

Oral Exams in Medical Physics: A Student-Centred Shift in Graduate Training

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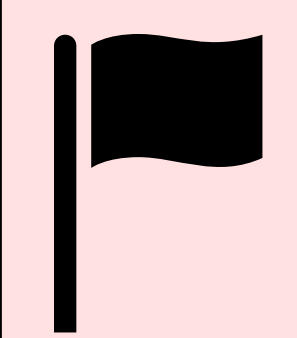
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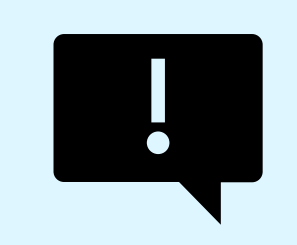


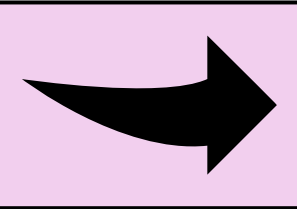
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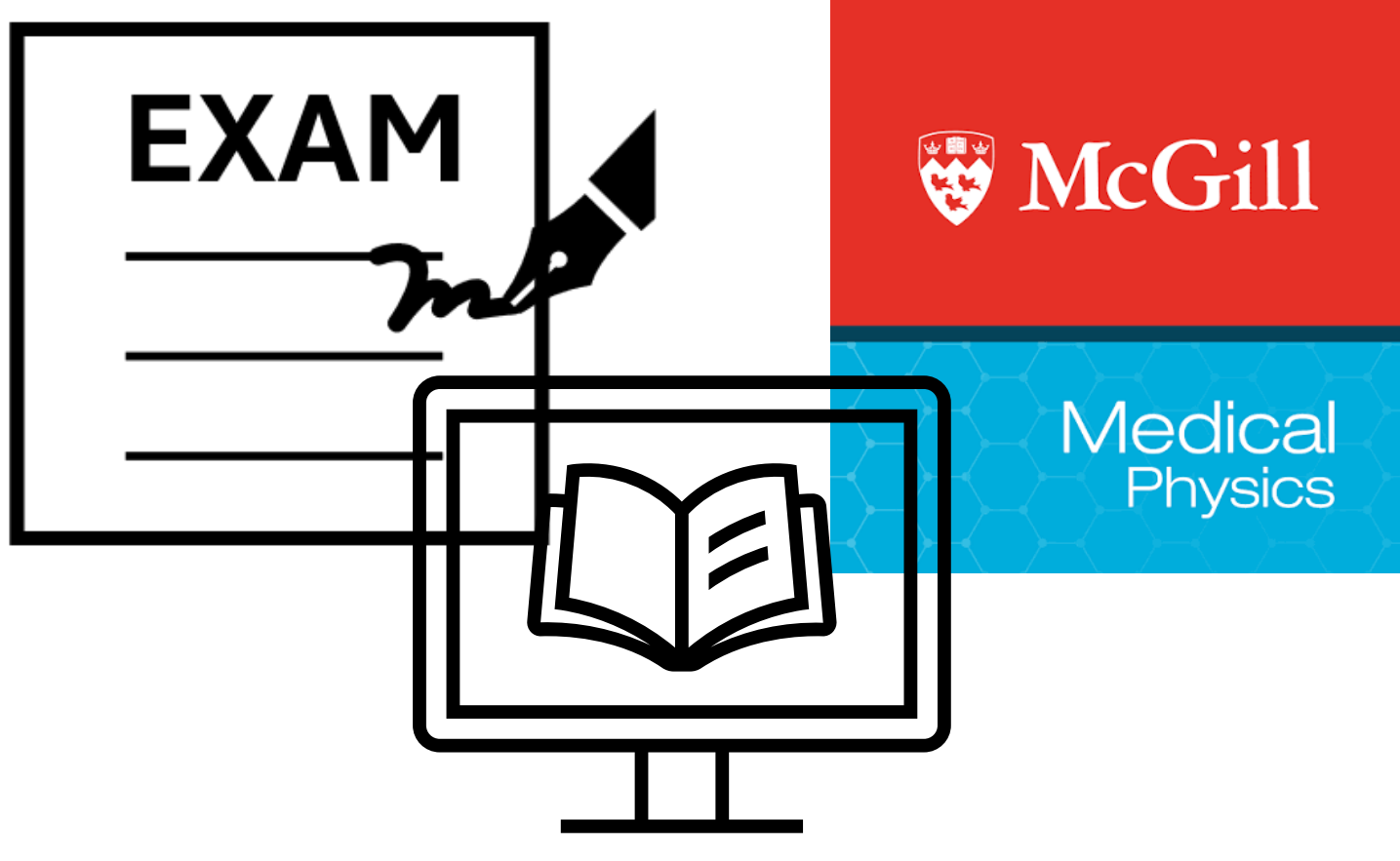
INTRODUCTION

