

..... Memo

Advice Education Committee Research Masters

Cover sheet

.....

Topic

Test Vision

Submitted by ECRM members

ECRM board 2018-2019

Date final advice

08-02-2019

Date ECRM meeting

08-11-2018 and 17-01-2019

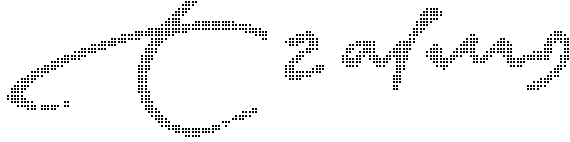
Topic area

- New policy or new educational component
- Revision of policy or educational component
- Topic of annual planning ECRM from PDCA cycle
- Topic of annual planning ECRM put on the agenda by ECRM member
- Other: Examination Methods: When and how Test Vision is appropriate to use as an exam tool and when and how it is not appropriate

Contact (study coordinator or advisor) *(name and email address)*

ECRM

educationcommitteeRM@erasmusmc.nl



Advice Education Committee Research Masters

Test Vision

Contents of advice

1. Question/issue leading up to the advice

When and how is Test Vision appropriate to use as an exam tool?
When and how is it not appropriate?

2. Reason for advice

An advice on the use of Test Vision as an exam tool was requested on 27-09-2018.

3. Advice

Test Vision Considerations

Adjusted and agreed upon on ECRM meetings
Thursday, November 8th, 2018 and Thursday, January 17th, 2019

Several handy benefits, but also considerable risks, concerns and limitations were identified.

An overview of both is given before the advice to offer insight into important considerations that should be taken into account when deciding whether and how to implement the system in question for a particular exam. All points should be addressed when making and implementing a decision.

Benefits

The following points were identified:

- Possibility for automation
- No handwriting
- Possibility for evaluating per student or per question
- Possible creation of repository of old exam questions
- Possibility for automated evaluation of performance of questions
- Multimedia possibilities (e.g. adding videos)

Risks, Concerns and Limitations

The following points were identified:

- Some students can have time issues when typing as compared to writing, we don't want to make exams evaluating and discriminating for how fast one can type instead of acquired insight and knowledge
- Every MSc may have different requirements and types of questions, being either compatible or incompatible with test vision
- False negatives in open questions: synonyms, alternative ways of describing the same or alternative correct answers not thought of before are not counted as correct when using automated correction of open questions
- False positives in open questions: students giving overly long answers might get their answers counted as correct with automated correction even when also writing non-relevant or incorrect information
- No possibility to draw, write calculations, make tables, make graphs, etc. when writing answers
- Half points for partly correct answers not possible: nuances are lost, overly stringent correction, and no more difference in score between students who know more than others
- Easy addition of old questions to exam may result in lower quality of exams as old questions are shared among students and also may result in lower quality of exam because of differences between old and new lectures (compatibility) or new knowledge and insight (suitability)
- Internet access on exam computers difficult to prevent
- Technical issues have already occurred, students undergo the main disadvantages of technical issues, either directly affecting their score or indirectly affecting their score psychologically (stress)
- Hardware capacity may still be lacking and can be very expensive
- Possible organizational issues (e.g. dependence on availability and correct functioning of computer room and equipment, enough computers for every student, what if some computers stop working, etc.)
- Organizational and technical issues with imposed time limitations and pop-up timers by test vision
- No possibility for anonymizing answers when correcting
- Legal issues:
 - o Lacking possibility to look into the full exam, all questions and given answers per student and to give a copy to the students even months or years after the exam
 - o Challenging to ensure containment of data, full security and responsibility for data breaches, including privacy infringements thereof
- Recurring subscription costs of proprietary test vision software

Main advices

The following advices are presented:

- More experience with test vision needed to get more teacher and student opinions and to identify and evaluate additional possible risks and concerns
- **No strong advice for implementation, still many risks, concerns and limitations**
- Considerations and decision per MSc and per teacher/exam
- If desire to implement, first design back-up plan and risk contingency plan for every possible concern and eventuality (see points under "Risks, Concerns and Limitations"), and make sure students who have reasons not to use test vision or disadvantages when using test vision can also do the exam on paper or otherwise
- If desire to implement, make sure every student really gets enough time to write down what they know
- If desire to implement, compare with other providers (not only test vision) and negotiate for most cost-effective offer (directed at the council responsible for this)
- Explore the use of test vision, educate teachers on test vision (possibilities and limitations)
- Carefully take into consideration advantages and disadvantages when evaluating the appropriateness of test vision for a particular exam
- Starting and ending time points for the exam should not be imposed by test vision. Instead, starting and ending time points should be communicated and regulated as on written exams by the supervisors of the exam (not depending on when you logged in on test vision, and without test vision clocks and time limits)
- Open questions are strongly advised to be evaluated manually, not automatically by the computer program based on key words, to avoid unwanted and biased technical errors
- Marking and correction of student answers to questions can be done manually (e.g. on an evaluation form) instead of automatically by the computer program, in order to ensure nuanced evaluation with human interpretation and the possibility of partial markings and educational feedback

4. Conclusion – core of advice.

- **No strong advice for implementation, still many risks, concerns and limitations**
- Considerations and decision per MSc and per teacher/exam

Attachments

None