Extending Education To The Pacific Region Through Cohort Teaching – Science Teachers Accelerated Programme

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Outline

1. Birth of STAP
2. Pre-STAP Preparatory Work
3. Model & Delivery Plan
4. Learning Support
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STAP is a new cohort teaching partnership signed by the Government of Samoa and the University of the South Pacific which delivers a two-year accelerated programme to upgrade the qualifications of teachers teaching science in the secondary schools in Samoa.

Birth of Science Teachers Accelerated Programme

- Observations: Science Outreach and the Importance of Science in the Region
  - Discussions with Ministry of Education, Sports & Culture, Samoa
  - Intervention: Multi-modal and ICT Enriched Model
  - Selection Criteria of Teachers
  - Upskilling Workshops
- Official STAP launch

Keynote by Samoa Prime Minister Honorable Tuilaepa Malielegaoi

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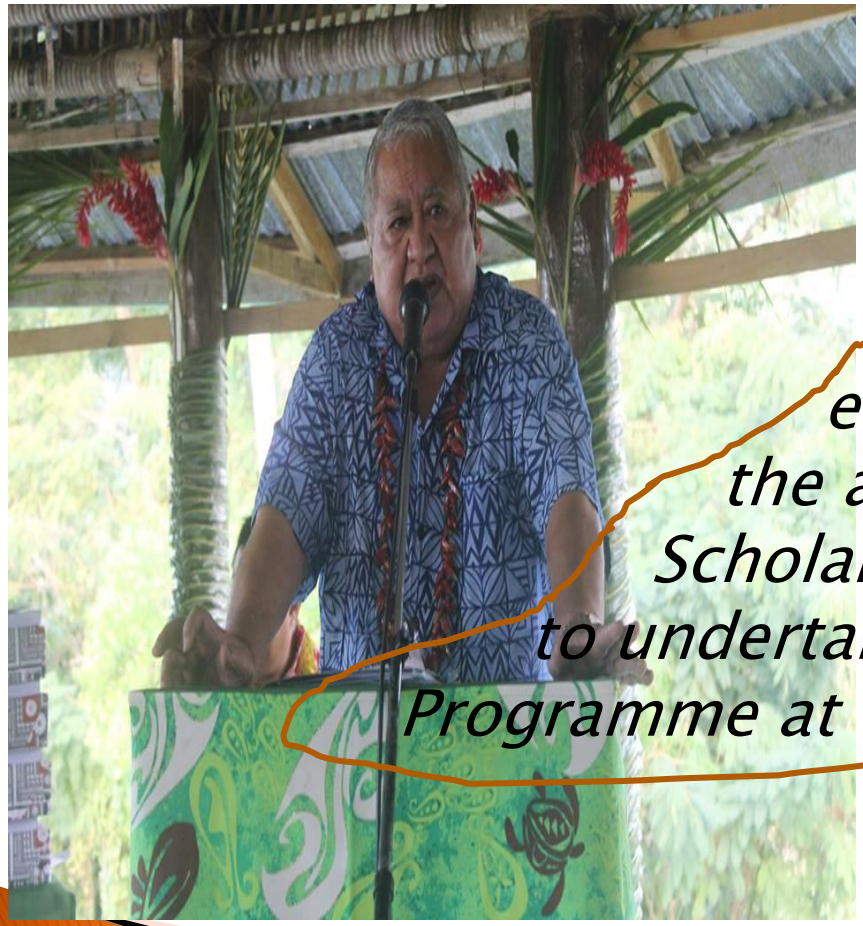
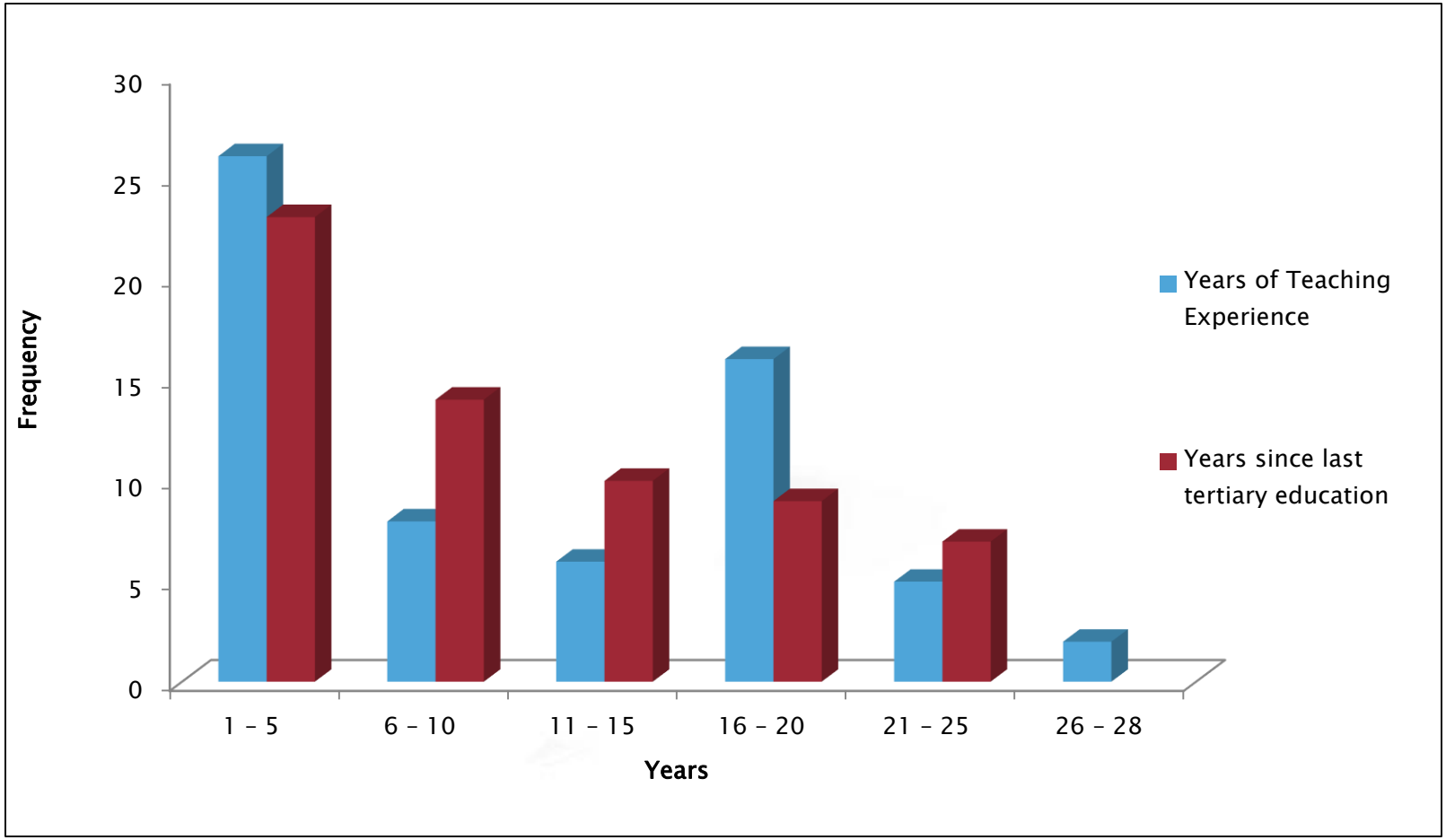


