Feedback in workplace-based assessment

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Definition: ingen konsensus

Feedback (Den Danske Ordbog!!): *"En proces, hvor et signal sendes tilbage til kontrolenheden, som regulerer den fortsatte aktivitet"*

Feedback: *"En specifik information om sammenligningen mellem en kollegas observerede udøvelse af en kompetence og en standard, som gives med det formål at forbedre kollegaens kompetence"*

Feedback: *"Any kind of sensory information related to a previous response or action aimed at describing and improving performance*

Feedback for simulation-based procedural skills training: a meta-analysis and critical narrative synthesis

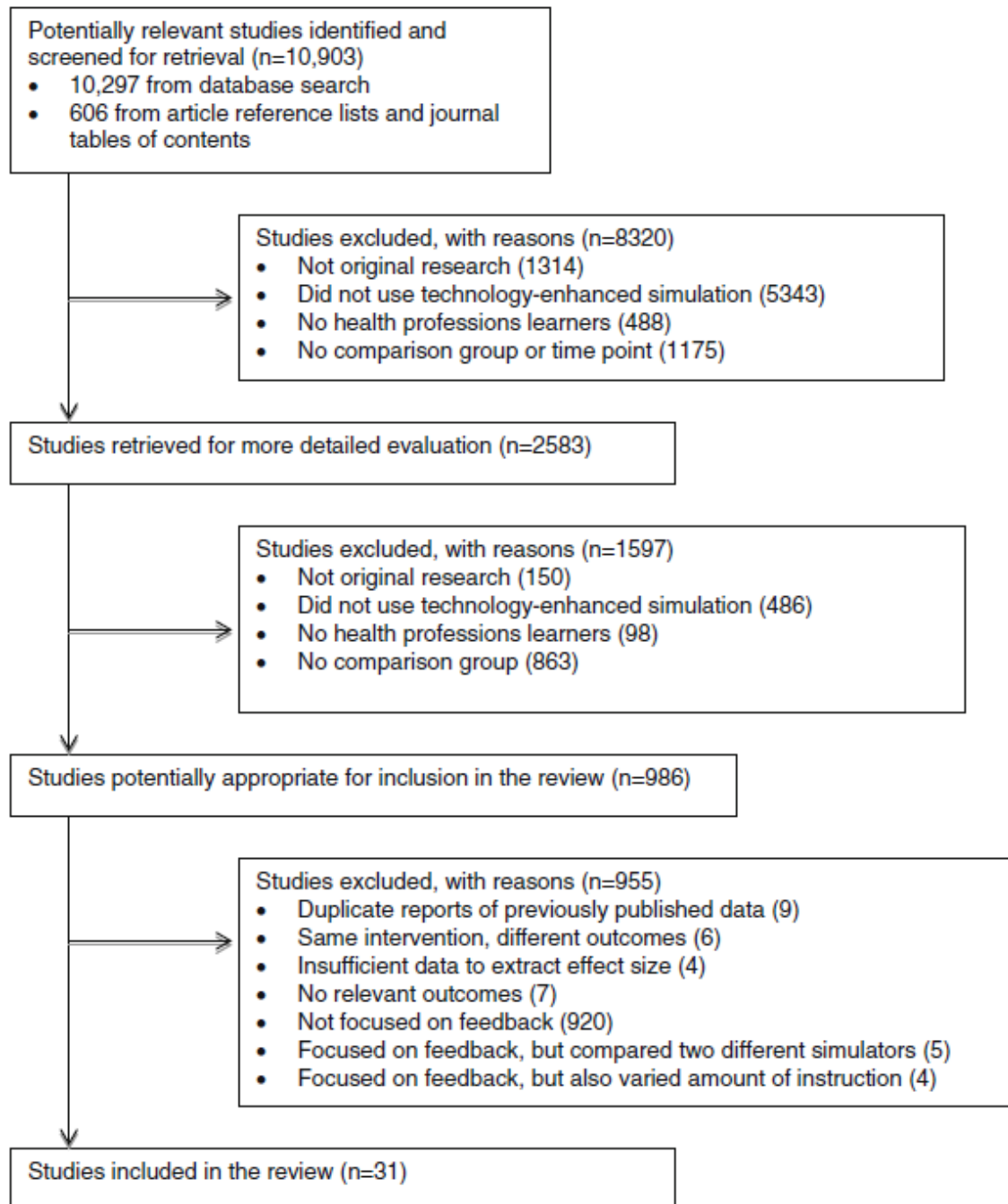Rose Hatala · David A. Cook · Benjamin Zendejas · Stanley J. Hamstra · Ryan Brydges

