

EDUCATION RESEARCH FUNDING PROGRAMME (ERFP)

Administrative Guidelines and Terms and Conditions for Applicants

To begin the grant application process, we urge you to read this entire document. The information in this document will help you better understand the application process.

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1. **Introduction**

The Education Research Funding Programme (ERFP), a pool of research funds supported by the Ministry of Education (MOE), Singapore, is administered by the ERFP Office (ERFPO). In the 5th tranche of funding (1 April 2023 to 31 March 2028), the ERFP continues to encourage efforts to design, develop and implement strategic, evidence-based, theoretically-warranted, collaborative, scientifically-rigorous and outcomes-focused innovations in schools and classrooms.

The primary aim of ERFP is to improve classroom practice, enhance student outcomes, build organizational and teacher capacities in Singapore schools, and inform MOE policies. Thus, proposals for ERFP funding must demonstrate relevance to MOE mission and goals and potential benefits to Singapore's educational institutions.

Scope of the projects should fall within the following criteria:

- 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 on a case-by-case basis. Funds cannot be sent overseas. Please see funding guidelines. (Refer to Annex B for more information.)

2. **Grant Categories**

Grants can be categorized as Research or Development projects. The special category of Programmatic Proposals is also explained in this section.

2.1 Research Grants

The 'Research' category refers to grant applications that have the overarching purpose of producing new knowledge or addressing a theoretical issue/problem which may lead to improvements in classroom practice, enhancing student outcomes, and building organizational and teacher capacities. They should be situated within a broader international understanding but have clear, local relevance.

2.2 Development Grants

The 'Development' category refers to grant applications with a clear focus on developing, implementing and evaluating deliverables which are generally usable 'products' (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.

Development projects related to ICT/AI tools should consider requirements for system-wide incorporation and implementation at the outset (i.e. as part of grant planning). This includes considering the existing social, technical (i.e., 'know-how'), and technological infrastructure and practices of local schools and the education system. See Annex A for some considerations for ICT/AI innovation proposals.

2.3 Programmatic Grants

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. 'Sub-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 characterised as follows:
 - a) Examine, describe or address a fundamental or challenging complex educational issue, problem, phenomena or outcome
 - b) Incorporate multi-level, multi-method, multi-perspectival and multi-disciplinary approaches to examining or addressing the problem, issue, phenomena or outcome

- c) Comprise strong team synergies to facilitate shared expertise, knowledge exchange and collaborations
 - d) Comprise a range of (typically, two to five) themes which are coherent, aligned, and which allows comprehensive breadth of analytical foci, research outcomes and findings that have an impact on the educational system and the various stakeholders (NIE, MOE, schools, society and international research fraternity) ^(O&D)
 - e) Have strong translational efforts as part of its agenda, including encouraging stakeholders to be actively involved at the proposal design stage, building in time and funding for professional development, designing an innovation or intervention as part of the proposal, or hiring journalistic writers to translate findings for various stakeholders.
- Programmatic research is a specific category of proposal which has a funding quantum of a Tier 3 proposal. Programmatic research is not applicable to Tier 1 and Tier 2 proposals.
 - Structure

Programmatic research project structure consists of a Lead project with Lead PI and Lead Co-PI (who manage the overall Programmatic Research Project) as well as Sub-Projects led by Project PIs (who manage individual projects). Each Sub-Project PI will be supported by Sub-Project Co-PI(s) and/or Collaborator(s). Figure 1 depicts this relationship.

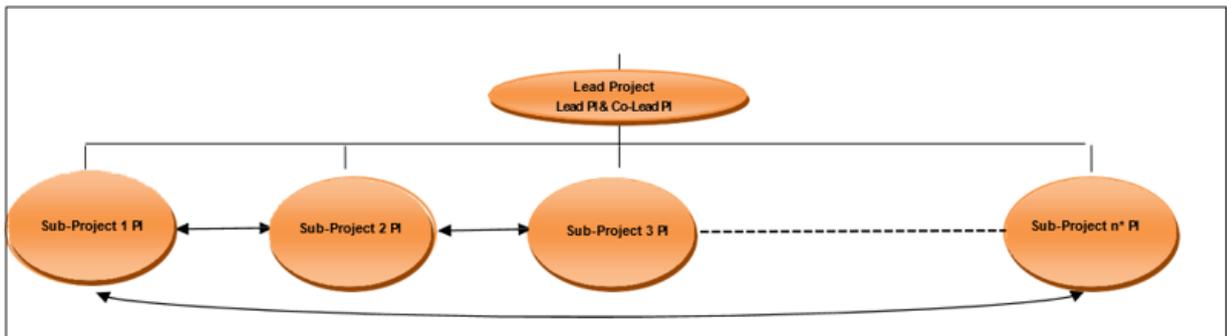


Figure 1: Diagram showing the relationship of Programmatic Project and its Projects

- Budget Structure

The Lead Project budget includes, e.g., equipment to be shared across Sub-Projects, hiring of RAs for common/cross-theme tasks. The consolidated project budget (the overall budget including the Lead project budget and the Sub-Project budgets). Each Sub-Project should have an individual Sub-Project budget. Figure 2 shows the budget structure.

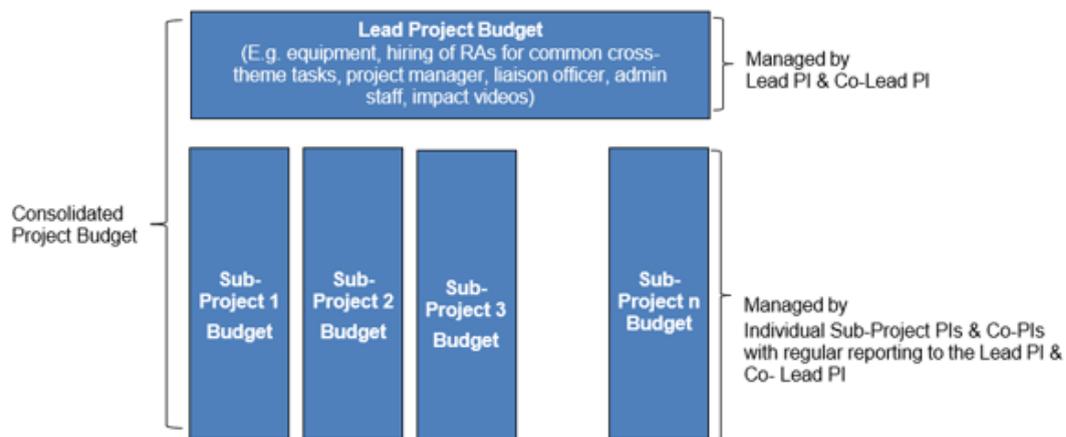


Figure 2: A graphical overview of the programme's budget structure

- Grant Application Process

The programmatic research proposal must be submitted and approved in the same call i.e., no additional projects can be added at a later date. All Co-Lead PIs, Sub-Project PIs, Sub-Project Co-PIs, and Collaborators must agree to participate in the programmatic research at the point of submission.

Due to the extensive planning needed, ERFPO recommends that team members start planning about one year in advance.

2.4 MOE-Contracted Grants

MOE-Contracted Grants refers to projects that are directly contracted/commissioned by MOE. These projects are usually fit-for-purpose to meet MOE's specific knowledge needs.

3. ERFP Funding Quantum

Funding quantum is in 3 tiers. See Figure 3.

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

Figure 3: Funding quantum by tier

4. **Grant Application Process**

This section covers details of the application process and requirements.

4.1 Submission of Grant Application

a) **Applicants:**

Expressions of Interest and applications for ERFP (Tier 1 to 3) as well as Programmatic Proposal should be submitted online through Research Operation Management System (ROMS), <https://roms.nie.edu.sg>. ERFP does not accept Expressions of Interest submissions beyond the given deadline. PIs who submitted a proposal for the previous RFP and are waiting to receive the notification of results are encouraged to submit an Expression of Interest. The Expression of Interest can be withdrawn if the earlier proposal is approved.

b) **List of approved IHLs that can apply for ERFP as a PI:**

- i. Institute of Technical Education (ITE)
- ii. Nanyang Polytechnic (NYP)
- iii. Nanyang Technological University (NTU)
- iv. National Institute of Education (NIE)
- v. National University of Singapore (NUS)
- vi. Ngee Ann Polytechnic (NP)
- vii. Republic Polytechnic (RP)
- viii. Singapore Institute of Technology (SIT)
- ix. Singapore Management University (SMU)
- x. Singapore Polytechnic (SP)
- xi. Singapore University of Social Sciences (SUSS)
- xii. Singapore University of Technology and Design (SUTD)
- xiii. Temasek Polytechnic (TP)

c) Accompanying documents for grant applications include:

- i. Case for Support Template;
 - ii. Implementation Schedule/Gantt Chart Template (For Programmatic proposals, there should be 1 Gantt Chart for the lead project and 1 for each sub-project plus 1 Gantt Chart for the overall project which shows the links across lead and sub-projects)
 - iii. CVs Template for each of the Project Team Members listed in the grant application;
 - iv. Application for an MOE-Contracted Grant Form (for MOE-contracted project proposals only);
 - v. Appendices to include information for each project: 5-7 pages for each project. Information should be included so as to facilitate the evaluation of the entire Programmatic Proposal as a coherent project (for programmatic research proposal only).
 - vi. Response to Panel Template (for resubmission only)
.Applicants who are resubmitting their applications should use the “Response to Panel” Template and explain the changes made to the proposal in response to the comments made in the previous round. This must be uploaded into ROMS as part of the proposal. Applicants should refer to the review materials in the notification of result from the previous round.
- d) A self-checklist for methodology is included for your reference in the “33RFP ERFP Guidelines and Application Package”. As weaknesses in the methodology section are a primary cause of unsuccessful grants, this document is intended to help applicants self-check the quality of the methodology section. This document should not be submitted along with the application – it is for your use in preparing the proposal only.
- e) Please refer to ERFPO’s website (erfp.edu.sg) to access the application forms, templates and references mentioned above. The respective templates and references contain further instructions that applicants should follow.

4.2 Selection of Project

- a) The general criteria for the allocation of funds for ERFP projects are:
 - i. demonstrated relevance to MOE mission and goals;
 - ii. academic and research merit of the proposed project;
 - iii. soundness of research methodology;
 - iv. relevance and timeliness of project with respect to applications;
 - v. potential benefits to Singapore’s educational Institutions, schools, economy and industries; and
 - vi. effective use of resources applied for in relation to the scope and potential of the project.
- b) Applicants should propose the project in light of the Research Priority Areas of the 5th tranche as well as useful links and synergies to prior or existing projects. Applicants should not propose the same project to other funding bodies while a review by ERFP is pending. ERFPO encourages research collaborations among colleagues within an IHL as well as with colleagues at the MOE and other Institutes of Higher Learning (IHLs).

4.3 Overview of ERFP Grant Application Process

Timeframe	Process
*Grant Call Announcement (approximately Feb and Aug of each year).	ERFPO invites applicants to submit Expressions of Interest following the grant call announcement. Briefing sessions are held approximately 2 weeks after the Grant Call Announcement.
Submission of Applications (approximately 1 month after the grant call announcement)	Applicants are to follow the instructions provided in the grant call announcement and submit applications within the deadlines indicated.
Grant Call Closure (2-3 months after announcement)	The grant call closes approximately 2 months from the announcement.
Initial Screening (approximately 1 month after the submission deadline)	<p>ERFPO conducts Initial Screening of proposals after the closure of the grant call.</p> <p>Applicants whose proposals do not align with ERFP objectives and scope will be informed by ERFPO. These proposals will not be considered for funding.</p>
Peer Review (approximately 2 months after the close of the call)	Proposals that have cleared the initial review will undergo External Review by peer reviewers with content expertise.
Expert Panel (EP) Review (approximately 4 months after the close of call)	The Expert Panel brings together established education research experts to evaluate the full set of proposals in light of international standards and to provide recommendations.
Recommending Panel (RP) Review (approximately 4 months after the close of the call)	<p>The Local Recommending Panel brings together experts from local institutes of higher learning and MOE to:</p> <ul style="list-style-type: none"> • Review and consider the Expert Panel's recommendations. • Recommend and ranks Tier 1 and Tier 2 proposals to ERFP Tier 1 and Tier 2 Approval Panel (T1T2AP). • Recommends Tier 3 and Programmatic proposals to ERFP Tier 1 and Tier 2 Approval Panel.

