

32RFP ERFP Grant Writing Workshop: *For PIs interested in applying for Tier 3 and programmatic grants*

DR ELIZABETH KOH

DEPUTY DIRECTOR, EDUCATION RESEARCH FUNDING PROGRAMME OFFICE (ERFPO)

20 August 2024, 2pm

Abstract

This grant writing workshop is targeted at potential Principal Investigators (PI) interested in applying for Tier 3 and programmatic grants in the Education Research Funding Programme (ERFP). In this workshop, details of the scope, grant types and review process of the ERFP will be presented. Additionally, key areas and strategies in proposing larger-quantum ERFP grant proposals will be shared. A PI who was successful in a programmatic grant will also share past experiences.

Attendees are encouraged to go through the ERFP guidelines (particularly, the Administrative Guidelines for ERFP Applicants) before coming for the workshop.

You may also access previous grant writing workshop slides and videos at <https://erfp.edu.sg/useful-resources/>.

Outline

- Aims and scope
- Grant types
- Funding quantum
- Grant review process
- Case for support page allowance
- Programmatic research
- Key areas and strategies in proposing larger ERFPO grant proposals
 1. Education system need and MOE buy-in
 2. Overall value and worth to funders
 3. Cohesion, clear structure and rigour
 4. Research team fit and trajectory
 5. Ethical considerations
- Sharing by A/P Lee Ngan Hoe
- Any questions?

ERFP Aims

- Strengthening the foundation (in terms of knowledge, capability, and structure) for education research, development and innovation in existing and emerging research areas.
- Encourage efforts to design, develop and implement strategic, evidence-based, theoretically-warranted, collaborative, scientifically-rigorous and outcomes-focused innovations in schools and classrooms
- Primary aims: improve classroom practice, enhance student outcomes, and build organizational and teacher capacities

ERFP Scope

Projects should fall within the following scope:

- a) Early childhood, primary, secondary and/or junior college/centralised institute education-related.
- b) Studies on other parts of the education system that link to the emphasis of ERFP might be considered if those links are clearly articulated.
- c) May involve formal or informal learning linked to (a).
- d) Teacher education and teacher professional learning for Singapore's education system.
- e) Studies of pathways of education and/or lifelong learning which are based in or include participants from higher education are allowed (bearing in mind (b)). Projects that are limited to benefits for higher education not related to (a) are excluded.
- f) Meta-analysis/meta-synthesis studies can be submitted for funding if the studies meet all of the ERFP requirements. This includes ensuring that the scope of the synthesis is well-defined, and the proposed budget and methodology are clearly articulated in line with the intended scope. Traditional literature reviews are not within the funding scope.
- g) International comparisons are allowed but international data collection, analysis or hiring is not supported.

Main Grant Types

‘Research’ grants have the overarching purpose of producing new knowledge or addressing a theoretical issue/problem which may lead to improvements in classroom practice, enhance student outcomes, and build organizational and teacher capacities. They should be situated within a broader international understanding but have clear, local relevance. Main intended output: **Publication**

‘Development’ grants must have a clear focus on developing, implementing and evaluating deliverables which are generally usable ‘products’ (e.g. new curriculum, educational tools, databases, etc.) in the local context. These might be translation projects that build on and evaluate an implementation from a previous grant. Development grants should recognize relevant international work but the focus is on local deliverables/outputs. Main intended output: **Implementation in practice**

