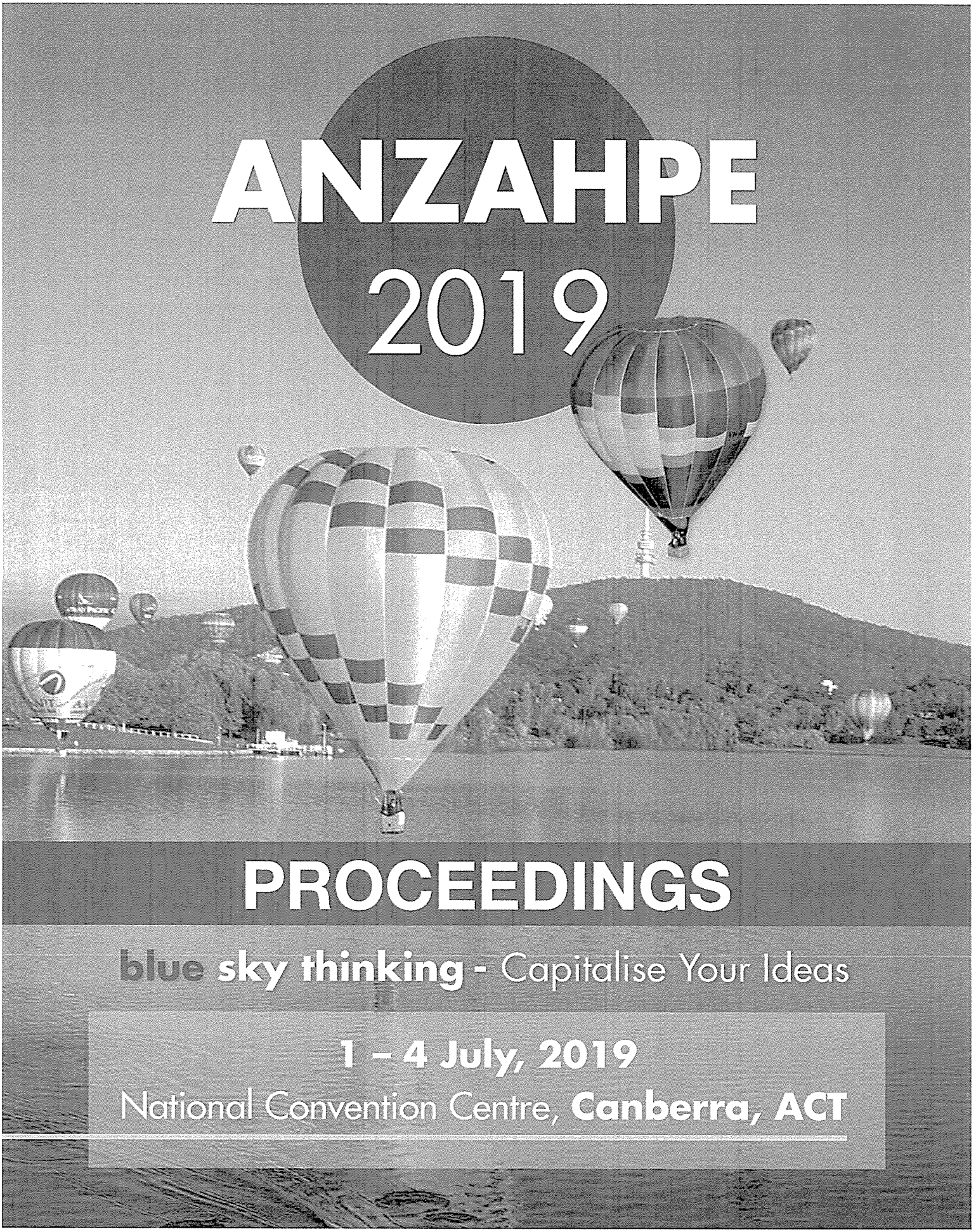

ANZAHPE 2019

PROCEEDINGS

blue sky thinking - Capitalise Your Ideas

1 – 4 July, 2019

National Convention Centre, **Canberra, ACT**

ANZAHPE

Australian & New Zealand Association for Health Professional Educators

Aim:
To assess the association between classroom assessment items and subsequent clinical placement performance.