	<ul style="list-style-type: none"> Recommends Tier 3 proposals to be scaled down to Tier 2 or Tier 1 and Tier 2 proposals to Tier 1 (if applicable).
MOE Director Review	Recommended Tier 2, Tier 3 and Programmatic Proposals are sent to MOE Directors for feedback and comments.
Response to ERFP Recommending Panel	<p>Proposals Recommended by the Recommendation Panel</p> <ul style="list-style-type: none"> ERFPO sends email to PIs with feedback. PIs respond to the ERFP Recommending Panel comments. <p>The response is included in the documents for consideration by the T1T2AP.</p>
ERFP Tier 1 and Tier 2 Approval Panel (approximately 6 months after the close of the call)	<p>Reviews and considers ERFP Recommending Panel's recommendation of Tier 1, Tier 2, Tier 3 and Programmatic proposals and MOE Director's recommendation of proposals.</p> <p>Ranks and approves Tier 1 and Tier 2 proposals.</p> <p>Recommends Tier 3 and Programmatic proposals to ERFP Tier 3 Approval Panel (T3AP).</p> <p>Recommends Tier 3 proposals to be scaled down to Tier 2 or Tier 1 and Tier 2 proposals to Tier 1 (if applicable).</p>
Response to T1T2AP, MOE Director (applicable to Tiers 2 and 3 only), and Revisions to Application (10 working days after ERFPO emails PI)	<p>For recommended proposals</p> <ul style="list-style-type: none"> ERFPO sends email to PIs with the extract of the T1T2AP Notes of Meeting (and Comments from MOE Directors, if applicable). <p>PIs must revise their proposals based on the comments.</p>
ERFP Tier 3 Approval Panel (T3AP) Meeting (date to be determined by MOE)	<p>Approves MOE contracted proposals, Tier 3, and Programmatic Proposals, up to a cap of \$1 million.</p> <p>For projects that are tabled at the Tier 3 Approval Panel (T3AP) and MOE Education Research Steering Committee (ERSC), applicants are required to respond to ERFP Recommending Panel, ERFP Tier 1 and Tier 2 Approval Panel and MOE Directors' comments (if applicable) by</p>

	<ul style="list-style-type: none"> • Completing the Response to Panel template. • Revising the Case for Support, the application form and all other documents that are to be submitted to T3AP.
<p>MOE Education Research Steering Committee (ERSC) Meeting (date to be determined by MOE)</p>	<p>Approves Tier 3, MOE contracted proposals and Programmatic Proposals exceeding \$1 million.</p>
<p>ERFP Panel Review of Revisions to Application (10 working days after ERFPO emails PI)</p>	<p>After PIs make revisions in response to the relevant Approval Panel Notes of Meeting, the revised proposals are reviewed by the ERFP Panel.</p> <p>Additional revisions might be required thereafter.</p> <p>Once the changes are deemed to be satisfactory, the final proposal is submitted to the relevant Approval Panel for final clearance.</p>
<p>Notification of Results</p> <p>- Tier 1 and 2: approximately 2 months after ERFP Tier 1 and Tier 2 Approval Panel Meeting, pending PI revisions and final approval of the panel</p> <p>- Tier 3 and Programmatic up to a cap of \$1mil: approximately 2 month after ERFP T3AP Meeting, pending PI revisions and final approval of the panel</p> <p>Tier 3 and Programmatic exceeding \$1mil: 1 month after MOE ERSC Meeting, pending PI revisions and final approval of the panel</p>	<p>Notification of Grant Award Results and Feedback</p> <p><u>Successful Grant Applicants</u></p> <p>a) Successful grant applicants will receive an email notification of their results.</p> <p>b) PIs are provided with feedback from reviewers and panels which might require changes to their application. If so, PIs will be given 10 working days to revise their proposals according to the feedback.</p> <p>c) Successful PIs and their respective Reporting Officer/ Point of Contact will receive the Letter of Award via email notification once all revisions are accepted and clearance is given by the relevant approving panel.</p> <p>d) To accept the grant offer, successful PIs are required to complete the Grant Acceptance Form via ROMS within 15 working days of receiving the email with the official Letter of Award.</p> <p>e) All terms and conditions are set out in the Letter of Award.</p>

	<p><u>Unsuccessful Grant Applicants</u></p> <p>f) Unsuccessful grant applicants will receive an email notification of the result.</p> <p>g) PIs will be provided with feedback from the reviewers and panels.</p>
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4.4 Panel of Reviewers for Projects

Research Projects

	Tier 1	Tier 2	Tier 3 and Programmatic (\geq \$450,000 and \leq \$1 mil)	Tier 3 and Programmatic ($>$ \$1 mil)
Peer Reviewers	2 reviewers	2 reviewers	3 reviewers	4 reviewers
Review by MOE	-	After recommendation by ERFP Recommending Panel, Tier 2, 3 and Programmatic Proposals are sent to MOE for review		

Development Projects

	Tier 1	Tier 2	Tier 3 and Programmatic (\geq \$450,000 and \leq \$1 mil)	Tier 3 and Programmatic ($>$ \$1 mil)
Peer Reviewers	1 reviewer	1 reviewer	2 reviewers	3 reviewers
Reviewers (MOE Experts)	1 reviewer	1 reviewer	1 reviewer	1 reviewer
Review by MOE	-	After recommendation by ERFP Recommending Panel, Tier 2, 3 and Programmatic Proposals are sent to MOE for review		

4.5 Eligibility Criteria for Principal Investigators, Co-Principal Investigators and Collaborators

a) PI Eligibility Requirement

- i. Full time staff (hired on the IHL's academic track / academic contract or research track) and funded by the institution (i.e. not funded by project funds). A full-time appointment is defined as a minimum of 9 months a year.
- ii. For research grants, applicants must have a doctorate degree.
- iii. For development grants, applicants should preferably have a doctorate degree although it is not compulsory.

iv. Applicant for Tier 2 and 3 grants must have a demonstrated track record in securing national grants and leading independent research as PI or Co-PI.

b) Team Member Eligibility Requirement

- i. Full time staff (hired on the IHL's academic track/academic contract and research track) can apply as team members (Co-PI and Collaborator)
- ii. Non-academic staff with expertise that is relevant to the project can be a research team member with justifications on the role. E.g. MOE Experts.
- iii. All projects need to include at least one Co-PI from the same Institution who meets the PI eligibility requirement of the tier, so that the Co-PI can ensure continuity of the project should the original PI be unable to continue.

4.6 Roles of Principal Investigators, Co-Principal Investigators and Collaborators

a) Principal Investigator

- i. The PI should play a major role in all aspects of the project. The PI is responsible for the planning, monitoring and controlling of the project expenses and addressing budgetary issues. Any request or claim that involves disbursement of project fund must be approved and endorsed by the PI. The PI also ensures the timely submission of project reports, fulfilment of milestones, deliverables and completion of the project within the parameters of the grant proposal.
- ii. The PI is also responsible for the care and maintenance of equipment and software purchased from the project budget.
- i. The contractual terms of Teaching Fellows, Post-Doctoral Fellows, Research Fellows or equivalent applying for grants - should be less than the duration of the project (to exclude the recruitment period) at the point of grant application.
- iii. ERFP grants only allow for one PI in each project.
- iv. The PI, Co-PI and Collaborators' salaries should not be paid out of project funds.
- v. Project-funded Research Fellows (RFs), Research Associates and Research Assistants (RAs) are not eligible to apply for ERFP projects.
- vi. ERFP does not encourage multiple submissions by the same PI for a particular ERFP grant call as we would like the PIs to concentrate their efforts in submitting a high-quality proposal.

b) Co-Principal Investigator

- i. Co-PIs should play a major role in the project. Co-PIs are not allowed to approve or endorse any request or claims that involve disbursement of project funds, unless they are delegated in the absence of the PI. The Co-PI may have equal intellectual rights and research input. Conference funding as in the Approved Proposal can be shared between the PIs and Co-PIs on a mutually agreed upon basis. Articles may be co-authored by PIs and Co-PIs as first authors under a mutual agreement. The inclusion of at least one Co-PI, from the same Institution as the PI, is mandatory for all proposals so as to ensure continuity of the project should the PI be unable to continue.
- ii. Co-PI status should imply that the person could independently apply for a research grant. If not, they should be listed as a Collaborator (with the caveats outlined in this document).
- iii. Project-funded Research Fellows (RFs), Research Associates (RAs) and Research Assistants (RAs) employed through the project cannot be considered as Co-PIs by virtue of their employment.

c) Collaborator

- i. A Collaborator should have a specific, limited or relatively minor role to play in the project, such as advising on statistics, facilitating access to sites and helping design instruments. A Collaborator would typically devote a specific percentage of effort to the project. A Collaborator may be someone from an external Institution (such as an international or local IHL) or a colleague from the same IHL as the PI, school, professional organization or MOE. Collaborators are not eligible to tap Overseas Travel/ Conference and PI/Co-PIs' Professional Development budget from projects and any other project funding except for transport costs. Travel and accommodation costs are allowable for overseas External Collaborators.
- ii. Collaborators on the project should indicate their designations, and where possible, their specific roles in the project (e.g., to write the software for the model simulations or to help design the measurement system). If visiting staff or staff on short-term contracts are to be included as Collaborators, due consideration should be given to the lead-time for the project to commence, especially if purchases of equipment and software are necessary or if other preparations are needed before these collaborators engage in the project.
- iii. Project-funded Research Fellows (RFs), Research Associates (RAs) and Research Assistants (RAs) employed through the project cannot be considered as collaborators by virtue of their employment.

d) Consultant

- i. A consultant is one who has expertise in the research area. A consultant does not have an automatic right to use data or findings. The consultant should seek the PI's approval for use of project data for publication. For MOE-contracted projects, MOE's approval is required for any publication. Besides honorarium (rates as per PI's Institution guidelines), direct economy return airfare and accommodation, there will be no other resource allocation (e.g., conference funding, equipment purchase) for a consultant. Upon approval of the grant, according to the respective institution guidelines, a separate request for the appointment of the consultant may be required before the actual visit. The consultant named in the proposal is only for indicative purposes and does not automatically constitute a contract on behalf of the Institution.

e) Project Collaborations with Co-PIs and Collaborators from MOE

- i. Tier 3 and Programmatic Proposals are required to include Co-PIs or Collaborators from MOE (that is MOE HQ officers, Senior Specialists and Master Teachers) to support synergistic research partnerships.
- ii. Other proposals that address MOE's research priorities are also encouraged to include Co-PIs or Collaborators from MOE
- iii. Research team members from MOE can bring specialised and contextual knowledge (e.g., local school system, curriculum, needs and priorities) to bear on the research project. This can optimise the impact of research, in addition to facilitating smooth execution of the study. Please refer to Enclosure 2 which provides an overview of the expected roles of research team members in ERFP projects with MOE Co-PIs and Collaborators.

f) Project Commitment

- i. In all cases, the roles and time commitments of PIs, Co-PIs and Collaborators must be spelt out in the research application. Reasons for their designation / role should be given. For example, persons may have to be a Co-PI because they already have grants on which they are a PI; therefore, they cannot commit significant time to the proposed research in their workload allocation. They may also choose to be a Co-PI because they are less experienced in writing grant proposals and administering grants. In other cases, individuals may need to be listed as a Collaborator because they do not have sufficient research credibility (minimum qualifications, research record, publications, etc.) to be listed as either a PI or Co-PI or they have insufficient workload time to be a PI or Co-PI and only want to contribute to the research in a limited manner.
- ii. Team members should consider the time committed across all projects in their different capacities as PI, Co-PI or Collaborator, and be cognisant of their other job commitments. Teams should also consider if team members contributing a very small number of hours add sufficient value to the team. Justifications to include respective team members should be explicitly stated.
- iii. PIs, Co-PIs and Collaborators can list the grant on their CVs. Efforts of all participants (e.g., participating schools, Research Staff) should be acknowledged in all reports and publications.

- iv. PIs and Co-PIs must notify their Institution and ERFPO 3 months before the commencement of their leave if they plan to be on long leave of absence (e.g. No-Pay Leave (NPL) or Sabbatical Leave). ERFPO will keep Grantor (MOE) informed of any PIs and Co-PIs with long leave plans. [Refer to Paragraph 6.14 of Enclosure 1 for more information.]

4.7 Additional Information on Roles for Programmatic Proposals

a) Lead PI

- i. During application, the Lead PI is responsible for the submission of the full application including lead project budget, individual sub project budgets and the consolidated budget as well as all individual projects' case for support. The Lead PI is also responsible for obtaining Institutional Review Board (IRB) and Data Collection (DAC) approval on behalf of the team.
- ii. Upon grant approval, the Lead PI directs and tracks the overall progress of the Programmatic Project as a whole.
- iii. During the execution of the project, the Lead PI is also in charge of reporting on the project to ERFPO. Only the Lead PI is authorised to submit all requests and reports via Research Operation Management System (ROMS) which include project amendment and variation requests, fund virement, progress reports, final report (including Research Brief) and preparing of final report presentations to ERFPO and MOE as requested.
- iv. The Lead PI also acts as the "Reporting Officer" for the Lead Co-PI, Lead RA and Project PIs for matters related to the project.

b) Co-Lead PI

- i. Researcher who supports the Lead PI in directing, coordinating and managing the entire programme. A Co-Lead PI is required for the proposal.
- ii. The Co-Lead PI facilitates communication across the Programmatic Project as a whole and signs off on administrative matters (including budget and finance) in the absence of the PI.
- iii. The Co-Lead PI also facilitates research staff recruitment and hiring (full and part-time).

c) Sub-Project PI

- i. Researcher who has the appropriate level of authority and the responsibility to direct each specific research theme (i.e., 'project') supported by the grant. The Sub-Project PI is responsible and accountable for the proper conduct of the specific research theme and for regularly updating the Lead PI on all project matters. If the themes are conducted in sequence over a number of years, the Sub-Project PIs can be involved in more than one theme project. For example, a Sub-Project PI can be in charge of Project A in Year 1 and Project B in Year 3 because of expertise needed for both Projects A and B.

