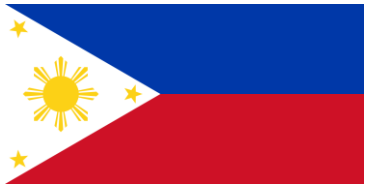
TIESEA Capacity-Building and Dissemination Workshop Philippines



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LearningPossibilities

TESDA

- TESDA has a scholarship program that it operates through TESDA Technology Institutions (TTI) across the Philippines.
- Numerous out-of-school youth enrol in various TESDA training programs both conducted in TTIs and through the TESDA Online Program (TOP). The present reach of TOP is 3,841,640 registered learners/users and increasing daily.

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TESDA | TIESEA Collaboration

- TESDA's mission, to provide better training and employment opportunities for disadvantaged youth, aligns with TIESEA's poverty alleviation goals
- TIESEA and TESDA joined forces to test/pilot an alternative access to the TESDA eLearning courses for areas with limited Internet connectivity.
- Access was provided through an offline content server set up as Moodlebox on a Raspberry Pi 4G.
- The Moodlebox LMS was configured to mimic the TOP LMS environment.

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TIESEA Objectives

1. Determine the comparative effectiveness of a blended learning course delivered either through the Internet or through a local content server.
2. Test the effectiveness of a local server using low cost, energy efficient devices and equipment to deliver a TOP course and the ability of TESDA training institutions to utilize and maintain such devices.
3. Determine the overall training and learning experiences of learners and trainers using EdTech.

Hypothesis Questions

- Is the TOP PVS Installation program, when delivered in a hybrid mode with an offline content server, as effective as the program operating in areas with good internet access through the MRTOP? (metrics include student satisfaction and course results)
- Where the program is running in the outlying provinces, are the program participants able to apply the skills that they have learnt on the PV Installation program and improve community access to electricity?

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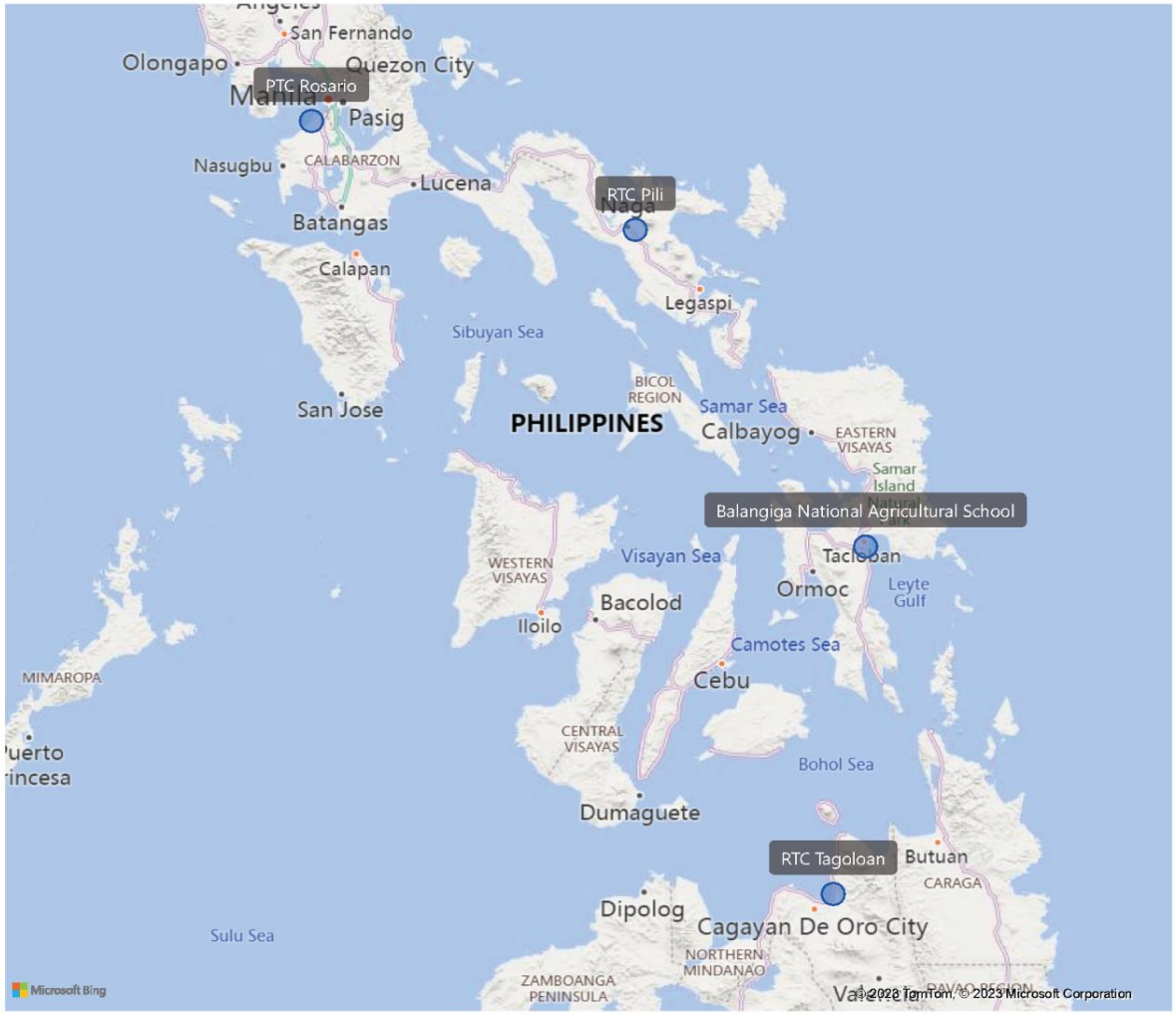
Four partner technical training institutes (TTIs):

- Provincial Training Center (PTC), Rosario, Cavite Province
- Regional Training Center (RTC), Pili, Camarines Sur
- Balangiga National Agricultural School, Balangiga, Southern Leyte, and
- Regional Training Center (RTC), Tagoloan, Cagayan de Oro City