Methods
Assessment results from five years were collated to evaluate outcomes from three units within the musculoskeletal curriculum. Unit results were compared with clinical placement results relating to the assessment, analysis & planning, and intervention sub-sections of the Assessment of Physiotherapy Practice (APP) forms. The relationship between results for the musculoskeletal units and clinical placement was assessed using factor analysis.

Results:
158 student records were analysed. Assessments which use viva voce practical exams or written exams correlate well to each other within and between each unit of study (factor loading for five vivas = range 0.45 – 0.57, $p = <0.01$ for all; factor loading for 2 written exams: 0.67 and 0.71, $p = <0.01$ for both). A confirmatory model shows the influence of the sequence of learning (Unit 1 to 2 to 3 to clinical placement, standardised regression weight = 0.85, 0.81, 0.50 respectively).

Discussion
The results show student musculoskeletal skills demonstrated within written exams and viva voce practical exams correlate to skills used on clinical placement. Other forms of written assessment do not closely relate to these items. Factor analysis can enable the statistical modelling of layering of assessment and learning. Wider analysis with larger cohorts is recommended.

An assessment tool to judge exercise physiology student performance in a clinical placement setting

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Introduction/background:
Assessment in clinical settings has historically been problematic due to lack of standardisation and objectivity. This had led to calls to look at assessment in the clinical setting differently.

Aim/objectives:
The overall aim of this research is to develop a competency assessment tool for use by clinical educators to make valid judgments of exercise physiology students' performances in clinical placement settings. This presentation reports on the design of the assessment tool and considers the features that will support quality judgments. The research question is: What are the elements required in the assessment tool that will support quality judgments?

Methods:
An educational design based research model was used to design and develop the assessment tool. Focus groups exploring the continuum of competency development and the required design features, and educational theory were used to develop an initial prototype.

Results:
The prototype uses a visual analogue scale to record judgments of student performance against 19 elements related to exercise physiology professional and clinical competencies. A rich description of the developmental continuum towards entry-level competence, which draws on the language used by exercise physiologists, is designed to support clinical educators to make meaning of the multiple observations they make of student performance.

Conclusions:

An educational design based research model has been used to design an assessment tool prototype aimed at supporting quality judgements of student performance. The design principles generated by the focus groups and literature have led to a prototype that is less measurement focussed than traditional workplace based assessment tools.

Developing a validity argument for a simulation-based assessment framework in medicine dispensing activities

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Introduction/background:
Simulation is emerging as an effective approach to competency-based assessment of health professionals, however there is an absence of validated simulation-based assessment frameworks in undergraduate pharmacy education. Accurate, timely and meaningful assessment of medicine dispensing underpins good professional regulation of community pharmacists, and the safety of the public.

Aim/objectives:
We aimed to develop an assessment framework and establish a validity argument, containing multiple sources of evidence, for its use in the integrated assessment of pharmacy student's competency in managing the supply of prescribed medicine(s).

Methods
A two-phase study was conducted. Phase 1 involved the development and content validation of the framework using a think aloud study and literature review. In Phase 2, a pilot study was conducted with recruited expert assessors (n=10) to test the framework with a sample of Year 4 undergraduate pharmacy student simulations (n=42). Phase 2 includes a usability survey of the framework with expert assessors.

Results:
Validity evidence was collected and organised across the two study phases. Findings were interpreted against the four inferences in Kane's validity framework. We will present and elaborate on the evidence for scoring, the potential for generalisation and extrapolation, and potential applications of the framework.

Discussion:
This research project describes a validation effort that adds rigour to the interpretation and use of simulation-based assessment in determining pharmacy students' competency with performing safe and appropriate medication supply activities.

Student-generated multiple choice questions: do they make the grade?

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Introduction: Multiple choice questions (MCQs) are a popular format in medical assessment. One of the major challenges with this format is the creation of high quality items. Student-generated items in formative activities have been shown to improve both learning and academic achievement. Their use in summative assessment is less well studied. This study compares the performance and qualities of student-generated MCQs with clinician-generated MCQs.