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McGill University's CAMPEP-accredited Medical Physics program incorporates **oral exams in two core courses: Radiation Physics and Radiotherapy Physics**. This approach is *quite unique*, as most students have *never* encountered oral exams throughout their predominantly scientific backgrounds.
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But, despite 100+ students and decades of evolving formats: (1) No empirical data on student experience has been collected and (2) Nor has McGill's approach been compared to other programs.
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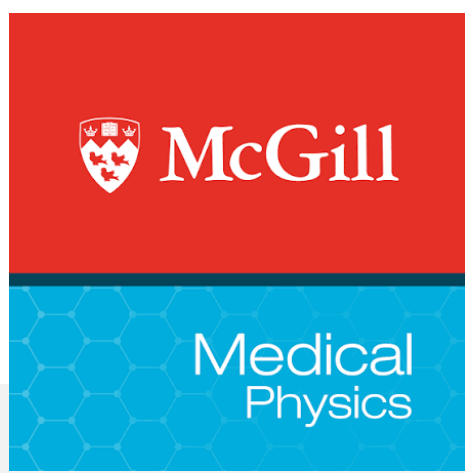
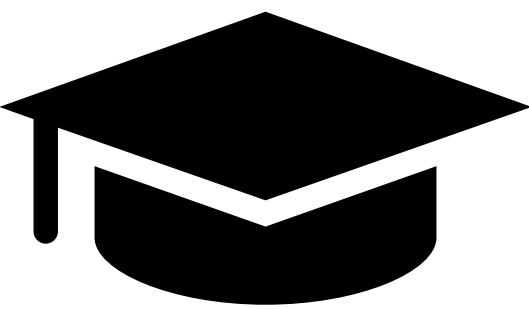
Therefore, we conducted a study to evaluate the benefits of oral exams and their impact on students.



MATERIALS AND METHODS

(1) Institutional Student Survey

A **28-question survey** was sent to current **Medical Physics Unit students and alumni** (1990 – 2025) to address four key areas:

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- Benefits:**

 - Do oral exams prepare students for professional competencies?
- Drawbacks:**

 - Do oral exams add significant stress and anxiety?
- Effectiveness:**

 - Do oral exam grades fairly reflect student understanding?
 - Do oral exams improve student learning?
- Overall Verdict:** What assessment format do students prefer?

(2) Canadian Program Survey

A three-question survey was sent to all **14 CAMPEP accredited programs** in Canada:

- How many required courses include oral exams, and which are they?
- For these courses, is there also a written exam alongside the oral?



