Original research

# Structuring educational decisions using the multiple sorting task: An example focusing on international placements in nursing

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ABSTRACT

Practical examples of the steps involved in the planning and execution of the multiple sorting task are frequently lacking in published reports. This article demonstrates how the multiple sorting task can be used to structure conversations with a group of health professionals planning an international placement for nursing students. Sixteen participants were drawn from diverse professional backgrounds, including academia, clinical practice, government policy, and placement administrators. Participants sorted 17 statements written on cards into categories of their choice and noted why they sorted the cards into these particular groups. Data were analysed using multidimensional scaling and qualitative perspectives. The analysis identified four key themes that detailed the participants' views about international placements. These findings demonstrate how the multiple sorting task can be used to generate information that facilitates the examination of important facets of health care practice that universities could cover in preparing students for international placements.

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## 1. Introduction

Practical examples of the steps involved in the planning and execution of the multiple sorting task (MST) are frequently lacking in published reports. MST can be undertaken with the use of different materials, including objects, pictures, or statements printed on cards. It is a particularly useful method when the primary objective is to understand how people categorise various entities (Rugg and McGeorge, 2005). This article focuses on card sorts, which involves placing cards, on which statements are written, into similar categorical groups. We provide a working example that may assist researchers who intend to use MST to explore peoples' views about an event, object or experience. We also illustrate how the quantitative analysis of MST data can be enhanced by qualitative information that is often readily available during an interview constructed around a sorting task. This application of the MST occurred in a particular context in which a group of health professionals were planning overseas placements for nursing students.

The process of organizing an overseas fieldwork placement is complex and time consuming and requires a great deal of

discussion and debate. The level of complexity can be added to considerably when several organizations work together as in this case. We were drawn to the notion of shared decision making using a sorting task to make the strands of the discussion process more transparent (Wilson and Canter, 1993).

As each of the participants completed the task it became apparent that some interesting ideas were emerging. After the last of the participants had completed the sorting task, a more detailed analysis was undertaken and it was at this point that we decided to write this article to share our enthusiasm for the MST in facilitating shared decision-making. At the same time we wanted to provide some practical help for those who wished to use the MST in their work whether in a practical problem solving manner or for application in a research project.

Our aim here is to illustrate how the MST was used as an example to others. The example captures four main themes from the participants' conversations about international placements that will be of interest to university staff and students planning an overseas placement. It is appropriate therefore to sketch out this background next, followed by an introduction to the multiple sorting task.

### 1.1. International placements for nursing students

International clinical placements provide valuable personal and professional experiences for student nurses (Button et al., 2005).

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The main benefits of such placements include learning cultural differences, comparing health systems, comparing nursing practice, enhanced employment prospects and personal development (see for example Kent-Wilkinson et al., 2015).

Adequate planning and preparation are essential to maximize the benefits of international placements. Determinants of successful placements include: preparation before the placement, liaising and planning with host institutions and countries, arranging agreements and insurance, raising funds, establishing support of appropriately qualified registered nurses and educational institutions while on placement, addressing accommodation and safety concerns, ensuring adequate pre-briefing on the social, cultural and health context; and clear descriptions of the type of clinical situations, skills used on the placement, and the expectations of the health professionals who students will work with (Button et al., 2005; Gopee, 2008; Grant and McKenna, 2003; Hartigan-Rogers et al., 2007).

The international placement area that was the subject of this project is Tanzania. The Australian Government Department of Foreign Affairs and Trade advises that travellers to Tanzania should "exercise a high degree of caution" and strongly consider health insurance. This advice is provided in the context of the high rate of HIV/AIDS within Tanzania, in addition to outbreaks of many other diseases.

To address issues such as these as well as the normal placement considerations, a group of participants, drawn from different organizations engaged in a series of conversations and planning meetings with the goal of sending 25 students to Tanzania under supervision. Learning how people work together to achieve goals is a vital aspect of professional practice. However, it is also a very challenging process methodologically because it entails bringing together different individuals and working out a shared understanding of group priorities. Some of the recurring themes in conversations were captured in terms of statements that were written onto index cards, coded, numbered and used in a multiple sorting task described below (see Table 1).

### 1.2. The multiple sorting task

Card sorting is an interesting, cost-effective and fun way to learn about how people think. Its origins can be found in personal construct theory and repertory grid technique (Winter 2013), and the Q-sort (Ellingsen et al., 2010; Serfass and Sherman, 2013). Sixsmith (1986) noted how the MST could also be used within a phenomenological framework to study individual accounts and personal meanings. In an account of the ethnographic approach to interviews, Spradley (2016) describes how different card sorts can be used to understand how informants experience their world in a particular cultural setting. It is very user-centred and helps develop insights into peoples' mental models. In so doing it is possible to arrive at a collective categorisation of ideas from different individuals.

The simplicity and the potential for gathering information in a short time frame makes it an attractive option for clinical research. In particular, the MST provides a robust method to examine how clinicians', or consumers', categorise and prioritise issues when they converse and make decisions about care and work. Sorting cards into categories provides quantitative data in the form of which cards can be counted together, and how often they appear together. In addition, it is possible to record what people say as they sort the cards using notes or tapes as Canter et al. (1985) note:

> "multiple card sorts might be a self-exploration process in which people revise their choices as they come to a fuller understanding of their conceptual systems or grow in their self-knowledge. This illustrates the importance of capturing the rationale for participant choices through recording their talk-aloud commentary" (p.1425).

The combination of data sources highlights the importance of complementing quantitative data with qualitative data as a way of understanding *why* people sort things the way they do. This convergence of approaches in research work (Brannen, 2005) is more likely to result in an even richer understanding of participants' views.

## 2. Aim

This article aims to describe, through a worked example, how the MST was used in a very practical way to elicit the core constructs and priorities that underpinned conversations and decision-making within the participant group. This illustrative example of the use of the MST, from data collection to final analysis, addresses the lack of practical guidance in the literature about research methods that integrate qualitative and quantitative approaches.

## 3. Procedure

### 3.1. Instructions to participants

All members of the participant group were known to each other and engaged in the MST activity with enthusiasm because it

**Table 1**
The statements used in the sorting task.

| Card No | Statement | Code name |
|---|---|---|
| 1 | The placement enables students to achieve the ANMC competencies | ANMCOM |
| 2 | The placement enables students to achieve specific student objectives | STUOBJ |
| 3 | A clinical orientation program is in place | CLIORI |
| 4 | Clinical supervision is readily available | CLISUP |
| 5 | The placement nursing staff understand the student role & scope of practice | NURSOP |
| 6 | Resources to support teaching and learning are available | SUPTAL |
| 7 | A OHS risk minimisation plan is in place | RISMIN |
| 8 | A cultural sensitivity preparation program is in place | CULPRE |
| 9 | A socio-economic orientation is in place | SOCORI |
| 10 | The scope of practice issues are identified and minimised | SOPMIN |
| 11 | Interpreters are available if required | INTAVA |
| 12 | The living arrangements are satisfactory | LIVARA |
| 13 | The safety risks have been identified and minimised to an acceptable level | RISKAC |
| 14 | Methods of communication with home are readily available | COMAVA |
| 15 | In country support is readily available | COUSUP |
| 16 | The evacuation process has been identified | EVACPR |
| 17 | The university contact processes has been established | UNICON |