Potentially relevant studies identified and
screened for retrieval (n=10,903)
- 10,297 from database search
- 606 from article reference lists and journal
  tables of contents

Studies excluded, with reasons (n=8320)
- Not original research (1314)
- Did not use technology-enhanced simulation (5343)
- No health professions learners (488)
- No comparison group or time point (1175)

Studies retrieved for more detailed evaluation (n=2583)

Studies excluded, with reasons (n=1597)
- Not original research (150)
- Did not use technology-enhanced simulation (486)
- No health professions learners (98)
- No comparison group (863)

Studies potentially appropriate for inclusion in the review (n=986)

Studies excluded, with reasons (n=955)
- Duplicate reports of previously published data (9)
- Same intervention, different outcomes (6)
- Insufficient data to extract effect size (4)
- No relevant outcomes (7)
- Not focused on feedback (920)
- Focused on feedback, but compared two different simulators (5)
- Focused on feedback, but also varied amount of instruction (4)

Studies included in the review (n=31)

Fig. 1 Study flow

Resultater: Feedback vs no feedback. Skill outcomes

Author, year	N	Standardized Mean Difference (95% CI)
Kovacs, 2000	53	0.23 (-0.06, 0.51)
Pugh, 2001	59	-0.08 (-0.59, 0.43)
Byrne, 2002	32	-0.20 (-0.57, 0.16)
Gerling, 2003	6	0.60 (-1.04, 2.23)
Wierinck, 2005	24	-0.38 (-0.82, 0.05)
Chang, 2007	24	1.83 (1.13, 2.52)
Lazarski, 2007	61	0.74 (0.45, 1.03)
Spooner, 2007	98	-0.30 (-0.70, 0.10)
Van Sickle, 2007	16	1.65 (0.51, 2.78)
Xeroulis, 2007	30	1.09 (0.62, 1.56)
Chang, 2008	24	2.38 (1.33, 3.42)
O'Connor, 2008	6	0.53 (-1.10, 2.16)
Rafiq, 2008	12	1.12 (-0.09, 2.34)
Day, 2009	38	1.33 (0.63, 2.04)
Domuracki, 2009	101	0.53 (0.13, 0.93)
Moulton, 2009	30	0.78 (0.35, 1.20)
Yasukawa, 2009	39	1.90 (1.35, 2.44)
Pooled		**0.74 (0.38, 1.09)**

Standardized Mean Difference (95% confidence interval)

Fig. 2 Feedback versus no feedback, skill outcomes. Effect sizes for feedback compared with no feedback. Positive numbers favor feedback. For pooled effect size, $p < .001$; $I^2 = 87\%$