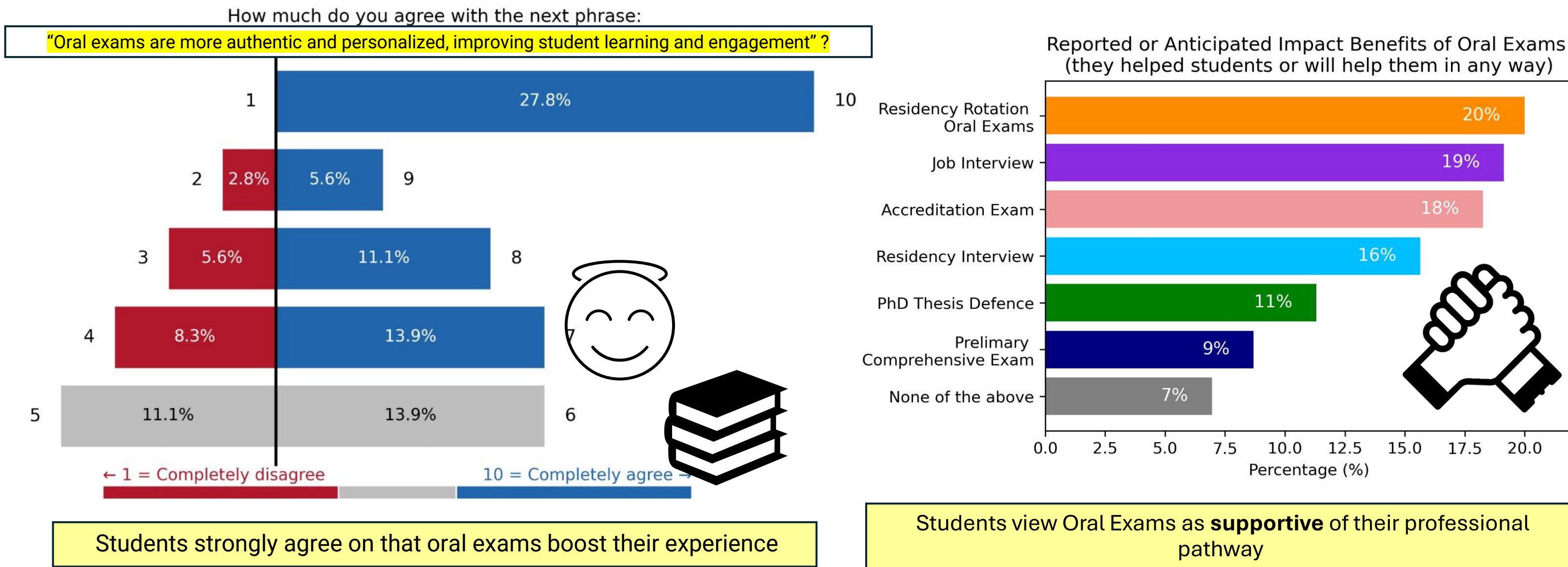
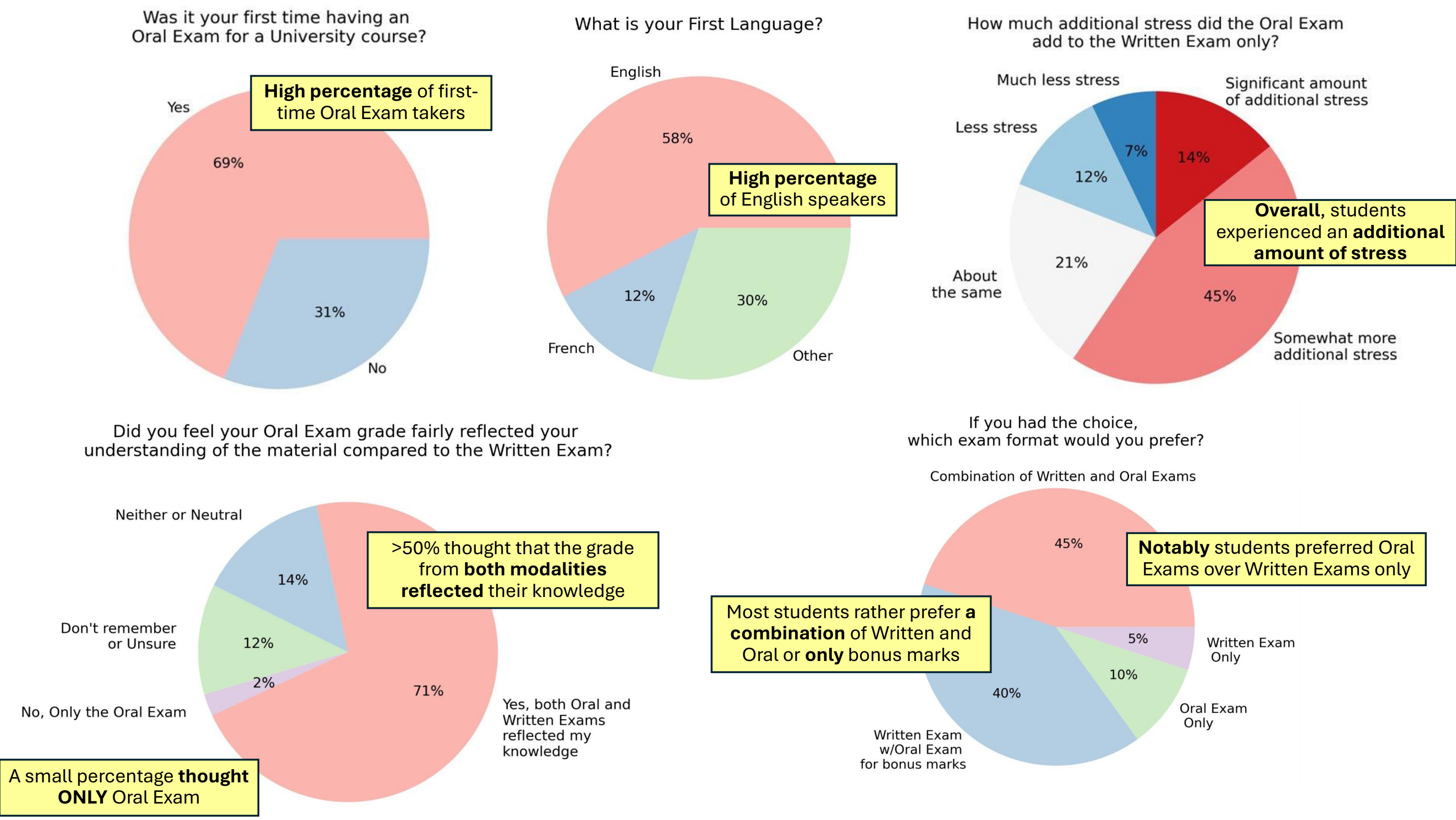
- Any thoughts on what works well or what's challenging with oral exams?

