RGC Ref. No.: UGC/FDS14/H13/20 (please insert ref. above)

#### RESEARCH GRANTS COUNCIL COMPETITIVE RESEARCH FUNDING SCHEMES FOR THE LOCAL SELF-FINANCING DEGREE SECTOR

#### FACULTY DEVELOPMENT SCHEME (FDS)

#### **Completion Report**

(for completed projects only)

- Submission Deadlines: 1. Auditor's report with unspent balance, if any: within six months of the approved project completion date.
  - 2. Completion report: within 12 months of the approved project completion date.

### **Part A:** The Project and Investigator(s)

#### 1. Project Title

Functional Adequacy in Second Language Speaking and Writing Tasks: Measurement and Pedagogy

### 2. Investigator(s) and Academic Department(s) / Unit(s) Involved

Research Team	Name / Post	Unit / Department / Institution		
Principal Investigator	BUI Gavin Hiu-yuet Associate Professor	Department of English, The Hang Seng University of Hong Kong		
Co-Investigator(s)	N/A	N/A		
Others	N/A	N/A		

#### 3. Project Duration

	Original	Revised	Date of RGC / Institution Approval (must be quoted)
Project Start Date	January 1, 2021	-	
Project Completion Date	December 31, 2022	June 30, 2023	November 14, 2022 (HSUHK)
Duration (in month)	24	30	November 14, 2022 (HSUHK)

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FDS8 (Oct 2019)

Deadline for Submission	December 31,	June 30, 2024	November 14, 2022
of Completion Report	2023	June 30, 2024	(HSUHK)

4.4 Please attach photo(s) of acknowledgement of RGC-funded facilities / equipment. N/A

#### **Part B:** The Final Report

#### 5. Project Objectives

- 5.1 Objectives as per original application
  - 1. To make an original contribution to an evidence-based theory for a comprehensive assessment of task-based language performance;
  - 2. To provide new pedagogical implications for task-based second language (L2) teaching, with a focus on functional adequacy in a cross-cultural context;
  - 3. To assess functional adequacy in L2 task performance in a cross-cultural context in Hong Kong;
  - 4. To examine the relationships between functional adequacy (FA) and the conventional task performance framework of complexity, accuracy, lexis and fluency (CALF);
  - 5. To explore the effects of task condition, task type and individual difference (mainly proficiency) on functional adequacy and CALF in task performance;
  - 6. To investigate the modality (speaking and writing) effects on functional adequacy and CALF in task performance;
  - 7. To develop an online platform for digital functional adequacy assessment in task-based language teaching and learning;
  - 8. To move forward from a form-focused to a form-function balanced research agenda in the field of task-based language teaching through the publication of a series of papers on functional adequacy and CALF in task performance.

#### 5.2 Revised objectives

Date of approval from the RGC: 9 November 2020

As stated in Annex B Project Revision submitted in Oct 2020 to RGC, one reviewer questioned whether Objectives 1 and 8 "should be considered objectives". After giving them all some thought, I proposed to keep Objective 1 because it is an achievable target through publications with critical and theoretical discussions. However, I agree with the reviewer that Objective 8 may serve as a grand aspiration of the task-based language teaching community but not an appropriate objective for a particular project. Therefore, I would like to delete it from the proposal.

Reasons for the change:

<sup>1.</sup> To make an original contribution to an evidence-based theory for a comprehensive assessment of task-based language performance;

- 2. To provide new pedagogical implications for task-based second language (L2) teaching, with a focus on functional adequacy in a cross-cultural context;
- 3. To assess functional adequacy in L2 task performance in a cross-cultural context in Hong Kong;
- 4. To examine the relationships between functional adequacy (FA) and the conventional task performance framework of complexity, accuracy, lexis and fluency (CALF);
- 5. To explore the effects of task condition, task type and individual difference (mainly proficiency) on functional adequacy and CALF in task performance;
- 6. To investigate the modality (speaking and writing) effects on functional adequacy and CALF in task performance;
- 7. To develop an online platform for digital functional adequacy assessment in task-based language teaching and learning.

#### 5.3 Realisation of the objectives

(Maximum 1 page; please state how and to what extent the project objectives have been achieved; give reasons for under-achievements and outline attempts to overcome problems, if any)

All seven research objectives, including theoretical contributions, empirical findings, and the development of electronic e-tools, have been achieved.