- ii. During application, the Sub-Project PI contributes to the full application, minimally with the case for support and budget (distinct from shared budget items in lead project budget) for the specific project. The Sub-Project PI helps to draft relevant IRB documents for the Lead PI's submission.
 - iii. Upon the grant approval, the Sub-Project PI directs the specific Sub-Project and report progress of Sub-Project to the Lead PI. The Sub-Project PI is responsible for financial matters for the specific Sub-Project (i.e. purchase requests, invoices, claims, within project virements). The Sub-Project PI is responsible for the care and maintenance of equipment and software designated to this Sub-Project.
 - iv. The Sub-Project PI is in charge of HR matters of hiring, training and oversight (e.g., annual leave, medical leave, SDL, annual appraisal, contract renewal) of research staff (full and part-time) for the project and acts as the RO for them.
 - v. During the execution of the project, the Sub-Project PI helps in preparation and leading (as needed) of presentations and provides content for websites or other forms of social media engagement.
- d) Sub-Project Co-PI
- i. An individual involved in the development and execution of the Sub-Project. A Sub-Project Co-PI typically devotes a higher percentage of effort to the project as compared to a Collaborator and is considered key personnel. The inclusion of a Sub-Project Co-PI, from the same Institution as the PI is mandatory for all proposals so as to ensure continuity of the Sub-Project should the Sub-Project PI be unable to continue. A Sub-Project Co-PI should have a major role in the project and might have equal intellectual rights and research input. However, these vary project by project. Therefore, it is essential that the Sub-Project Co-PI and Sub-Project PI work out an agreement on roles & responsibilities. This agreement should also be discussed with the Lead PI.
 - ii. A Sub-Project Co-PI does not have equal authority for project management with the Sub-Project PI. However, some of the project management responsibilities can be delegated to the Sub-Project Co-PI in the absence of the Sub-Project PI.
- e) Lead Research Assistant/Associate (RA)
- i. Helps the Lead PI on research work that cuts across themes (to consolidate, integrate and rationalize the research), and/or knowledge management and mobilization work. He/she leads in the project management matters.

5. Budget Preparation

5.1 Budget Votes

The grant proposal budget has four categories of budget votes. The votes are Human Resources, Equipment, Consumables and Other Costs. In each vote, there are specific budget line items for the grant proposal budget planning. Where a project requires funds for equipment, consumables like office supplies and stationery, or other costs like purchase of portable hard disks or books,

these need to be budgeted under the relevant categories and specific budget line items.

5.2 Justification of Budget

- a) All budgetary items should be clearly justified. Budgetary items which lack proper justification will not be funded.
- b) Show the breakdown of the proposal budget and detailed justifications for all resources required to successfully complete the project (e.g., explanation of why budget items are needed, how they will be used, why specific items are preferred over other items of a similar type) must be provided in ROMS. Adherence to budgetary norms is expected in all areas. Preliminary evidence of costs should be provided for all items under Equipment and Other Costs (Computer & AV Accessories, Research Instruments, Software & Software Licenses) votes. Quotes should be submitted under supporting documents. Otherwise, the proposal may be rejected.
- c) The Gantt chart should be detailed and should align with justification of budget line items to show which and when work is undertaken, how it relates to the budget, and especially to the research team (e.g. RA) costs.
- d) Applicants are expected to make an accurate assessment of their requirements so that the respective approving panels are fully aware of the cost implications when deciding whether proposals are worthy of funding. Expenditures should be budgeted inclusive of any prevailing Goods and Services Tax (GST) payable.
- e) Note that application grants, once approved, cannot be increased. Hence, potential PIs are advised to prepare their budgets carefully. PIs are accountable for the accuracy of the final figures and must therefore check the calculations before submitting the proposal.
- f) PIs are advised to estimate and budget for future cost increases over the entire lifespan of the project. Note that variations/fund virement across each of the categories of approved budget votes and specific budget line items, such as buying new equipment or adding manpower, have to be requested by PIs and approved by ERFPO or PI's Institution, even if funds are available.
- g) Project spending/invoice should incur only from the start date till end date of the project. No expenditure is allowed after the project ends.

5.3 Project Budget at Application

- a) The Lead PI and the respective Sub-Project PIs are accountable for the budgeting and proper use of funds approved for their research projects. The Lead PI and the respective Sub-Project PIs are to complete the budgeting form, indicating their respective Lead Project or Sub-Project budget in detail and submit together with the application form. When utilizing the project's fund, the Lead PI and the respective Sub-Project PIs can spend only on items specifically listed in the approved budget.

**Enclosure 1: Guidelines for the Management of the 5th Tranche Education Research
Funding Programme (ERFP)**

1. General Fund Management and Disbursement (Financial Management)

- 1.1. The Principal Investigators (PIs) shall submit their audited claims to NIE for collation and submission to the Ministry of Education (MOE) for reimbursement on a quarterly reimbursement basis by default.¹ The Quarterly Requisition will include detailed schedules of expenditure incurred for the previous quarter which are certified by the Director of Research and Chief Financial Officer or equivalent (or an authorised nominee) of the PI's Institution and audited by appointed auditor from PI's Institution based on the established audit scope and procedures for ERFP. The auditor fees will be borne by the PI's Institution.

¹ Separate arrangement may be made for selected IHLs
- 1.2. The list of fundable direct cost items is provided in **Annex B**. Only items specified in the approved budget will be funded.
- 1.3. All expenditure should be incurred (based on goods or service rendered date) during the approved project duration (i.e. on or after the project start date and on or before the project end date). The only exception is payment of Performance Bonuses (PB) for work done prior to the project completion date and FlexBen charges for research staff, as these payments may occur after project completion.
- 1.4. All expenses listed in the Quarterly Requisition must be incurred and paid within the 3 months before the submission date to NIE. No projections should be included.
- 1.5. PIs are to adhere to their Institution's procurement procedures, guidelines and policies to ensure that all purchases made using ERFP grant funds are fundable, value-for-money, necessary and reasonable for the conduct of the Research, and processes are transparent. In general, prudence should be exercised for the use of resources.
- 1.6. Disbursement of funding shall be subject to the due performance of and compliance with these ERFP guidelines. Disbursement of funds to PI's Institution will only be made after receipt of such funds from MOE. (Refer to Section 8 of the Terms and Conditions of a Competitive Grant for more information).
- 1.7. PIs are responsible and accountable for the proper management of project funds and ensuring compliance with their Institution's existing financial and administrative procedures. Such responsibilities include ensuring the following:
 - a) Project expenses incurred must be checked for accuracy.
 - b) Expenses and financial claims made against the four project votes (Human Resources / Manpower, Equipment, Consumables and Other Costs) must be accurately made.

- c) PIs must ensure there are sufficient funds in the relevant project votes before committing to any purchases or payments.
- d) The utilization of the budget must comply with financial guidelines. Proper approvals must be sought prior to purchases.
- e) Monthly salaries for all full time research staff must be checked to ensure that they are accurately charged to the project.

1.8. Budget Utilization

- a) PIs are expected to exercise careful budget planning and management of their project funds.
- b) Project budget phasing figures are used for original cash flow projection figures to MOE and are to be keyed in via the Research Operation Management System (ROMS). This is treated as the cash flow projections for the current financial year. MOE will use these cash flow projections to determine the budget utilization rate for ERFP projects. PIs to contact ERFPO if there are any changes in the project budget phasing figures.
- c) When utilizing the project's fund, PIs and project team members can only purchase goods and services specifically listed in the approved budget. Purchases, including equipment, must comply with PIs' Institution's procurement procedures, budgetary guidelines and norms. On completion of the project, such equipment should be retained by PI's Institution.
- d) For programmatic proposals, the Lead PI should have oversight of all financial matters. The Lead PI should ensure that Sub-Project PIs provide regular updates on the financial status of their respective projects.

2. Hiring Policies (Human Resource Management)

- 2.1. Funding of Research Personnel under the grant must comply with prevailing and consistently applied human resource guidelines of the employing Institution(s).
- 2.2. This will extend to PI's Institution prevailing policies on associated human resources costs (e.g. staff insurance, employment benefits, employment levy, employment pass, pre-examination medical check-up, service award and recruitment associated cost).
- 2.3. All EOM related expenses shall be pro-rated taking reference from the project start date, except for lump-sum insurance claims, which shall be allowable as claimed. As a general principle, staff costs should be charged based on time commitment to the Research.
- 2.4. PIs are responsible for the management of research staff employed for the project. Such responsibilities include:

- a) Sourcing and liaising with their Institution's Human Resource Department on the recruitment and selection of full-time research staff;
 - b) Processing monthly invoices for the employment of temporary research staff;
 - c) Overseeing research staff's training and development (where applicable);
 - d) Managing research staff's work and performance and conducting research staff's performance appraisal.
- 2.5. For manpower-related fund requisitions, PI's Institution will keep a record of all staff employed, including those whose employment has ended. PI's Institution will provide the necessary records to ERFPO upon request.
- 2.6. PI's Institution must adhere to the Tripartite Guidelines on Fair Employment Practices. (Please refer to www.mom.gov.sg for details of the Fair Consideration Framework.)
- 2.7. PI's Institution is allowed to approve manpower changes (i.e. increase/decrease in headcount, change in designation or scheme of hires, change in time commitment to the grant), as long as the changes are necessary for the Research, comply with PI's Institution policies and does not exceed the EOM vote.
- 2.8. Claims for staff performance bonus should be submitted within six (6) months following the end of the Term. For PI's Institution that practise accrual of performance bonus, balance Funds should either be returned or claimed within six (6) months if the pay-out comes after the end of the Term. In instances where the end of the Term does not coincide with the regular annual appraisal cycle, PI's Institution will be allowed to submit a final performance bonus of the Research Personnel, based on the prevailing human resource policies and pro-rated to the number of months of service from the last appraisal of such Research Personnel to the end of the Term.
- 2.9. For programmatic proposals, the Lead PI should have oversight of all HR matters. The Lead PI should ensure that Sub-Project PIs provide regular updates on the HR activities of their respective projects.

3. Postgraduate stipend and Tuition Support

- 3.1. Postgraduate stipend must align with the prevailing rates set by the Ministry of Education. Postgraduate stipend and tuition support will not attract indirect costs.
- 3.2. Virement from this vote to other budget category votes is not allowed regardless of variation amount.

4. Equipment

- 4.1. PI's Institution / PIs shall ensure that the purchase of each equipment is necessary for the Research or activity supported by the Funding and is not otherwise reasonably available and accessible.

- 4.2. For high value equipment purchases (\$20,000 and above), PIs are required to update the list of equipment acquired, as part of the Half-Yearly Progress Report submission. Grantor (MOE) may require PI's Institution / PIs to allow approved Third Parties to access and use the equipment, subject to the availability of the equipment.
- 4.3. PI's Institution is allowed to make changes within the Equipment vote (i.e. changes in quantity and changes in equipment), provided that these changes are (i) necessary, relevant and used for the Research; (ii) do not constitute a change in Research; and (iii) are kept within the approved equipment vote budget. The PI's Institution / PI is to update ERFPO on these changes.
- 4.4. Equipment budgeted should be purchased at the start of the project and not when the project is closing. PIs should avoid purchasing equipment in the 3 months before the completion date of the project.

5. Institutional Indirect Research Costs (IIRC)

- 5.1. Indirect costs in research are those costs that are incurred for common or joint objectives and therefore cannot be identified readily and specifically with a particular sponsored research project but contribute to the ability of PI's Institution to support such projects (e.g. providing research space, research administration and utilities, and not through the actual performance of activities under the projects).
- 5.2. The ERFP grant will support the IIRC at a flat rate of 30% of the total direct costs of each approved project). IIRC will be allocated to the PI's Institution. This will be provided on a reimbursement basis based on 30% of the actual direct cost incurred during each claim schedule.
- 5.3. PIs would need to budget for the IIRC in the overall project budget in their proposal during grant application. The 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 below.

Funding Tier	Total Project Cost (Direct + Indirect Cost)
1	< S\$200K
2	S\$200K to < S\$450K
3 / Programmatic Proposals	≥ S\$450K

- 5.4. For Programmatic Proposals comprising PIs from different Institutions working on different sub-projects, IIRC can be apportioned to the respective Institutions of the PIs. The lead Institution of the programmatic project would collate the expenses of all sub-projects from various institutions and submit a consolidated claim for the project for reimbursement. IIRC will be allocated based on 30% of the actual expenses.
- 5.5. Grantor (MOE) does not manage indirect cost funding. PIs should refer and adhere to their Institutions' policy of managing indirect cost funding.

6. Variation Requests

- 6.1. No material amendments, alterations or changes shall be made to the project without approval from the relevant panel as indicated below.

Funding Tier	Approving Panel
Tier 1	ERFP Tier 1 and Tier 2 Approval Panel
Tier 2	
Tier 3 / Programmatic Proposals capped at \$1mil	ERFP Tier 3 Approval Panel
Tier 3 / Programmatic Proposals exceeding \$1mil	MOE Education Research Steering Committee

“Material amendments, alterations or changes” shall mean those amendments, alterations or changes that have a material effect on the scope, nature, direction or purpose of the project.

- 6.2. Grantor (MOE) and ERFPO reserve the rights to reject any claims that have resulted from changes to Research without prior approval from Grantor (MOE) and items found not to be fundable, not necessary, not reasonable, not relevant or not used for the Research.

Virement between Votes (Fund Transfer)

- 6.3. Any deviation from the budget or additional purchase would require approval by ERFPO. For this purpose, please complete the Request for Fund Virement (RC7) form via Research Operation Management System (ROMS). A request for fund virement between the four project votes should only be made under justifiable circumstances. A justification for fund virement must be provided.
- 6.4. Request for fund virement should be made at least 3 months before the project end date. Retrospective fund virement requests will not be allowed unless there is compelling justification for the late request. All fund virements (fund transfers/set aside) must be fully approved before purchases can be made.
- 6.5. Virement of funds into the following Other Cost vote is not allowed:
- Professional Development (For Full time RA/RF)
 - Dissemination Costs² (consists of (i) overseas travel/conference for allowable personnel; (ii) professional development (including purchase of reference materials) for PI and Co-PI, (iii) publication related cost; and (iv) closure report related cost)

Virement within Votes

- 6.6. Virement within votes are to be managed by the PI's Institution. PI's Institution is allowed to make virements within votes (i.e. changes in quantity and type), provided that these changes are (i)

necessary, relevant and used for the Research; (ii) do not constitute a change in Research; and (iii) are kept within the approved vote budget.

