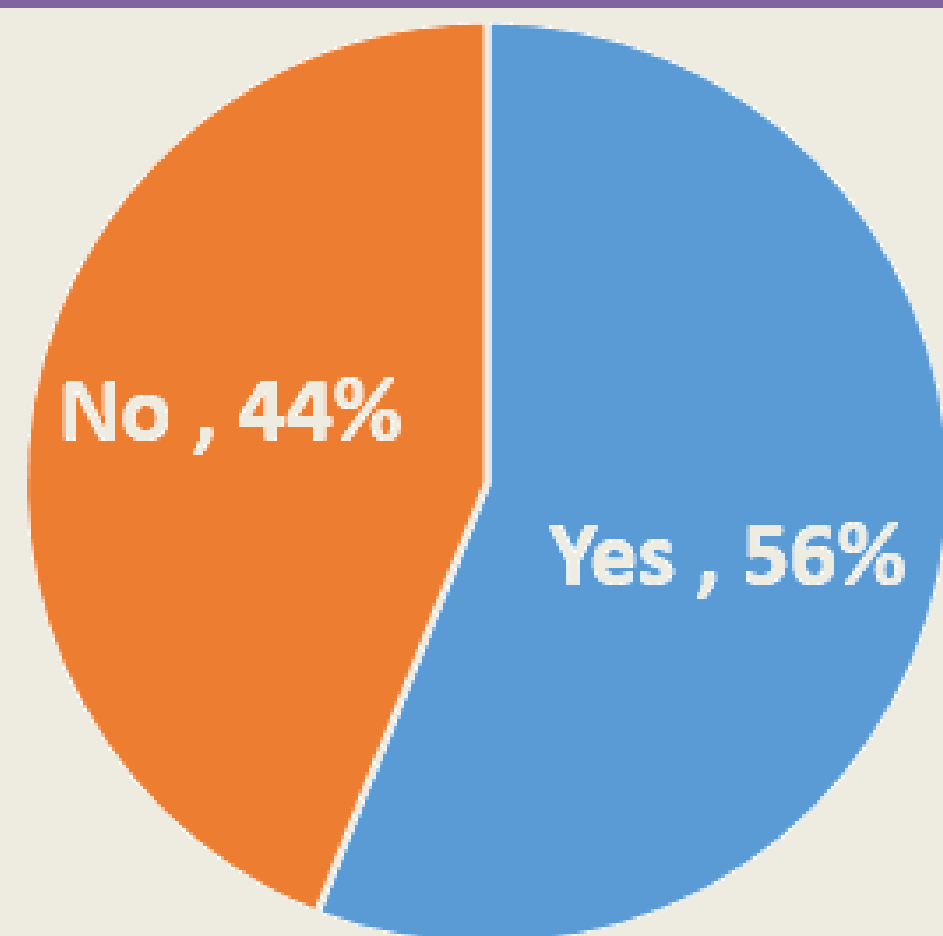


1. PROBLEM STATEMENT

- The Pusat Internet (PI) centres are widely deployed in Malaysia to provide equitable socio-economic benefits to the rural community by offering ICT services and capability building programs.
- The problem PI centres face is their **“Inability to Engage Rural Youths in Local Development”** via their offered programs. This leads to missed opportunity for youth empowerment and the subsequent local development outcomes.

Do Youths participate in PI's training programs ?

- Out of 30 PI operator staffs only 56% agreed that youths participated in their training programs.
- Digital engagement of youth spans only around basic activities such as communication and entertainment.