I BNAS


TESD
PTC ROSA


TIESEA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TIESEA PROJECT - PHILIPPINES
CEREMONIAL TURN-OVER EVENT

Pilot Project Beneficiaries

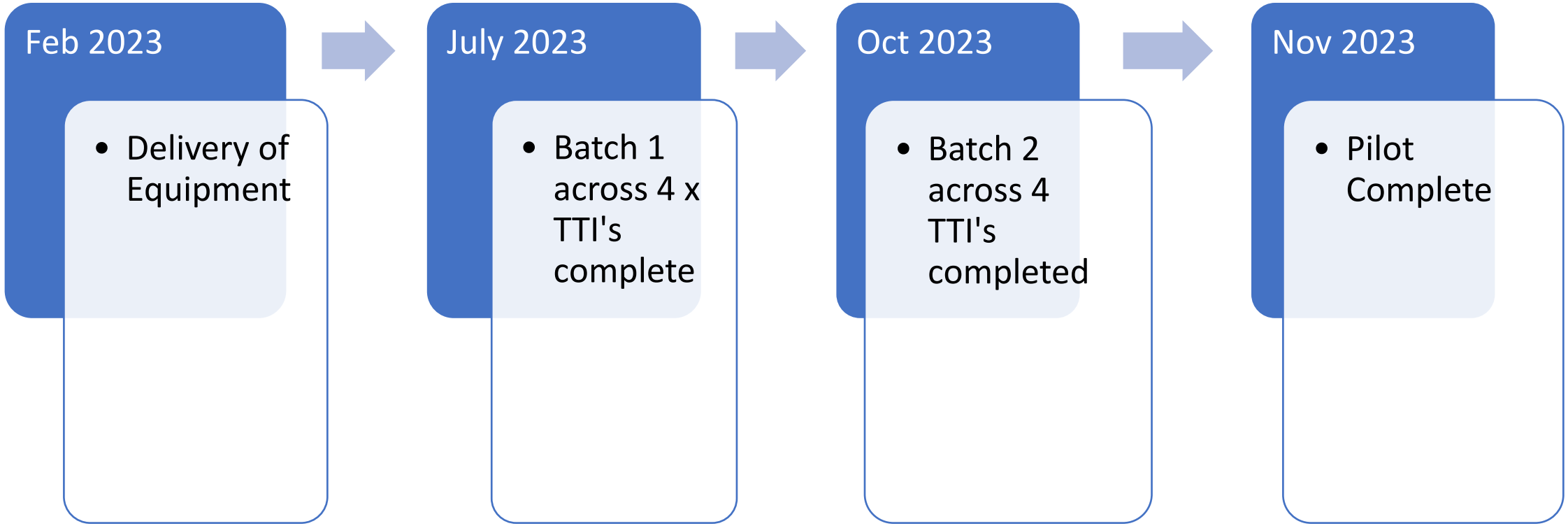
Direct beneficiaries:

- 200 TIESEA learner participants (50 per TTI) were TESDA's Work Scholarship Program (TWSP)

Indirect beneficiaries

- include trainees in TESDA institutes who will have access to similar courses regardless of the quality of local Internet connectivity

Project Timeline



Monitoring and Evaluation

Pre and Post

- PV system installation test
- Digital literacy test

Post

- Semi-structured interviews (SSI) with Trainers and Administrators
- Focused Group Discussion with trainees

Hypothesis Questions

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Findings

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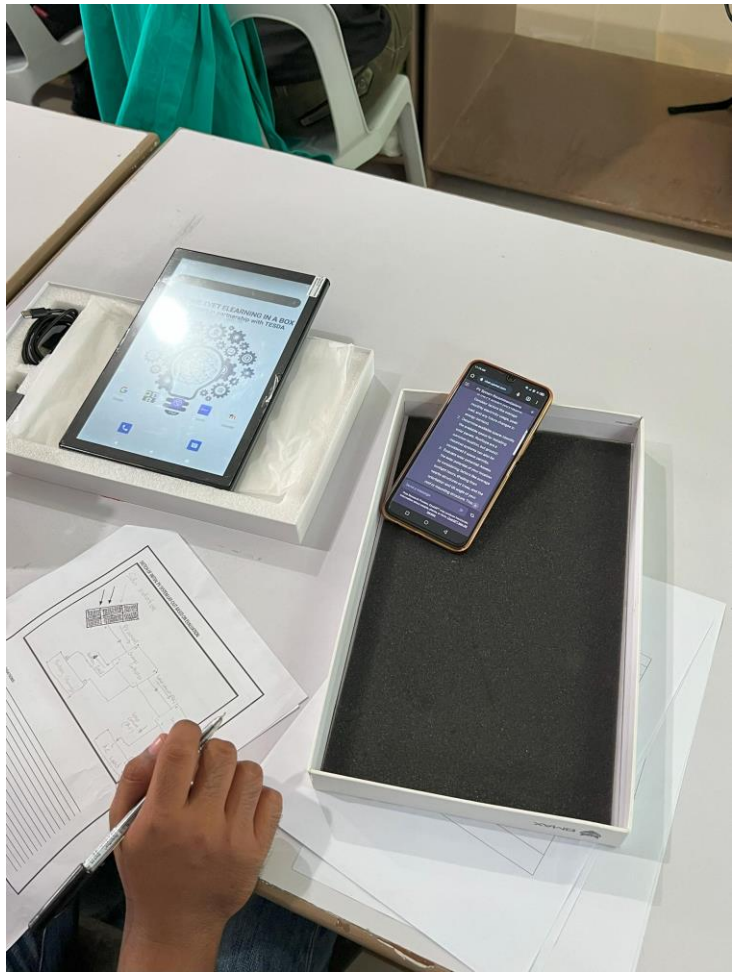
Learning Possibilities


FIRE EXIT
TRAINER'S PROFILE
CERTIFICATE OF PROGRAM REGISTRATION
OFF-GRID PV System
Solar Panel
Charge Controller
Inverter
House
Battery Bank
System capacity = 2 K
Estimated load = 1,50
panel = 460 W
Battery capacity = 24 V
12 V,
48 V
60 A
40 A
20 A
Don't hate, communicate
BNAS 278




AKAI
ATF
BOGS


REGIONAL TRAINING CENTER - PILI
ARCHIE A. GRANDE, CESO III
MARIGLO M. SESE, CESE
JUNE B. OLIVEROS
HERBERT N. BURABOD
Finance and Administrative Service Section
TESDA


COMPUTER LABORATORY
DISTANCE LEARNING

Observations

1. Findings support the benefit of a blended learning approach
2. Findings demonstrate the learning experience effectiveness between online and offline trainees was equivalent
3. Course pass rates were high and not substantially different in online and offline learning experiments.
4. Trainees who demonstrated a high level of digital literacy from the start, benefited from exposure to the technology used with a final digital skill rating of around 90% across all TTIs.