- 6.7. PI's Institution are to inform ERFPO of the virements within the Equipment vote and Other Cost vote (excluding virements within the General Other Cost³) for each project.

Variation and Grant Extension

- 6.8. The project is awarded based on the premise that the research questions and the aims stated in the Approved Proposal will be fulfilled. It is the duty of all PIs to ensure that grant extension and any amendments, e.g., change in team composition or scope of project are endorsed by ERFPO through RC5 (Project Amendment / Variation Request) via Research Operation Management System (ROMS) in order to effect all changes. Failure to do so may result in the termination of the project.
- 6.9. PIs are to seek ERFPO's approval for no-cost grant extension 6 months before the original project end date. Any grant extension requests submitted less than 6 months from the project end date will require compelling justification. The PI must ensure sufficient funds in each vote to support the extension request. Any virement requests necessary to meet the extension period must be made known as part of the extension request.
- 6.10. Each project extension should not be more than a total of 6 months. No additional funds, beyond the originally approved budget, would be given for any extensions.

² The Dissemination Costs vote is new from 32RFP. For proposals approved prior to 32RFP, virement into publication related cost and closure report costs is allowed. Please see Annex B, Other Costs Related Expenses for more information.

³ This refers to items budgeted under General Other Cost (i.e. Local Transport, Consultant expenses, Tokens of appreciation, Refreshments for Focus Group Discussion/Workshop/Seminar, Computer & AV accessories, Research instruments and Closure report related charges).

Change in PI/Co-PI

- 6.11. Request for a change in the PI/Co-PIs must be endorsed by ERFPO. The new PI/Co-PIs must be an expert in that area and possess the necessary expertise to continue with the research work.
- 6.12. In the event that the PI is leaving the Institution or is unable to fulfil his/her obligation as the project PI, immediate notification in writing to the PI's institution and ERFPO is required. A proper handover of the project to the new PI is mandatory to ensure the continuity of the funded project. It is the duty of the project PI to ensure that the transfer of the PI-ship is submitted through RC5 (Project Amendment/Variation Request) via Research Operation Management System (ROMS) and endorsed by ERFPO. The RC5 for such change requests are to be sent to ERFPO at least 1.5 months before

the change in PI. Grantor (MOE) reserves the right to suspend / terminate the Research if the mitigation plan is not satisfactory.

- 6.13. Grantor's approval (MOE) will be required should there be a change in PI's Institution. The request must be made to Grantor (MOE) and be endorsed by the Director of Research (or equivalent) of both the existing and new PI's Institutions.
- 6.14. PIs and Co-PIs shall be responsible for ensuring PI's Institution and ERFPO are immediately notified in writing if they plan to be on long leave of absence for more than 3 continuous months in a year (e.g. sabbatical). ERFPO will keep Grantor (MOE) informed of any PIs and Co-PIs with long leave plans **at least 1 month before** the PI takes long leave of absence.

PI must submit a mitigation plan to ERFPO via the Half Yearly Progress Report or relevant template from ERFPO at least 3 months before the commencement of their leave or as soon as reasonably possible (for resignation cases), to explain how the project will be kept on track. The mitigation plan must be endorsed by the Reporting Officer and the Director of Research (DoR) or equivalent for the Institution.

Both the leaving and new PIs must jointly develop a mitigation plan with ERFPO to sustain the project, including:

- a. setting new milestones/KPIs
- b. taking steps to ensure the project is not disrupted
- c. committing to put in all necessary resources and time
- d. sign off by the existing PI and the covering PI (if applicable)
- e. endorsed by the Reporting Officer, Director of Research (DoR) or equivalent
- f. approved by ERFPO if it is assessed to be sound in sustaining the project

Change in Research Scope

- 6.15. ERFPO's approval will be required for any change(s) to the scope of the Research. This includes change, removal or addition of scientific objectives, deliverables/Key Performance Indicators or milestones. The approval is to be sought through RC5 (project Amendment/ Variation Request) via Research Operation Management System (ROMS). No material amendments, alterations or changes shall be made to the Research without prior approval of the relevant approving panel.
- 6.16. If an activity/task initially meant to be carried out by the PI's Institution / PIs is subcontracted or entrusted to a third-party, this would also constitute a change in the scope of Research and ERFPO's prior approval will be required.

Change in Consultant

- 6.17. ERFPO's approval will be required for any change(s) to the names of the consultants. Compelling justification must be given. PIs are not allowed to include any additional visiting consultants/professors after the grant is approved.

7. Audit and Progress Reports

- 7.1. PI's Institution shall keep and maintain full and detailed records and accounts relating to the funding and the project, including all items of expenditure incurred for or in connection with the project.
- 7.2. PI's Institution shall be wholly responsible for monitoring the expenditure of the funding by the Institution, ensuring that the funding is utilised in accordance with these ERFP guidelines.
- 7.3. Appointed auditor from PI's Institution will conduct on-site reviews and audits to ensure that the terms and guidelines of ERFP are complied with by PI's Institution and that the reports submitted to MOE are an accurate statement of compliance

Half-Yearly Progress Report

- 7.4. PIs are required to submit half-yearly progress reports via the Research Operation Management System (ROMS) to ERFPO by January and July of each year for the entire duration of the project. ERFPO will collate the half-yearly progress reports of on-going projects by January for the reporting period July to December of the preceding year and July for the reporting period January to June of the current year. ERFPO could grant approval on a case-by-case basis to exempt a PI from submitting the progress report if the project start date falls within the last 3 months of the reporting period or if a project end date falls within the last 3 months of the reporting period. Any delay in the report submission may disrupt the fund disbursement for the project.
- 7.5. ERFPO will review the half-yearly progress report against the objectives and deliverables of the project. The PI may be required to give additional information about the progress of the project if the information submitted is deemed to be inadequate.
- 7.6. The PIs shall inform ERFPO of any development that will adversely affect the progress of the PIs' projects in a timely manner. ERFPO will keep MOE informed of any such developments.
- 7.7. Besides the half-yearly report, MOE may ask PIs to provide periodic updates on project progress and preliminary findings to MOE and other stakeholders, which include presentations to ERFP Approval Panels, MOE Management Committees, Government Platforms and relevant MOE divisions.

Final Report

- 7.8. PIs are required to submit their final reports for ERFP via the Research Operation Management System (ROMS) to ERFPO within 3 months following their respective project end dates. The reports will then

be routed to the Reporting officer and then to ERFPO for review and endorsement via ROMS. for review and endorsement via ROMS.

- 7.9. PIs will be required to give additional information about the progress and outcomes of any Research if the information submitted in the half-yearly Progress Reports and/or the Final Report is deemed to be inadequate.
- 7.10. The NIE Research Brief Series must be submitted as part of the final report submission package. Please refer to this link for more information on how to write a Research Brief.
- 7.11. PIs of Tier 2 and Tier 3 projects (Programmatic Proposals inclusive) will be asked to present to MOE to support dissemination of findings. In some cases, PIs of Tier 1 proposals are also asked to present, depending on the potential impact of the findings. The presentation may be recorded with PI's consent for archival and dissemination purposes. Besides the project closure presentation, MOE may also ask PIs to present the project findings at various meeting platforms.
- 7.12. All final reports for completed projects will be tabled at the relevant Approval Panels for closure.

Final Statement of Account

- 7.13. PI's Institution shall obtain and maintain the final statement of account ("Final Statement of Account"), including the final claims ("Final Claims"), for each completed project within six (6) months of the 'End Date' of the project.
- 7.14. PI shall submit the Final Statement of Account including the Final Claims to ERFPO within six (6) months of the completion of the Research, or termination of this Contract, or the end of the Term, whichever is the earliest failing which Grantor (MOE) may refuse to make further disbursements of the Funding and/or disallow further claims from the project.
- 7.15. Project is considered officially closed only if Points 7.8 to 7.14 above is completed.

Debarring of Principal Investigators

- 7.16. PIs who fail to submit the Final Report and/or Final Statement of Account within the stipulated timelines will be debarred. Debarred PIs will not be eligible to submit new grant applications as PIs for a period starting from the Final Report and/or Final Statement Account submission and ending one year from the date the overdue Final Report and/or Final Statement of Account is received by ERFPO. E.g., If the Final Report or Final Statement of Account is due on 31 Jan 2023 and a PI submits the Final Report or Final Statement of Account on 15 Feb 2023, the PI will not be eligible to submit ERFP grant applications for 1 year (between 15 Feb 2023 and 14 Feb 2024).

8. Approval from MOE for all collection of data from schools

- 8.1. MOE has a duty of care to protect the interests of MOE school participants in research studies. As such, all data collection requests for ERFP projects will be managed and approved by CRO based on MOE's considerations which includes school survey load and relevance of research.
- 8.2. PIs who wish to collect data in MOE schools (including MOE Kindergartens) are required to submit a data collection application along with a copy of the IRB approval via the Data Collection Site module on the Research Operation Management System (ROMS) at least 4 weeks prior to data collection. The application will be processed by ERFP Data Collection (ERFP DAC) and sent to the MOE Corporate Research Office (CRO) for approval. Please note that the entire process could take up to a month after submission of documents. Should there be any changes to the list of participating schools, PIs are to notify MOE through ERFP DAC on the Research Operation Management System (ROMS). For further clarification, PIs may contact ERFPO. For more information on schools, please visit the [MOE School Finder](#).
- 8.3. PIs will be notified by MOE CRO once approval has been given. PIs must adhere to MOE requirements for data collection in MOE schools.
- 8.4. MOE will require all ERFP research projects (except for MOE-contracted⁴) to seek parental consent for collection, use, and disclosure of personal data involving students.

⁴ The contracting division will advise the PI on the appropriate form of parental consent

- 8.5. To bridge research and practice for Singapore teachers and/or schools, Educator-Researcher Connect or ER Connect (<https://singteach.nie.edu.sg/educator-researcher-connect/>) aims to connect local teachers and/or schools who are interested to participate in research project(s) directly to the PIs. After PIs received the approval from MOE, to begin the recruitment of participants, PIs may wish to tap on the ER Connect via the link <https://forms.office.com/r/kxHsjnb7TC>

9 Publication of Results and Findings

- 9.1 The dissemination and publication of findings from MOE-contracted projects is subject to MOE's approval.
- 9.2 For all ERFP projects involving MOE schools, PIs need to abide by MOE's guidelines for publication which will be communicated during the data collection approval. Subject to MOE's guidelines, PIs may publish, at any symposia, national, international or regional professional meeting or in any scientific publications, books, journals, articles, newsletters, brochures, posters, websites, conference materials, case studies and reports of their own choosing, the findings, methods and results derived from the research.
- 9.3 All PIs should abide by their Institution's guidelines on publications.

- 9.4 All publications shall acknowledge the funding support provided by Grantor (MOE) and, where appropriate, the contributions of the other Institutions and research staff in accordance with established norms.

It is necessary to acknowledge the source of funding for all conference presentations and publications arising from the project (whether the PI is still with the Institution or has left the Institution at the point of writing and submission), in the following manner:

This study was funded by Singapore Ministry of Education (MOE) under the Education Research Funding Programme (ERFP xx/xx ABC). Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the Singapore MOE.

- 9.5 In public communication, efforts should be made to acknowledge the Grantor's (MOE) support in media releases, interviews, speeches, videos or any other media materials.

10 Intellectual Property Rights

- 10.1 Background intellectual property (BIP) is any existing intellectual property (IP) brought by the Institutions and/or any collaborators into the project. Unless expressly agreed otherwise, the project shall have no effect on BIP.
- 10.2 Save for IP arising from MOE-contracted projects (which shall be governed by Clauses 10.9 to 10.14 below), all IP howsoever arising from the research (Research IP) shall, at the first instance, be the property of the Institutions in such proportions as they may determine. This is without prejudice to any agreement that the Institutions may enter into with the PIs or research staff on ownership and exploitation of Research IP.
- 10.3 The PI shall identify and disclose to the Institutions details of all such Research IP. The PI shall ensure that its Institution makes such details of Research IP available to MOE for inspection at any time.
- 10.4 Management of all Research IP shall have reference to and be guided by the key principles of the Singapore National IP Protocol for Publicly Funded R&D.
- 10.5 The PI shall, and shall ensure that its Institution, use best efforts to ensure that Research IP is properly managed and wherever feasible, fully exploited and commercialised. When required to do so by MOE, the PI shall, or shall ensure that its Institution, attend such meetings as MOE may direct to discuss the potential for exploitation and commercialisation of Research IP.
- 10.6 The PI shall, and shall ensure that its Institution, keep and maintain a full, comprehensive and updated set of statements, records and accounts documenting the Revenue from the commercialisation and exploitation of the Research IP.

10.7 The PI shall ensure that its institutions should reserve a royalty-free irrevocable, worldwide, perpetual and non-exclusive right for the Government and public sector agencies to use any licensed or assigned Research IP for their statutory functions, non-commercial, R&D, and/or educational purposes only.

MOE-contracted projects

10.8 Clauses 10.8 to 10.14 apply **only** to MOE-contracted projects.

10.9 All Postground IP created by the PI, PI's institution and all research staff and all resulting products (including the right to publish) shall vest in the Government.

10.10 The PI:

- a) assigns and transfers absolutely to the Government all rights, title and interests in the Postground IP free from all encumbrances whatsoever; and
- b) shall procure that insofar as its institution and any research staff owns a Postground IP, such institution and research staff shall assign and transfer absolutely to the Government all rights, title and interests in the Postground IP free from all encumbrances whatsoever.

