

Document	Initial Design Brief
Project	SINU Teacher Demonstration Classroom Facility Faculty of Education and Humanities
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Prepared by	Ministry of Education and Human Resource Development (MEHRD), Assets Management Division (AMD)

Background

The Solomon Islands National University (SINU) is committed to advancing quality education and fostering innovative teaching practices in alignment with its mission to produce graduates who are well-equipped to contribute to the nation's development. As part of this commitment, the Faculty of Education and Humanities (FEH) seeks to establish a Teacher Demonstration Classroom facility to enhance the training of pre-service and in-service teachers.

Purpose

This initial design brief outlines the objectives for the facility and is a guide for the architects and has been developed jointly by the Project Reference Group (PRG) comprised of representatives of SINU and MEHRD. The final Design Brief (DB) will be prepared by the architectural firm engaged by MEHRD to design the facility following detailed site analysis and consultations with the PRG and any other relevant parties.

Rationale

Effective teacher preparation is critical for improving student outcomes. However, the current infrastructure at SINU limits opportunities for teacher trainees to engage in simulated teaching experiences and hands-on practice with modern pedagogical tools.

The proposed Teacher Demonstration Classroom facility will address this gap by providing a contemporary environment where educators can:

- Practice and refine teaching methodologies through simulations and role-playing.
- Access and utilize digital teaching aids and resources.
- Engage in collaborative and reflective practices to improve their instructional skills.

The facility will also serve as a hub for professional development, enabling in-service teachers to upskill in line with evolving educational standards and technologies.

Objectives

The objectives for the use of the facility are:

- To enhance the practical training of pre-service teachers by providing a controlled environment for practice-based learning.
- To support the integration of technology in teaching by equipping the laboratory with modern educational tools.

- To foster innovation and reflective practices in teaching through collaborative learning opportunities.
- To contribute to the broader goals of the Solomon Islands Australia Partnership - Stronger Education Together (SET) program by strengthening teacher capacity and improving educational outcomes in the Solomon Islands.

Proposed Features

The Faculty envisages the following features for the facility:

- 'Smart Classroom Technology': e.g. interactive whiteboards, projectors, and computers with access to online resources.
- Teaching simulation tools: software and platforms for virtual teaching simulations.
- Resource library: a collection of digital and physical teaching aids, including subject-specific materials and curriculum guides.
- Recording and feedback systems: equipment to record practice teaching sessions for review and feedback.
- Flexible seating arrangements: configurable furniture to support diverse teaching and learning scenarios.

Functions Requirements

The facility is envisaged as two-level building with two (2) demonstration classrooms on each level. Each classroom should be designed to accommodate up to 35 students/persons where trainee teachers can practice teaching/lessons (practicums) receiving feedback and instruction from trainers/tutors.

Spatial Requirements

- A. Teacher Demonstration Classroom – approximate size 7.5m x 10m which is a typical average size of a classroom in the Solomon Islands.
- B. Toilets and an Administration Room/Equipment Storage space – approximate size 7.5m x 4.5m.

Design Objectives / Requirements

Environmental and economic sustainability is a priority for the project. The design should minimise environmental impact and promote durability, energy efficiency and multi-functional uses of space. Incorporation of green building practices, such as passive design strategies, use of sustainable materials, and integration of renewable energy sources, is high priority.

Comfort & Health

The Solomon Islands have a hot, humid climate. The facility must be designed so that users are comfortable, productive and healthy. Use of passive design techniques will optimise the benefits

of the prevailing breezes; minimise the impact of heat loads from the sun and enhance the natural ventilation performance.

Orientation & Shape

The facility is to be regular in shape orientated to maximise natural cross ventilation and minimise solar heat gain according to passive design principles. The roofs will be designed to provide shade and protection, and pitched to allow rising heat to escape through appropriately design roof venting. The facility should be elevated to a degree that minimises the likelihood of water ingress and supports the passive design principles and objectives.

Access

Building access will provide for people with restricted mobility and be compliant with AS1428 - 2001 Design for access & mobility.

Holistic Design & Landscaping

The design will consider the whole site and integrate the buildings and landscaping in a holistic manner to support the design objectives and passive design principles.

For example, well designed and positioned landscaping can contribute to passive cooling for the building and comfort for users. Rainwater harvesting and storage can provide water to landscaping growth and maintenance and may be integrated into passive cooling systems for the building.

Small shade and seating structures will be provided site to provide outdoor facilities for students to prepare work and discuss within a positive landscaped environment.

Natural Light & Lighting

The design should maximise natural day light to minimise the need for use of artificial lighting during the day.

All light fittings must be energy efficient, durable and be sourced from within the Solomon Islands to ensure maintenance and replacement is affordable.

Water

The design will maximise rainwater harvesting and storage for building services and landscaping. Solomon Islands Water Authority (SIWA) supply will be available to the site however the Project has the opportunity to maximise the use of rainwater harvested and stored to minimise ongoing operational costs.

Power Supply

The design will maximise renewable energy opportunities through provision of a solar photovoltaic system with battery storage to provide for the electricity consumption of the building. A back-up power system will be required.

The design solution for power, general lighting and security lighting needs will be the most efficient possible to minimise demand whilst ensuring capacity meets the needs of the users.

All energy efficient, durable and be sourced from within the Solomon Islands to ensure maintenance and replacement is affordable.

Design Life

The building must be designed and constructed to achieve a design-life of 50 years (Class 9 Building according to the Solomon Islands Building Code – 2022 draft).

Resilience & Durability & Performance

The buildings must be able to cope with low levels of preventative maintenance, high rainfall and constant, high-level daily use. The site is close to the coast in Honiara and therefore will adopt high quality building finishes to resist a high salinity environment.

The buildings must be able to perform well in support of their primary function and provide an optimal life cycle return on the investment. The design and choice of construction materials used in providing this important national education infrastructure must contribute to the ‘whole of life cycle cost’ performance of the completed facilities. This is essential as the University has constrained financial resources and the facilities must function well for a considerable period of time and be simple and low cost to maintain.

Building Standards

The design of the Project will satisfy:

1. The Solomon Islands Building Code (2022 Draft)
 2. Category 4 Cyclonic Winds
 3. Building Importance Level 4
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