‘Programmatic’ research

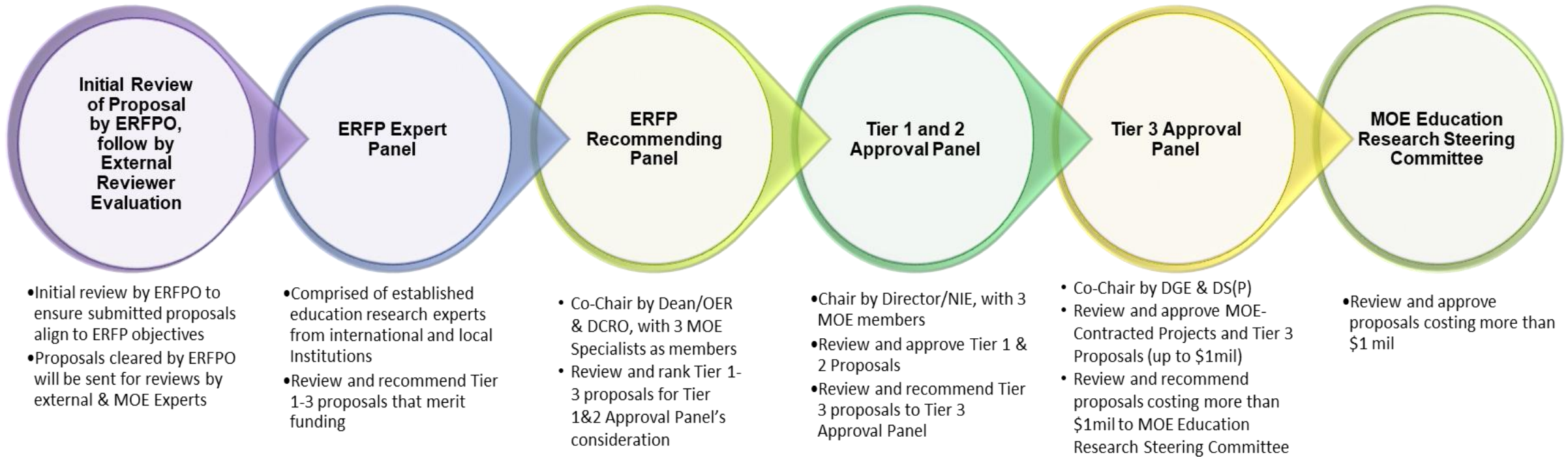
ERFP Funding Quantum

TIER	QUANTUM
1	< S\$200K
2	S\$200K to < S\$450K
3 / Programmatic Proposal	≥ S\$450K

*In the 5th tranche, the Institutional Indirect Research Costs (IIRC) is at a flat rate of 30% of the total direct costs of each approved project; IIRC will be allocated to the PI's Institution; Total project cost (i.e. including both direct and indirect cost) will be used to determine the funding tier of the proposal as shown in the Table.

Grant Application Review Process

The Approval Panel Meetings convene twice a year in tandem with the grant call cycle.



Case for Support - Page Allowance

Programmatic Research

- No more than 25 pages
- Full-sized type font (not Arial Narrow), font size 10-12, double-spaced, with a margin of at least 2 cm on all sides. Details of the different phases of the proposed project and descriptions of the aims, milestones and deliverables for each phase should be included.
- Should also state how the projects are linked or in what way they work together for greater synergy.
- Information for each theme is to be included as Appendices (5 to 7 pages for each theme). Information should be included so as to facilitate the evaluation of the entire programmatic proposal as a coherent project.

Tier 3

- No more than 23 A4 typewritten pages, including a write-up that provides details of the different phases of the proposed project. Descriptions of the aims, milestones and deliverables for each phase should be included, along with clear and compelling justifications for the requested budget in each of these phases. There is a maximum allowance of 4 additional pages including references, appendices and any tables or diagrams.

Programmatic Research - Scope

Programmatic research is defined by an over-arching research theme which focuses on a key educational issue, problem, phenomena or outcome, along with a number of interlinked sub-themes. The sub-themes are investigated through specific research studies (i.e., 'projects') that address important aspects or components of the over-arching issue, problem, phenomena or outcome. Programmatic research therefore has a common strand or focus, supported by a common theoretical framework, and undertakes a coherent, comprehensive, multi-faceted approach to understanding and addressing the issue, problem, phenomena or outcome.

Programmatic research is a specific category of proposals which have a funding quantum of a Tier 3 proposal. Programmatic research is not applicable to Tier 1 and Tier 2 proposals.

Submission Process and Details

All Programmatic Proposals applications are submitted online via ROMS.

Programmatic research may have team members from different institutions.

PIs who are submitting programmatic proposals must submit the Expression of Interest (EOI) and full proposal on ROMS and also include names of the sub-project PIs in the form. This is for the purpose of ROMS account access.

