

The Efficacy of Portfolios for Assessment and Education - a BEME systematic review

Karen Beggs, Ann Cadzow, Iain Colthart, Alex Haig,
Anne Hesketh, Heather Peacock, Claire Tochel

NHS Education for Scotland

NHS Education for Scotland

- multi-professional organisation
- role: postgraduate education and training for NHS staff
- internal research committee - financial support for review

review team background

information science
systematic reviews
health services research
educational research

nursing education
medical education
social science

Tim Brown: creation of online form

BEME systematic review

review questions

- i) Are portfolios an effective and practical instrument for education purposes in a healthcare setting?
- ii) What are the advantages and disadvantages in moving to an electronic format for portfolios?
- iii) What is the evidence that portfolios are equally useful across health professions, and can they be used to promote inter-disciplinary learning?

collaboration

- University of Birmingham - undergraduate literature

Methodology – inclusion criteria

No limits by study design or outcome measures; language or geography

include articles which describe:

- use of portfolio by qualified postgraduate group in a healthcare setting

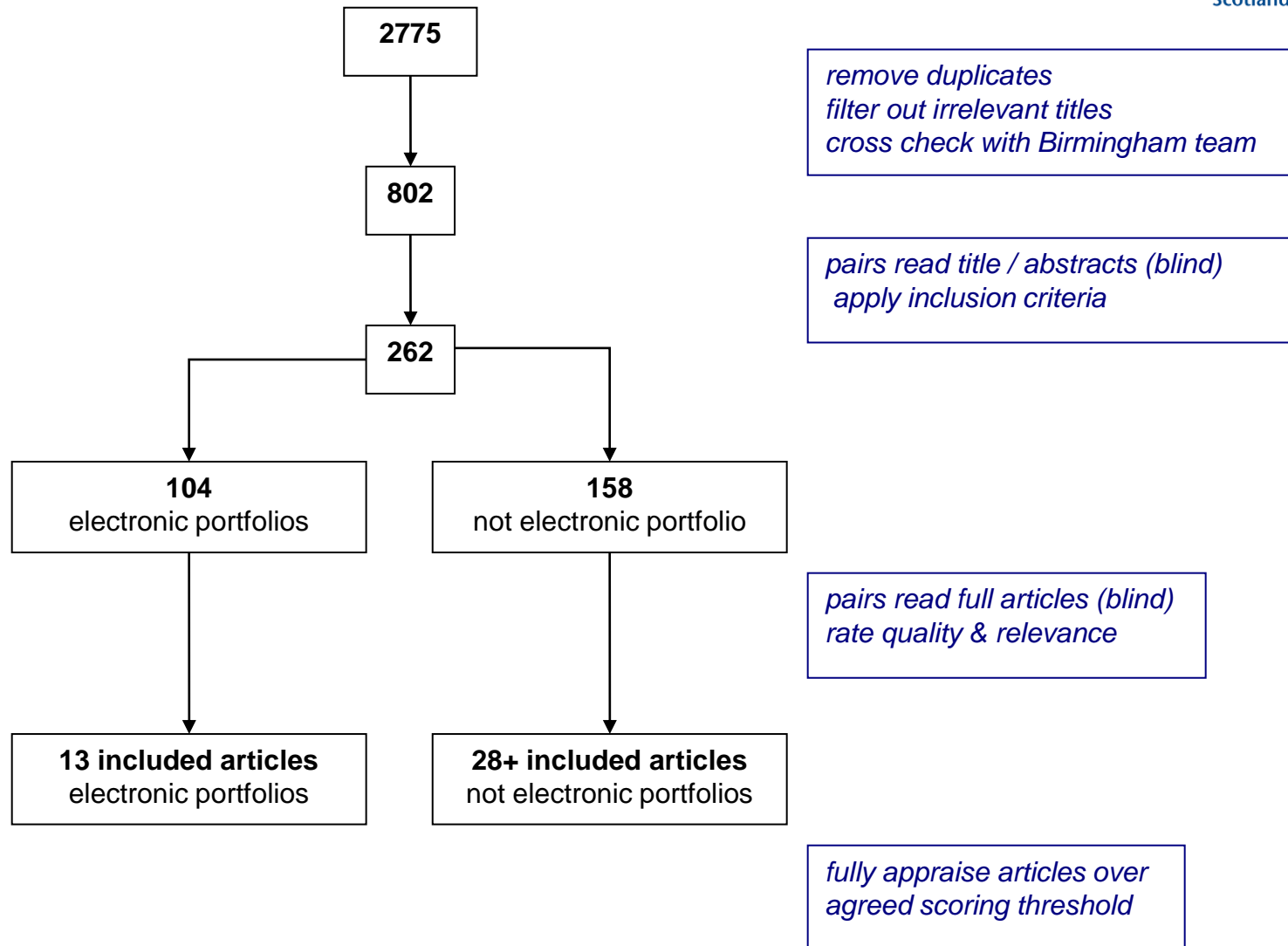
AND

- how portfolio is used
- what is learned
- perceptions of effectiveness
- in / formal evaluation of portfolio usage
- portfolio contribution to career development