RESULTS

(1) Institutional Student Survey

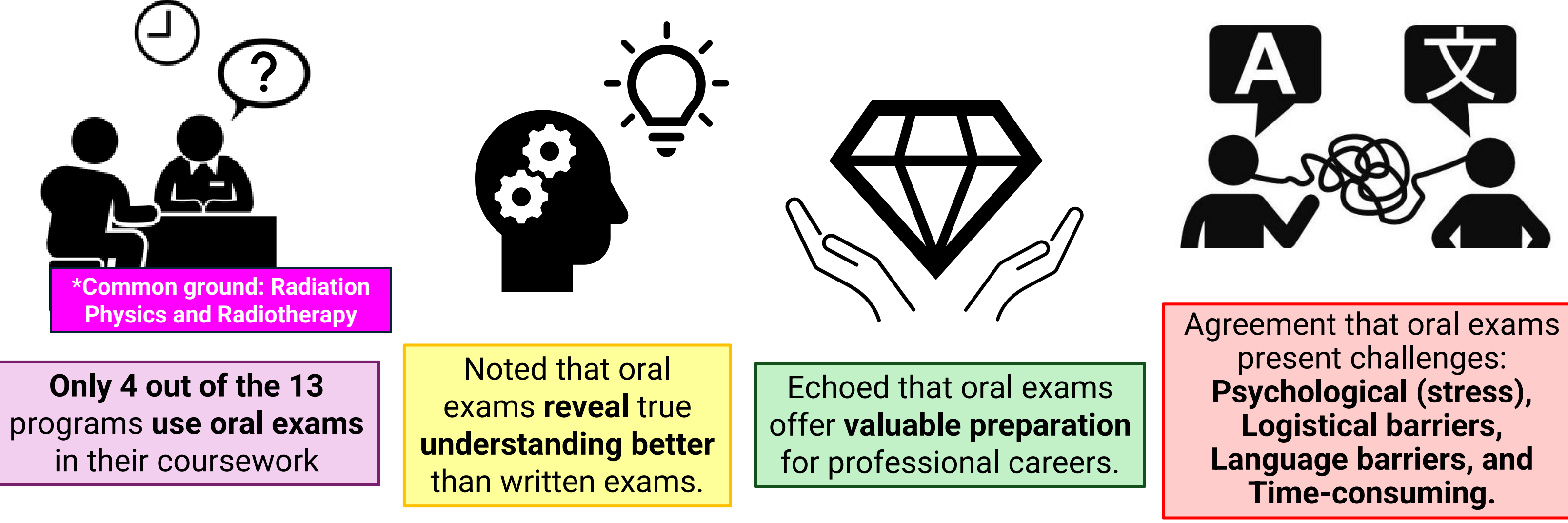
We gathered feedback from **42 alumni** who were graduate students from the Medical Physics Unit program between **1990 and 2025**.

- 40% current Clinical Medical Physicists**
- 21% Medical Physics Residents**
- 21% Graduate Students (with completed coursework)**
- 14% Other position**
- 5% Academic Advisors**



(2) Canadian Program Survey

Based on the feedback from 13 out of 14 Canadian CAMPEP-accredited program directors, responses revealed **mixed perspectives**.



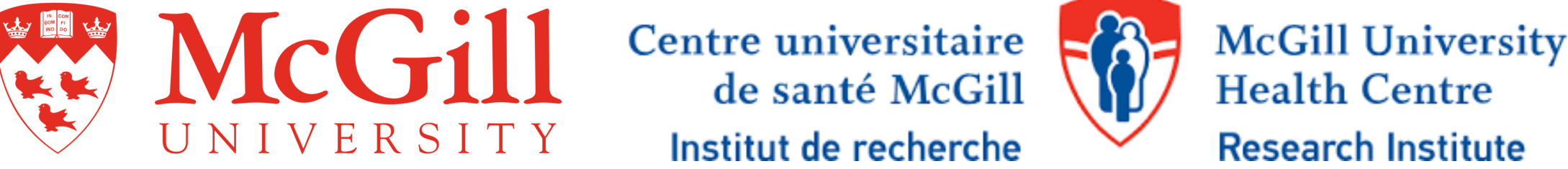
CONCLUSIONS

- Oral exams, **when supportive, fair, and feasible**, *improve communication skills* valued by students.
- Stress is the most consistently** reported challenge associated with oral exams
- Our findings suggest that, while **oral exams provide educational value**, **careful consideration** should be given to **minimize stress** and ensure a **fair assessment** of student knowledge.

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