Programmatic Research - Project Structure

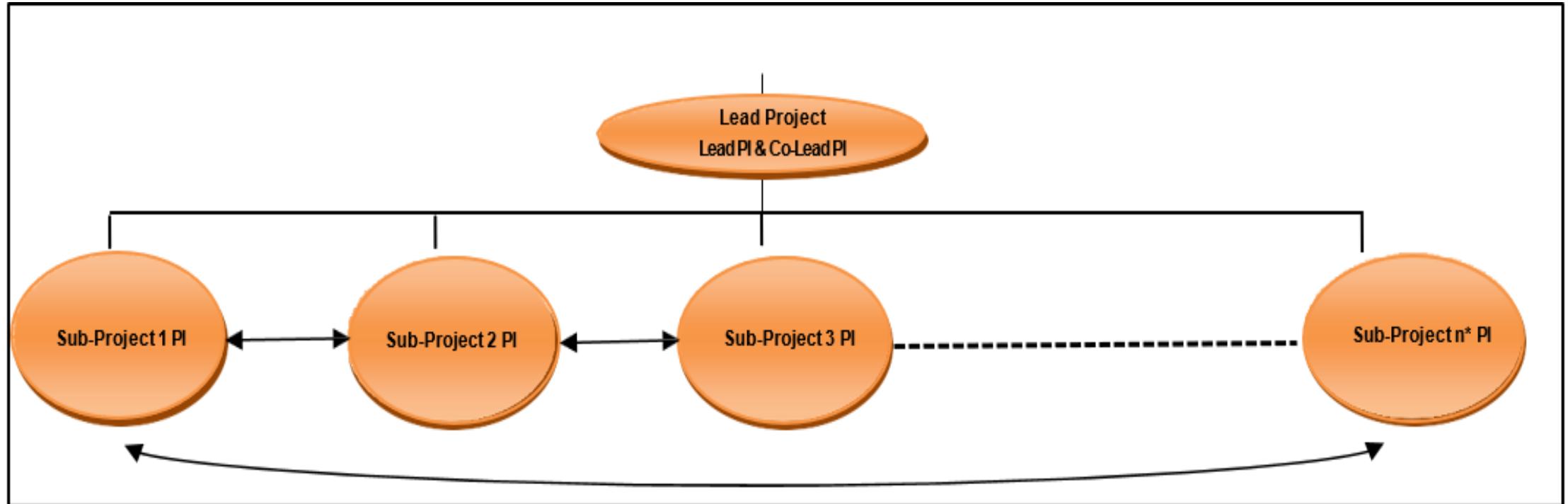
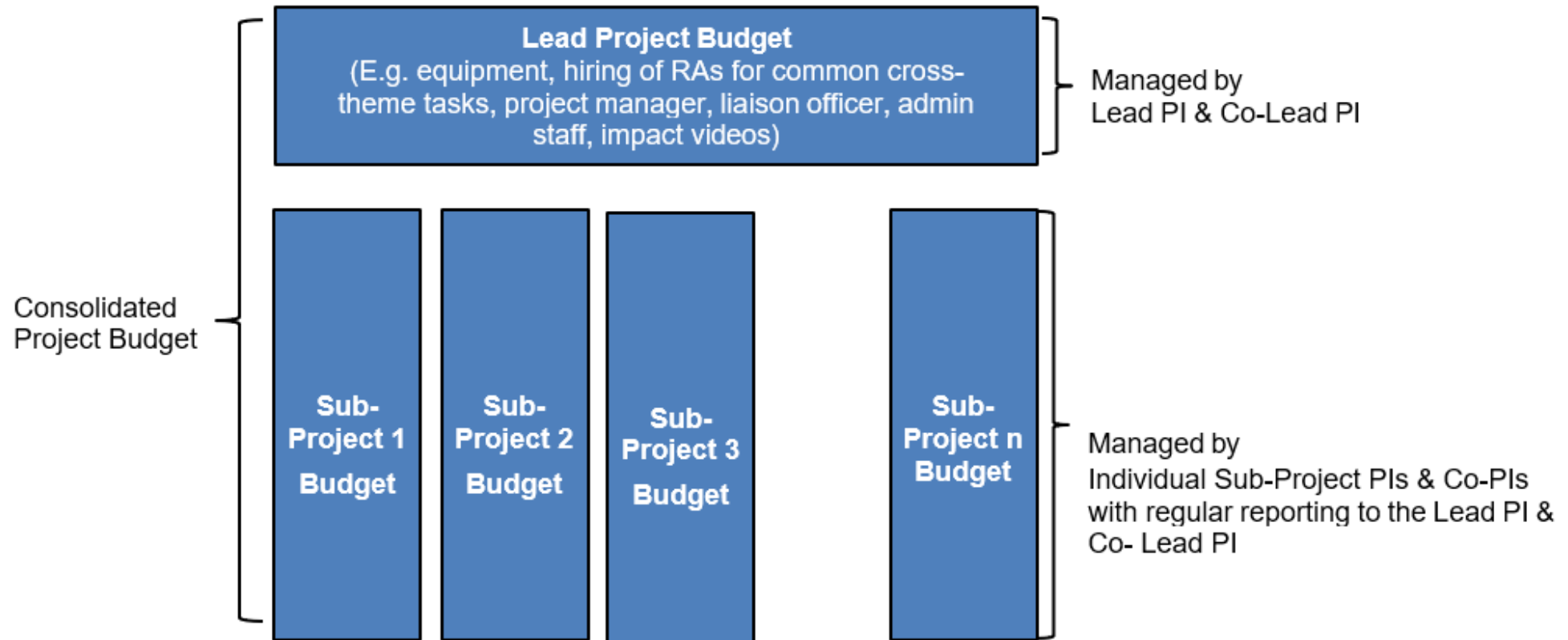


