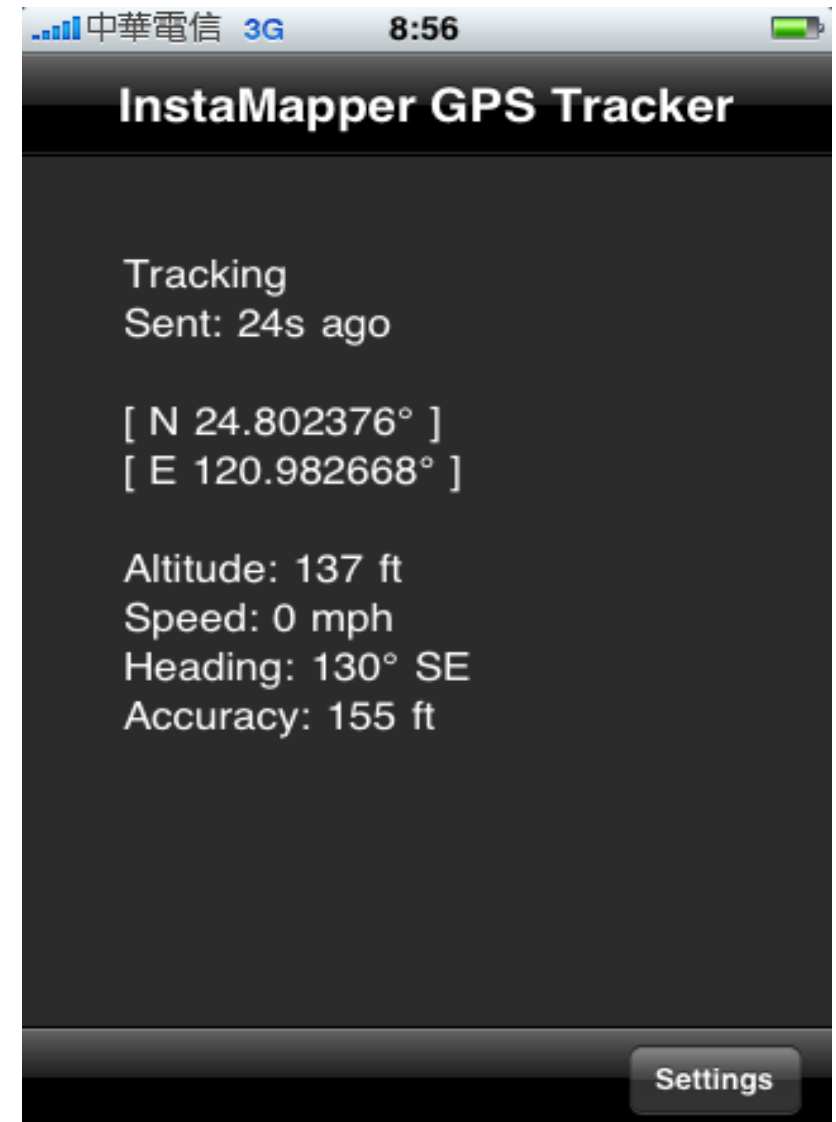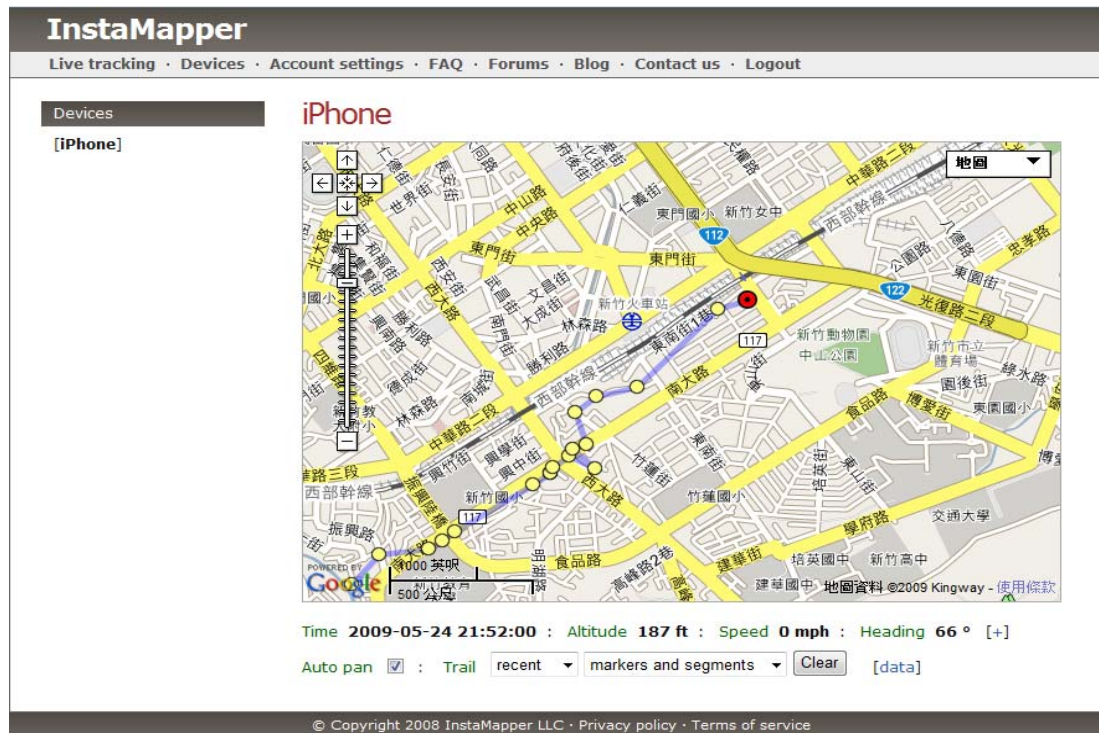
App: GPS