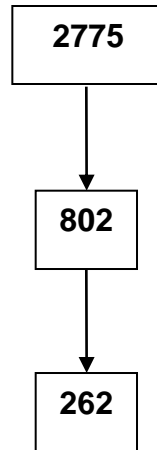
special case:

if portfolio in electronic format - any setting / user group

Methodology – the literature



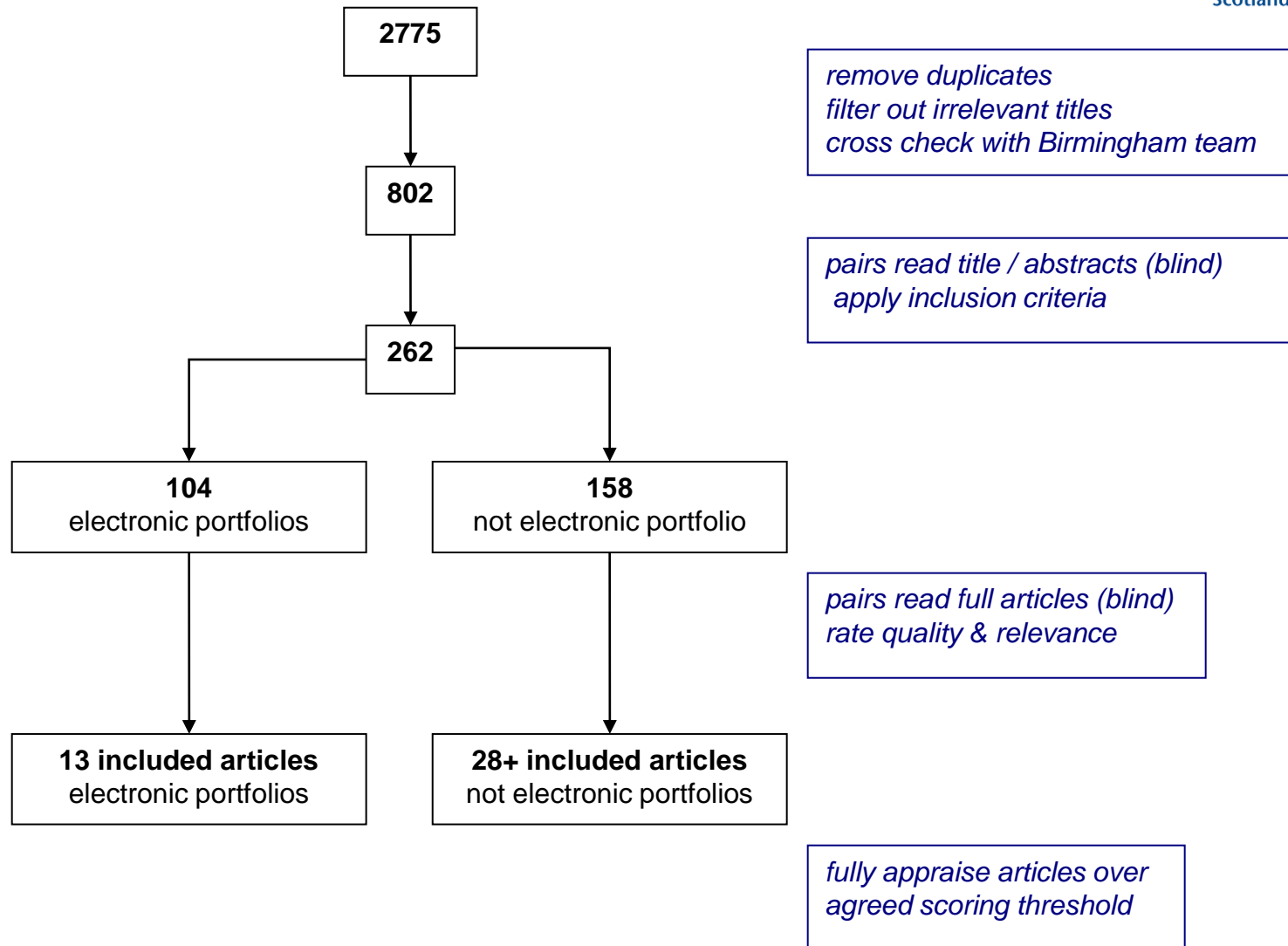
Methodology – search & filter



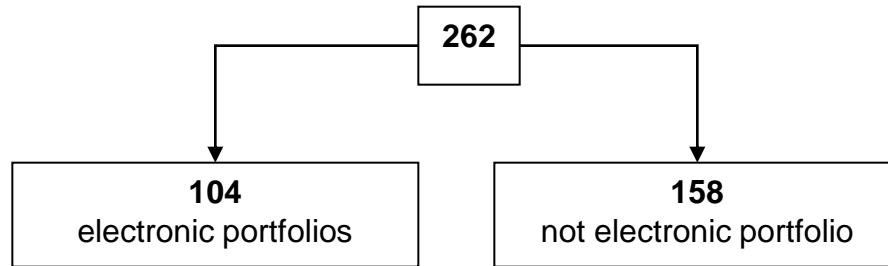
*remove duplicates
filter out irrelevant titles
cross check with Birmingham team*

