Analyzing item types on nursing examinations

Time allocation is essential to developing and taking the exam to ensure a fair and effective exam.

In April 2023, the National Council of State Boards of Nursing introduced the Next Generation NCLEX® (NGN) to better assess nursing candidates' clinical judgment, a key skill for patient safety and care. The NGN features advanced question types, such as case studies and bowtie items, to evaluate core competencies more comprehensively than traditional exams. Despite its introduction, there has been limited research on the NGN's impact and reception, leading to questions about its effectiveness. To address this, our study aims to provide insights into NGN item type performance and its effects on exam delivery and outcomes.

Study included:



7 item types



14,728 students



772 questions

Students require more time on complex item types, more time early on in a curriculum, and less time as they progress.

Required time



Differs per item type



52.7 sec.

Multiple-choice question



1 minute rule

The study supports the "one minute per multiple-choice question" rule but emphasizes that alternate format items need more time.

Item types and time

Item type	Mean response time in seconds (SD)
Calculation	110.6 (49.6)
Cloze	97.8 (28.4)
Matrix	90.1 (31.9)
Ordered Response	74.9 (22.1)
Hot Spot	72.8 (29.7)
Multiple Choice	52.7 (16.4)
Multiple Response	65.9 (27.7)

The study was conducted in the fall of 2023 and utilized a mixed-methods approach to gather comprehensive data regarding the new item types. It highlights the importance of using statistical metrics like the point biserial and discrimination index to evaluate the quality of exam items.

There is a direct correlation between question difficulty and response time, suggesting that educators should consider this when designing fair and effective exams.

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