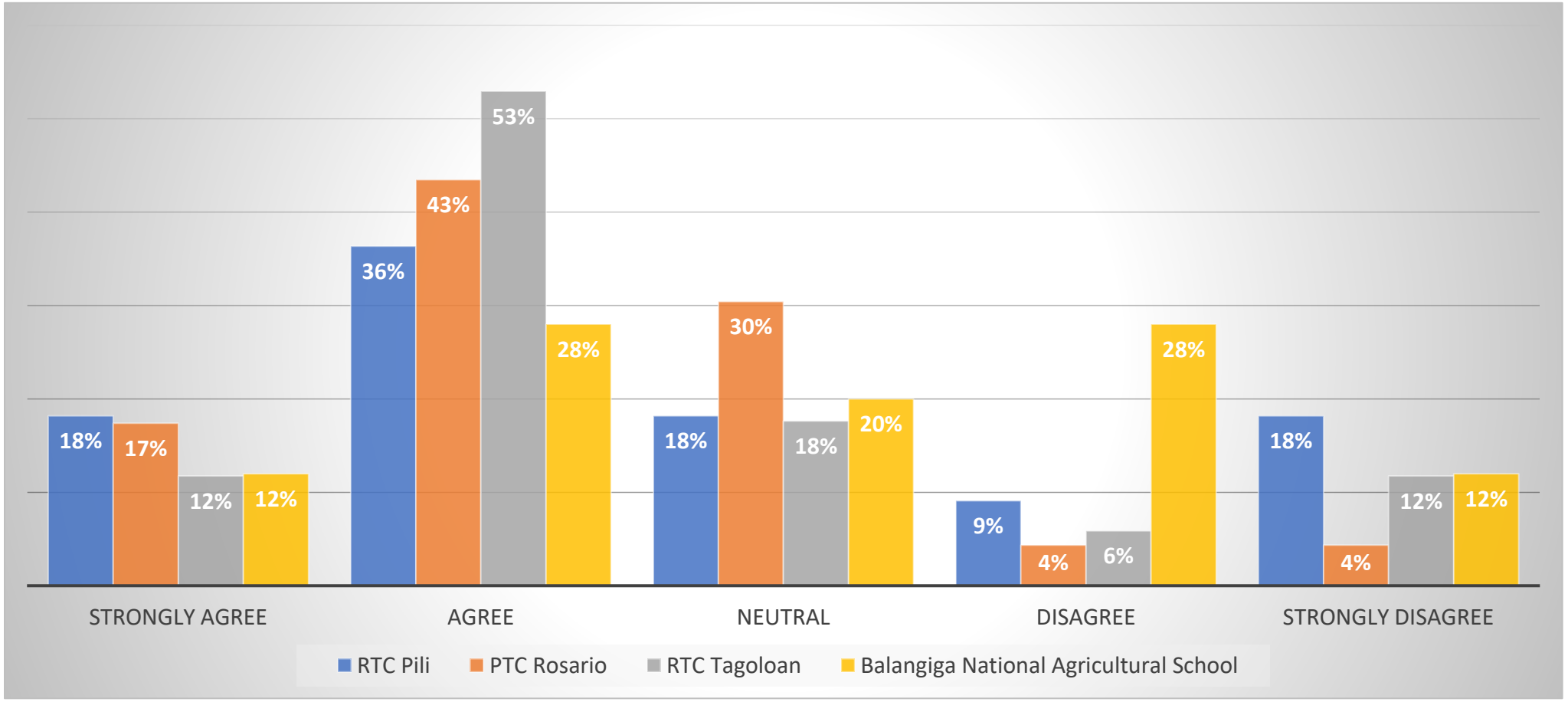
Recommendations

1. Trainees value the ability to take devices home, however suitable covers for safe transportation needs to be considered
2. Allocate budget for ongoing professional development and field visits by technical staff to address any technical issues early in course implementation.
3. TESDA to gather information about useful supplementary content both internally generated and available online and take measures to provide this material to trainees at the TTI.
4. TESDA to use subtitling / captioning software which supports Tagalog to automate the process of subtitling existing videos. Consideration to be given to recording voiceovers in Tagalog when creating new videos.

Recommendations continued

6. Create enabling conditions such as small-scale industry in these areas.
7. Finally, the Biometric-Enabled Scholarship Registration System revealed itself as a significant issue impeding the smooth rollout of the blended approach. Various workarounds were adopted, some of them more cumbersome than others.
8. Replicate the intervention in more isolated TTIs and also as a community training scenario.

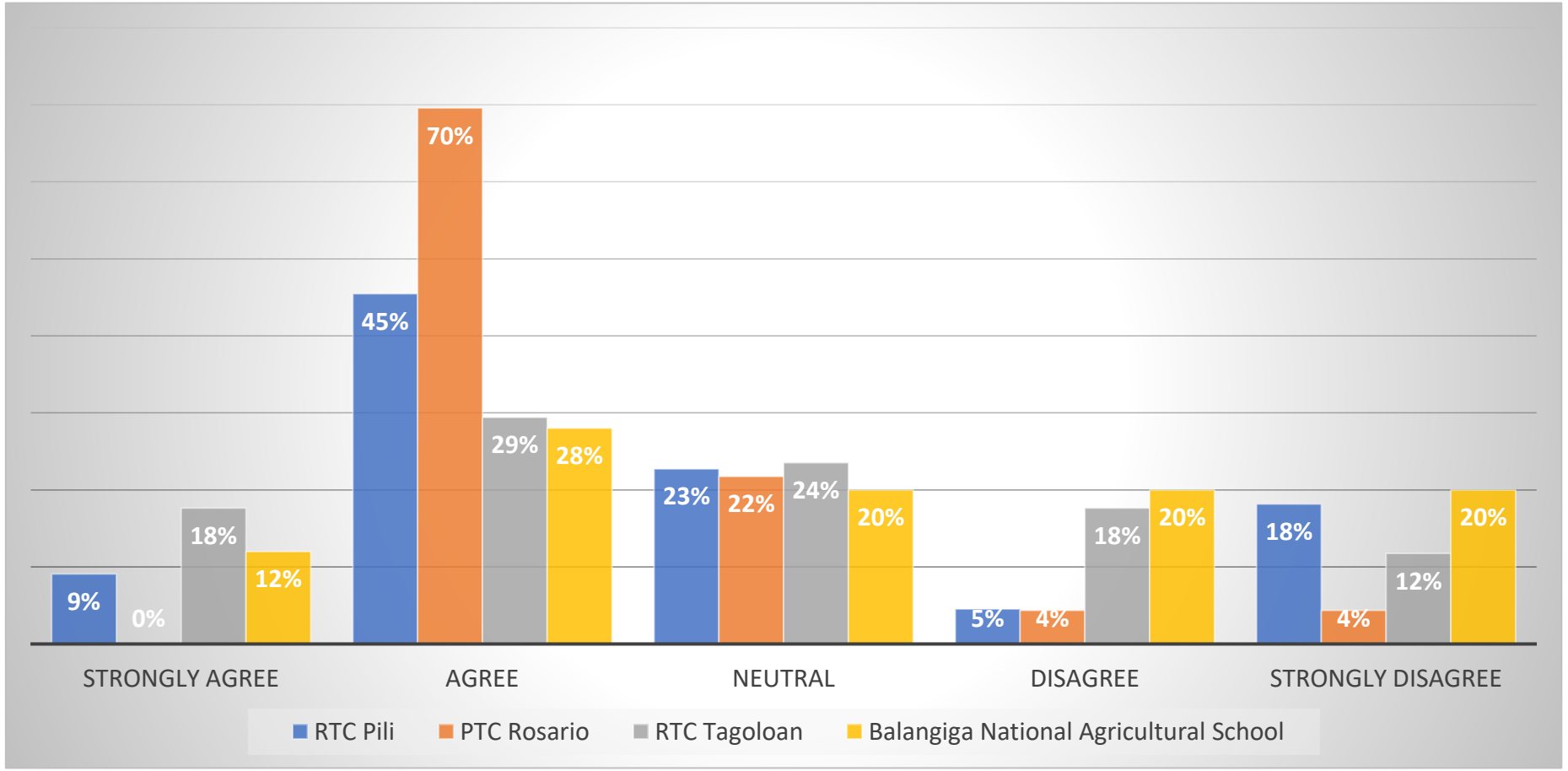
"I have good Internet access at home"



