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Review of the *Examination Lifecycle* at the University of Melbourne: risk points and protections

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Assessment Integrity and the Role of Examinations

Overview

1. The context for the University of Melbourne revisiting examination and assessment integrity
2. The Examination Lifecycle
3. Lifecycle risk points
4. University of Melbourne Integrity Protection Framework
5. Conclusions
6. Questions and discussion

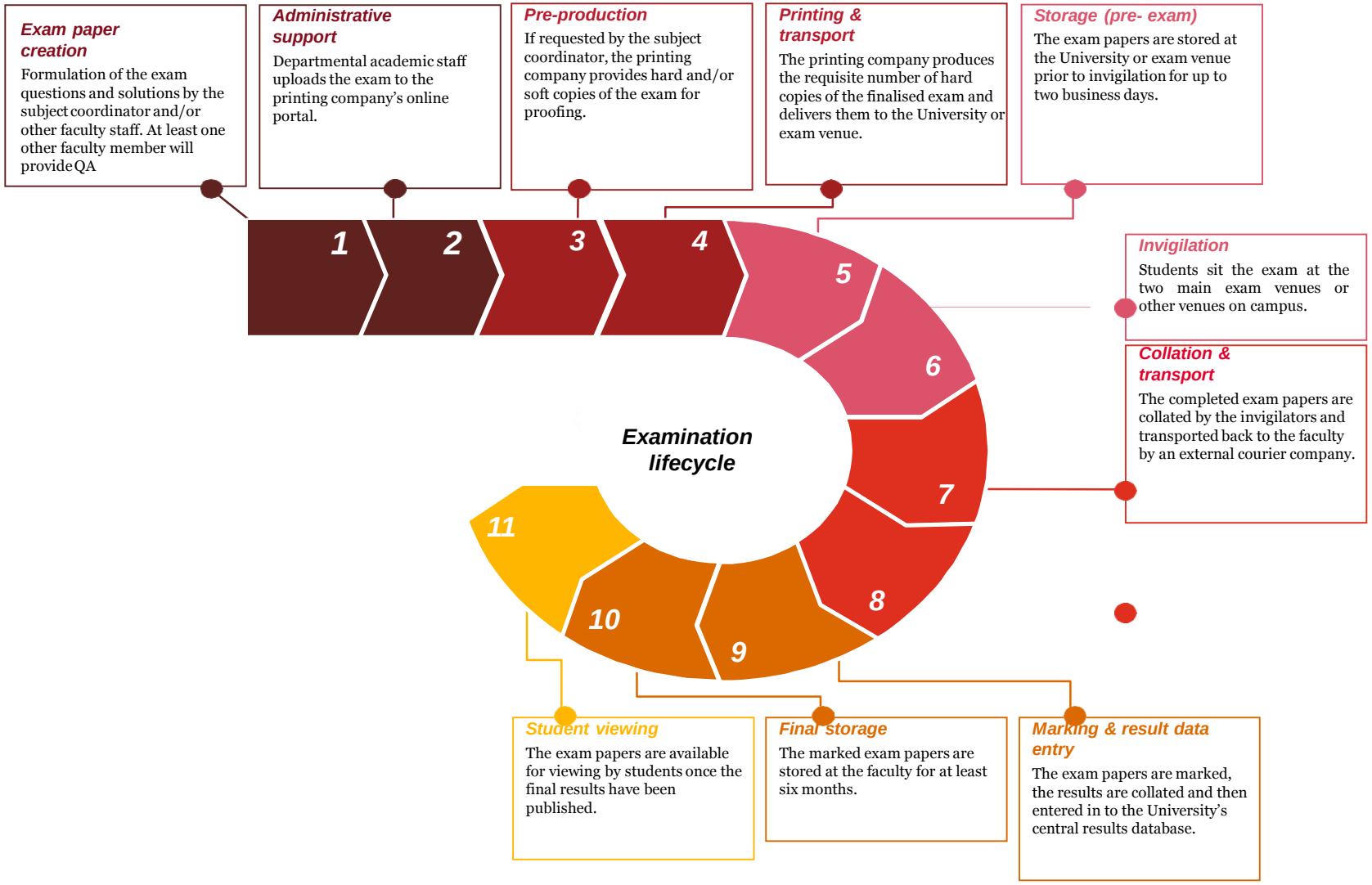
Background

- A comprehensive review of the University of Melbourne's examination processes was conducted by PWC in late 2016
- 11 distinct stages of the Examination Life Cycle with potential issues and opportunities for improvement were identified
- 31 recommendations to address potential policy, procedural, personnel, physical and ICT issues were made
- In sharing our insights, we note that some may only be relevant to the University of Melbourne but others may be more broadly applicable
- Much of our efforts since and this presentation is informed by the PWC work

Summary findings

- Nature and severity of issues we have identified vary considerably but there are some themes we identified:
  - Policy and procedures can be unclear or not always followed
  - Local practice varies which can be exploited by those seeking to ‘game the system’
  - Diversity in the use of ICT
  - Physical storage and security arrangements varies by location
  - Electronic access control systems and comprehensive CCTV coverage is not always widespread
- External printing and courier companies, however, have been found to have relatively robust and mature integrity management systems