Resultater: terminal vs concurrent feedback

Immediate post-test
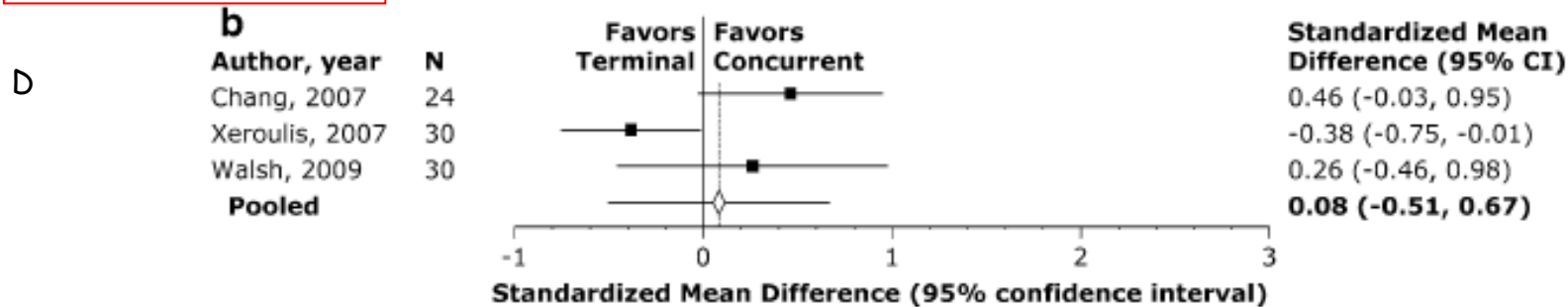

Delayed retention-test

D
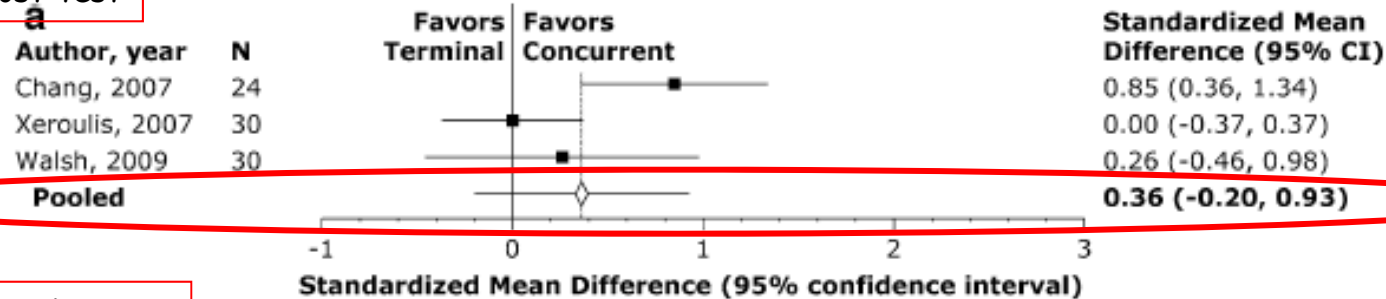
Fig. 3 a Concurrent versus terminal feedback, immediate post-test. Effect sizes for concurrent feedback compared to terminal feedback, for skills outcomes. Positive numbers favor concurrent feedback. For pooled effect size, $p = .21$; $I^2 = 73$ %. b Concurrent versus terminal feedback, delayed retention test. Effect sizes for concurrent feedback compared to terminal feedback, for skills outcomes tested at least 5 days after intervention. Positive numbers favor concurrent feedback. For pooled effect size, $p = .78$; $I^2 = 75$ %.
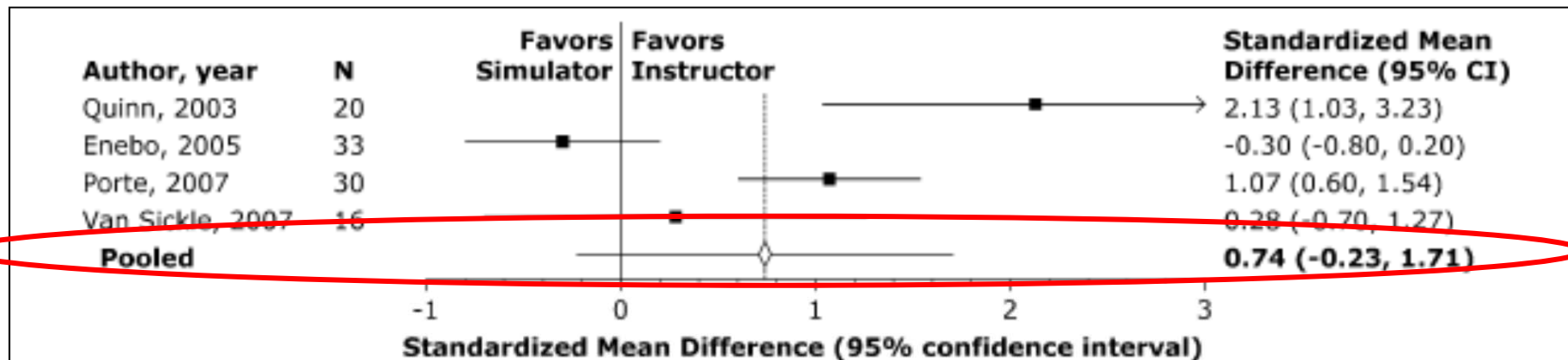
Resultater: simulator vs instructor

		Favors Simulator	Favors Instructor	Standardized Mean Difference (95% CI)
Author, year	**N**			
Quinn, 2003	20			2.13 (1.03, 3.23)
Enebo, 2005	33			-0.30 (-0.80, 0.20)
Porte, 2007	30			1.07 (0.60, 1.54)
Van Sickle, 2007	16			0.28 (-0.70, 1.27)
Pooled				**0.74 (-0.23, 1.71)**

Standardized Mean Difference (95% confidence interval)

Fig. 4 Instructor-generated versus simulator-generated feedback. Effect sizes for instructor-generated versus simulator-generated feedback, for skills outcomes. Positive numbers favor instructor-generated feedback. For pooled effect size, $p = .13$, $I^2 = 88\%$