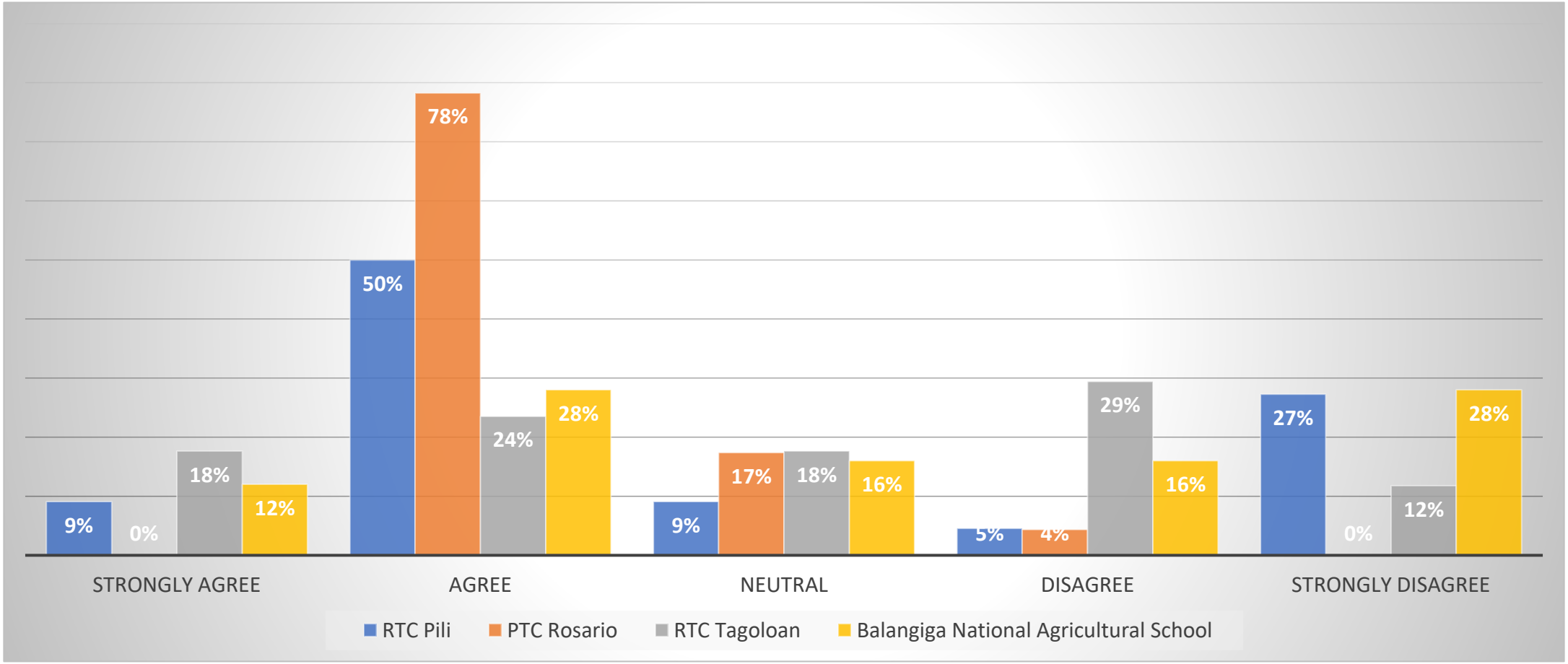
Difference in digital competence after course completion

TTI	Pre-Test Average Score	Post-Test Average Score	Statistical Significance (p value)
PTC Rosario (Batch 1)	89.9%	Scores not available	
PTC Rosario (Batch 2)	86.9%	89.1%	P = 0.11
RTC Pili (Batch 1)	77.2%	Scores not available	
RTC Pili (Batch 2)	71.7%	90.8%	$P = 2.16X10^{-5}$
RTC Tagoloan (Batch 1)	91.0%	91.0%	P = 0.78
RTC Tagoloan (Batch 2)	85.4%	88.3%	P = 0.0068
BNAS (Batch 1)	92.8%	93.5%	p = 0.536
BNAS (Batch 2)	88.9%	91.6%	P = 0.035

"I needed help from the trainer with using the tablet or the learning platform after the orientation"



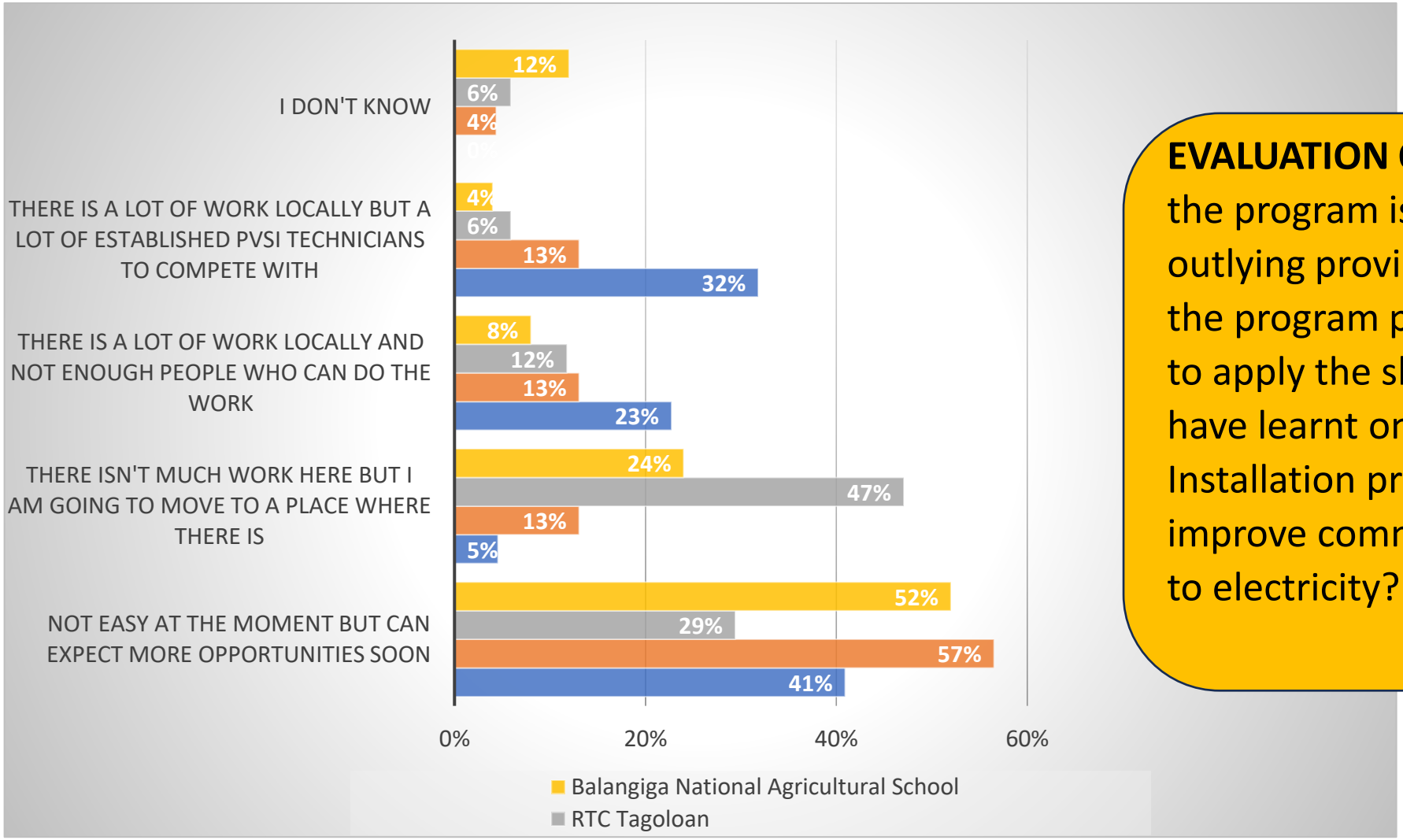
"The other trainees helped me to use the tablet or the learning platform"