Diagram showing the relationship of Programmatic Project and its Projects

Programmatic Research - Budget Structure



A graphical overview of the programme's budget structure

Note: For further information on Programmatic Research, please refer to the 32RFP ERFPO Administrative Guidelines

Gantt Chart

- The Research Implementation Schedule should include sufficient detail to show the progress of work in relation to the purpose, hiring, Research Associate/Assistant (RA) work, methodology and budget.
- The Gantt Chart should be detailed and should align with justification of budget line items to show which work is undertaken when, how it relates to the budget, and especially to research teams (e.g. RA) costs.
- Key tasks undertaken by Research Associates/Assistant/Research Fellows should be clearly indicated in the Gantt Chart to support the hiring period.
- In particular, be sure to include RA work at each stage (e.g. instrument development, data archiving, final report preparation).
- Be sure to indicate work for sub-projects and if the PP has phase or stages which are dependent on outcomes/deliverables from other sub-projects, be sure to show the timeline flow; good to design larger projects as relatively independent phases (including RQs and resources)

Gantt Chart

Confidential

Implementation Schedule, Milestones, and Deliverables (Gantt Chart Format)

This chart must be completed and submitted with the application documents

Estimated start dates for 32nd Request for Proposals:

Tier 1 and Tier 2 projects: from May 2025

Tier 3 and Programmatic projects: from August 2025

Note: Please include the task of getting your institution's Institutional Review Board (IRB)'s approval and approval from MOE for data collection in your Gantt chart. These can take up to 3 months before data collection begins. Also take note that the process of hiring of RAs can take approximately 3 months.

Key tasks undertaken by Research Associates/Assistant/Research Fellows should be clearly indicated in the Gantt Chart to support the hiring period.

Please refer to the list below as a guide for the Gantt Chart:

Application of ethics clearance, Application of MOE data collection approval (if applicable), Appointment of staff, Literature review, Data collection, Data analysis, Discussion with MOE collaborators on translation plan (if applicable), Writing of final report and any other milestones (please indicate if a RCS has been approved/ is pending for approval for any change in timeline).

Indicate (using "X") the project timeline and KPIs by quarter.

Implementation Schedule (including RA duties), Milestones and Deliverables	2024				2025				2026				2027				2028				2029			
	Mar - May	Jun - Aug	Sep - Nov	Dec - Feb	Mar - May	Jun - Aug	Sep - Nov	Dec - Feb	Mar - May	Jun - Aug	Sep - Nov	Dec - Feb	Mar - May	Jun - Aug	Sep - Nov	Dec - Feb	Mar - May	Jun - Aug	Sep - Nov	Dec - Feb	Mar - May	Jun - Aug	Sep - Nov	Dec - Feb
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Others

- PPs are recommended to include a Project Manager.
- If you have engaged Research Staff not part of the project team, to assist in the drafting of this Case for Support, please do acknowledge their effort.

