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Change Your Answers…Defying Conventional Wisdom: A Scoping Review

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Introduction / Background

Over 50 years of research data have shown that students benefit from changing answers on an exam. Yet, conventional wisdom often guides faculty to tell students, “Don’t change your first answer.” While some faculty support backtracking and the opportunity to change answers during testing, the attitudes and behaviors regarding changing answers are varied across disciplines, including Nursing.

Twenty years ago, Waddell & Blankeship (2004) stated “that “more than 50% of faculty and students” believed that changing answers would lower test scores. Of significance, when study variables such as gender, personality traits, academic ability, item difficulty, and item position were correlated with answer changing, the only statistically significant variable was *total test score that correlated positively with answer changing and test score*.”

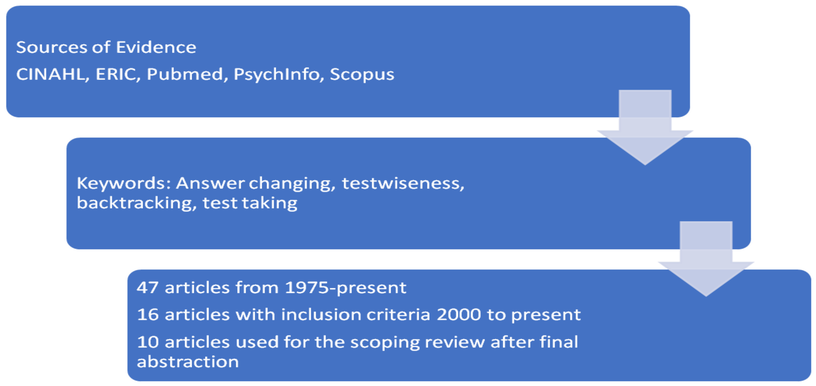
Test taking strategies continue to vary and often are not based on research (Merry et al., 2021). **Many faculty continue to advise students not to change their answers.**

Purpose

This scoping review aimed to explore the available evidence related to backtracking and changing exam answers and identify knowledge gaps in the evidence.

Method

- This scoping review was guided by Arksey and O’Malley’s (2005) framework that included defining the research question, searching the databases for relevant material, carefully selecting the studies using predetermined inclusion criteria, recording the abstracted data, summarizing the information, and sharing the findings with stakeholders to validate and inform them of the findings.
- The a priori protocol hypothesis used to guide the review was that backtracking and changing answers on tests would lower scores.
- Authors were randomly assigned an equal number of studies to review.
- Each completed a first and second review using the researcher designed abstraction tool.
- Data elements reviewed included study location, study method, number of participants, discipline of participants, educational level, type of test answer changes and overall exam score
- Author pairs completed verbal reconciliation as a third and final review of each article.



Results

- The 10 included studies concluded that changing answers increased scores between 48% - 68% of the time, regardless of the subject or course.
- Despite each study having varying outcomes, overall scores improved significantly when answers were changed.
- These findings challenge the common misconception that altering answers results in lower scores.

Limitations

- Limited studies exist in nursing
- The data reported were from various disciplines.
- The different study approaches and low participant numbers across various educational levels and geographic settings suggest that further research on the topic is needed in nursing.

Author(s)	Location	Discipline	%W-R	%R-W
Bauer, Copp & Fischer 2007	Germany	Medicine	48.2% W-R 30.2% W-W 2.5%	21.6% R-W
Fischer, Herman & Kopp 2005	Germany	Medicine	55%	25%
George, Muller & Bartz 2016	USA	Nursing	55.6%	27.5%
Liu, Ou Lydia, Bridgeman, Brent, Gu, Lixiong, Xu Jun, Kong & Nan 2015	North America Asia	Multiple	NC	NC
Merry, Elenchin & Surma 2021	USA	Biology	2.8	1.0
Nieswiadomy, Arnold & Garza 2001	USA	Nursing	86% gained	6.7% lost
Ouyang , Harik, Clasuer & Paniagua 2019	Global	Medicine	60%	40%
Pagni, Bak, Eisen, Murphy, Jennipher, Finkelman & Kugel 2017	USA	Dental	64.4%	
Stylianou-Georgiou & Papanastasiou 2017	Europe	Education	W-R 1.62 (SD =1.62).	W-R 1.26 (SD = 1.5)
Wainscott 2016	USA	Physics	More	Less

Conclusions / Implications for Practice

- Future research should more explicitly note the criteria used to identify performance differences between test takers and explore their attitudes and understanding of advice received about changing answers during an exam.
- The high-stakes testing in nursing programs and the NCLEX licensure examination procedures also suggest the need for further research about the benefits of answer-changing by nursing students.
- Educators should reconsider the advice that changing answers on a multiple-choice test will lower the student’s overall test score. The evidence does not support this advice.

QR Code to References