3. PRODUCT DESCRIPTION

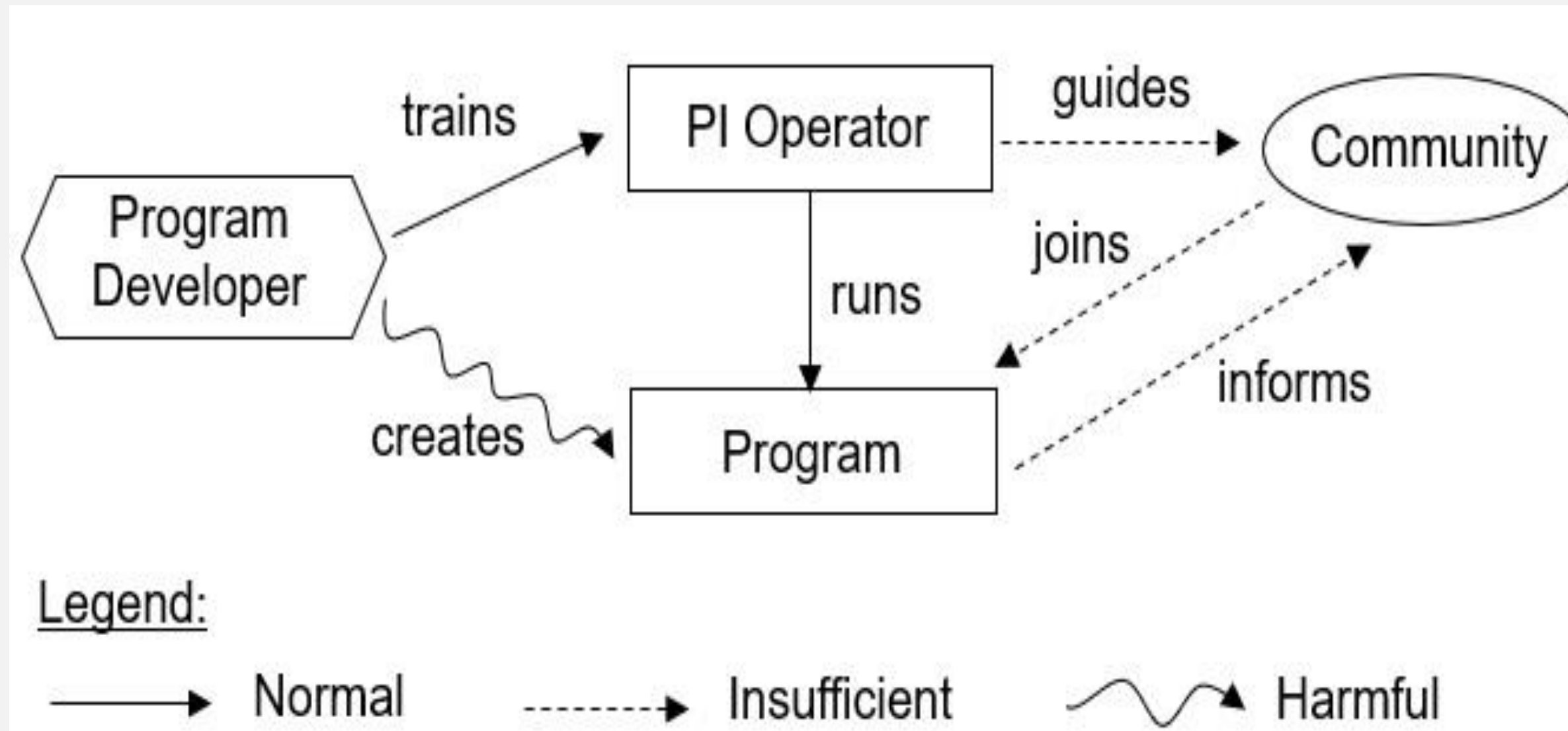
We propose a **TRIZ based Co-design Tool** to facilitate co-creation of a mutually valued program/activities of Pusat Internet (PI) centres.

Some key features :

- manage and share information on upcoming and past training activities
- engage youths in online discussion forum moderated by youth champion
- collect not just 'one-time' feedback but at multiple time periods.
- generate youth profile to keep track of their changing preferences.

2. NOVELTY: FROM PARTICIPATORY RESEARCH TO PROBLEM SOLVING WITH TRIZ

A. FUNCTION ANALYSIS



Super System Program Developer | Sub System PI operator, Program | Product Community

- PI operator is well-trained by the program developer but they do not sufficiently guide the youths.
- Programs are created by the program developer without the notion of co-creation, which worsens the value outcome.
- Youths do not join the programs since it does not sufficiently inform them the skills and knowledge they need.


B. FORMULATE CONTRADICTIONS

ENGINEERING CONTRADICTION

IF youths are involved in co-design **THEN** programs can be refurbished to meet their interests
(Improving Parameter: Ease of Repair)
BUT youth participation in the actual program session is not guaranteed
(Worsening Parameter: Reliability)

PHYSICAL CONTRADICTION

Youth participation has to be **HIGH** in co-design in order to cover a broad range of interests **AND** Youth participation has to be **LOW** in co-design in order to avoid conflicts.

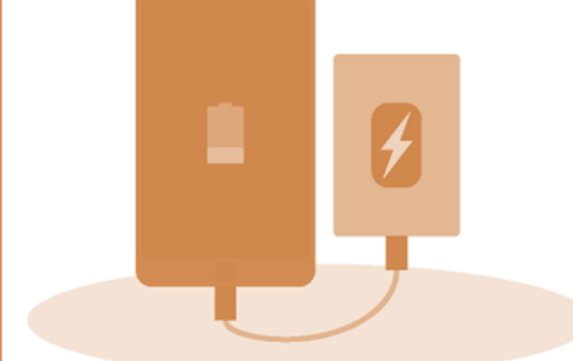
 **Separation in Time:**
Baseline Survey and Reflection Session

C. PARTIAL SOLUTIONS APPLYING INVENTIVE PRINCIPLES



10 Prior Action

To be certain of youth participation a notification system is needed to constantly remind of upcoming program



11 Cushion in Advance

Prepare recorded version of training activities so that those who have missed the training can access it online.



