IDENTIFYING INDIVIDUAL STUDENTS' "HABITS OF MIND" TO SUPPORT DISCIPLINARY-RELEVANT ACADEMIC TRANSITION

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WHAT ARE HABITS OF MIND?

“.. Intelligent thinking behaviours used by peak performers…” – aim to develop problem solving and strategic reasoning within own contexts. (Costa and Kallick 2000, cited in Campbell 2006 pg 1)

Described 16 Habits of Mind:


HOW HABITS OF MIND ARE RELEVANT TO DISCIPLINARY-FOCUSED TRANSITION

• To achieve self-efficacy (within a discipline) requires a degree of self-awareness, absence of which can lead to academic self-handicapping

• Key principle of Habits of Mind (HoM) is having the ability to behave intelligently when the answer or situation is unknown

• Requires the ability to recognise what is understood about a subject or situation and how to address the shortfall to resolve this

• Therefore requires the ability to recognise personal strengths in HoM and those areas to develop.
HELPING STUDENTS IDENTIFY WHICH HoM THEY COULD DEVELOP

• Self-awareness is needed for students to realise their potential for academic and professional development, and for self-efficacy to be promoted.
• Individual potential is limited if students do not recognise or persist in unchallenged beliefs about their own capabilities.
• Studies show non-cognate graduates** transitioning to applied disciplines cannot always self-assess, as their previous frame of reference may lack relevance.
• Health care – dynamic context – requires competence in key/specific Habits of Mind:- persistence, reflective thinking, learning from experience, and problem solving (all aspects of metacognition).
SEARCH FOR A SELF-ASSESSMENT TOOL

No validated measure

- One self-assessment ‘rubric’ found (Stamm, undated)
- Respondent ticks one box (containing up to 6 statements) for each HoM as being ‘exemplary’, ‘proficient’, ‘apprentice’ or ‘beginning’.
- Statements relate to a general tendency to adopt a particular behaviour – thus an assumption of uniformity relating to components of a specific Habit of Mind
REASONS FOR DECISION TO DEVELOP A SELF-ASSESSMENT TOOL

• Unclear if Stamm’s rubric would enable students to self-assess accurately due to grouping of multiple items in one box

• Collection of statements might not accurately reflect construct of each HoM

• Meaning of some statements may not be clear, e.g. ‘I understand diverse perspectives’.

• Potential for social desirability bias, e.g. ‘I seldom consider other points of view’?

• Students might not be aware of own ‘Habits of Minds’
LIMITATIONS IN DEVELOPING THE TOOL

- Small cohort sizes – data collected over 2 years (50 students)
- With 16 HoM, needed to manage questionnaire length – decided on 3 for each HoM (48 items) – ideally would have included more.
- Insufficient time taken to test each item
- Selected 5 point Likert scale - in retrospect, 4 points may have been better
STRENGTHS IN DESIGN OF MEASURE

• Questions mostly derived from statements within work by Costa and Kallick (2000)
• Feeling/emotion related, behavioural items and combination items (emotion and behaviour)
• Staff previewed, leading to some amendments
• Negatively and positively worded items included
• Consideration given to ordering of items (to avoid response bias)
Students asked to complete both the Stamm rubric and new tool, and asked:

- For verbal feedback on consistency between their responses (and results) on each measure;
- Whether the results were as expected, and if not, which HoM(s) was not accurately assessed

(N.B. The Stamm rubric had very limited variability, so correlation analyses were not attempted.

Students mainly self-assessed themselves on all items as either ‘proficient’ or ‘exemplary’ – i.e. only two categories
DATA ANALYSIS SO FAR

Test further items, especially for HoM categories where items were rejected

Median, inter-quartile range

Bar charts and box plots
EXAMPLES OF ANALYSES OF ITEMS

HoM: Listening and understanding with empathy

I find it quite easy to stop my own thoughts when someone who I disagree with is expressing their viewpoint.

Median = 3
IQR = 2
(A higher proportion of students responded with 1 rather than 5, although median is still 3.)
EXAMPLES OF ANALYSES OF ITEMS

HoM: Thinking flexibly

When writing an essay, I like to consider several sources of information simultaneously rather than one source at a time.

Median = 3
IQR = 2

In this example, more students responded using extreme scores than was expected.
EXAMPLES OF ANALYSES OF ITEMS

HoM: Thinking flexibly

*When I encounter an idea or practice that contradicts what I believe to be true, I usually try to explain why it’s likely to be wrong.*

Median = 3
IQR = 2

This item showed a distribution close to normal.
• Plan to remove or amend all items not discriminating well (including where distribution was very skewed)

• Test remaining items for face validity of HoM constructs through cognitive interviewing and feedback from educators familiar with the Habits of Mind categories

• Seek feedback on whether response categories are most appropriate and if scale should change to 4-point.
DATA ANALYSIS SO FAR, AND PLANS FOR FUTURE IMPROVEMENT (CONT’D)

• Insert oppositely worded items (i.e. positively worded where previously negatively worded)
• Consider test and retest of same students at later time to see if improvement
• Resources not available for full psychometric testing
CAN YOU BE OUR EXPERTS, AND HELP US IMPROVE VALIDITY OF THIS MEASURE?

- In pairs, select one or two Habits of Mind that interest you in the context of health care education
- Jot down a description of what you think this Habit of Mind means, and an example in health care education
- Read the items corresponding to your selected HoM(s)
- In column 5, if there is an ‘R’, does this need rejecting or rewriting? If there is a ‘V’, does this correspond to your understanding of the HoM in an educational context?
Further reading