Key areas and strategies in proposing larger ERFP grants

1. Education system need and MOE buy-in
2. Overall value and worth to funders
3. Cohesion, clear structure and rigour
4. Research team fit and trajectory
5. Ethical considerations

Key areas and strategies in proposing larger ERFP grants

1. Education system need and MOE buy-in (Singapore)
 - Directly address problems/issues in the General Education Research Agenda (GERA) and Early Childhood Research Agenda (ECRA)
 - Demonstrate good nuancing of the problem for local and international readers
 - MOE Division buy-in
 - Not only school leaders/teachers in school
 - Early talks and co-creation where possible
 - Show clearly how it will bring value to the education system (impact)
 - Think about sustainability post-grant and justify how it can be sustainable
 - E.g., ICT-related, consider Singapore Student Learning Space sandbox and discuss with ETD

Key areas and strategies in proposing larger ERFP grants

2. Overall value and worth to funders

- Theoretical and empirical value to international research fields; showing Singapore's research capacity or lead
- Balance ambition with pragmatism
- Research design, methodology, data collection and analysis should reflect a proposal of the larger quantum
 - Coordinate the complexity
 - Show comprehensiveness
 - Clearly explain and justify the novelty/uniqueness
 - Plan for adequate and appropriate participants/sampling

Key areas and strategies in proposing larger ERFP grants

3. Cohesion, clear structure and rigour (Part 1)

- Entire proposal should be cohesive and align with the aims, research questions, and deliverables
 - Tip: Same number of aims, RQs, which correspond with deliverables
- Programmatic: Overall project and sub-projects need to show clear links/connections
 - Tip: Visual diagram/figure of the sub-projects with their links
- Structure your proposal clearly
 - Phases/Stages/Sub-projects with clear demarcations and links e.g., RQs and deliverables for each phase/stage
 - When phases/stages/sub-projects are integrated/linked explicitly show the conceptual, empirical, logistic connections if any

Key areas and strategies in proposing larger ERFP grants

3. Cohesion, clear structure and rigour (Part 2)

- Show rigour in the whole proposal
 - Conceptualization: focused and well-informed literature review (should not be exhaustive) and environmental scan (including technology if applicable)
 - Design, methodology, implementation and analysis: Justified, providing details and illustrations/examples, logistical considerations and contingency plans
 - Tip1: Participant sample can be a range (ROMS needs upper limit)
 - Tip2: Use a table to show RQs, data collected/measures, and analysis techniques

Key areas and strategies in proposing larger ERFP grants

4. Research team fit and trajectory

- Team size that fits with the scope of the proposal
 - E.g., 3 team members for a Tier 3 or programmatic is too small unless well justified
 - Larger sized teams also need adequate justification of how each team member will contribute
 - Advisors and mentors can be added to case for support as 'team members' (not on ROMS)
 - Larger proposals can consider advisory councils/committees
- Elaborate on how the proposal builds on the research trajectory of each team member, especially the PI
 - Past: How the proposal is related or builds on the past research investigations and interests of the team member
 - Future: Highlight the future work/trajectory/goals of the member and its relation to the proposal

Key areas and strategies in proposing larger ERFP grants

5. Ethical considerations

- Stronger consideration of ethical concerns at ‘macro’, ‘meso’ and ‘micro’ levels
- Especially for artificial intelligence research and new areas/innovations that could be more ‘invasive’
 - E.g., identifiable voices/videos, data/algorithm biases
- Provide justification and address concerns of possible ethical issues

Table 3.1 Key Ethics Questions at Three Different Levels of Inquiry

Level of inquiry	Focus	Key ethics questions for researchers to ask themselves
Micro	Individual	Does my research impinge on the individual’s right to privacy?
		Could my research offend subjects in any way?
		Could my research cause emotional distress to any of my subjects?
		Has my own conduct been ethical throughout the research process?
Meso	Group	Does my research follow the ethical guidelines of my profession and discipline?
		Have I met my duty to those who funded my research?
Macro	Society	Does my research meet societal expectations of social research?
		Have I met my social responsibilities as a researcher?

https://saylordotorg.github.io/text_principles-of-sociological-inquiry-qualitative-and-quantitative-methods/s06-03-ethics-at-micro-meso-and-macro.html

Sharing by A/P Lee Ngan Hoe, NIE/NTU

REFLECTIONS FROM WORKING IN PROGRAMMATIC
RESEARCH PROJECTS ...

