

# Readiness Assurance Tests



## Introduction

The traditional approach to the roll out of the Individual Readiness Assurance test is a "paper and pen" approach. This can result in reams of paper being used (question sheets and answer forms all need to be printed). An obvious benefit of students having access to their own devices in college is that these can be used for the Readiness Assurance Test phase and the use of paper can be reduced. Quizzing tools such as Moodle Quiz, MS Forms, Turning Technologies and Vevox can reduce the reliance on paper. But apart from reduced paper usage what are some of the other benefits that digital technologies provide?

## Video can transform RATs

Innovative question stems that incorporate video can be used. This can transform what students respond to in their MCQ. Two useful tools include:

- **Moodle Quiz** - [Moodle](#) allows an educator to include video or audio within a question. For more on how to set up Moodle Quizzes click here
- **MS Forms** Enables video to be incorporated within a question as well as shuffling. See here for information on how this is done

## Making sense of tRATs

IF-AT Scratchcards are a "low-tech" tool which enable the tRAT to work well. However they can be difficult, at times, to get one's hands on (it requires liaising with a company in the USA), and there is a cost involved.

When class sizes increase, the use of the IF-AT scratchcards can make it difficult to quickly make sense of the questions where teams are struggling. When one is eyeballing many completed scratchcards at once it can be easy to be overwhelmed, particularly when one is trying to do so "on the fly" before the clarification stage.

There are digital tools that have been designed specifically for tRATs and the quiz function within Moodle can also be an option. Three tools that assist:

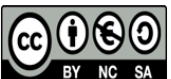
- **LAMS Learning Activity Management System** – LAMS is a space for all activities in TBL. It has an electronic scratchcard which effectively replicates the IF-AT scratchcard.
- **Moodle** - Questions can be programmed so that students have several attempts at a question (Bird, 2016) (but that only one member of each team can complete the quiz on behalf on the team (UNSW, 2020).

## Reviewing RAT questions

In order to have iRATs and tRATs that are neither too easy or too difficult we can analyse student performance on a "question by question basis". This is difficult and cumbersome to do when low tech tools are used. This is because each student's attempt needs to be manually recoded to a spreadsheet ([optical readers](#) or similar may be an option here also however). Online tools automate this, enabling lecturers to download reports that visualise clearly the questions which prove too difficult or too easy.

The LAMS system is particularly strong when one is keen to use reports at the question level. This type of reporting comes as standard when one uses it for TBL.

Other tools such as MS Forms and Moodle do not generate the same types of report automatically and will require further steps by the lecturer



## Consider asynchronous quizzes

When students have the requisite broadband and access to a suitable device, online iRATs can be completed outside of the classroom. With Zoom or MS Teams, students may even be able to complete a tRAT together synchronously in their own time also. This can mean there is more time for other activities when students come to class. Time limits can be used to ensure the quiz is only available during a certain period. It is important to note that this will mean that the quiz is open book so one may need to adapt the questions accordingly. Two tools that are particularly good for asynchronous quizzes are:

- [LAMS Learning Activity Management System](#) – LAMS also enables students to outline a "confidence level" and leave comments when they complete their IRAT which show up when they complete the tRAT.
- [Moodle](#) – Can be set up so that students can only complete the quizzes within certain time periods.

## Leverage familiar tools

We may be used to using tools for quizzing and polling of students, and usually with some workarounds they can do the job just as well. When judging the suitability of the tools that you are already familiar with, consider what is required for the iRAT and tRAT:

Does the tool enable the educator to provide deferred feedback on questions? (iRAT)

Does the tool allow a team leader to input their team name along with the answers to the quiz? (tRAT)

Does the tool enable multiple attempts and immediate feedback? (tRAT)

Does the tool preclude multiple team members from completing the quiz on behalf of the team? (tRAT)

Is the tool appropriate to use as per the institute policies and procedures? (both iRAT and tRAT)

## Further Reading

- Cross, C. E., Robinson, C., & Todd, E. (2020). Development and Implementation of a Synchronous Online TBL Using MS Forms. *Medical Science Educator*, 1-3.

In this paper Courtney Cross and colleagues discuss how they used MS Forms for the roll out of iRATs and tRATs.

- Minajeva, A., Tamm, H., Mesila, I., Mirandi, T. (2021). Introducing team based learning webinars in pathological anatomy is motivating the students to study continuously during the semester. Conference Presentation at the TBLC Conference 2021. Available [here](#):

Discusses how Moodle can help with iRATs and tRATs.

- Jackson L, Otaki F, Powell L, Ghiglione E, et al. 2020, 'Study of a COVID-19 induced transition from Face-to-Face to Online Team-Based Learning in Undergraduate Family Medicine', 9, [1], 232,

Includes an overview of how LAMS assists in TBL.

## Useful Links

- [LAMS](#) – LAMS enables students to outline a "confidence level" and leave comments when they complete their IRAT which appear when they complete the tRAT. This website shows how LAMS can assist throughout all stages of TBL.
- [Setting up a quiz in Moodle](#) – Step by step guide for setting up a quiz in Moodle.
- [tRATs in Moodle](#) - In order to complete a tRAT in Moodle, there are a couple of steps required. One needs to [create a group quiz](#), and set the quiz to [multiple attempts](#).
- [Turning Technologies](#)- Turning Technologies can be used for quizzes conducted through a student's own device - but clickers can also be used instead.