Objective 1: To make an original contribution to an evidence-based theory for a comprehensive assessment of task-based language performance. Identifying the insufficiency in past functional adequacy theories developed by Kuiken and Vedder (2017, 2018), this study proposed adaptations to the conceptualisation and measurement of functional adequacy in task-based language teaching and extended its use to speaking tasks. The relevant conceptual framework and measurement issues have been published in Bui and Wong (2021) and Bui and Tai (2022).

Objective 2: To provide new pedagogical implications for task-based second language (L2) teaching, with a focus on functional adequacy in a cross-cultural context. We have developed new pedagogical implications for this research objective. Additionally, we have proposed how to better assess task outcomes from a pragmatic perspective. The relevant findings have been reported in Bui and Wong (2021), Bui and Tai (2022), and Bui and Luo (2021). More relevant findings will be reported in upcoming papers, including Bui, Qiu and Wong (2024) and Bui (2024).

Objective 3: To assess functional adequacy in L2 task performance in a cross-cultural context in Hong Kong. In this project, we have compared data in the cross-cultural context of Hong Kong with previous research from the more homogenous European context. We then proposed adaptations to the functional adequacy measurement framework to assess task performance, as mentioned in Objective 1 above.

Objective 4: To examine the relationships between functional adequacy (FA) and the conventional task performance framework of complexity, accuracy, lexis, and fluency (CALF). One of the important contributions of this project is to validate the construct of functional adequacy by examining its relationship with other dimensions of task performance, namely CALF. This objective has been achieved through a series of correlational analyses and factor analyses. The relevant empirical findings have been reported in conference papers by Bui (January 2023, Bangkok) and Bui (March 2024, CUHK). Relevant theoretical explanations were reported in Bui and Wong (2021).

Objective 5: To explore the effects of task condition, task type, and individual differences (mainly proficiency) on functional adequacy and CALF in task performance. We have discovered important

effects of different task conditions, task types, and individual differences on functional adequacy and CALF in both speaking and writing performances. The findings have been reported in Bui and Luo (2021) and several upcoming papers submitted (see Item 8 below for the details).

Objective 6: To investigate the modality (speaking and writing) effects on functional adequacy and CALF in task performance. This comparative objective has been well addressed through examining the data in speaking and writing task performance. Bui and Luo (2021) focused on L2 writing, and two upcoming papers mentioned in Item 8 below, i.e., Bui, Qiu, and Wong (upcoming) and Bui (upcoming), mainly explore the speaking tasks. Subsequent papers that acknowledge this project will compare the modality effects through comparative investigations combining all the data collected.

Objective 7: To develop an online platform for digital functional adequacy assessment in task-based language teaching and learning. This objective has been successfully addressed. First of all, we have added a functional adequacy assessment component to the free online tool *CALF* at <a href="https://www.censpothk.com/calf/">https://www.censpothk.com/calf/</a>. Secondly, we have further developed another related research tool for analysing TBLT and SLA data with complex designs like those in this project. The R suite code has been published in Norouzian and Bui (2024) in the prestigious journal *SSLA*. The R suite has been made freely available to the public at <a href="https://github.com/rnorouzian/i/blob/master/3m.r">https://github.com/rnorouzian/i/blob/master/3m.r</a>

#### 5.4 Summary of objectives addressed to date

Objectives (as per 5.1/5.2 above)	Addressed (please tick)	Percentage Achieved (please estimate)
1. To make an original contribution to an evidence-based theory for a comprehensive assessment of task-based language performance;	<b>√</b>	100%
2. To provide new pedagogical implications for task-based second language (L2) teaching, with a focus on functional adequacy in a cross-cultural context;	✓	100%
3. To assess functional adequacy in L2 task performance in a cross-cultural context in Hong Kong;	<b>√</b>	100%
4. To examine the relationships between functional adequacy (FA) and the conventional task performance framework of complexity, accuracy, lexis and fluency (CALF);	✓	100%
5. To explore the effects of task condition, task type and individual difference	<b>√</b>	100%

(mainly proficiency) on		
functional adequacy and		
CALF in task performance;		
6. To investigate the		
modality (speaking and		
writing) effects on	✓	100%
functional adequacy and		
CALF in task performance;		
7. To develop an online		
platform for digital		
functional adequacy		1000/
assessment in task-based	<b>,</b>	100%
language teaching and		
learning.		