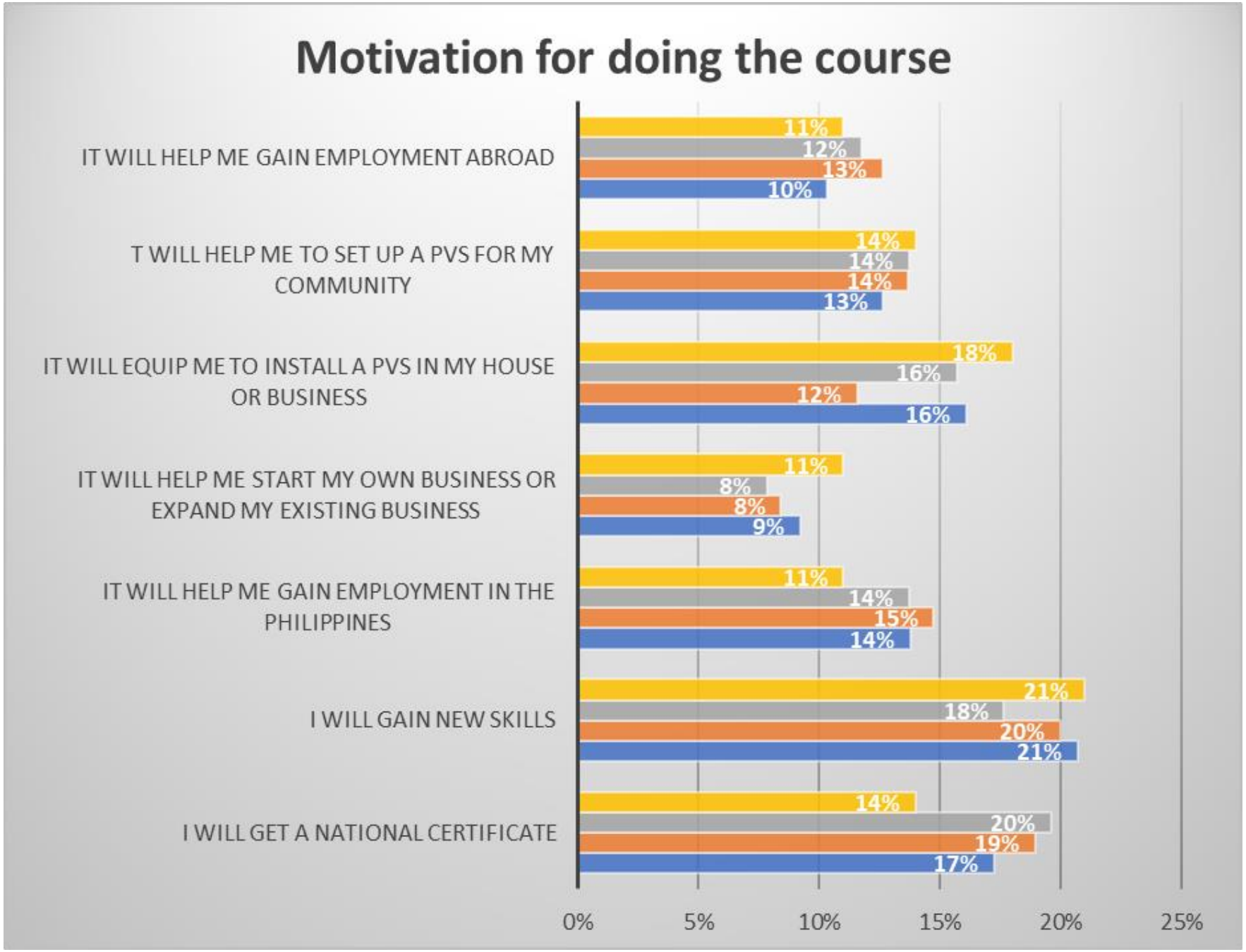
Certification Rates

TTI	Passes	Pass Rate
PTC Rosario (Batch 1)	23 of 25	92%
PTC Rosario (Batch 2)	24 of 25	96%
RTC Pili (Batch 1)	23 of 25	92%
RTC Pili (Batch 2)	25 of 25	100%
RTC Tagoloan (Batch 1)	25 of 25	100%
RTC Tagoloan (Batch 2)	22 of 25	88%
BNAS (Batch 1)	22 of 25	88%
BNAS (Batch 2)	23 of 25	92%

