



# RISE-UP - Research Improvement and Students Empowerment for Quality Output Enhancement

QLL75

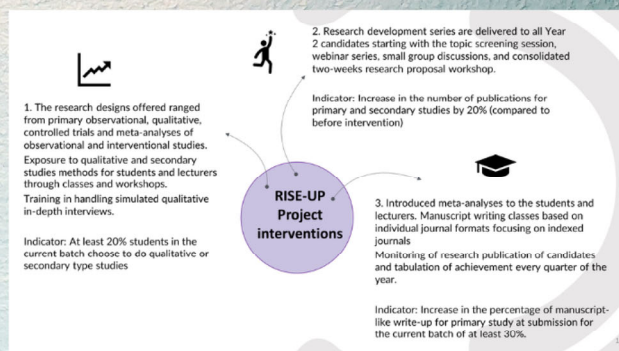
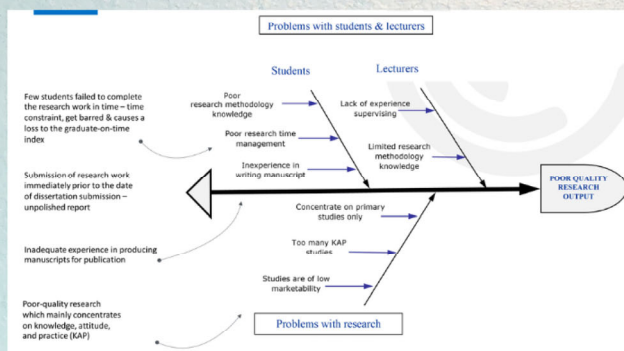
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## 1 Introduction

Research is an important part of university activities, contributing to new findings, filling gaps in knowledge and helping in the development and enhancement of technologies. Being an APEX university, research activities and outputs are part of USM excellence index. However, many students tend to do only quantitative type studies and do not publish their work. The aim of this project is to improve the quality of research and empower the students to produce high-quality research outputs, thereby increasing the number of publications.

## 2 Methodology

An audit of the research conducted by past students in the Department of Family Medicine over the last five years was done. The main factors contributing to the low publication rate were identified as poor-quality studies and inadequate experience in writing manuscripts for publication. For this exercise, the June/November 2020 batch and the December 2021 batch were included. Root analysis was carried out to identify the underlying cause followed by several key interventions.



## 3 Results

Results showed more variations in types of study conducted, with 19 out of 40 students chose to do Systematic Review and Meta-Analysis (SRMA) and 7 did qualitative studies, achieving the >20% target for non-quantitative studies (Fig 1). There was also improvement in the quality of research implementation, with three candidates publishing their work in Q1 and Q2 journals. The number of manuscript-like write-ups had increased with 16 students having submitted in manuscript-like format while only 3 submitted in the conventional format (Fig 2). There is also increased in the number of submitted manuscripts following the intervention (Table 1).

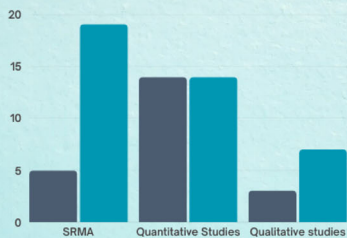


Figure 1: The variation in the types of studies conducted by the MMed candidates post intervention (blue bar) achieved the indicator target of >20% (n=62)



Figure 2: The number of manuscript-like thesis at submission has increased compared to conventional thesis format post-intervention.

Table 1: Type of research and the number of manuscripts submitted from April 2021 until March 2022

	Items Produced	April 2021 until March 2022
Type of study chosen by year 2 students: June/Nov 2021 batch + (Dec 2021 batch)	Quantitative primary studies	9 + (5)
	Qualitative primary studies	4 + (3)
	Secondary studies: SRMA	10 + (9)
Manuscript/case report submitted	Case report submitted (total)	22
	Case report (accepted/published)	11
	Case report (under review)	8
	Manuscript submitted (total)	58
	Quantitative primary studies (accepted/published)	19
Final year dissertation submission form	Qualitative studies (accepted/published)	6
	Secondary studies (accepted/published)	5
	Manuscript (under review)	9
Final year dissertation submission form	Manuscript-like format	16
	Conventional format	3

## 4 Discussion and Conclusion

There was marked improvement in the types of research chosen, with students and supervisors being more confident in choosing non-conventional studies. The number of manuscript being submitted has also increased, although the accepted number is less than what we hoped for. Nonetheless, the number of research publications has increased reflecting the quality of research output has improved following the intervention. However, selection of journals for publication targeting for Q1 and Q2 journals need to be assisted and improved. SRMA, with its shorter study period, enabled earlier publication and a higher chance of acceptance in Q1 or Q2 journals compared to primary or quantitative studies. Manuscript writing classes has significantly boosted the students' confidence in producing manuscript-like outputs. However, this strategy requires dedicated research personnel. We are confident in the sustainability of this project for the future batches of students in improving the quality of research in the department.

### Acknowledgement

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