PHYSICAL SELECTION TEST DEVELOPMENT AND VALIDATION FOR AUSTRALIAN RURAL FIREFIGHTERS

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Background

The health and safety of firefighters worldwide can not be undervalued and it is therefore important that the right people are selected for the job. However, there is currently no specific means in which Australian rural tanker-based fire agencies can quickly and accurately determine which workers have the necessary physical ability to perform the job safely and productively, either during the recruitment process or annual assessment of incumbent workers. A Physical Selection Test (PST) that assess **individual's physical ability** to perform **job-related tasks** may be a convenient way to select personnel who are **fit for duty**.

Research Study Designs

1. Design a PST based upon the critical tasks of tanker-based bushfire suppression

   Through the use of workshops with exercise science researchers, bushfire fighting subject matter experts and incumbent workers will identify elements of critical job tasks which will be used to design a PST representative of the demands tanker-based bushfire fighting.

2. Assess the reliability and sensitivity of the PST

   Participants will perform the PST on multiple occasions to assess test-retest reliability which will provide researchers and agencies evidence on the sensitivity of the PST to measure firefighter performance.

3. Assess the validity of the PST

   Compare performance, physical and physiological measures of the participants during the PST and a three-day job simulation in which environmental conditions are controlled.

Outcomes

The outcomes of this research will provide PST specific to Australian tanker-based bushfire suppression. The test will be **reliable, valid and non-discriminatory** and will assist in a legally defensible measure of worker selection in addition to ensuring workers are appropriately matched to the work demands.