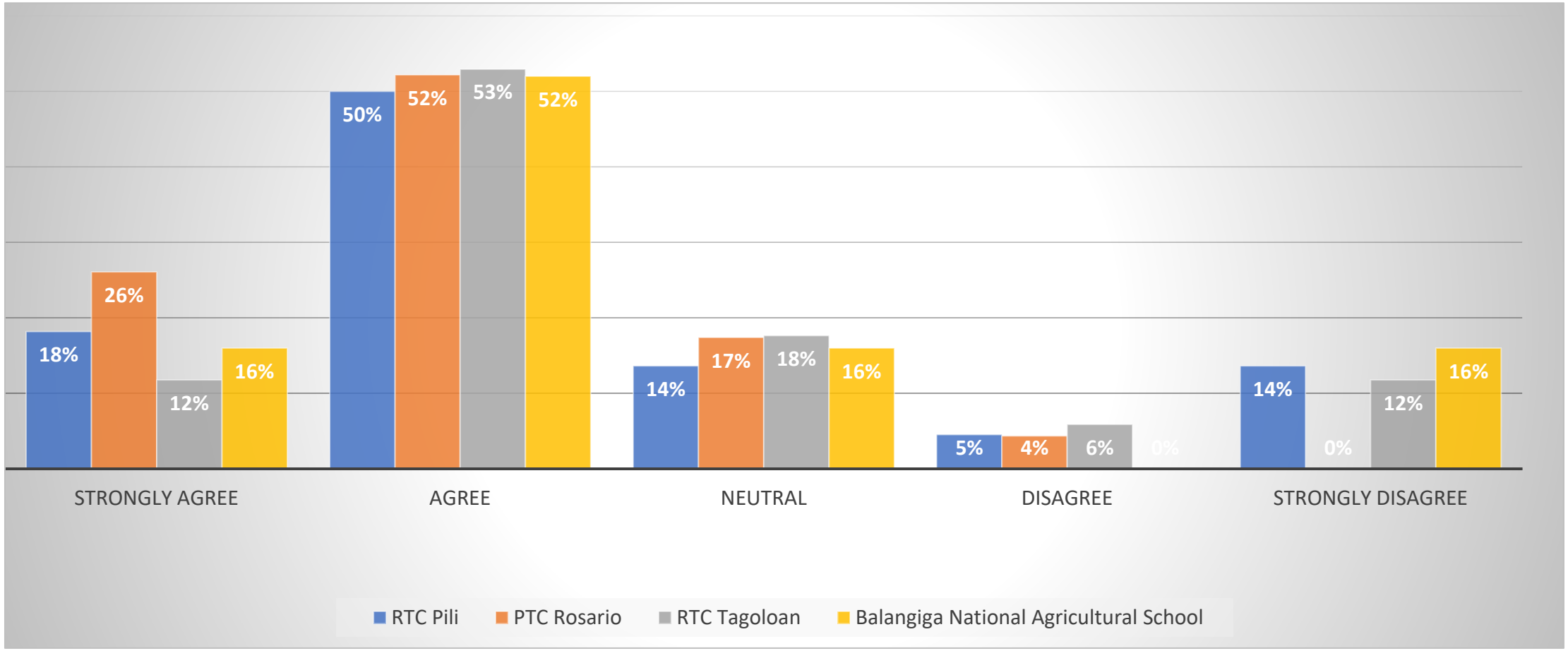
Awareness of Career Opportunities

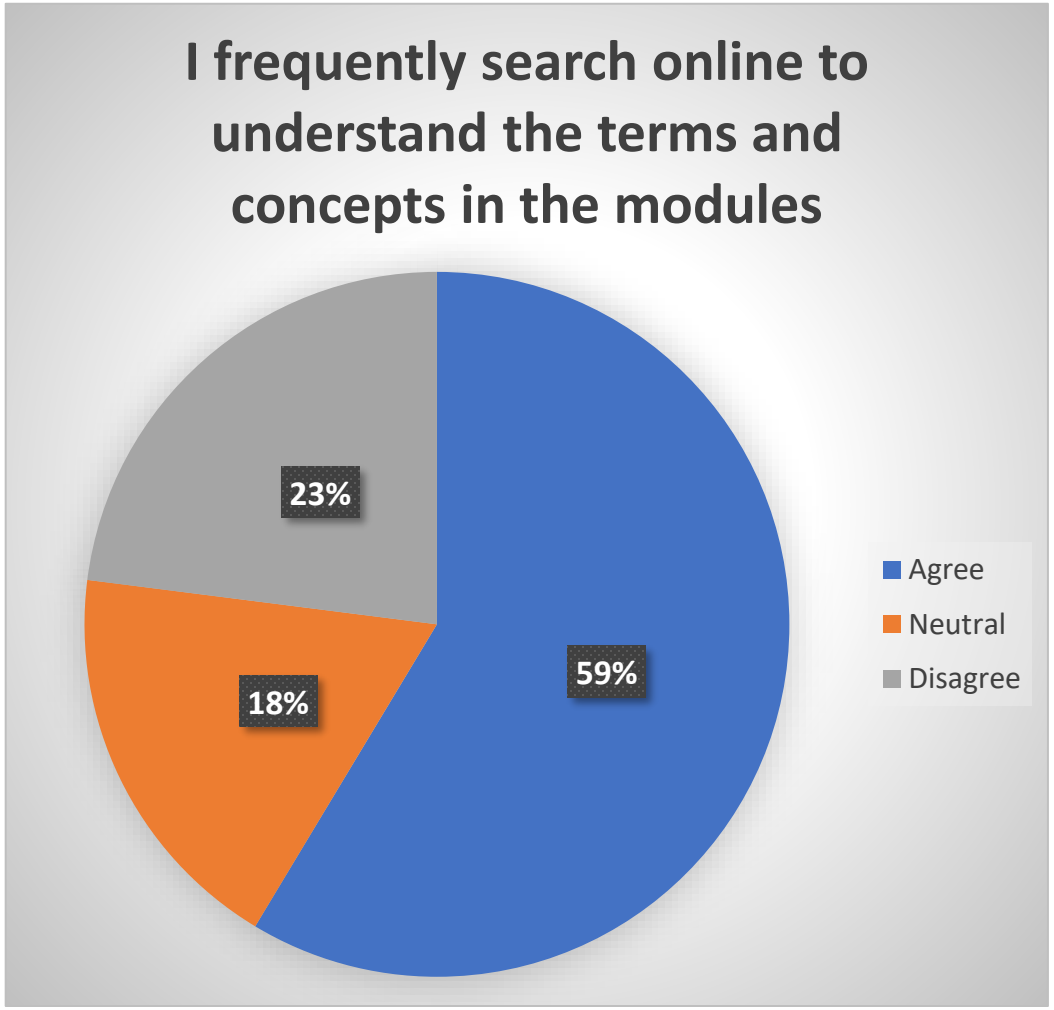


EVALUATION QTN: Where the program is running in the outlying provinces, are the program participants able to apply the skills that they have learnt on the PV Installation program and improve community access to electricity?