- ◆ GPS with Google Map and street view helps clients to identify routes when they are employed in jobs such as messengers.

App: GPS Tracker (Freeware)

◆ Tracks the location of clients (especially those with intellectual disability)

Cost and Benefit Analysis

- Cost of iPhone
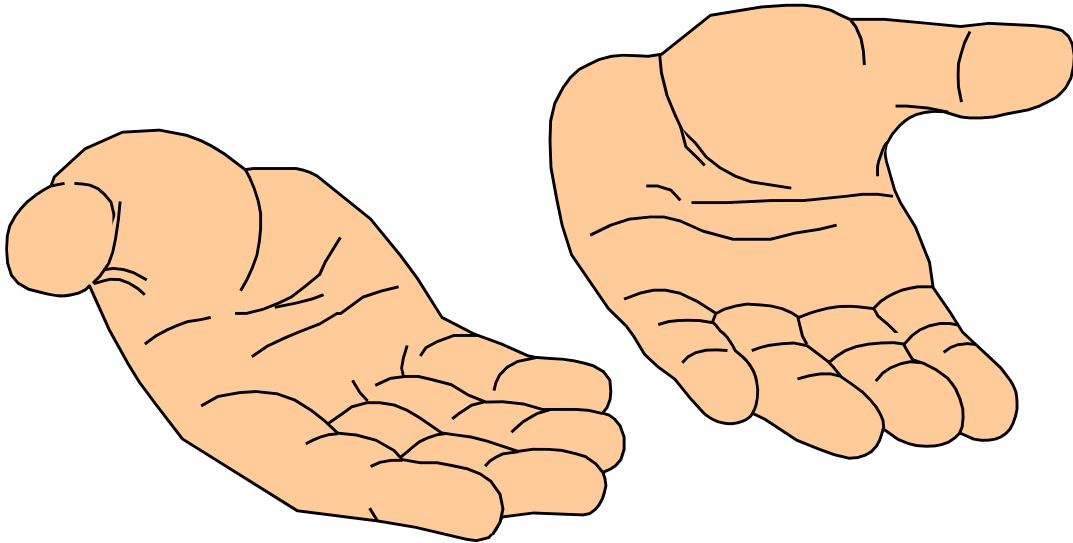
$$$

- Social inclusion
- Dignity

Invaluable.

Looking Ahead

- Standard hardware and software are available
- The need for more personalized "software":
    - Handling daily routines and vocational training.

Conclusion

◆ I phone, therefore I can

◆ Social inclusion is indeed feasible when given the opportunity and support.

Your Comments are Welcome

Thank you