The PI further warrants that he shall have the authority to effect the necessary transfer, assignment or other assurance for the Postground IP to vest in the Government pursuant to this Clause 9.

10.11 The PI:

- a) grants to the Government and its agents, free of any additional charge, a worldwide, perpetual, non-exclusive licence, to use all research IP owned by or licensed to the PI; and
- b) shall procure that its Institution and all research staff grant to the Government and its agents a worldwide, perpetual, non-exclusive licence, to use all BIP owned by or licensed to it.

10.12 The PI shall ensure that:

- a) in the course of performing its obligations under the Contract, there is attribution to all individuals having Rights of Attribution for all Contract Works where necessary, unless the Government instructs otherwise in writing;
- b) the use of any Contract Works and the PI's performance of the terms of this Contract would not infringe any Moral Right; and
- c) where required, the PI shall provide the Government with the names of all individuals having Rights of Attribution in respect of such Contract Works and such other information as the Government may require to attribute such Contract Works to such individuals.

10.13 The PI acknowledges that the Government may wish to attribute Public Contract Works to the authors even where such authors do not have Rights of Attribution. Upon the Government's request, the PI shall use reasonable endeavours to provide to the Government the names of all authors of the Public Contract Works (other than those covered by Clause 10.12(c)) and such other information as the Government may require to attribute the Public Contract Works to such authors.

10.14 In this Clause 10:

"Contract Works" means works (i) created pursuant to or for the purpose of the Contract and (ii) used in connection with the performance of the Contract.

"Moral Rights" means Right of Attribution and other moral rights of an author, including any similar rights that may accrue to authors of works in Singapore or any territory of the world and includes any similar rights accorded to a performer or an inventor.

"Postground IP" means IP (including future IP) which results from or is generated pursuant to or for the purpose of the Contract or any research under the Contract.

"Public Contract Works" means:

- a) Contract Works used by the PI in public in the course of performing the Contract;
- b) Contract Works which the Contract contemplates may be used in public, whether by the Government or some other person; and
- c) Contract Works which are reasonably expected to be used in public, whether by the Government or some other person.

"Right of Attribution" means the right to be identified as the author of a work, that may accrue to authors of works and includes any similar right accorded to a performer. **"work"** shall have the same meaning as its definition in the Copyright Act 2021.

11 Research Integrity Policy

11.1 PIs are required to abide by their respective Institution's research integrity policy.

11.2 PIs are required to seek ethics clearance before collecting any data from human subjects or for studies that involve the usage of data from human subjects. A copy of the approved ethics clearance letter from the PI's Institution is to be provided to ERFPO for filing.

11.3 PIs are advised to check whether ethics clearance for amendments are required by the respective Institutional Review Boards (IRBs) if there are changes to their projects in the following areas:

- a. Issuance of tokens of appreciation.

- b. Methodology arising from data collection (including change in sampling type such as Primary School student to Secondary School student, change in sample size, change in mode of data collection).
- c. Extension of the project.
- d. Change in team composition (including change in PI).
- e. Change in project title.

12 Research Data Management Policy

12.1 PIs are required to abide by their respective Institution's research data management policy.

13 Conflicts of Interest

13.1 Conflict of interest arises when a person is placed in a position that enables him/her to derive personal benefit from actions or decisions made in his/her official duties/capacity. Actual or potential conflicts of interest may arise when the personal or family interests of the PI or Research Personnel conflict with the interests of related third parties, including Grantor, vendors, collaborators, publishers and research participants.

- a) It is the researchers' responsibility to identify and disclose to the Institution(s) all Conflicts of Interest, whether actual, potential, or perceived.
- b) Institutions are required to put in place adequate procedures to enable early identification and effective management of any potential and actual conflicts of interest.
- c) Institutions should notify the ERFPO and take measures to resolve such conflicts if they arise.

14 Data Sharing to MOE for ERFP projects and MOE-contracted research projects

All PIs who are awarded ERFP grants are required to share data, including personal data (i.e. data which potentially makes participants identifiable), with the Grantor (i.e. MOE) upon request. These data are to be made available to MOE for research purposes, including aggregated analyses, or other such purposes as permitted by law. The PI is responsible for including information about data sharing in the participant information and consent forms, with clearance from the relevant ethics approval authority at the PI's institution. Specific wording must be agreed by MOE and the institution(s) of the research team.

MOE-contracted projects

14.1 All resulting findings and data (including personal data) for MOE-contracted projects shall be transferred to and owned by the Government, unless other specific arrangements are made with the contracting division.

14.2 During project planning, project teams are to discuss publication arrangements and data sharing arrangements with the Contracting Division.

14.3 More detailed information on data sharing and publication will be provided by the Contracting Division.

14.4 In this Clause 14, the words “personal data” shall have the same meaning as its definition in the Personal Data Protection Act 2012.

15 Others

15.1 All PIs shall adhere to the Terms and Conditions of ERFP Competitive Grant in Enclosure 3.

Annex A: Considerations for ICT/AI innovation proposals

Research proposals involving the development, validation and refinement of ICT/AI innovation tools (henceforth “ICT/AI tools”) often require large amounts of funding and a long period of time before research impact is realised. Past successful ICT/AI projects have shown that researchers, policymakers and programme owners need to collaborate as early as possible, often at the onset of research conceptualisation, to optimise the impact and enhance the likelihood of ICT/AI tools being implemented system-wide.

An ICT/AI tool is used to create, disseminate, store and manage information and online content; enable different forms of communication, collaboration, feedback; blend digital and physical experiences; and facilitate or enable new social practices and novel forms of social interaction, participation, networking and online communities. The effects of ICT/AI tools also depend on components such as resourcing, system design and professional development. Hence, system-wide implementation of ICT/AI tools needs to consider the existing social, technical (i.e., ‘know-how’), and technological infrastructure and practices.

Below are some considerations for conceptualising research proposals to develop ICT/AI tools.

1. **Establish the problem / pedagogical need:** Explicate how learning will be transformed with the use of novel tool. Justify that there are no similar existing or planned tools in MOE systems or commercial products, or highlight how existing tools that seek to achieve similar learning objectives are inadequate or non-ideal. There is also interest from MOE for researchers to study and evaluate the pedagogical use of existing features in MOE systems (e.g., Adaptive Learning System, Learning Feedback Assistants, Learning Companion). Consult your MOE partners to learn more about the Student Learning Space (SLS) or refer to <https://www.learning.moe.edu.sg/latest-news/changelog> page.
2. **Development of Prototype:** Consider the use of low-fidelity prototyping tools (e.g., paper prototyping) to demonstrate desired impact and reach before development of prototype. Explore the use of existing and multiple functionalities within MOE systems and commercial products to achieve the desired solution before development of a bespoke prototype. Prototypes that address urgent and important gaps can be built outside of MOE systems, but costs for hosting, subsequent maintenance and enhancements should be factored in¹. Where possible, consider how the bespoke prototype can be implemented system-wide in a sustainable manner, preferably within MOE systems. You may consult your MOE partners or refer to <https://www.learning.moe.edu.sg/partners/>.

¹ Only costs incurred for the development of the protocol can be funded from the ERFP project cost. The PI will need to source for other funding to sustain the developed prototype after project completion from the IHLs, sponsors or any interested divisions from MOE.

- Evaluation of Prototype:** Ensure that the research design allows for the prototype to be evaluated for potential impact and ease of implementation. For potential impact, there should be a positive effect with a clear kernel (i.e., active ingredient or key design element) and sound mechanism (e.g., a theory of change, logic model). It is essential to conduct user testing to gather feedback and validate that the product design aligns with user needs and requirements. For ease of implementation, articulate the effort required to scale-up the prototype, the 3 – 5 years financial requirements and potential for future use.

For more information or any queries, you may email Darren (CRO) at DARREN_LAI@MOE.GOV.SG and Hong Lim (ETD) at SOON_HONG_LIM@MOE.GOV.SG.

Note: Based on Clause 10.7 in the ERFP Admin Guide, PIs shall ensure that their institutions reserve a royalty-free irrevocable, worldwide, perpetual and non-exclusive right for the Government and public sector agencies to use any licensed or assigned Research IP for their statutory functions, non-commercial, R&D, and/or educational purposes only.

Annex B: Fundable and Non-Fundable Direct Costs

General Policy

The list of fundable direct costs is summarised in the table below. Fundable direct cost is only allowed for expenses that are directly related to the project and not for general use.

1. EOM Related Expenses

No.	Type of Expenses	Description	
		Fundable	Non-Fundable
A1	Full-Time Staff	Allowed as part of overall compensation to full-time research staff. Respective Institution's HR Policies apply, these include salaries, merit increment, CPF contributions and fringe benefits (that is insurance, medical and dental).	Salaries (including overtime cost) and related expenses for Lead PI/PIs/Co-PIs/Collaborators/Visiting professors & researchers/general administrative support staff are not allowed. Teaching buyouts are not allowed for the hiring of substitutes to perform the Investigators' teaching duties. Overseas-based Research Staff are not allowed to be employed by a project. Research Staff employed have to be based in Singapore.
A2.	Temporary staff	Allowed, including administration fee for the engagement of manpower agencies for the hiring of hourly rated staff/transcribers.	Overseas-based Temporary Staff are not allowed to be employed by project. Temporary Staff employed must be based in Singapore.

No.	Type of Expenses	Description	
		Fundable	Non-Fundable
A3.	Visiting Consultant/Professor honorarium	<p>Allowed.</p> <p>The Visiting Consultant/Professor must be identified and their contribution to the project must be clearly defined and - justified in the proposal.</p> <p>The budget to be supported will be decided based on prevailing rate of PI's Institution HR Policy (terms of payment for visiting scholars & consultants).</p>	
A4.	Postgraduate stipend and tuition support	<p>Allowed. Postgraduate stipend must align with the prevailing rates set by the Ministry of Education.</p> <p>Postgraduate stipend and tuition support will not attract indirect costs</p>	<p>No virement out to other votes.</p> <p>Undergraduate stipend and tuition support are not allowed.</p>

2. Equipment Related Expenses

No.	Type of Expenses	Description	
		Fundable	Non-Fundable
B1.	General policy	<p>Allowed only for expenses that are directly related to the project.</p> <p>PIs should provide preliminary evidence of prices to support the budgeting of Equipment at grant application stage.</p> <p>PIs should avoid purchasing equipment in the 3 months before the completion date of the project.</p>	<p>Does not cover common office equipment, such as laptops, LED monitors, PCs, furniture and fittings, office software, photocopiers, scanners and office supplies.</p>

3. Consumables Related Expenses

No.	Type of Expenses	Description	
		Fundable	Non-Fundable
C1.	General policy	Allowed only for expenses that are directly related to the project includes the following: Stationery, printing charges, photocopying charges, data storage devices e.g., thumb drives (in accordance to ICT policy of the respective PI's institution), batteries and courier services.	

4. Other Costs Related Expenses

No.	Type of Expenses	Description	
		Fundable	Non-Fundable
D1.	General policy	Allowed only for expenses that are directly related to the project.	Does not cover expenses such as: <ul style="list-style-type: none"> entertainment, audit fees (internal and external), late payment interest charges, fines and penalties, insurance premiums not covered by PI's Institution, legal fees, staff retreat and team-building activities, professional membership fees, IP related and commercialisation expenses (including patent application filing, maintenance and other

			<p>related costs).</p> <ul style="list-style-type: none"> costs of office or laboratory space, including renovation/outfitting costs, rent, depreciation of buildings and equipment, and related expenditures such as water, electricity, general waste disposal and building/facilities maintenance charges.
D2.	Bank charges	Allowed as long as it is specifically related to the payments for goods and services incurred for the use of the project	Late payment interest charge for credit card bill is not allowed.
D3.	Goods and Services Tax (GST)	Allowed for expenses incurred for the project.	
D4.	Customs and import duties, shipping charges	Allowed as long as it is specifically related to importation of goods and services used in the project.	
D5.	Professional Development (For Full time RA/RF)	Allowed for up to 2% of the original HR full-time budget only if the training is directly relevant to the project. Can only be used for local conferences/workshops/seminars, and local courses/online courses.	Virement of funds into Professional Development (For Full time RA/RF) is not allowed.
D6.	Dissemination Costs (consists of (i) overseas travel/conference for allowable personnel; (ii) professional development	<p><u>(i) Overseas travel/conference for allowable personnel</u></p> <p>Allowed for PIs, Co-PIs, Research Fellows and Research Assistants from</p>	<p><u>(i) Overseas travel/conference for allowable personnel</u></p> <p>Overseas Travel and Conference are not allowed for:</p>