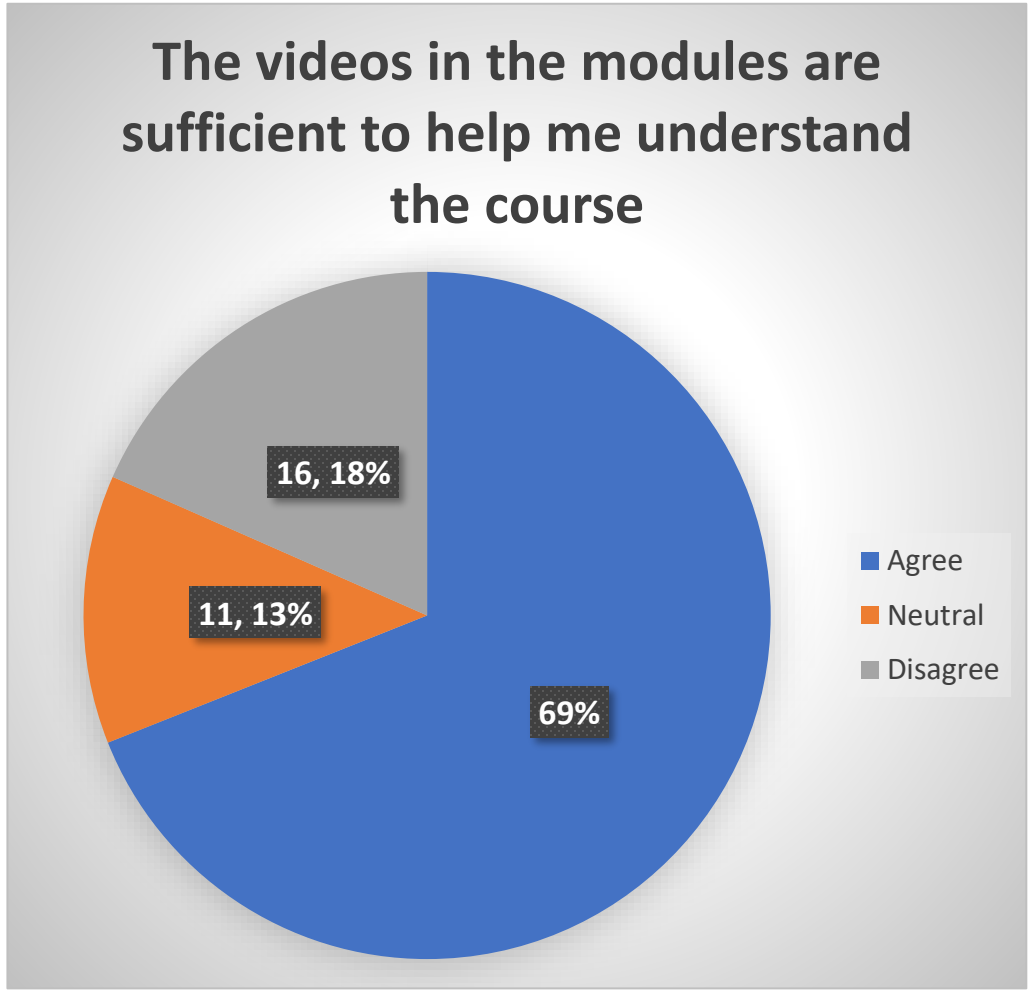

Motivation for doing the course
IT WILL HELP ME GAIN EMPLOYMENT ABROAD
11%
12%
13%
10%
T WILL HELP ME TO SET UP A PVS FOR MY COMMUNITY
14%
14%
14%
13%
IT WILL EQUIP ME TO INSTALL A PVS IN MY HOUSE OR BUSINESS
18%
16%
12%
16%
IT WILL HELP ME START MY OWN BUSINESS OR EXPAND MY EXISTING BUSINESS
11%
8%
8%
9%
IT WILL HELP ME GAIN EMPLOYMENT IN THE PHILIPPINES
11%
14%
15%
14%
I WILL GAIN NEW SKILLS
21%
18%
20%
21%
I WILL GET A NATIONAL CERTIFICATE
14%
20%
19%
17%
0%
5%
10%
15%
20%
25%
Balangiga National Agricultural School
RTC Tagoloan
PTC Rosario
RTC Pili

"I need more information about job opportunities in PVS installation"

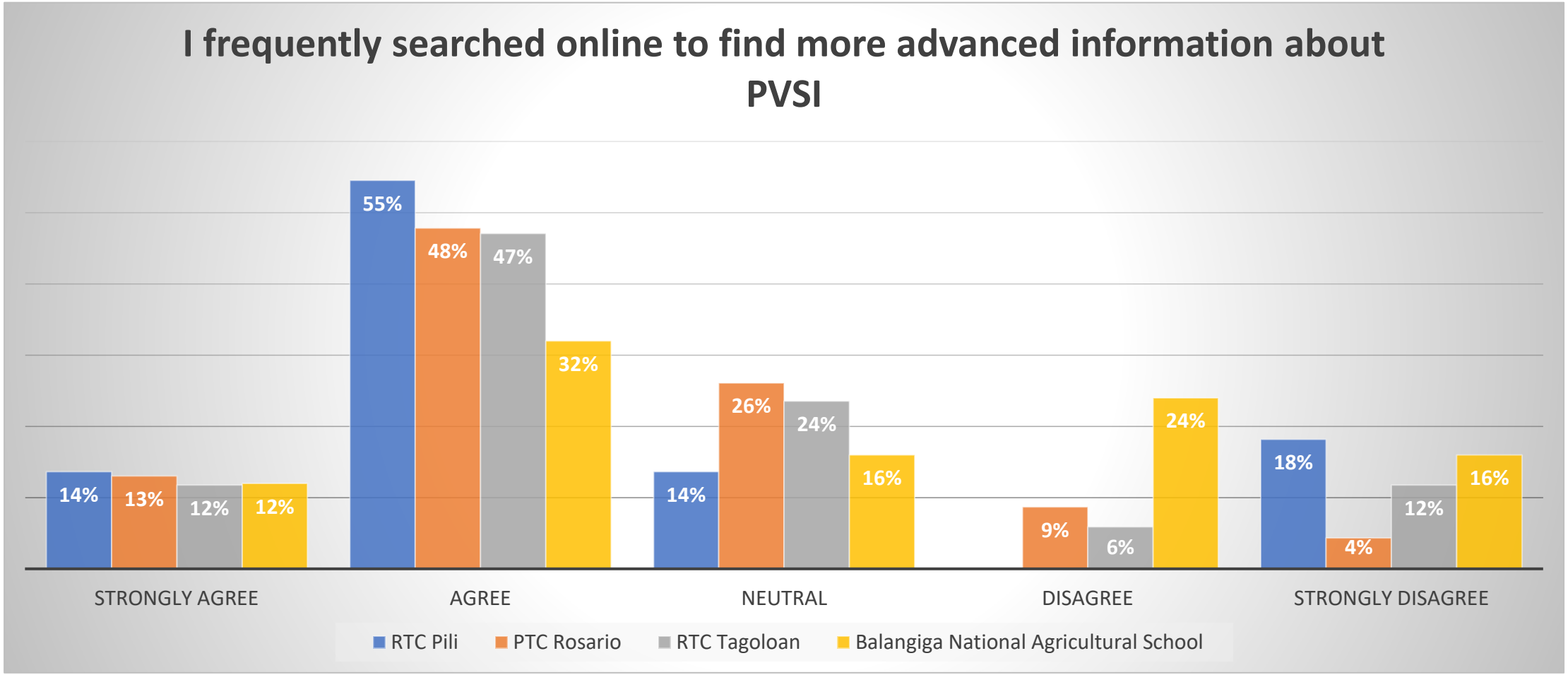




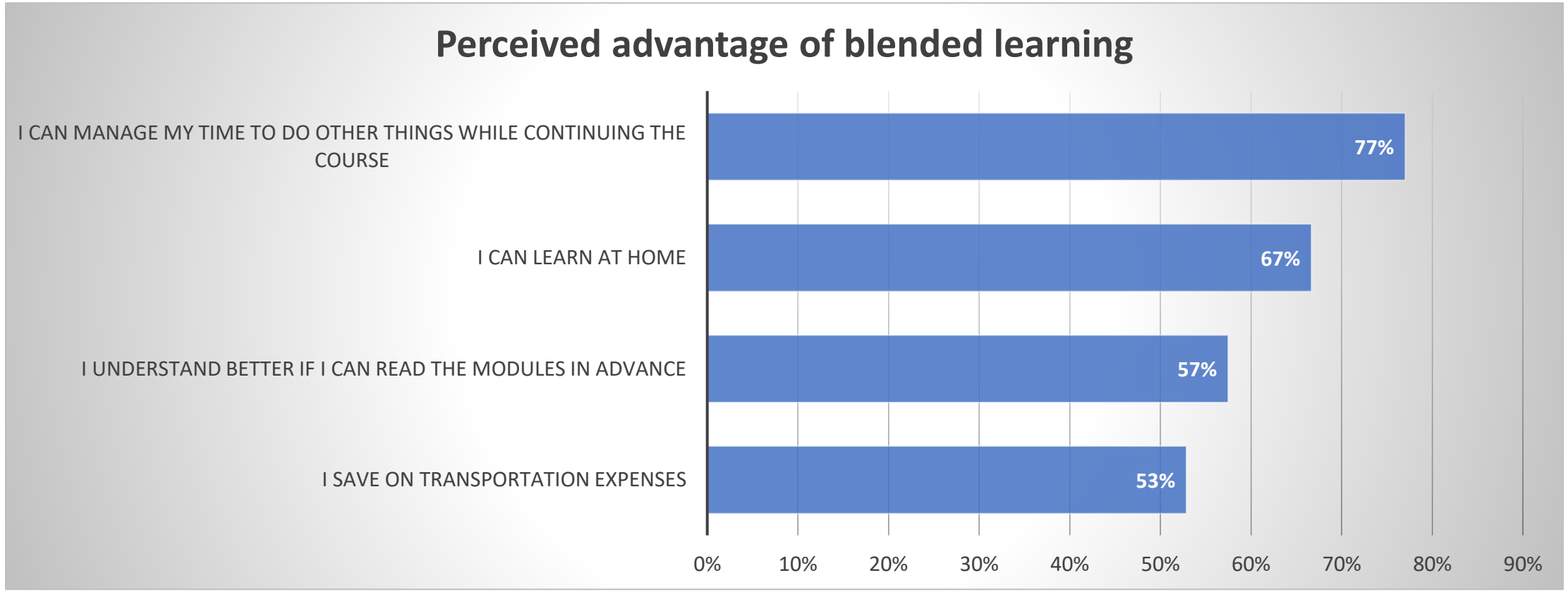
Trainee access of Internet content to supplement course