"We are embarking today on an important journey that will see many benefits for our education system and that is the awarding of 60 Government Scholarships for Science teachers to undertake a Bachelor of Science Programme at USP"

Failure is NOT an Option !

Pre-STAP Work



Preparatory Work

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The following Refresher and induction workshops were conducted:

- Setting Priorities and Study Skills
- Listening to lectures
- Note Taking
- Basic Computing
- Introduction to Moodle
- ICT Refresher
- Social Networks
- ICT Tools
- Learning Styles
- Course Tips

ICT Workshop

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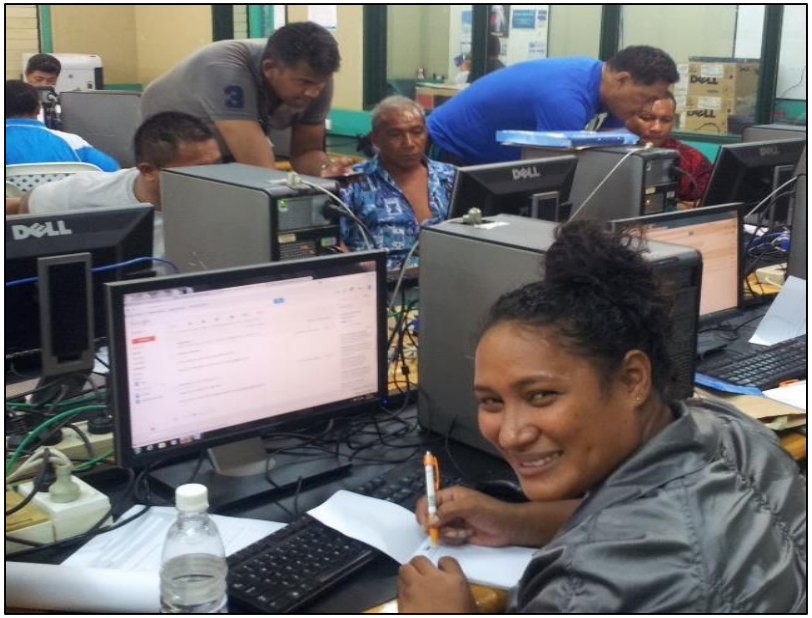
While the students openly expressed that the workshop takeaways were useful as indicated by a 5-point likert scale ($\overline{x} = 4.79; sd = 0.45$) their ICT competency greatly varied. An evaluation using a 4-point Likert scale showed $\overline{x} = 2.79$ and $sd = 0.91$ which indicate an average rating towards ICT skills