	<p>(including purchase of reference materials) for PI and Co-PI, (iii) publication related cost; and (iv) closure report related cost)</p>	<p>Singapore-based Institutions if these are directly related to the project.</p> <p>It is the responsibility of PI's Institution / PI to ensure that all travel expenses are in line with the Institutions' consistently applied policy on travel. PI's Institution is to ensure that any travel undertaken is in relation to the Research only and for no other purpose.</p> <p>The purpose of the travel should be directly relevant to the Research and necessary to accomplish the Research objectives.</p> <p>The respective Institution's Staff Development Leave guidelines apply.</p> <p><u>(ii) Professional development (including purchase of reference materials) for PI and Co-PI</u></p> <p>Local conferences/ seminar/ workshops are allowed for PI and Co-PI if these are directly related to the project. This also includes books, reference materials, lab manuals, specialized journals subscription. Specialized journals subscriptions are allowed only if these are directly related to the project</p>	<ul style="list-style-type: none"> • Collaborators. • PI, Co-PI, Research Fellows, Research Assistants from Non-Singapore Based Institutions. • Co-PIs and collaborators from MOE HQ. <p>Virement of Funds into the (i) Overseas travel/conference for allowable personnel and (ii) professional development (including purchase of reference materials) for PI and Co-PI is not allowed.</p>
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		<p>and are not available in the libraries of the respective Institution. The funding for journal subscription would be restricted to within the duration of the project.</p> <p>PIs should avoid purchasing books, reference materials or lab manuals 3 months before the completion date of the project.</p> <p><u>(iii) Publication related costs</u> Publication related costs are allowed for page charges of publication of manuscript in scientific publications, books, journals (including open access journals), articles, newsletters, brochures, posters, websites, conference materials, case studies and reports as well as cost related to publication in open access journals which are directly related to the project.</p> <p>Justification will need to include the following:</p> <ol style="list-style-type: none"> a) Number of papers that the project intends to submit b) Names of journals in which the PI intends to submit the paper to c) Cost of producing 1 manuscript. The costs of reprints <p><u>(iv) Closure report related costs</u></p>	
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		<p>Closure report related costs are allowed for closure report printing, binding and proofreading cost.</p> <p>The total funding for (i) overseas travel/conference for allowable personnel; (ii) professional development (including purchase of reference materials) for PI and Co-PI, (iii) publication related cost; and (iv) closure report related cost will be pegged at 5% of total project / sub-project (for PP) direct costs, subject to a cap of \$100,000 for entire project.</p>	
D7.	<p>Visiting Consultant/professor airfare, accommodation and local travel expenses</p>	<p>Allowed, if specifically provided for in the proposal and approved by the relevant Approval Panel.</p>	<p>Please note that besides honorarium (rates as per PI's Institution guidelines), direct economy return airfare and accommodation, there will be no other resource allocation (e.g., conference funding, equipment purchase) for a consultant.</p>
D8.	<p>Refreshments for Focus Group Discussions / Workshops / Seminars</p>	<p>Allowed for focus group discussions / workshops / seminars directly related to the project. Refreshments are capped at \$4 per pax per day (including GST and delivery charges).</p>	<p>Entertainment expenses are not allowed.</p> <p>Not allowed for project team discussion and meeting, or one- to-one interview with research participants.</p>

D9.	Tokens of appreciation	<p>Allowed, capped up to the equivalent of \$10 per person per data collection point. Cash tokens are not allowed.</p> <p>Tokens of appreciation given to the research participants must be cleared by the respective Institutional Review Board (IRB).</p> <p>For any changes (type/increase of participants) to the issuance of tokens of a appreciation, PIs are/may to submit a RC5 (Project Amendment / Variation</p>	<p>School personnel (including pre-service teachers undergoing training at NIE for Dip Ed or BA/BSc or PGDE) who are approached to participate in the study on account of their official position or their official work.</p> <p>Therefore, they should not receive any gift offered to them. "Gift" includes money, goods, services, passage or any form of benefit.</p>
D10.	Computer accessories and AV accessories	<p>Allowed only if these items (e.g. webcam, portable routers, stylus and wireless microphone) are directly related to the project.</p> <p>PIs should provide preliminary evidence of prices to support the budgeting of Computer and AV accessories at grant application stage.</p>	
D11.	Research Instruments	<p>Allowed only if these items (e.g. educational test kits and science material) are directly related to the project.</p> <p>PIs should provide preliminary evidence of prices to support the budgeting of Research Instruments at grant application stage.</p>	
D12.	Local Transport	Allowed for train/bus service, mileage (including parking and ERP) and taxi / private-hire fares	Advanced booking fees and any optional fees (e.g. insurance opt-in fee, donation

		(including current booking fee, platform fee and payment transaction fee) incurred directly relevant to the project.	opt-in fee, tips) are not allowed.
Other Cost (ICT related)			
D13.	Software and software licenses	<p>Allowed, if software is necessary to accomplish the project objectives.</p> <p>Software license period should not be longer than project duration. If license exceeds the project duration, the amount claimable will be pro-rated up to the project duration.</p> <p>PIs should provide preliminary evidence of prices to support the budgeting of Software and Software Licenses at grant application stage.</p>	Software and software licenses that are provided by the institution are not allowed.
Other Cost- Others			
No.	Type of Expenses	Description	
		Fundable	Non-Fundable
D14.	Repairs and maintenance of research equipment	Allowed for the period of the grant. Should be restricted to the duration of the project.	For new equipment, maintenance should not be budgeted for the duration the equipment is under warranty.
D15.	Personal productivity tools and communication expenses (e.g., mobile subscription/data plan)	<p>Allowed if the use of mobile phones and other forms of smart devices were indicated in the methodology for the project. Data plans subscriptions are directly related to the project and must be in accordance with respective Institution's policy.</p> <p>Mobile subscription and data plan should not be longer than</p>	Not allowed for general provision such as for research team to contact participants/schools.

		project duration. If the subscription exceeds the project duration, the amount claimable will be pro-rated up to the project duration.	
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UPDATES ON FUNDABLE DIRECT COSTS

Please note that from 32RFP onwards, there are changes to the list of fundable costs for ERFP projects.

These are the two key budget-related changes made to the ERFP Administrative Guidelines that are applicable to all approved projects from 32RFP onwards.

1. Dissemination Costs

This is a new line item introduced in the 32RFP Administrative Guidelines. This “Dissemination Costs” line consolidates 4 line items in previous Guidelines:

- i. overseas travel/conference for allowable personnel
- ii. professional development (including purchase of reference materials) for PI and Co-PI
- iii. publication related cost
- iv. closure report related cost

2. Postgraduate stipend and tuition support

This is a new vote introduced in the 32RFP Administrative Guidelines. This new vote will not attract indirect cost.

For projects that were approved prior to the 32RFP, the project’s originally approved budget is valid as per the terms and conditions set at time of approval.

The table below summarises.

Applicable for projects approved BEFORE 32RFP	Applicable for projects approved FROM 32RFP
Overseas Travel/ Conference and PI/Co-PIs’ Professional Development	Dissemination Costs (i) overseas travel/conference for allowable personnel (ii) professional development (including purchase of reference materials) for PI and Co-PI (iii) publication related cost; and (iv) closure report related cost
Publication related cost	
Closure report related costs	
Not Applicable	Postgraduate stipend and tuition support

For more information, please contact ERFPO.

Enclosure 2: Roles of Principal Investigators (PIs) and MOE Co-PIs/Collaborators in ERFP Projects

AIM

1. This document provides an overview of the expected roles of PIs and MOE Co-PIs/Collaborators in ERFP-funded research projects to optimise the impact of education research.

INTRODUCTION

2. Synergistic research partnerships between researchers and MOE are foundational for successful research projects that provide utility for reviewing and shaping policy, programmes, and practice. This is particularly relevant for research projects that are of great strategic interest to MOE (e.g., those addressing problems of policy and practice, as articulated in the General Education Research Agenda, or GERA, as well as Early Childhood Research Agenda, or ECRA; please see erfp.edu.sg/moe-research-priorities/) as their findings can directly inform policies and programmes, and impact learning and teaching in the education system.
3. Strong partnerships are thus critical because they provide opportunities for researchers and MOE practitioners with different expertise to work together to ensure clearer research-practice-policy pathways. Close collaboration also fosters knowledge building, paving the way for both theory as well as practice-based insights to strengthen research and research impact.

ROLES

4. The PI holds the overall responsibility for the project and plays a major role in all aspects of the project. This role includes, but is not restricted to:
 - a. Oversee all aspects pertaining to the design and implementation of the research project, including all administrative duties as set out in the terms and conditions accompanying the approval of ERFP funding.
 - b. Make the final decisions on all aspects pertaining to the research project, taking into account input from members of the research team, with the primary aim of ensuring successful implementation of the project.
 - c. Update all members of the research team (including the MOE Co-PIs/Collaborators) regularly on the progress of the project. This includes sharing the bi-annual Progress Report with the research team, such that the research team can discuss the utility (potential/enacted) of the project on a regular basis. Regular communication is crucial towards ensuring greater utility of the project to MOE and will support the research team's assessment of utility required in the Final Report.

- d. Discuss preliminary findings from the project with MOE collaborators at opportune times in preparation for sharing of final findings as required. These findings could draw out the connections between policies/programmes and what is observed in practice, and other insights related to utility and relevance of the findings. To the extent possible, these sharing sessions should include the following features:
 - i. Situate the study in light of earlier projects (if any). For instance, the PI could address gaps from earlier projects. If the studies are repeated, their continuing relevance and the rationale for repeating them should be discussed.
 - ii. Link findings to MOE's existing policies, programmes and practices, in discussion and co-construction with the MOE Co-PIs/Collaborators. For instance, the findings could draw out the connections between what policies and programmes are prescribed centrally and what are observed in practice.
 - iii. Draw implications for improvements and changes, in discussion with the MOE Co-PIs/Collaborators. For instance, how the findings could be used to improve existing policies, programmes, and practices, to inform the development of new ones, or to translate interventions into practice. They could also identify areas where more research work could be done.
 - iv. Include MOE Co-PIs/Collaborators as co-presenters who could provide other insights related to utility and relevance of the findings.
5. Roles of MOE Co-PI or Collaborator. A key purpose for involvement of MOE practitioners in ERFP-funded projects is to optimise utility for MOE policies/programmes/practice. MOE practitioners could participate as Co-PI or Collaborator depending on the extent of involvement in the project, which can shift during the course of a project and PIs can decide to change the status of MOE researchers accordingly, in consultation with the research team. The role of the MOE Co-PI/Collaborator includes:
 - a. Bring specialised and contextual knowledge (e.g., local school system, curriculum, MOE needs and priorities) to bear on the research project, including suggestions on the interpretation of the findings. This could also include providing advice on matters such as sampling schools, working with teachers/school leaders, designing appropriate instruments, and interventions.
 - b. Work with the PI and research team to distil and communicate insights from preliminary and final findings as well as observations, thereby improving the timeliness of potentially usable project findings to inform MOE's work. Any further sharing of project information or findings should be discussed and agreed upon by PI and MOE.
 - c. Work with the PI and research team to assess the potential/enacted utility of preliminary and final findings, including whether (i) the findings address MOE research priorities and problems

of practice/policy, (ii) the findings can be translated into interventions for piloting, or (iii) the interventions can be extended to more schools, levels and subjects, or implemented system wide. This assessment will be made by the Co-PI or Collaborator (using the table in Annex) and should be included in the Final Report, as well as Progress Reports where possible.

- d. Beyond project completion, work with the PI and research team in conceptualising follow-up projects (including designing or refining interventions), track the impact of interventions (if applicable) or lead in system-wide implementation (including through MOE systems).
6. Each research team will also need to work out other responsibilities which are specific to the project, taking into consideration (i) the nature and needs of the research; (ii) the expertise of individual members; and (iii) the amount of time each member is able to commit. An MOE Co-PI is expected to contribute significantly to the project, e.g., perform most or all of the roles listed above. An MOE Collaborator on the other hand is expected to play a more limited role, i.e., focusing on one or two of the roles listed.

CONCLUSION

7. The impact of research projects on our education system can be optimised through close collaborations between researchers and policy/programme owners. This document articulates the importance of strong relationships in the research team and highlights the need for early and regular engagements between NIE PIs and MOE Co-PIs/collaborators as crucial steps towards achieving greater utility of education research.

Prepared by: Corporate Research Office, RMID, MOE With input from ERFP Office

Date: 7 Aug 2023

Annex C: Assessment of the potential or enacted utility of the ERFP project findings

The following table is suggested to support discussions between researchers, and MOE Co-PIs and Collaborators about the potential or enacted utility of the ERFP project findings. This assessment should be included in the Final Report, as well as Progress Reports where possible.