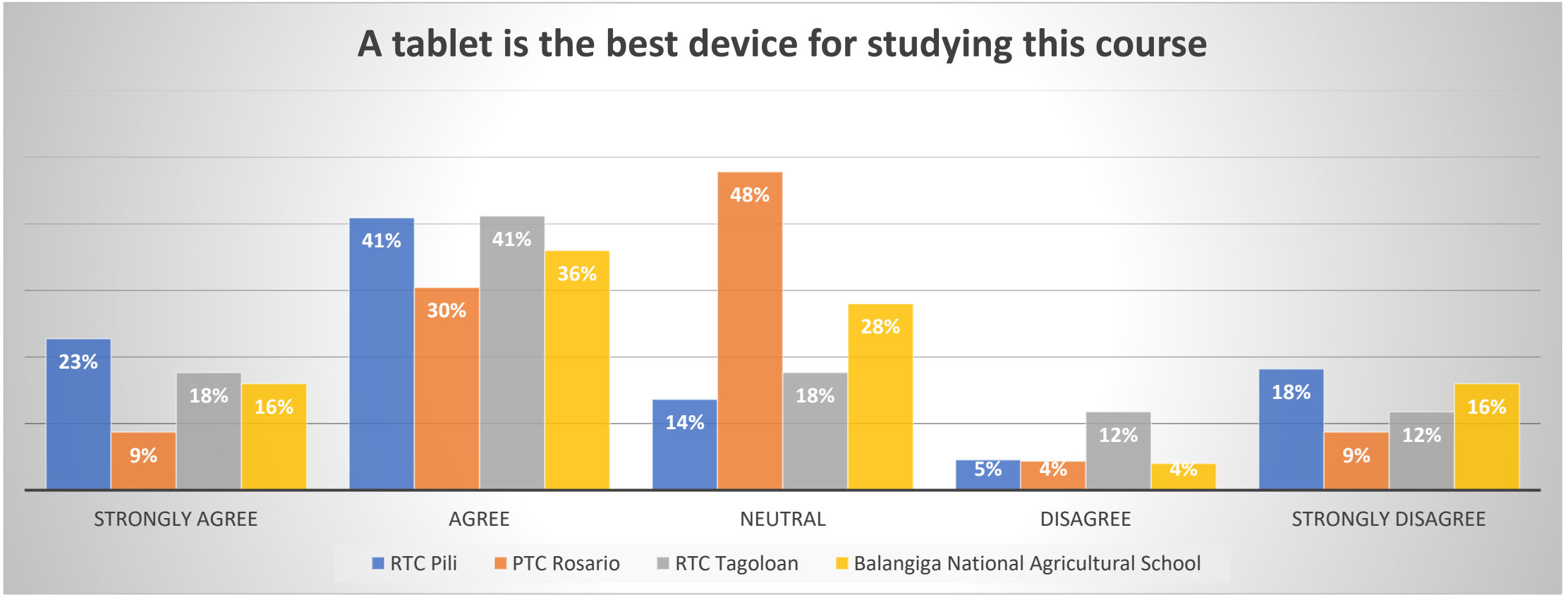
Trainee perception of adequacy of videos included in module content



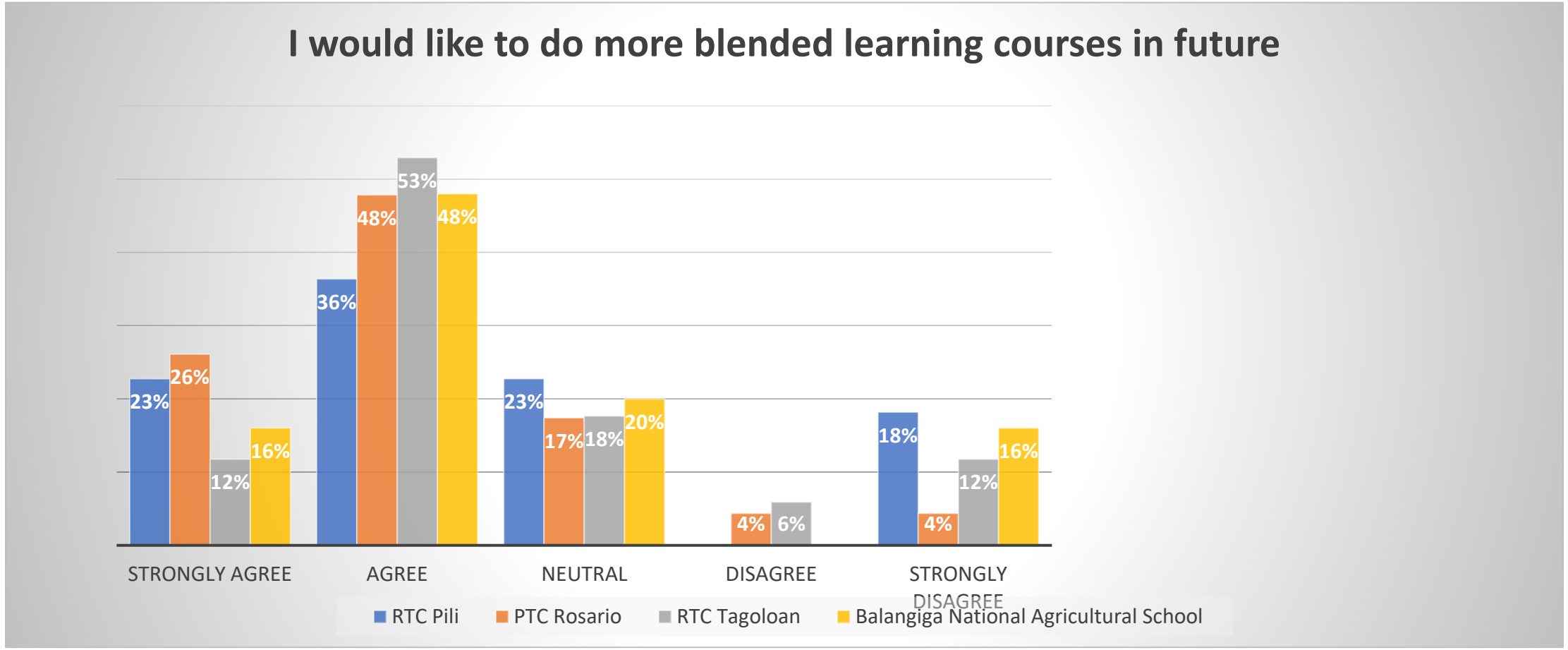
Trainee use of the Internet to extend knowledge.



Perceived advantages of blended learning



Perceived value of tablets as devices for study



Trainee willingness to engage in blended learning in the future