Programmatic Research - Scope

Programmatic research is defined by **an over-arching research theme** which focuses on a key educational issue, problem, phenomena or outcome, **along with a number of interlinked sub-themes**. The sub-themes are investigated through specific research studies (i.e., 'projects') that address important aspects or components of the over-arching issue, problem, phenomena or outcome. Programmatic research therefore has a common strand or focus, supported by a common theoretical framework, and undertakes a coherent, comprehensive, multi-faceted approach to understanding and addressing the issue, problem, phenomena or outcome.

Programmatic research is a specific category of proposals which have a funding quantum of a Tier 3 proposal. Programmatic research is not applicable to Tier 1 and Tier 2 proposals.

Programmatic Research - Project Structure

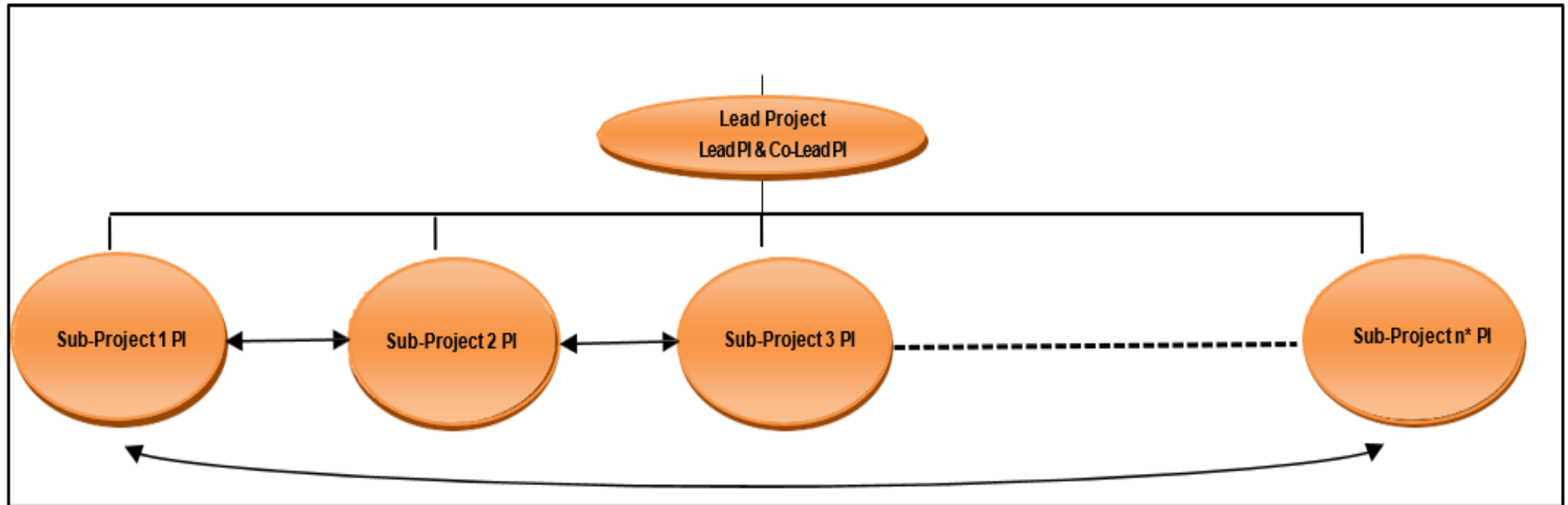
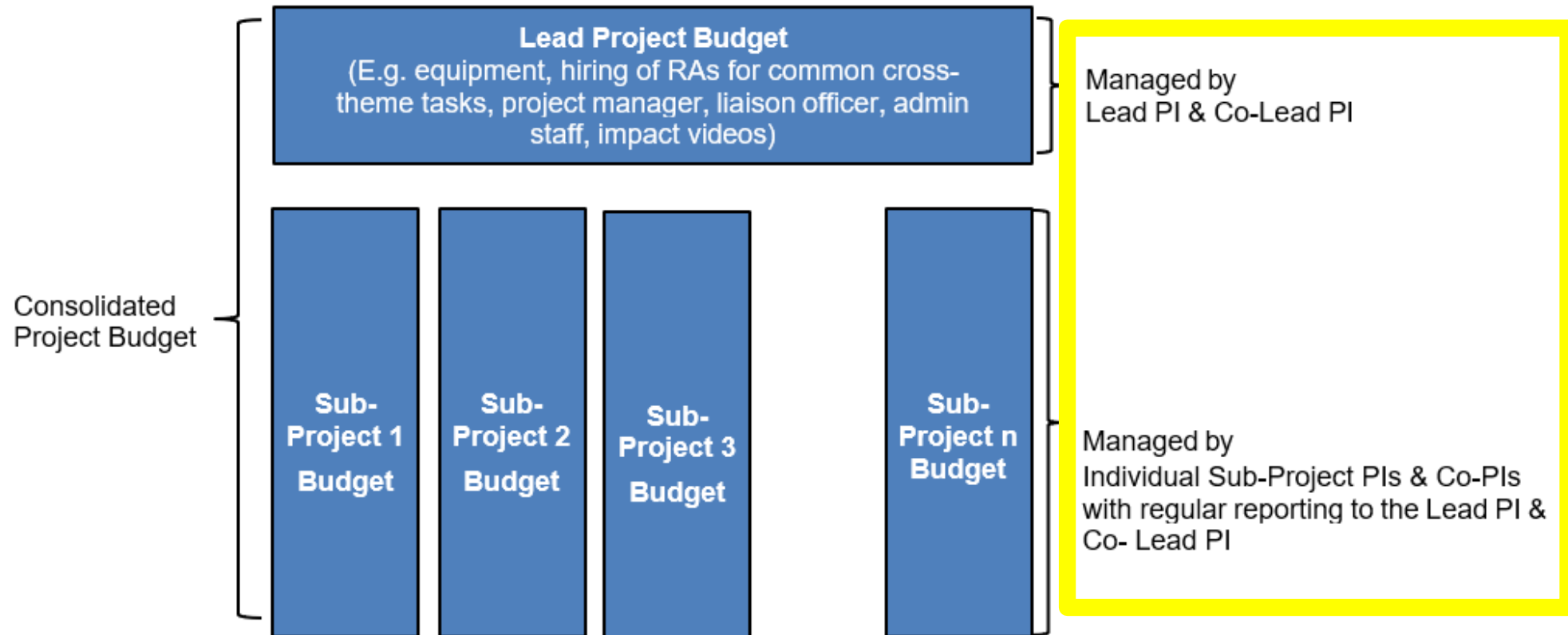