Project Title	
Name of MOE Co-PI/Collaborator (Div/Branch)	
Key finding and/or intervention in project	<p>Interpretation of the research findings from a practitioner/policy-makers' perspective, to consider how findings can:</p> <ul style="list-style-type: none"> - inform policies and programmes (e.g., how can the findings inform/improve development and/or reviews of curriculum/professional development/resource development?); - be translated into policies and practice (e.g., how can the findings help formulate curriculum policy, enhance instructional programme or improve teacher practice and student learning?); - create wider impact through dissemination and outreach programs (e.g., how can the findings be communicated to different partners/stakeholders?); - lead to new proposals to create further impact (e.g., what are the new interventions or further baseline studies that new research studies can focus on?) <p>The final report would also include other important aspects that considers how the research findings advance theoretical and scientific discovery and factors to facilitate sustainability of impact.</p>

Enclosure 3: Terms and Conditions of ERFP Competitive Grant

TERMS AND CONDITIONS OF ERFP COMPETITIVE GRANT

1. Definitions

1.1 In this Contract, unless the contrary intention appears: -

- i. "Acceptance Form" means the Research Grant Acceptance Form accompanying the Letter of Award which is to be completed by PI's Institution and PIs;
- ii. "Application" means the application for the Funding submitted to Grantor (MOE) through ERFPO by the PI's Institution for and on behalf of the Institutions collectively and given the grant number specified in the Letter of Award;
- iii. "Approved Proposal" means the Application to undertake the Research described therein as approved by Grantor (MOE) (together with all modifications, amendments and revisions required by Grantor (MOE));
- iv. "Approved Third Parties" means the Grantor (MOE), any publicly funded research institute, research centre, university, polytechnic or other institute of higher learning based in Singapore;
- v. "Assets" means all equipment, computer software, goods, products, databases, accessories, hardware and any other asset purchased or acquired using the Funds but do not include Research IP or consumables;
- vi. "Background IP" or "BIP" has the meaning set out in Clause 10.1.
- vii. "Collaborator" means any company, Institution, incorporated body or other industry or academic collaborator, which is not an Institution or a PI but is to be engaged in the Research in collaboration with the Institutions or any of them;
- viii. "Co-Funder" means any other Organisation, Institution, body, Association (unincorporated or otherwise) or corporation which co-funds any part of the Funding under this Contract whether through or together with Grantor (MOE);
- ix. "Co-Principal Investigator" means any person named in the Approved Proposal as a "Co- Principal Investigator" for the Research;
- x. "Contract" means collectively these Terms and Conditions of a Competitive Grant, the Letter of Award, Application, Approved Proposal, Guidelines and Policies (which shall be communicated to the Institutions as applicable);
- xi. "Deliverables" means the tangible outcomes of the Research to be achieved by the Institutions and PIs as specified in the Approved Proposal;

- xii. "Final Report" means the report described in Clause 7.8; "Final Statement of Account" has the meaning set out in Clause 7;
- xiii. "Final Claims" has the meaning set out in Clause 7.
- xiv. "Funding" or "Funds" means the amount or amounts payable under this Contract for each project as specified in the Letter of Award;
- xv. "Guidelines" means the applicable guidelines for application for grants from the Grantor (MOE) and includes all instructions to applicants (if any) and all application forms which are in use from time to time;
- xvi. "PI's Institution" means the body or Institution or administering organisation named in the Letter of Award as the "PI's Institution" as the body responsible for undertaking and managing the Research;
- xvii. "Host Institution" refers to the Institution the Lead PI belongs to for a Programmatic Proposal involving Project PIs from more than one institution;
- xviii. "Intellectual Property (IP)" means all copyright, rights in relation to inventions (including patent rights and unpatented technologies), plant varieties, registered and unregistered trademarks (including service marks), registered designs, confidential information (including trade secrets and know-how), mask-works and integrated circuit layouts, and all other rights resulting from intellectual activity in the industrial, scientific, literary or artistic fields;
- xix. "IRB" means Institutional Review Board;
- xx. "Principal Investigator" means the investigator identified in the Letter of Award as the overall lead in the conduct of the Research;
- xxi. "Letter of Award" means the letter issued by ERFPO, on behalf of the Grantor (MOE), preceding these Terms and Conditions of A Competitive Grant under which the grant of the Funds is made to the Institutions;
- xxii. "Materials" means documents, anonymised patient samples (including tissue and sera), compilation of x-ray results, information and data stored by any means but excluding confidential patient data collated or acquired for the purposes of the Research;
- xxiii. "Milestones" means the agreed milestones that PI's Institution and PIs shall achieve as specified in the Approved Proposal;
- xxiv. "Office of Research" means the office established by the PI's Institution in accordance with Clause 4.2;
- xxv. "Partner Institution" means the bodies or institutions named in the Letter of Award as the "Partner Institutions" as the bodies responsible for working together with the Host Institution to undertake a Programmatic Research involving Project PIs from more than one institution.

- xxvi. "Policies" means any policy, instruction, standard operating procedure, regulation or rule issued by Grantor (MOE) by itself or on behalf of or together with any Co-Funder in relation to the Funding provided under this Contract;
- xxvii. "Quarterly Requisition" means the requisition sent to the Grantor (MOE) and ERFPO as described in Clause 8.1a.
- xxviii. "Research" means the project approved by Grantor (MOE) as described in the Approved Proposal subject to any modifications or amendments thereto made in accordance with Clause 13;
- xxix. "Research IP" has the meaning set out in Clause 10.2;
- xxx. "Research Personnel" means the Principal Investigator, Co-Principal Investigator, Collaborators, Consultants, Lead PI, Lead Co-PI and all other employees, consultants and agents of the Institutions who will be engaged in and/ or perform the Research;
- xxxi. "Revenue" means gross consideration received by Institutions and/or Grantor (MOE) and/or Research Personnel (as the case may be) from the licensing and commercialisation of any Research IP;
- xxxii. "Term" means the term of this Contract, beginning with the project start date for the duration of the Funding as specified in the Letter of Award / Research Grant Acceptance Form;
- xxxiii. "Half-Yearly Progress Report" means the report described in Clause 12.3.

2. Funding

- 2.1 The Funding will be provided by the Grantor (MOE) and used by PI's Institution during the Term in accordance with this Contract.
- 2.2 PI's Institution shall use the Funds for the Research only and not for any other purpose.
- 2.3 Each PI shall faithfully and diligently carry out or cause to be carried out all necessary research and development work and to devote all necessary time, resources and support to ensure the successful conduct, implementation and completion of the Research in accordance with this Contract and consistent with internationally recognised good research practices and ethical standards. PI's Institution shall ensure that the Research Personnel within their employ undertake and properly discharge the foregoing obligations.
- 2.4 Other than expressly allowed under the Contract, the Funds or any part thereof shall not be channeled to fund research and development activities overseas.
- 2.5 PI's Institution shall not solicit or receive any funds or such other means of support for carrying out the Research from any other person, company, body, organisation, Institution or agency

(governmental or non-governmental) without Grantor's (MOE) prior written consent, such consent not to be unreasonably withheld.

3. Accuracy of Information

3.1 PI's Institution warrants that the information contained in the Application, all reports referred to in this Contract and any other information submitted to Grantor (MOE) relating to the Research or the Funding are complete, accurate and not misleading. Without limiting the generality of the foregoing, the following are examples of incomplete, inaccurate and/or misleading information:

- a) false or improper reports of financial accounts;
- b) improper claims;
- c) false or improper documents;
- d) fictitious track records;
- e) inflated reports of funds obtained from other sources for the Research;
- f) omission of information on other funding sources for the Research;
- g) false or inaccurate claims that proper approvals (including IRB approvals) have been obtained;
- h) false or inaccurate reports on the progress of the Research and achievement of Milestones and Deliverables;
- i) false or inaccurate reports on the status of collaborations with third parties relating to the Research; and
- j) false claims in the publication record, such as, describing a paper as being published even though it has only been submitted for publication.

4. Administration of the Funding

4.1 PI's Institution shall ensure that the Research is carried out with due care, diligence and skill and that the Funds are used in accordance with this Contract.

4.2 The PI's Institution shall be responsible for administering and coordinating all matters relating to the Research, use of the Funds, communications with Grantor (MOE), and reporting requirements for and on behalf of all the Institutions. For this purpose, the PI's Institution shall be represented by its chief executive officer or equivalent office holder and establish an Office of Research, led by a Director of Research, to facilitate such responsibilities. Where its chief executive officer or Director of Research is also the Lead Principal Investigator, the PI's Institution shall appoint another non-conflicted person from its management to represent the PI's Institution. Notwithstanding the foregoing, Grantor (MOE) reserves the right to communicate directly with PI's Institution or PI on matters relating to this Contract.

4.3 The PI's Institution shall be responsible for:

- a) ensuring that all Institutions and Research Personnel are aware of their respective responsibilities and that they comply with this Contract;
- b) providing and/or procuring the basic facilities needed to carry out the Research as detailed in the Approved Proposal;
- c) ensuring that the PIs adopt the highest achievable standards, exhibit impeccable integrity and follow all prevailing guidelines on good research practices in Singapore (or internationally established guidelines, where applicable) in the conduct of the Research;
- d) monitoring the scientific progress of the Research towards achievement of the Milestones and Deliverables and reporting to Grantor (MOE) any deviations or anticipated problems which may materially affect the Research;
- e) ensuring, where applicable, that local IRB, research ethics committee and multi-centre research ethics committee approvals are granted for the Research and that no activities requiring such approval is initiated before it has been granted;
- f) ensuring, where applicable, that the Institutions put in place proper procedures and guidelines to ensure regular and effective monitoring of the Research by the IRB or research ethics committee;
- g) ensuring, where applicable, that all ethics approvals for the conduct of studies using animals are granted including approvals of the relevant institutional animal care and use committee or such other body appointed to deal with ethical issues relating to the care and use of animals in research;
- h) ensuring, where applicable, that all necessary regulatory licenses or approvals for the Research have been granted prior to the commencement of any work under the Research

- i) ensuring, where applicable, that any clinical trials (as defined under any applicable Singapore law) conducted as part of the Research are conducted in accordance with the applicable regulations;
- j) ensuring that the work under the Research complies with all relevant current laws, government rules and regulations and other applicable guidelines and procedures including those introduced while the work is in progress;
- k) ensuring that all Research Personnel involved in animal research and in the breeding, housing and care of animals, are properly trained and supervised;
- l) ensuring that Grantor (MOE) is immediately notified in writing of any development that will adversely affect the progress of the Research;
- m) ensuring that Grantor (MOE) is immediately notified in writing upon cessation by any PI of active involvement in the Research or long leave of absence (e.g. sabbatical); and
- n) ensuring that Grantor (MOE) is immediately notified in writing if any work carried out using the Funding diverges materially from the Approved Proposal

4.4 PI's Institution must have in place adequate systems for ensuring the integrity of research carried out by its staff so that scientific misconduct (e.g. plagiarism, falsification of data, improper selection of data) and unethical behaviour can be prevented. PI's Institution shall implement effective mechanisms for identifying scientific misconduct and/or unethical behaviour and have in place clearly publicised and agreed procedures for investigating allegations of such scientific misconduct and/or unethical behaviour. PI's Institutions shall report to Grantor (MOE) all incidents or allegations of such scientific misconduct or unethical behaviour at the earliest opportunity.

4.5 Without prejudice to the PI's Institution's obligations under this Contract, the Institutions and PIs shall do all things necessary to enable compliance by the Institution of its obligations under this Contract.

4.6 The PI's Institution shall manage the use of the Funding for indirect cost in accordance with the Guidelines. PIs should refer to their Institution for their policy of managing such use. The Grantor (MOE) does not directly manage indirect cost funding.

4.7 The PI's Institution (or Host Institution for Programmatic Proposal involving Project PIs from more than one institution) shall be responsible for monitoring the expenditure of the Funding by PI's Institution and Partner Institution and ensuring that the Funding is utilised in accordance with this Contract. In the event that the Funding is not utilised in accordance with this Contract, the PI's Institution (or Host Institution) shall immediately inform the Grantor (MOE) through ERFPO and provide full details of the same and take all action necessary to minimise further use of the Funding and inform Grantor (MOE) through ERFPO of the action taken.

5. Commencement of Research

5.1 The Principal Investigator shall inform Grantor (MOE) through ERFPO if scientific work on the Research is unable to commence within three (3) months from the beginning of the Term.

6. Research Personnel

6.1 PI's Institution shall ensure that the Research Personnel conduct the Research with due care, diligence and skill and comply with this Contract.

6.2 The PI's Institution shall ensure the Institution and PI submit the Acceptance Form together with all other required documents to ERFPO (either electronically or in hardcopy) within the time stipulated. ERFPO will send the Acceptance Form to Grantor (MOE) upon request.

6.3 If any PI is unable to continue the Research, the Institution engaging such PI shall, subject to the written approval of ERFPO, appoint a successor within a reasonable time. In seeking approval, PI's Institution must satisfy ERFPO that the proposed successor has the requisite qualifications and skills to continue the Research. In the event that PI's Institution is unable to appoint a successor acceptable to ERFPO within a reasonable time, ERFPO should inform Grantor (MOE). Grantor (MOE) shall have the right to terminate the Funding and/or the Contract.

7. Milestones and Deliverables

7.1 PI's Institution and the PIs shall endeavour to achieve the Milestones and Deliverables within the timelines set out in its Approved Proposal.

8. Disbursement of Funds

8.1 Disbursement of Funds to PI's Institution shall be made in accordance with the following provisions:-

- a) PI's Institution shall submit requisitions for direct and/or indirect costs for which the Funding is permitted to be used to Grantor (MOE), through ERFPO, for approval on a quarterly basis ("Quarterly Requisition").
- b) PI's Institution shall include, with its Quarterly Requisition, detailed schedules of expenditure incurred for the previous quarter which are certified correct by its DoR and chief financial officer (or an authorised nominee).
- c) ERFPO will only disburse the approved Quarterly Requisition amounts to the PI's Institution/ Host Institution after receipt of said funds from Grantor (MOE).
- d) For Programmatic Proposal involving Project PIs from more than one institution, Partner Institutions shall issue a requisition to the Host Institution, and the Host Institution shall be

responsible for collation of the requisitions and disbursement of funds to the Partner Institutions.

- e) Disbursement of the Funding shall be subject to the due performance of and compliance with this Contract by Institutions including, but not limited to, the securing of any necessary ethics approvals (e.g. IRB for the Research). PI's Institution shall furnish satisfactory documentary evidence to Grantor (MOE), through ERFPO, that aforementioned requirement has been met.

9. Accounts, Audits and Monitoring

9.1 PI's Institution shall keep and maintain full and detailed records and accounts relating to the Funding and the Research, including all items of expenditure incurred for or in connection with the Research.

9.2 The PI's Institution shall be wholly responsible for monitoring the expenditure of the Funding by the Institutions, ensuring that the Funding is utilised in accordance with this Contract and certifying the amount of Funding utilised in each claim statement and that the progress of the Research is satisfactory. In the event that the Funding is not utilised in accordance with this Contract, the PI's Institution shall immediately inform the Grantor (MOE) through ERFPO and provide full details of the same and take all action necessary to minimise further use of the Funding and inform Grantor (MOE) of the action taken.