Resultater: multiple sources vs single source of feedback

Fig. 5 Multiple sources of feedback versus a single source of feedback. Effect sizes for multiple sources of feedback versus a single source of feedback, for skills outcomes. Positive numbers favor multiple sources of feedback. For pooled effect size, $p = .02$, $I^2 = 42$ %
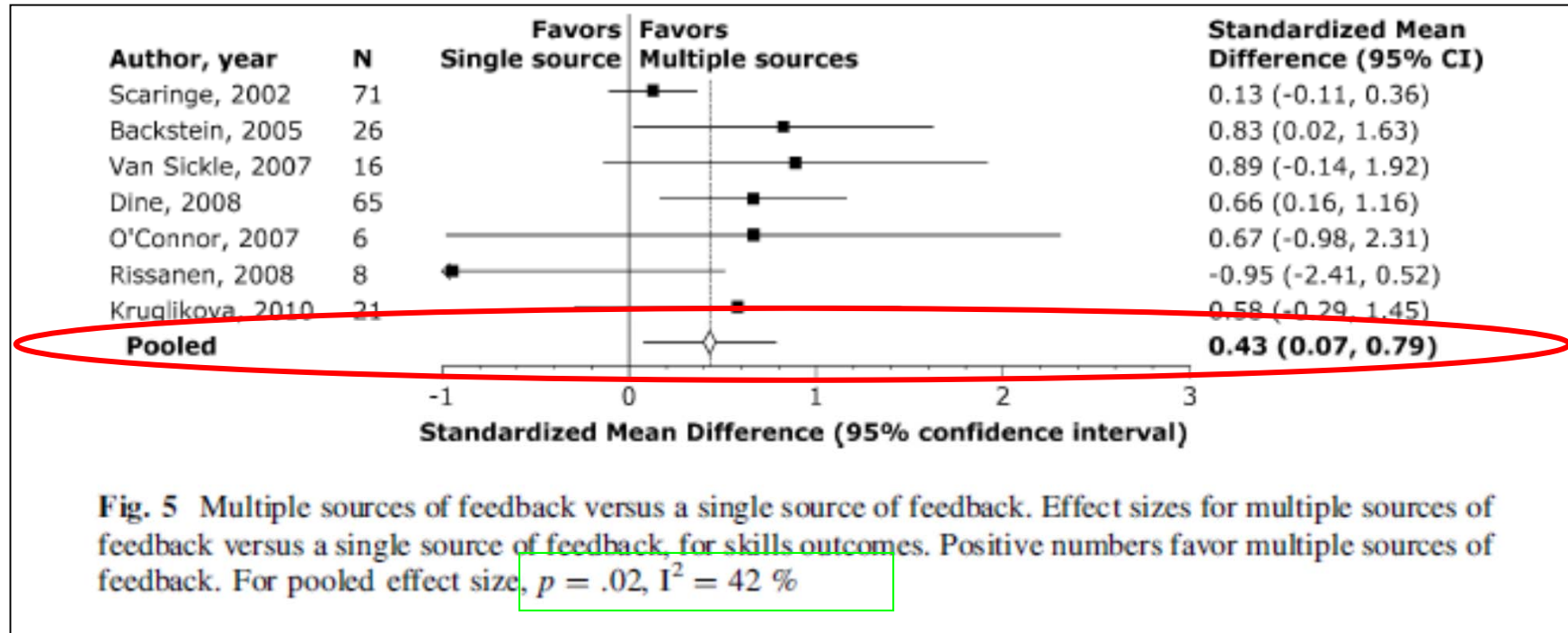
Konklusion

- Positiv effekt af feed-back
- Terminal feed-back > concurrent feedback for long-term skill retention
- Multiple sources of feedback (typically instructor) > single source

Workplace learning: Key findings from literature

- It is an emotional business
- Learners complain that they do not get enough feedback
- Educators resent that although they put considerable time into generating feedback, student take little notice of it
- Both parties agree that it is very important

The educators

- The educators' inflated perceptions of their own performance points to a key issue that lies at the heart of the "feedback problem" – that educators, like all learners, need feedback on their (feedback giving) skills in order to recalibrate and improve their practices

Molloy and Boud.

Key messages feedback in workplace learning: problems and prospects

- Verbal feedback in workplace learning is problematic
- Research demonstrates that feedback in this context i stypically expert-driven, "telling", "diagnostic" and lacking "design"
- In designing feedback experiences, both clinical education and simulation-based education should be integrated

Key messages feedback in workplace learning: problems and prospects

- New conceptual models of feedback/debriefings are needed- and these need to be tested. Simulation holds the key to testing, and developing the feedback seeking and giving skills of both learner and educator

Spørgsmål

- Hvordan får vi implementeret feed-back i den kliniske hverdag

- Hvordan motiverer vi såvel den uddannelsessøgende som den uddannelsesgivende til feedback

- Hvordan "uddanner" vi den uddannelsesgivende i feed-back