**Transforming Exams Across Australia**

**Implementing e-Exams for high stakes assessment**

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**Phased Pedagogical Implementation Roadmap**

**Start**

- **Type 1:** Paper equivalent small scale. Basic doc exams only to begin!
  - Small number of students ~ 20 to 50.
  - No live network. Paper feedback.
  - BYO student laptops, Venue power sockets, spare laptops.
  - Data collection, analysis, evaluation.

**Phase 1**

- **Type 1:** Paper equivalent word docs students given choice to type.
  - Medium numbers ~ 100-200.
  - Simultaneous, on campus, supervised.
  - BYO student laptops, Venue power sockets, spare laptops.
  - Data collection, analysis, evaluation.

- **Type 2A:** Post paper via word docs linked to media and other tools.
  - All students must type.
  - Small to medium numbers ~ 50-200.
  - Simultaneous, on campus, supervised.
  - No live network.
  - Docs linked to multimedia, 3rd party apps, simulation, PDF, etc.
  - BYO student laptops, Venue power sockets, spare laptops.
  - Data collection, analysis, evaluation.

**Phase 2**

- **Type 1:** Paper equivalent word docs students given choice to type.
  - Large numbers ~ 200+.
  - Simultaneous, on campus, supervised.
  - No live network.
  - Paper feedback/ALL BYO student laptops, Venue power sockets, spare laptops.
  - Data collection, analysis, evaluation.

- **Type 2A:** Post paper via word docs linked to media and other tools.
  - All students assessment must type.
  - Medium number of students ~ 100-200.
  - Simultaneous, on campus, supervised.
  - No live network.
  - Docs linked to multimedia, 3rd party apps, simulation, PDF, etc.
  - BYO student laptops, Venue power sockets, spare laptops.
  - Data collection, analysis, evaluation.

**Phase 3**

- **Type 3A:** On-board LMS (Moodle)
  - All students must type.
  - Medium numbers of students ~ 100-200.
  - Simultaneous, on campus, supervised.
  - No live network.
  - On-board Moodle quiz tool.
  - BYO student laptops, Venue power sockets, spare laptops.
  - Data collection, analysis, evaluation.

- **Type 3B:** On-board LMS, online refs.
  - All students must type.
  - Large numbers ~ 200+.
  - Simultaneous, on campus, supervised.
  - Whitelisted Internet.
  - On-board Moodle Quiz tool.
  - Mix BYO student laptops, Venue power sockets and Lab PCs.
  - Data collection, analysis, evaluation.

- **Type 3C:** On-Bd LMS, open online.
  - All students must type.
  - Large numbers ~ 200+.
  - Simultaneous, on campus, supervised.
  - Fully logged open internet.
  - Docs linked to multimedia, 3rd party apps, simulation, PDF, etc.
  - Mix BYO student laptops, Venue power sockets and Lab PCs.
  - Data collection, analysis, evaluation.

**Phase 4**

- **Type 4A:** Online/Networked.
  - Mixed Mode, online refs.
  - All students must type.
  - Large numbers ~ 200+.
  - Simultaneous, on campus, supervised.
  - Whitelisted Internet.
  - Online LMS (Blackboard, Canvas, D2L, etc.), on-board LMS, remote desktops, docs, media, sims, apps via n match/... Mix BYO student laptops, Venue power sockets and Lab PCs.
  - Data collection, analysis, evaluation.

- **Type 4B:** Online/Networked.
  - Mixed Mode, online refs.
  - All students must type.
  - Large numbers ~ 200+.
  - Simultaneous, on campus, supervised.
  - Whitelisted Internet.
  - Online LMS (Blackboard, Canvas, D2L, etc.), on-board LMS, remote desktops, docs, media, sims, apps via n match/... Mix BYO student laptops, Venue power sockets and Lab PCs.
  - Data collection, analysis, evaluation.

- **Type 4C:** Online/Networked.
  - Mixed Mode, open online access.
  - All students must type.
  - Large numbers 200+.
  - Simultaneous, on campus, supervised.
  - Fully logged open internet.
  - Fully logged open internet.
  - On-board Moodle Quiz tool.
  - Mix BYO student laptops, Venue power sockets and Lab PCs.
  - Data collection, analysis, evaluation.

**Future**

- **Type 1 exams may continue alongside other exam types.
  - You need to crawl before you can fly!**

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**Our Take on e-Exams**

- Expand the pedagogical landscape in the exam room!
- Authentic pedagogy, academic integrity and efficiency.
- Give teachers the power to design authentic, rich, constructed tasks for supervised assessments.
- Students can use a full office suite, drawing tools, coding, multimedia. Moodle LMS, plus discipline specific tools via a plug-in architecture to construct their response.
- Focused on-campus, face-to-face supervised assessment where all students sit at the same time. Off-campus exams need invigilation.
- Sequential groups with document based exams use different versions or question banks via a LMS based exam (see exam type 3 & 4).
- BYO laptops for hardware provision - Apple and 'Windows' computers. Lab computers OK but do not scale-up to large numbers. If a mix of BYOD and Labs used, e-Exam System gives a consistent student experience on all compatible computers.
- Use e-Exam System by starting from a ‘live USB stick’ that contains a customised operating system, rather than from the internal hard-drive. This allows the institution full control over software and data access without installing any invasive ‘lock-down’ software in student’s computers. All computers are left untouched following the exam. The compatibility of each student’s computer can be reliably determined once. Upgrades to the student’s system won’t impact the e-Exam System.
- The differentiate ‘On-line’ exams that use a live network during the exam, while in ‘computerised exams a network is prohibited or optional. In phases 1 to 3 there is no network during the exam. Using a network during the exam increases the requirement for a highly robust infrastructure and the risk of a single point of failure affecting the whole cohort. By avoiding networking during the exam the any technical failure is brief and limited to an individual, and easily addressed using current exam room protocols.

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**Project**

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