9.3 Grantor (MOE) is entitled from time to time to conduct ad hoc on-site audits to ensure that the terms of this Contract are being or were met by PI's Institution and that the reports and all information submitted to Grantor (MOE) by PI's Institution is accurate, correct and not misleading. In such an event, Clause 11 shall apply.

10. Final Statement of Account

10.1 PI shall submit a final statement of account ("Final Statement of Account") including the final claims ("Final Claims") to ERFPO within six (6) months of the completion of the Research, or termination of this Contract, or the end of the Term, whichever is the earliest failing which Grantor (MOE) may refuse to make further disbursements of the Funding and/or disallow further claims from the project.

10.2 PIs who fail to submit the Final Statement of Account within the stipulated timelines will be debarred. Debarred PIs will not be eligible to submit new grant applications as PIs for a period starting from the Final Report submission and/or Final Statement of Account and ending one year from the date the overdue Final Report and/or Final Statement of Account is received by ERFPO.

11. Access to Premises and Records

11.1 Pursuant to Clause 9.3, PI's Institution shall, at all reasonable times during the Term and for five (5) years after the expiration or termination of this Contract, grant Grantor (MOE) and its authorized representatives:

- a) unhindered access to:
 - i. the Research Personnel;
 - ii. premises occupied by PI's Institution;
 - iii. the Assets and Materials;
 - iv. all accounts, records and documents in relation to the Research and Funding and its administration kept by PI's Institutions in accordance with Clause 9.1; and
- b) reasonable assistance to:
 - v. inspect the performance of the Research;
 - vi. make copies of any accounts, records and documents in relation to the Research and Funding and its administration and remove those copies; and
 - vii. make copies of Materials (where applicable) and remove those copies.

11.2 The access rights in Clause 11.1 are subject to:

- a) the provision of reasonable prior notice by Grantor (MOE); and
- b) the applicable PI's Institution reasonable security procedures.

11.3 In the event that Grantor (MOE) is investigating a matter which, in its opinion, may involve actual or suspected unethical conduct, or breach of the law or breach of the terms of this Contract, Clause 11.2 (a) will not apply.

11.4 Upon receipt of reasonable written notice from Grantor (MOE), PI's Institution and PIs shall provide the Grantor (MOE) with all reasonable cooperation and assistance in connection with the audits

12. Reporting Requirements

12.1 PI's institution shall submit the reports and statements set out in this Clause 12 in accordance with the format required by Grantor (MOE). Notwithstanding Clauses 12.2 to 12.8, the Grantor (MOE) may vary the reporting requirements of PI's Institution in the Letter of Award. This includes but is not limited to requiring PI's Institution to provide reports and statements within different deadlines or at more regular intervals. The provisions of this Clause 12 shall apply (together with any necessary adjustments) to such reporting requirements.

12.2 Time is of the essence with respect to the obligations set out in this Clause 12. In the event that PI's Institution fails to fulfil any requirement set out in this Clause 12 within the stipulated timeline or to demonstrate satisfactory progress in the Research, Grantor (MOE) may discontinue further disbursements of the Funding.

Half-Yearly Progress Report

12.3 PI shall submit to ERFPO, Half-Yearly Progress Reports in respect of the scientific progress and results of Research ("Half-Yearly Progress Report"). Half-Yearly Progress Reports shall be submitted by January and July of each year or on such earlier date as reasonably required by Grantor (MOE). The requirement to submit a Half-Yearly Progress Report is waived if the Term starts less than three (3) months or ends less than three (3) months from the due date.

12.4 ERFPO will review the Half-Yearly Progress Report against the objectives of the Research as stated in the Approved Proposal. The PI will be contacted for further information if the Half-Yearly Progress Report is deemed inadequate or unsatisfactory by the Grantor (MOE) and ERFPO.

Final Report

12.5 PI shall submit to ERFPO a final report ("Final Report") within 3 months from the project end date. ERFPO will review the outcomes against the objective(s) of the Research as stated in the Approved Proposal. PI shall revise the final report according to the comments from ERFPO until it is approved.

12.6 If PI fails to submit the Final Report in accordance with Clause 12.5 the Principal Investigator will not be eligible to submit new grant applications as Principal Investigator for a period starting from the final report submission deadline, and ending one year from the date the overdue Final Report is received by ERFPO. E.g., If the Final Report is due on 31 Jan 2023 and a PI submits the Final Report on 15 Feb 2023, the PI will not be eligible to submit ERFP grant applications for 1 year between 15 Feb 2023 and 14 Feb 2024.

13. Changes in Research

13.1 No material amendments, alterations or changes shall be made to the Research without prior written approval of the relevant approving panel. Save as aforesaid, the PI's Institution shall notify Grantor (MOE), through ERFPO, in writing of all other amendments, alterations or changes made to the Research as soon as possible. For the purposes of this Clause 13, "material amendments, alterations or changes" shall mean those amendments, alterations or changes that have a material effect on the scope, nature, direction or purpose of the Research.

14. Insurance

14.1 PI's Institution shall effect and maintain adequate insurance policies to cover any liability arising from its participation in the Research including, but not limited to, those required under any applicable legislation. If requested, PI's Institution shall provide Grantor (MOE) with a copy of such insurance policies.

15. Publications of Results and Findings

15.1 To refer to Clause 9 in Enclosure 1.

16. Intellectual Property Rights

16.1 To refer to Clause 10 in Enclosure 1.

17. Ownership and Use of Assets

17.1 Subject to this Clause 17, title and ownership of the Assets and Materials will vest in PI's Institutions in such manner as to be determined amongst themselves. Save as provided in Clauses 17.2, 17.3 and 17.4, the Assets and Materials shall be used only for the Research. All Assets and Materials shall be physically located in Singapore or other locations approved by the Grantor (MOE) and maintained within the control of the applicable Institutions during the Term.

17.2 PI's Institution shall permit Approved Third Parties to access and use the Assets at no charge upon prior appointment provided that: (i) such access and use shall be subject to the availability of the Assets and there are no third party licensing terms restricting such use; and (ii) PI's Institutions shall be entitled to impose charges for the supply of materials, other services and utilities charges connected with the use of the Assets by the Approved Third Parties.

17.3 PI's Institution may allow its employees to use the Assets for purposes other than the Research provided always that such use shall: (i) be allowed only during the times when the Assets are not being used for the Research; and (ii) not impede the Institutions from meeting its obligations and undertakings under this Contract.

17.4 Upon the expiry or termination of this Contract or end of the Research and for a period of five (5) years thereafter, Grantor (MOE) may require PI's Institution to grant access for the use of any of the Assets and Materials by Grantor (MOE) or any party identified by Grantor (MOE) at no charge to the Grantor (MOE).

18. Completion/Extension

18.1 Unless earlier terminated in accordance with this Contract or if an extension of time is approved, this Contract shall end upon the expiry of the Term. Unless otherwise specifically provided in the

Letter of Award, any application for extension of time shall be submitted no later than six (6) months before the original end of the Term.

19. Termination

19.1 Grantor (MOE) may terminate the Funding or this Contract upon the occurrence of any of the following events: -

- a) any breach of this Contract by PI's Institution or any Research Personnel which is incapable of remedy;
- b) failure to remedy any breach of this Contract (where such breach is capable of remedy) by PI's Institution or any Research Personnel within ninety (90) days of written notification of such breach by Grantor (MOE);
- c) breach of ethics by PI's Institution or Research Personnel in the conduct of the Research including, but not limited to, ethical rules on patient safety;
- d) work carried out by PI's Institution using the Funding diverges materially from the Approved Proposal;
- e) misconduct relating to the Research;
- f) any corruption and/or fraud by PI's Institution and/ or Research Personnel and/ or other staff relating to the Research or Funding;
- g) stoppage of work on the Research;
- h) cessation of any PI's active involvement in the Research;
- i) ceasing or threatening to cease to carry on business by PI's Institution; or
- j) Grantor (MOE) is of the opinion that the continued performance of the Research is not or no longer viable.

19.2 The PI's Institution shall immediately inform the Grantor (MOE) upon becoming aware of the occurrence of any of the above events.

19.3 In the event that this Contract is suspended or terminated, the Grantor (MOE) shall meet any further amounts incurred under the Funding for work done under the Research up to the date of suspension or termination, based on the stipulated disbursement guidelines under ERFP.

19.4 In the event that this Contract is terminated, Grantor (MOE) may, but shall not be obliged to, meet any further amounts incurred under the Funding for work done under the Research up to the date of suspension or termination. The provisions of Clause 8 shall apply (with the necessary adjustments) to such claims. Notwithstanding anything to the contrary, in the event of termination,

PI's Institution agrees that Grantor (MOE) may require the Institution to return all or some of the Funds previously disbursed by Grantor (MOE).

19.5 Upon termination of this Contract, the PI's Institution shall take all necessary actions to minimise further expenditure on the Research (up to the termination date).

19.6 If PI's Institution is unable to comply with any term or condition of this Contract by reason of a Force Majeure event beyond the reasonable control of such Institution, all Institutions' obligations hereunder shall be suspended during the time and to the extent that the first Institution is prevented from complying therewith by the Force Majeure event provided that the PI's Institution shall have first given written notice to Grantor (MOE) specifying the nature and details of such event and the probable extent of the suspension. The affected PI's Institution shall use reasonable efforts to minimize and reduce the period of suspension occasioned by the Force Majeure event and to remove or remedy such cause with all reasonable dispatch. Grantor (MOE) may forthwith terminate the award by written notice to the PI's Institution if such Force Majeure event continues for more than sixty (60) days. The following events shall be considered "Force Majeure" events, namely, national emergencies, war, embargoes, strikes, lock-outs or other labour disputes, civil disturbances, actions or inactions of government authorities, earthquakes, fire, lightning, flood or any other catastrophic event in Singapore caused by the forces of nature.

19.7 All applicable guidelines for ERFP shall survive expiration or termination of this Contract howsoever caused.

20. Disclaimer of Liability

20.1 The Grantor (MOE) shall not be liable to PI's Institution or any Research Personnel involved in the Research or any other person whatsoever by reason of or arising from this Contract or its approval of the Research or the provision of the Funding or the conduct of the Research by, or any breach, act or default of, the Institutions and Research Personnel. PI's Institution shall assume all responsibility and liability for: -

- a) all claims, losses, demands, actions, suits, proceedings, costs, or expenses whatsoever arising, suffered or incurred directly, from or out of any breach, act or default of such Institutions and/or its Research Personnel; and
- b) all claims, losses, demands, actions, suits, proceedings, costs, or expenses whatsoever arising out of or in connection with any claim that the intellectual property rights of third party have been infringed as a result of the carrying out of the Research by such Institution and/or its Research Personnel.

20.2 The Grantor (MOE) shall have no liability to PI's Institution or the Research Personnel merely by reason of its provision of the Funding and PI's Institution shall be responsible for all acts and conduct relating to the Research, including all IP, human and animal ethical issues.

21. Compliance with Law

21.1 PI's Institution and Research Personnel shall, in performing this Contract, comply with the provisions of any relevant laws, statutes, regulations, by-laws, rules, guidelines and requirements applicable to it as the same may be amended or varied from time to time.

22. General

22.1 The grant of the Funding and this Contract is personal to PI's Institution. PI's Institutions shall not assign or otherwise transfer any of their rights or obligations hereunder whether in whole or in part without the prior written consent of Grantor (MOE).

22.2 No partnership or joint venture or other relationship between Grantor (MOE) and PI's Institution shall be constituted as a result of this Contract.

22.3 Any notice given hereunder shall be in writing and shall be deemed to have been duly given when it has been delivered personally at or posted to the address of the party to which it is required or permitted to be given at such party's address hereinbefore specified or at such other address as such party shall have designated by notice in writing to the party giving such notice.

22.4 No failure or delay by a party in exercising any of its rights under these provisions shall be deemed to be a waiver of that right. No waiver by a party of a breach of any provision shall be deemed to be a waiver of any subsequent breach of the same provision unless such waiver so provides by its terms. The rights and remedies provided herein are cumulative and not exclusive of any rights or remedies provided by law.

22.5 Singapore law shall govern this Contract in all respects.

22.6 PI's Institution, PIs and all Research Personnel shall be bound by and will conform with all Guidelines and Policies relating to the Funding and the Research as may be in force from time to time. The terms and conditions of all Guidelines and Policies are hereby expressly incorporated into this Contract by reference. The terms of the Guidelines and Policies are subject to revision from time to time at the absolute discretion of Grantor (MOE) and it is the duty of PI's Institution and PIs to be updated on the terms thereof following the Grantor's (MOE) communication of such revisions to the Institutions.

22.7 Grantor (MOE) shall be entitled to disclose or otherwise make available to any Co-Funder any information, reports or other subject matter pertaining to the Research that it receives from PI's Institution or any Research Personnel.

23. Entire Agreement and Variation

23.1 This Contract constitutes the entire agreement between the parties and supersedes all prior communications, negotiations, arrangements and agreements, whether oral or written, between the parties with respect to the subject matter of this Contract.

23.2 Save where expressly superseded, if any part of this Contract conflicts with any other part, that part higher in the following list shall take precedence: -

- a) the terms and conditions contained in the clauses of these Terms and Conditions of A Competitive Grant;
- b) the Annex(es);
- c) the Letter of Award;
- d) Approved Proposal;
- e) Application;
- f) Guidelines; and
- g) Policies.

24. Save as expressly stipulated by Grantor (MOE) in this Contract or in any Policy issued hereunder, the parties hereto do not intend that any term of this Contract should be enforceable, by virtue of the Contracts (Rights of Third Parties) Act (Cap 53B) or otherwise, by any person who is not party to this Contract.