*pairs read title / abstracts (blind)
apply inclusion criteria*

Methodology – critical appraisal



Methodology – critical appraisal



*pairs read full articles (blind)
rate quality & relevance*

Methodology – critical appraisal

- **test scoring by whole team - 5 articles**

- common understanding of subjective concept of ‘relevance’ and ‘quality’
- attempt consistency on 5-point scale
- 1=very poor, 2=poor, 3=reasonable, 4=high, 5=very high

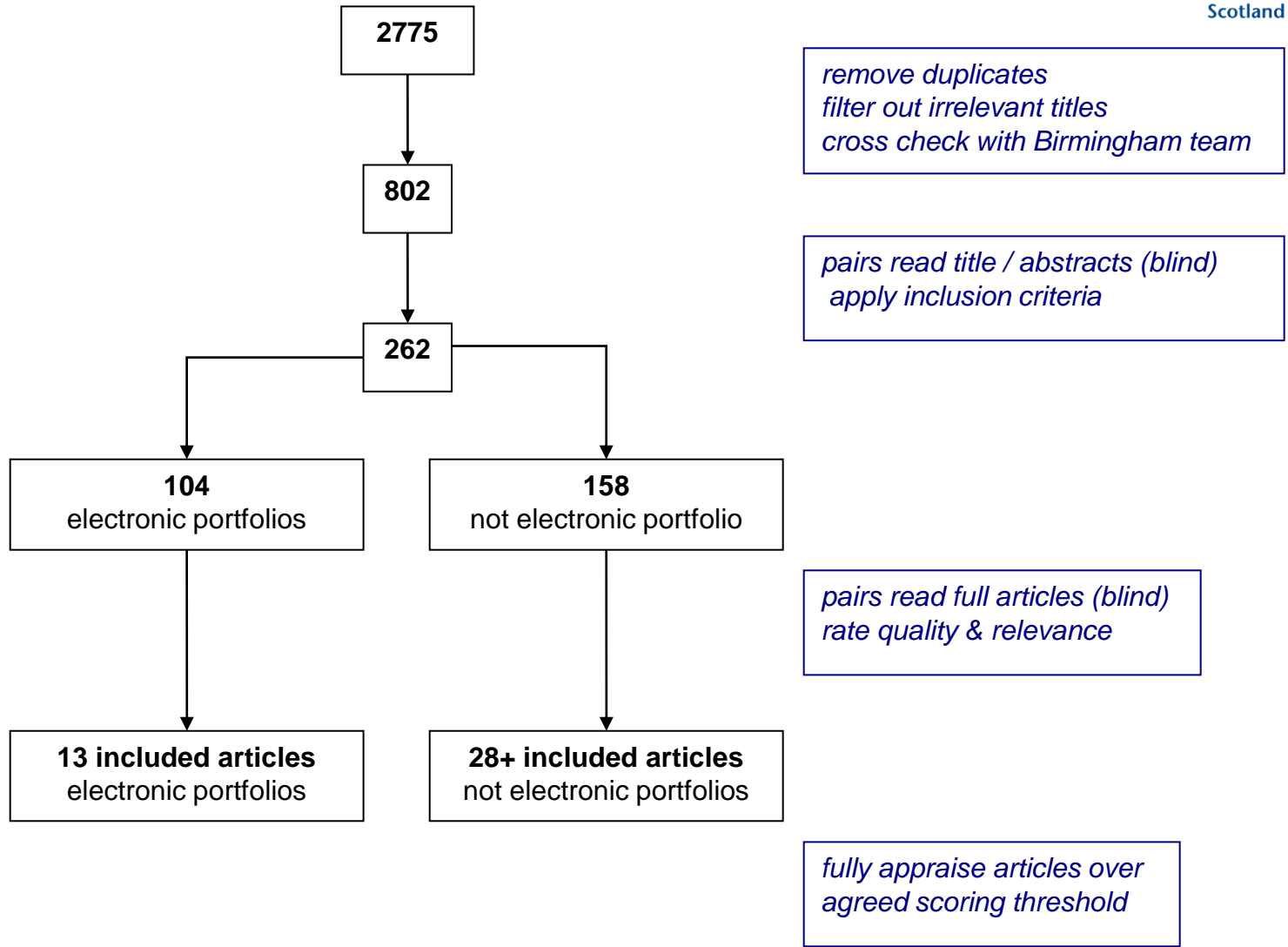
- **blind scoring in pairs**

- pair discuss blind scores & achieve consensus
- discrepancy > 3rd party
- blind scores will be used to calculate inter-rater reliability