Interesting Facts

- Almost 50% computer illiterate
- 80% had never used Internet before
- Only 8% had existing email accounts
- 88% had their Facebook account created



Cohort of Science Teachers

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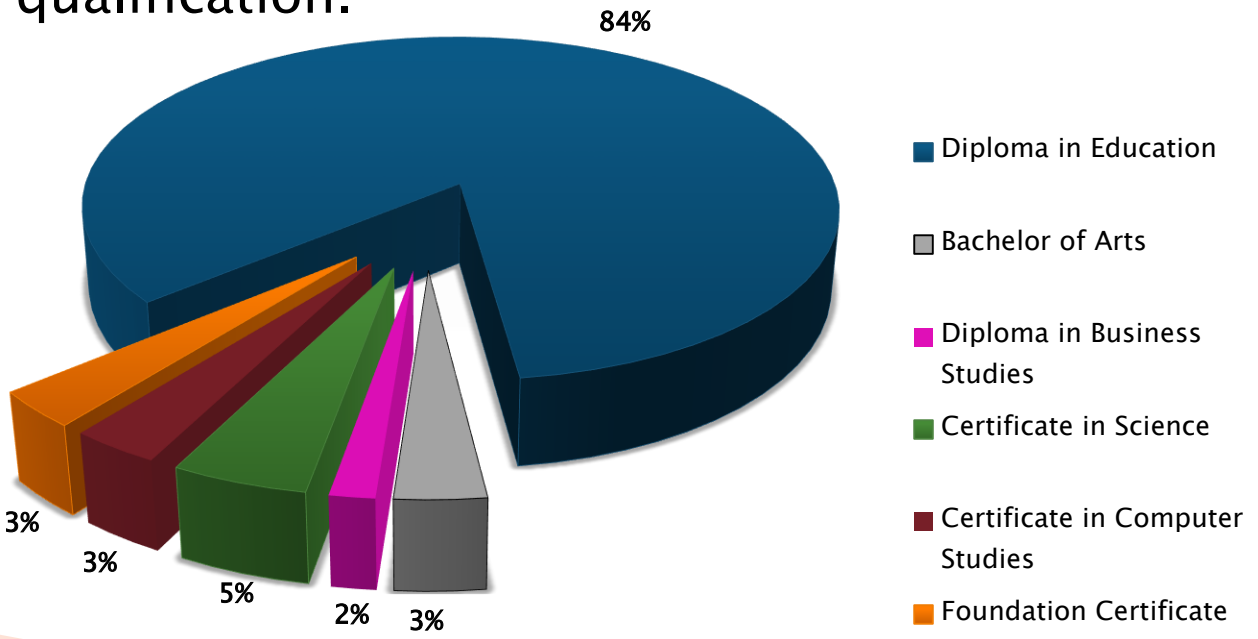
- The STAP cohort currently comprises of 63 teachers, including Heads of Departments, VPs, and Principals.
- The age distribution of the cohort ranges from 23 to 52 years of age. The teachers below 30 years of age represent 41% of the cohort.

STAP Model

The design and structure of the STAP model was subject to, inter alia, the qualifications of the cohort.

Figure 1: Depicts the percentage of teachers categorized according to their highest level of qualification.



STAP Model

- After an intensive review of the constraints and logistics a feasible 2year delivery plan for STAP was established with expected completion in June and graduation in December, 2016 . In this duration 16-18 courses would be offered.

Table 1: Showing the number of courses offered per term to the STAP cohort

	2014	2015	2016
Summer *(January)*		2	2
Semester 1 *(February-June)*		1	1
Winter *(June- September)*	1	2	2
Semester 2 *(July - November)*	1	1	
Summer *(December)*	2	2	GRAD

Elephant in the Room...