#### 6 Research Outcome

6.1 Major findings and research outcome (*Maximum 1 page*; *please make reference to Part C where necessary*)

The major findings have been reported in journal articles, book chapters and also conference papers as mentioned in section 5.3 above. The following will summarise some important findings that this project has generated.

- 1. This project critically evaluated the traditional functional adequacy theory and measurement framework that were based on a Eurocentric context. Then it expanded the notion to encompass the perspectives of cultural sensitivity and learner creativity. It also proposed a revised measurement framework that caters to the proposed change in the theory for better assessment of functional adequacy in TBLT. The new framework is as follows: (1) Content: whether there are sufficient and relevant information units provided in the text; (2) Task Requirements: whether the task requirements, such as speech acts, genre and register, have been satisfied; (3) Comprehensibility: the amount of reader effort to understand the purpose and ideas of the text; and (4) Coherence and cohesion: whether the text produced is coherent and cohesive (e.g., cohesive devices, strategies). (Kuiken & Vedder, 2018); and (5) Cultural sensitivity and Creativity (Bui & Wong, 2021).
- 2. Based on the first major finding, we implemented the new measurements in the Hong Kong context and found that functional adequacy has intricate relations with other task performance indexes, namely fluency, accuracy, and complexity (Bui, upcoming and Bui March 2024 CUHK conference paper). This validates the distinctive status of functional adequacy as a separate construct in task performance and yielded pedagogical implications on how to balance linguistic competence and pragmatic competence in L2 teaching.
- 3. We have discovered that task modality (speaking and writing) shows differential effects on functional adequacy in TBLT. Specially, there is more variation of functional adequacy under different task conditions and task complexity in the speaking mode than in the writing mode. This is new contribution as previous research has mainly focused on L2 writing and ignored multimodality issues in this regard.
- 4. We examined functional adequacy in task performance under different task types and task complexity. The findings largely show that both task types and task complexity significantly affect functional adequacy. This finding has implications for task design and sequencing in a task-based curriculum. Its also good news for teachers who wish to promote pragmatic competence in an L2 as we can manipulate task types and task complexity to achieve some of these goals.
- 5. Combining the data in CALF and functional adequacy, I have proposed a framework of task-based meaning expression, which includes (1). **Length** of meaning expression: Total number of pruned words (& idea units). (2). **Content and Packedness** of meaning expression: lexical diversity, lexical sophistication, and lexical density (Bulté & Housen 2012; Bui, 2021). (3). **Formality** of meaning expression: the F-score (Heylighen & Dewaele, 2002; Bui, 2011, 2018). (4). **Efficiency and automaticity** of meaning expression: Speech rate, number of pauses, position of pauses. (5). **Self-monitoring** of meaning expression: false starts, reformulation, repetition, replacements. This finding has been reported in the HK-SLARF conference (Bui, March 2024) and will be published as a journal article later.
- **6.** This project also developed new research tools for both functional adequacy assessment and general TBLT research. See Objective 7 in 5.3 above.

6.2 Potential for further development of the research and the proposed course of action (Maximum half a page)

This project and its findings have opened many opportunities for further research, including but not limited to:

- 1. How to balance linguistic and pragmatic competences in L2 English teaching and learning in a multicultural and multilingual context such as Hong Kong?
  - Proposed course of action: I have submitted a new FDS proposal on creativity and translanguaging in TBLT in 2024 in the hope of addressing this issue.
- 2. What are the neuro-psychological realities of functional adequacy and CALF in task performance?
  - Proposed course of action: Collaborate with science research centers equipped with eye-tracking and neuro-imaging devices (e.g., fMRI) to examine brain activities during task completion.
- 3. Task-based assessment and testing issues: How to standardize task-based performance measurements, both for the benefit of assessment and research homogeneity?
  - Proposed course of action: Conduct a meta-analysis based on our SSLA paper and compare the measurements available in the literature with empirical data. Then determine the most sensitive and effective indices to be recommended to teachers and researchers.

#### 7 Layman's Summary

(Describe <u>in layman's language</u> the nature, significance and value of the research project, in no more than 200 words)

This project examined and improved the traditional ways of measuring how well people perform language tasks. This project expanded the conventional method to include cultural sensitivity and creativity, particularly in multicultural places like Hong Kong. The new framework checks if the content is relevant, if the task requirements are met, if the text is easy to understand, and if it's coherent and cohesive. It also adds new measures for cultural sensitivity and creativity. The study also showed that speaking tasks and writing tasks affect functional adequacy differently. Speaking tasks showed more variation in performance under different conditions. Additionally, the project found that different types of tasks and their complexity levels significantly impact functional adequacy. This means teachers can design tasks to improve specific language skills. A new framework for expressing meaning in tasks was also proposed, focusing on aspects like content richness, formal language use, and speaking efficiency. The project developed new tools for assessing functional adequacy and general language task research.