Diagram showing the relationship of Programmatic Project and its Projects

Programmatic Research - Budget Structure



A graphical overview of the programme's budget structure

Note: For further information on Programmatic Research, please refer to the 32RFP ERFPO Administrative Guidelines

Gantt Chart

- The Research Implementation Schedule should include sufficient detail to show the progress of work in relation to the purpose, hiring, Research Associate/Assistant (RA) work, methodology and budget.
- The Gantt Chart should be detailed and should align with justification of budget line items to show which work is undertaken when, how it relates to the budget, and especially to research teams (e.g. RA) costs.
- Key tasks undertaken by Research Associates/Assistant/Research Fellows should be clearly indicated in the Gantt Chart to support the hiring period.
- In particular, be sure to include RA work at each stage (e.g. instrument development, data archiving, final report preparation).
- Be sure to indicate work for sub-projects and if the PP has phase or stages which are dependent on outcomes/deliverables from other sub-projects, be sure to show the timeline flow; good to design larger projects as relatively independent phases (including RQs and resources)

Others

- PPs are recommended to **include a Project Manager**.
- If you have engaged Research Staff not part of the project team, to assist in the drafting of this Case for Support, please do acknowledge their effort.

Any Questions?

Contact Information

- For general grants queries, please email ERFPO grants@erfp.edu.sg.
- For technical assistance on ROMS, please email Research Operation Management System IT Support (NIE) servicedesk@nie.edu.sg.
- For queries on Points of Contact (POCs) of the respective IHLs, please email ERFPO grants@erfp.edu.sg.
- ERFPO details can be found at <https://erfp.edu.sg/>