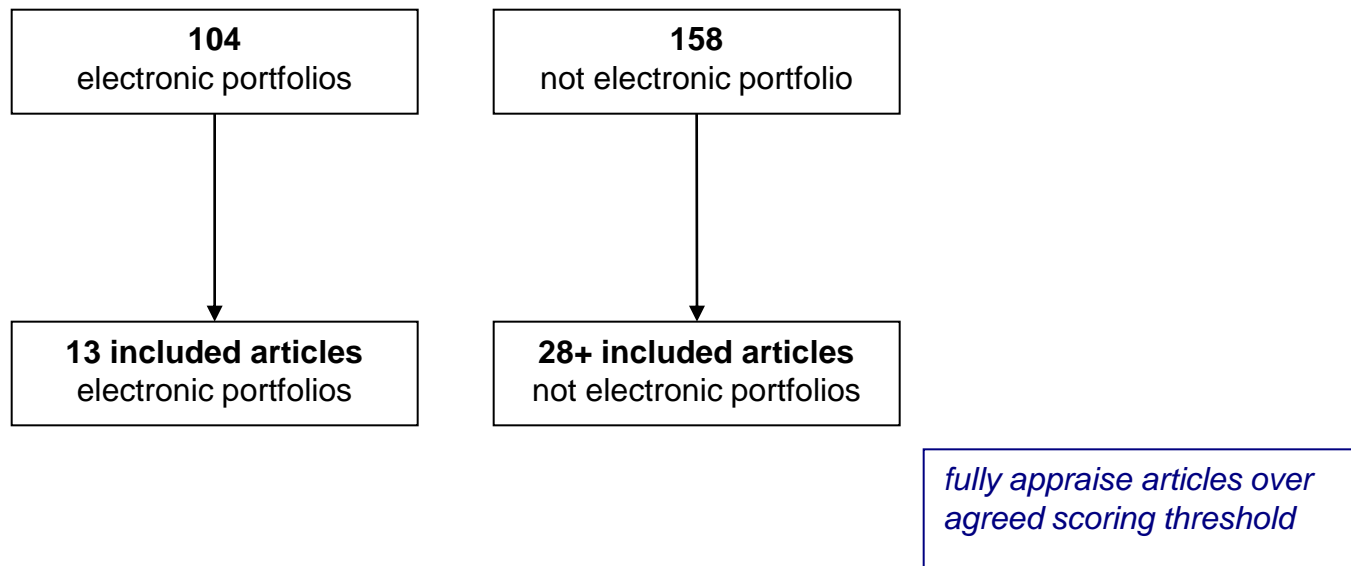
- **threshold for ‘best quality’ evidence**

- consensus score of 7 and over (minimum of 3)

Methodology – best quality evidence



Methodology – best quality evidence



Methodology – best quality evidence

detailed appraisal

- one reviewer (back up from pair)
- minimal data expected - hence not double data extraction


online form

- any internet-linked computer
- stored data accessible centrally
- standardised citation / data entry
- critical appraisal checklists - range of study types

BEME Coding Sheet

systematic review of the effectiveness of portfolios

Reference code:

Page 1 of 7 [Go to page: [1](#) [2](#) [3](#) [4](#) [5](#) [6](#) [7](#) | [Return to Home page](#) | [Sign out](#) 

1. Administration

Reviewer username:

clairer

Date completed / last
modified:

02/05/2007 17:43:13

1.1 Citation

Title:

A web-based presentation of an undergraduate
clinical skills curriculum

Country of study:

United Kingdom

Publication type:

- Journal article
- Conference paper / proceedings
- Other

Please specify:

Preliminary findings

general

- relevance and quality
- study size, methodology

early messages from literature

1. some evidence that portfolio:
 - aids learning (*Fung Kee, Chang*), but doesn't suit all (*Dornan*)
 - useful for formative (*Snadden*) & summative (*Jarvis*) assessment
2. barriers to successful portfolio usage:
 - lack of time / support / technological expertise, culture (*Dornan*)
3. if not well implemented / structured, portfolio:
 - can actually be counterproductive (*Carney, Caraccio*)

Next steps

- Update search - imminent
- Grey literature search - September
- Complete scoring and full appraisal - October
- Meet to draft report - November

For further information: claire.tochel@nes.scot.nhs.uk

Anyone have access to this Ph.D. thesis?

Brickley, Penn State University, 2003

The effect of media form upon the rating of web-based portfolio assessment.