#### **Part C:** Research Output

# 8 Peer-Reviewed Journal Publication(s) Arising <u>Directly</u> From This Research Project (Please attach a copy of the publication and/or the letter of acceptance if not yet submitted in the previous progress report(s). All listed publications must acknowledge RGC's funding support by quoting the specific grant reference.)

The	e Latest Stati	us of Publica	ations		Title and Journal / Book				
Year of Publication	Year of Acceptance (For paper accepted but not yet published)	Under Review	Under Preparation (optional)	Author(s) (denote the corresponding author with an asterisk*)	(with the volume, pages and other necessary publishing details specified)	Submitted to RGC (indicate the year ending of the relevant progress report)	Attached to this Report (Yes or No)	Acknowledged the Support of RGC (Yes or No)	
2021	puoninca		(opnomin)	Gavin Bui * & Xueya Lo	Topic familiarity and story continuation in young English as a foreign language learners' writing tasks. Studies in Second Language Learning and Teaching, 11(3), 377-400. http://dx.doi.org/10.147 46/ssllt.202 1.11.3.4 [SSCI-Inde xed, Open Access]	2021	Yes (Annex I)	Yes	Yes https://researc hdb hsu.edu h k/view/public ation/202100 019
2024				Reza Norouzian* & Gavin Bui	Meta-analys is of second language research with complex research designs. Studies in Second Language Acquisition, 46(1), 251-276. https://doi.org/10.1017/S02722631 23000311 [SSCI-Inde xed]	No	Yes (Annex II)	Yes	Yes https://researc hdb hsu.edu h k/view/public ation/202300 234

2022			Gavin Bui* & Kevin Tai	Revisiting functional adequacy and task-based language teaching in the GBA: insights from translangua ging. Asian-Pacific Journal of Second and Foreign Language Education, 7, 40. https://doi.org/10.1186/s40862-022-00160-7 [ESCI/SCO PUS-indexed, Open Access]	No	Yes (Annex III)	Yes	Yes https://researc hdb hsu.edu h k/view/public ation/202200 223
2021			Gavin Bui* & Wong Chi Him	From linguistic skills to pragmatic competence: The role of functional adequacy in task-based language teaching	2021	Yes (Annex IV)	Yes	Yes https://researc hdb hsu.edu h k/view/public ation/202200 015
	2024		Gavin Bui, Xuyuan Qiu, & Shawn Wong	(Invited paper for special issue) What Constitutes Task Completion ? – Students' Perception of Functional	No	No	Yes	Yes (When published)

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	Adequacy in L2			
	Speaking			
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	on			
	functional adequacy			
	and			
	creativity in			
	the writing			
(Detailed	of a			Yes (when
1000 word Gavin Bui*		No No	Yes	published)
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	learners in China:			
	Broadening			
	discourse			
	analytic			
	measures in			
	researching			
	the role of			
	the learner			
	in TBLT. TESOL			
	Quarterly.			
	(SSCI-Inde			
	xed)			

## 9 Recognized International Conference(s) In Which Paper(s) Related To This Research Project Was / Were Delivered

(Please attach a copy of each conference abstract)

Month / Year / Place	Title	Conference Name	Submitted to RGC (indicate the year ending of the relevant progress report)	Attached to this Report (Yes or No)	Acknowledged the Support of RGC (Yes or No)	Accessible from the Institutional Repository (Yes or No)
Decembe r/2021/ VIT-AP Universit y, India	Research on Task-Readiness:	Plenary speech at the First Annual International Conference of VIT-AP School of Social Sciences and Humanities (VISH).	No	Yes (Annex V)	Yes	No
March/2 022/Edu caiton Universit y of Hong Kong	Creativity, functional adequacy, and linguistic performance in young learners' EFL writing: The case of L1 input and content familiarity	Invited Presentation at the 2nd Hong Kong Second Language Acquisition Research Forum (HK-SLARF).	No	Yes (Annex VI)	Yes	No
January/ 2023/Ba ngkok, Thailand	Influence of Task Complexity on Functional Adequacy and Creativity in EFL Writing.	Invited feature presentation at the 42nd Thailand TESOL Int'l Conference.	No	Yes (Annex VII)	Yes	No
May/202 3/Shenzh en, China	Task-based Language Teaching: Reading-Writing Connection.	Keynote speech at the Guangdong, Hong Kong, Macau Greater Bay Area TESOL Reading and Writing Symposium	No	Yes (Annex VIII)	Yes	No
January/ 2024/Gu angdong Universit y of Foreign Studies	Designing and implementing L2 reading and writing tasks.	Invited Workshop at the School of English Education, The Guangdong University of Foreign Studies	No	Yes (Annex IX)	Yes	No
March/2 024/The Chinese Universit y of Hong Kong	Exploring Effects of Different Task Complexity and Task Types on Meaning-making and Task Completion in a Second Language	Invited presentation at the 4th Hong Kong Second Language Acquisition Research Forum (HK-SLARF).	No	Yes (Annex X)	Yes	No

