Project Title

Satellite Assistive Technology Loan Libraries implementing a Hub and Spoke Model

Project Lead and Members

Project lead: Tan Aik Hoe Ivan

Project members: Teh Keng Hock, Chua Qiu Rui (Kelly)

Organisation(s) Involved

Serving People with Disabilities (SPD), Singapore Polytechnic, Nanyang Polytechnic, Ngee Ann Polytechnic, Republic Polytechnic, ITE College West, ITE College East and ITE College Central

Aims

To address the barriers of Assistive Technology (AT) usage within this higher learning context in order to improve the accessibility to AT devices and services.

Specialised Assistive Technology Centre (SATC)'s aims to address the problems such as lack of awareness, lack of knowledge and training, and inefficiencies of the Centralised Service Delivery Model, by increasing the usage of AT devices measured by the number of AT loans serviced, increasing the number of SEN personnel who received AT training, and increasing the number of AT devices that are available on campus.

Background

See poster appended/ below

Methods

See poster appended/ below

Results

See poster appended/ below

Lessons Learnt

1. **Learning never ceases**: The training of the SEN Counsellors at the Satellite AT Loan Libraries should be continual, especially as technology advances, and new and innovative assistive technologies and strategies emerge.
2. **Technology Refresh**: Demand for newer and more effective assistive technology devices needs to be managed as more awareness and experience is created, else the project cost will skyrocket.
3. **Enhanced service delivery**: As the SEN counsellors develop their skills and experience, an additional benefit is that they seek to enhance the school environment by providing disability awareness training & experiential tours for the rest of the student cohort for them to better understand issues and empathize with their fellow students with SEN.

Conclusion

See poster appended/ below

Additional Information

Winner of the AIC Community Care Excellence Awards (CCEA) 2020: Team Award - Productivity Improvement category

Project Category

Quality Improvement

Keywords

Quality Improvement, Assistive Technology, Persons with Disabilities, Centralised Service Delivery Model, Serving People with Disabilities (SPD), Singapore Polytechnic, Nanyang Polytechnic, Ngee Ann Polytechnic, Republic Polytechnic, ITE College West, ITE College East and ITE College Central, Specialised Assistive Technology Centre, Hub and Spoke Model, Special Educational Needs, Institutes of Higher Learning, Disability Support Office

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Satellite Assistive Technology Loan Libraries Implementing a Hub and Spoke Model

[SPD] Tan Aik Hoe Ivan, Teh Keng Hock, Chua Qiu Rui (Kelly)

spd
Serving people with disabilities since 1964

What is the project about and why do we need to work on this?

SPD started the Specialised Assistive Technology Centre (SATC) over 15 years to offer Assistive Technology (AT) assessments and trainings to persons with disabilities (PWDs). AT enables the lives of PWDs to change and help them live, learn, work and play in ways they would have otherwise found difficult.

AT also has a role to play for students with Special Educational Needs (SEN) who face physical, sensory and learning difficulties as well as those who fall on the Autism spectrum.

Despite the effectiveness of AT, the usage of AT services for SEN students in Institutes of Higher Learning (IHLs) were hindered with factors like insufficient awareness, knowledge and training provided for AT and the inefficiencies of the Centralised Service Delivery Model.
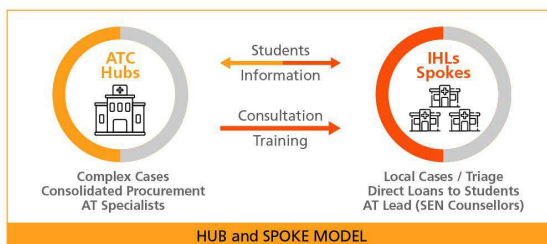
Project Goal | The team aims to increase the usage of AT and its services among SEN students in IHLs.

What solutions have been implemented?

Implement Hub and Spoke Model (Elrod & Fortenberry, 2017) to make services more efficient, enhance service delivery quality and maximise AT usage. ATC functions as the hub to manage and disseminate AT knowledge and AT devices and receive referral for complex cases.

IHLs will be empowered to provide services for simple AT prescription, trials and loans.

ATC Hubs → Students Information → IHLs Spokes
← Consultation Training ←
Complex Cases / Consolidated Procurement / AT Specialists
Local Cases / Triage / Direct Loans to Students / AT Lead (SEN Counsellors)
HUB and SPOKE MODEL

Installation of Satellite AT loan libraries in 8 IHLs - (5 polytechnics and 3 ITEs). Equip AT loan libraries with AT devices that are specific to the SEN populations at each school which usually cater to individuals with Autism Spectrum Disorder, and those with physical, sensory (vision or hearing), and learning needs. Range of AT devices available are reviewed every 6 months to ensure AT devices provided are relevant. SEN support offices can make requests ad-hoc and devices will be rotated amongst the satellite centres or procured.

Training of all stakeholders SEN support officers undergo training to familiarise them with AT devices and screening techniques. Follow up training provided every 6 months to ensure relevance and update their AT knowledge. Peer helpers are trained on how to use their SEN buddy's AT device to support usage and optimise for classroom and learning needs. SEN students and parents will be introduced to AT services and devices available at orientation talks.

Result

Building awareness
Increased awareness amongst other staff and students in IHL. Within 2 years, increased awareness
- Increased loans of devices by 311 %
- Ensured establishment of over 30 AT Devices per Satellite AT Loan Library
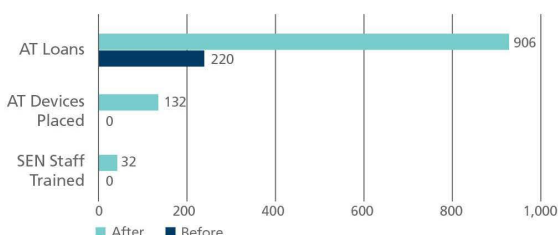
AT staff training and knowledge building
- 32 SEN support staff trained in total
- Ensuring better support to the students in the IHLs.

	After	Before
AT Loans	906	220
AT Devices Placed	132	0
SEN Staff Trained	32	0

Efficient service delivery
Allocation of trained staff allowed for
- quick and easy access to the AT systems and solutions for the students within their IHL
- trial different devices, before they purchased their own
- access the most advanced technology suitable to their needs
- SATC staff can now focus on complex clients

Assistive Technology Library @ TP
learning beyond boundaries

Next Steps

SPD intends to extend the Satellite AT Loan Libraries to another 5 hospitals, where Healthcare workers can be trained and have access to AT for their patients to trial.

These satellites will be supported with funding from IMDA as part of their mission to *"provide greater access to infocomm and assistive technology tools to support persons with disabilities"*.

This fresh funding will allow SPD to sustain the support for the satellites by maintaining the technology refresh for all the satellites and ensure that the professionals are updated and current with the AT that is available.