

## **A Best Evidence in Medical Education systematic review to determine the most effective teaching methods that develop reflection in medical students: BEME guide No. 51**

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| Table 4 – Mixed Method studies |   |  |  |  |                  |  |
|--------------------------------|---|--|--|--|------------------|--|
| Author/<br>Year                | Context/  | Intervention   | Study design and outcomes  | Risk of bias<br>(quantitative &<br>qualitative)/<br>Strength of<br>findings/<br>Overall rating | Kirk-<br>patrick | Main Findings re:<br>teaching reflection   |
| Arntfield<br>et al 2016        | Canada<br><br>Reflective<br>portfolio<br>course                                       | Reflective writing<br>using narrative<br>medicine prompts,<br>mentor feedback<br>written and face-to-<br>face  | Mixed methods rooted in grounded<br>theory. Student (n=139) and mentor<br>questionnaires(n=13), student focus<br>groups(n=23), mentor individual<br>interviews (n=9). To explore the<br>experience of the intervention.  | 9/11    10/10<br><br>3/5<br><br>Good   | 2a               | Portfolio is vulnerable method of<br>learning. Student-mentor<br>engagement central to the<br>learning experience. Engagement<br>depends on dynamic between<br>vulnerability and acts of<br>adaptability   |
| Beylefield<br>et al 2005       | South Africa<br><br>Community<br>experience<br>pilot<br><br>Preclinical               | Observe patient-<br>doctor, interview<br>patient, not data,<br>write reflection after<br>lecture and guidelines<br>on reflection   | Descriptive content analysis of<br>students' reflective writing. Survey of<br>student perceptions of reflection<br>(n=182)   | 4/11    5/10<br><br>1/5<br><br>Poor  | 2a               | Real world situations motivate<br>students to make use of the<br>affective domain in reflection  |
| Grant et<br>al 2006            | United<br>Kingdom<br><br>Early Clinical<br>Contact<br><br>3 <sup>rd</sup> year        | Seminars, learning<br>journal and facilitated<br>small groups  | Thematic analysis of student<br>interviews (n=19) using grounded<br>theory to get students' perceptions of<br>the intervention. MB intermediate<br>examination results for attenders<br>( n=20), partial attenders (n=15) and<br>non-attenders compared.(n=167             | 10/11    9/10<br><br>4/5<br><br>Good   | 2a               | Participants perceived a greater<br>ability to identify learning<br>objectives and integrate learning.<br>Some students didn't take part<br>because curriculum content<br>mostly factual therefore reflective<br>learning less useful. No<br>differences between the groups in<br>examination results. |
| McEvoy<br>et al<br>2016        | United States<br>of America<br><br>Clinical<br>Exam-ination<br>Course<br><br>2nd year | Peer (4 <sup>th</sup> year)<br>facilitated small<br>group sessions with<br>reflective writing<br>assignments<br>following clinic visits<br>and prompts re:<br>learning goals | Comparative mixed methods of three<br>groups (not facilitated, n=58 versus<br>facilitated by volunteer student , n=64<br>versus facilitated by Humanism award<br>student n=64) looking at reflection<br>scores, satisfaction survey and<br>thematic analysis of assignment | 11/11    7/10<br><br>3/5<br><br>Acceptable   | 1                | Near peers, recognized for their<br>humanism can deepen medical<br>student's reflections around<br>patient interactions or humanistic<br>development   |
| Patterson<br>2016              | Ireland<br><br>Medical<br>humanities<br>elective<br><br>Preclinical                   | Reflective writing<br>assignment following<br>exposure to humanity<br>disciplines and<br>interdisciplinary<br>themes   | Content analysis of written reflections<br>and summary of scoring using<br>REFLECT rubric to investigate what<br>students learned from the module.<br>(n=156)  | 9/11    9/10<br><br>2/5<br><br>Acceptable  | 2b               | Half of students displayed higher<br>levels of reflection. Module<br>provided opportunities to<br>consider 1) their beliefs, ideas<br>and feelings, 2) views of others,<br>and 3) their future professional<br>practice  |
| Teal et al<br>2010             | United States<br>of America<br><br>Community<br>Clinic<br><br>Pilot                   | Facilitated Small<br>group discussions<br>about bias   | Pre and post survey for students n=72<br>to determine what they had learned<br>about bias  | 9/11    9/10<br><br>3/5<br><br>Acceptable  | 2b               | Improvement in students' ability<br>to identify alternate strategies to<br>manage bias   |
| Wen et al<br>2015              | Taiwan<br><br>Paediatric<br><br>Clerkship   | Reflective writing on<br>psychosocial issues,<br>facilitated group<br>discussion for<br>feedback   | Content analysis of transcripts from<br>recorded group sessions (student<br>n=40, groups n=5) to investigate<br>feedback. Evaluation questionnaire<br>examine perceived benefit of<br>reflecting with others.  | 10/11    8/10<br><br>2/5<br><br>Acceptable   | 2a               | Facilitative feedback providing<br>new knowledge, deeper<br>understanding and exploring new<br>ways of action planning for<br>psychosocial issues can promoted<br>students reflective capacity   |