March/2 024/Hou ston, TX, USA	Task Complexity Effects on Functional Adequacy and Creativity in EFL Writing: Performance and Measurements.	Presentation at the AAAL 2024 conference	No	Yes (Annex XI)	Yes	No
April/20 24/HKU ST	Creating translanguaging space and integrating translanguaging practices in task-based language teaching	Invited presentation at the 2024 CLE-TCA International Conference on Language Education.	No	Yes (Annex XII)	Yes	No
May/202 4/ Xi'an Jiaotong Liverpoo 1 Universit y, Suzhou, China.	Functional Adequacy and Creativity in EFL	Plenary Speech at the 1st XJTLU International Conference on Applied Linguistics in the AI Era.	No	Yes (Annex XIII)	Yes	No

## 10 Whether Research Experience And New Knowledge Has Been Transferred / Has Contributed To Teaching And Learning

(Please elaborate)

The research findings have been disseminated at various conferences and invited workshops in mainland China, Hong Kong, India, Thailand, and the USA. I have also conducted several talks at the English Language Centre at my university to promote the pedagogical implications of the findings. Notably, three hands-on workshops, as reported in Item 9 above, have been particularly useful in transferring the findings to teaching and learning internationally because all those in the audience are frontline English language teachers in schools and language teaching units in universities:

- 1. Bui, G. (January 10, 2024). Designing and implementing L2 reading and writing tasks. Invited talk at the Faculty of English Language Education, Guangdong University of Foreign Studies, China.
- 2. Bui, G. (May 13, 2023). Task-based Language Teaching: Reading-Writing Connection. Keynote speech at the Guangdong, Hong Kong, Macau Greater Bay Area TESOL Reading and Writing Symposium, Shenzhen, China, organized by the Global English Education China Assembly.
- 3. Bui, G. (April 13, 2024). Creating translanguaging space and integrating translanguaging practices in task-based language teaching. Invited speech at the 2024 CLE-TCA International Conference on Language Education, The Hong Kong University of Science and Technology.

It is important to note that the English Language Centre at my institution is revising its assessment methods in response to AI development, and my findings have been taken into consideration through my consultation and participation in the process.

#### 11 Student(s) Trained

(Please attach a copy of the title page of the thesis)

Name	Degree Registered for	Date of Registration	Date of Thesis Submission / Graduation
NA	NA	NA	NA

#### 12 Other Impact

(e.g. award of patents or prizes, collaboration with other research institutions, technology transfer, teaching enhancement, etc.)

I have collaborated with the industry, specifically Censpot Technology Company, to develop an online free tool for assessing functional adequacy, which is now hosted on the Censpot server. Additionally, I have established an international collaboration with scholars in the USA, such as Prof. Reza Norouzian, to develop a research tool for meta-analysis in complex designs related to TBLT (Task-Based Language Teaching) and SLA (Second Language Acquisition).

Both tools have been published and made freely available online for public access. A growing number of users have taken advantage of these tools for their own teaching and research, making a significant impact on language education and the wider community.

#### 13 Statistics on Research Outputs

	Peer-reviewed Journal Publications	Conference Papers	Scholarly Books, Monographs and Chapters	Patents Awarded	Other Research Outputs (please specify)	
No. of outputs arising directly from this research project	6	9	1	0	Type Research software	No. 2

#### 14 Public Access Of Completion Report

(Please specify the information, if any, that cannot be provided for public access and give the reasons.)

Information that Cannot Be Provided for Public Access	Reasons
N.A.	N.A.