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- Historically, Science courses are only offered at the Laucala Campus due to the unavailability of specialised laboratory equipment in the regional campuses.
- Equipment intensive practical components for Biology, Chemistry & Physics courses would be conducted at the Laucala campus in Fiji during a 2-week Science Bootcamp.

Learning Support I

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1. eMentoring

- The eMentoring support was provided using Big Blue Button (BBB), an open source software which is low on Bandwidth.
- A Likert scale rating of 1-5 was used to evaluate students satisfaction, the results showed statistics ($\overline{x} = 4.22; sd = 0.48$) , which is a good indication that this new service was useful.

2. Tablets

- eRepository since the devices were preloaded with course materials and OERs.
- Wi-Fi capability allows students to connect to wireless Internet services on campus or connect to other wireless networks.

Learning Support II

3. Social Media

- Social media was harnessed to allow flexibility in communicating with the facilitators.
- A Facebook group

4. Moodle Support

5. Tutorial Support

6. SMS Notifications

7. Video Conferencing

Status Quo

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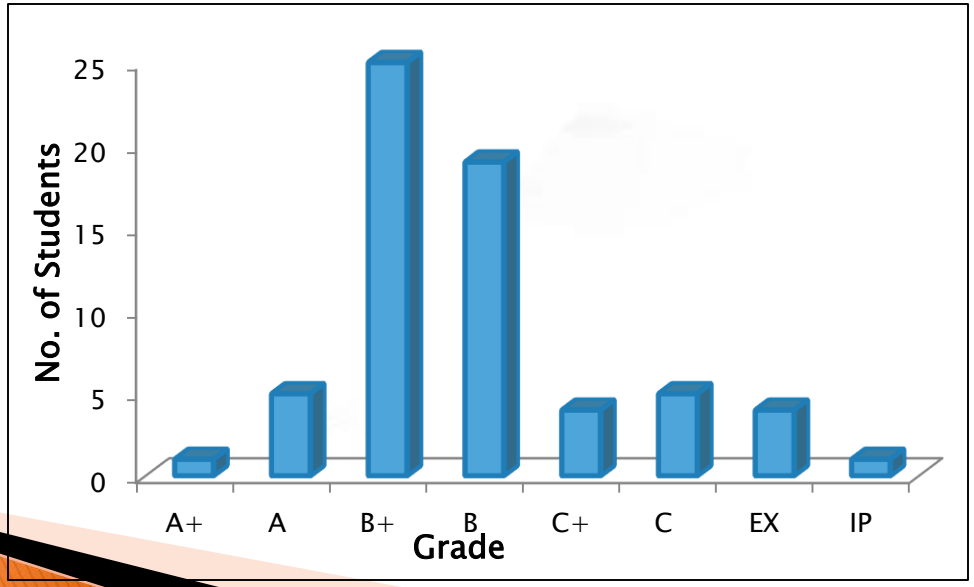
First Course: UU100

- University course designed to boost the communications and information literacy of the students.
- UU100 STAP results were found to be statistically significantly lower than past three years flexi school final marks 2014 (U = 3583.5, p = 0.0003), 2013 (U = 2460.5, p = 0.000) and 2012(U = 3791, p = 0.000)