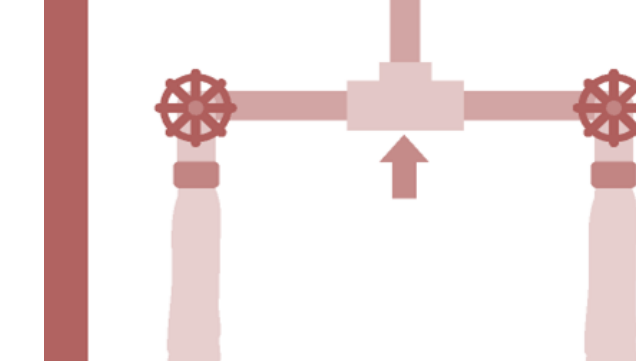
13 The Other Way Around

The GIS features can be used to track the most visited location by the youths and it can be used as a venue for training



16 Partial or Excessive Action

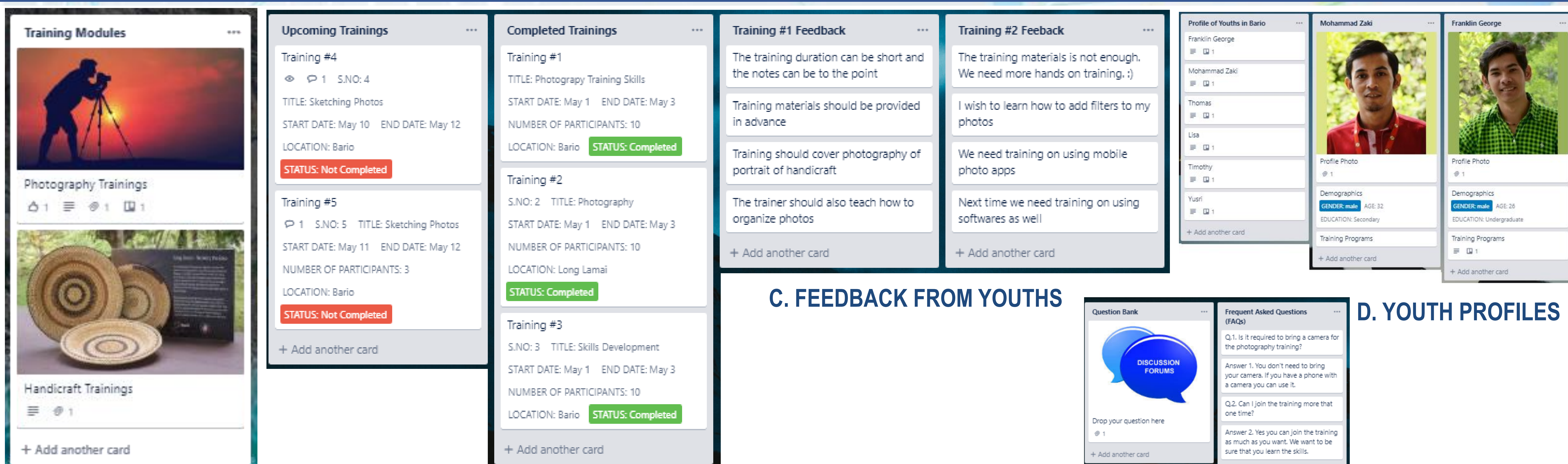
The easiest way to do promotion is by excessive online notification about program dates, venues, teaser trailer.



24 Intermediary

Use digital form as a mediator to keep youths informed about upcoming programs. Also add Youth discussion forum.

4. PRODUCT PROTOTYPE



The prototype interface includes:

- Training Modules:** Photography Trainings, Handicraft Trainings.
- Upcoming Trainings:** Training #4 (Sketching Photos, May 10-12, Bario, Not Completed), Training #5 (Sketching Photos, May 11-12, Bario, Not Completed).
- Completed Trainings:** Training #1 (Photography, May 1-3, Bario, Completed), Training #2 (Photography, May 1-3, Long Lamai, Completed), Training #3 (Skills Development, May 1-3, Bario, Completed).
- Training #1 Feedback:** "The training duration can be short and the notes can be to the point", "Training materials should be provided in advance", "Training should cover photography of portrait of handicraft", "The trainer should also teach how to organize photos".
- Training #2 Feedback:** "The training materials is not enough. We need more hands on training. :)", "I wish to learn how to add filters to my photos", "We need training on using mobile photo apps", "Next time we need training on using softwares as well".
- Profile of Youths in Bario:** List of youth profiles including Franklin George, Mohammad Zaki, Thomas, Lisa, Timothy, Yusri.
- C. FEEDBACK FROM YOUTHS:** Discussion forums for questions like "Q1. Is it required to bring a camera for the photography training?" and "Q2. Can I join the training more that one time?".
- D. YOUTH PROFILES:** Detailed profiles for Mohammad Zaki (Age 32, Secondary Education) and Franklin George (Age 28, Undergraduate Education).

A. MANAGING PROGRAMS B. NOTIFICATION OF PAST AND UPCOMING PROGRAMS

E. YOUTH FORUM

Note: Trello is used to build this prototype

Researchers

Amit Pariyar, Narayanan Kulathuramaiyer, Chin Chee Hua
 Institute of Social Informatics and Technological Innovations (ISITI), UNIMAS

Acknowledgement

Research funded under the Post-Doctoral scheme rendered by Universiti Malaysia Sarawak