μ= 65.6
σ = 15.8

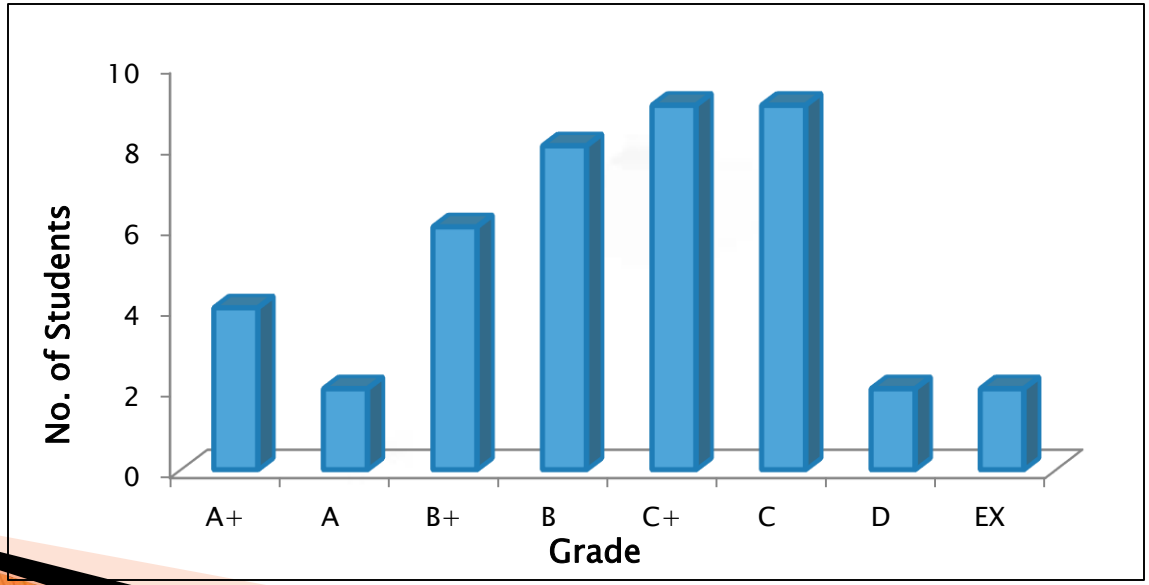


Status Quo

BI102

- BI102 STAP results were found to be statistically significantly higher than the past two years Laucala results, 2014 (U = 2868.5, p = 0.0002) and 2013 (U = 3280.5, p = 0.00003)
- There was no statistically significant difference between BI102 STAP and 2012 results ($U = 3791$, $p = 0.000$)

μ= 65;
σ = 12

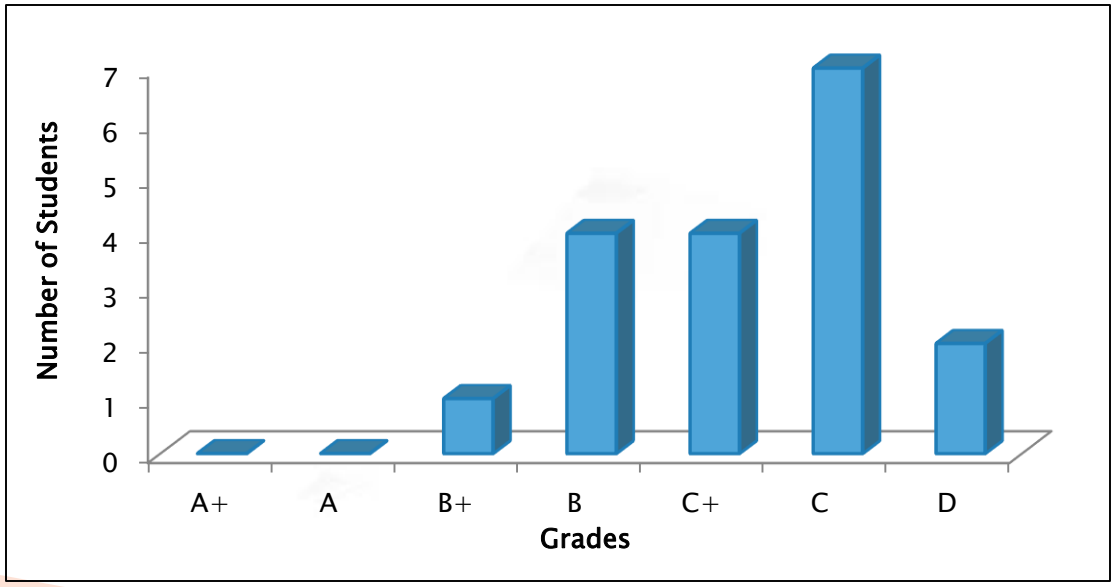


Status Quo

CS112

CS112 STAP results were found to be statistically significantly higher than the past three years Laucala results, 2014 (U = 674, p = 0.027), 2013 ($U = 723.5$, $p = 0.020$) and 2012 ($U = 965$, $p = 0.048$)

$\mu = 56.6$
$\sigma = 9.3$



Recent Percentages

- The pass rate for UU100 was 98.4%.
- 2 Mathematics units were offered in Semester 2 which had an average pass rate of 60.6%
- Mathematics flexi school was organised to bring the students who had not passed in semester 2 in par with the cohort which secured average pass rate of 91.7%
- The average pass rate of 5 courses offered for December flexi school was 89.3% while this average rose to 95.0% in January when another 5 courses were offered.
- **The overall average pass rate of STAP so far 88.3%**

STAP Award Function

Thanks
Meitaki
Kommol
Fakafetai
Fakaaue-lahi
dhan'yav da
Tank-iu
Vinaka
Tubwa
Faafetai
Fakefetai
Malo-aupito
Ko-rab'a
Tank-yu-Tumas