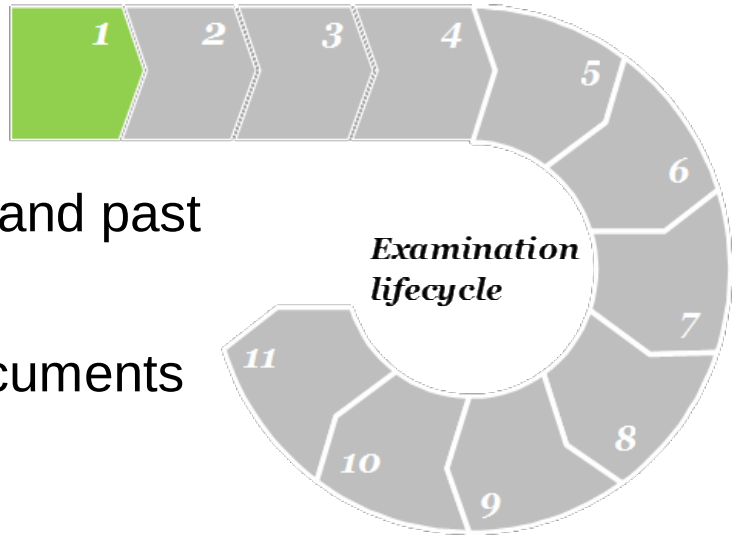
The University of Melbourne's Examination Lifecycle



Source: *PricewaterhouseCoopers Consulting (Australia)*

Stage 1: Key risks identified

Exam Paper Creation



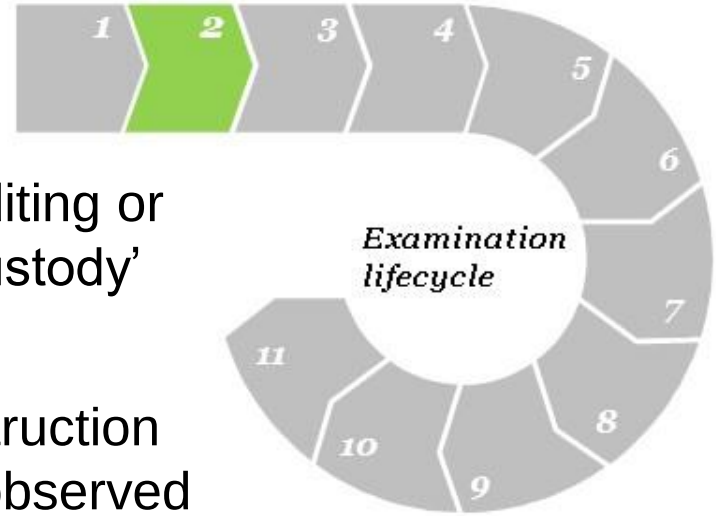
- Often based on the personal preferences and past practice of individuals
- Often involves printing and iteration of documents
- Often documents are saved in unsecured locations
- Often involves groups of individuals
- Often uses ICT devices that are outside enterprise systems and management

Implications

Difficult to track documents or maintain ‘chain of custody’; potential exposure by external access of systems and documents – increases the opportunity for mistakes that may increase opportunities to cheat

Stage 2: Key risks identified

Administrative support



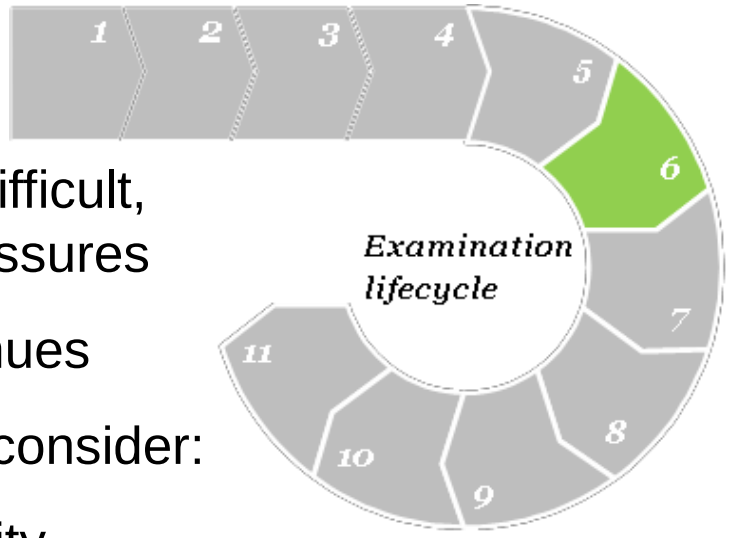
- Production of hard copy exam proofs for editing or approval potentially encounters ‘chain of custody’ issues
- Guidelines for the handling, storage or destruction of hard copy proofs may not be current or observed
- Controlled printing functionality increasingly available but not always used
- Printers are not always located in secure areas

Implications

Difficult to track documents ‘chain of custody’; maintain secure environments in more ‘open’ office settings; handling by multiple individuals – increases the opportunity for mistakes or cheating

Stage 6: Key risks identified

Invigilation



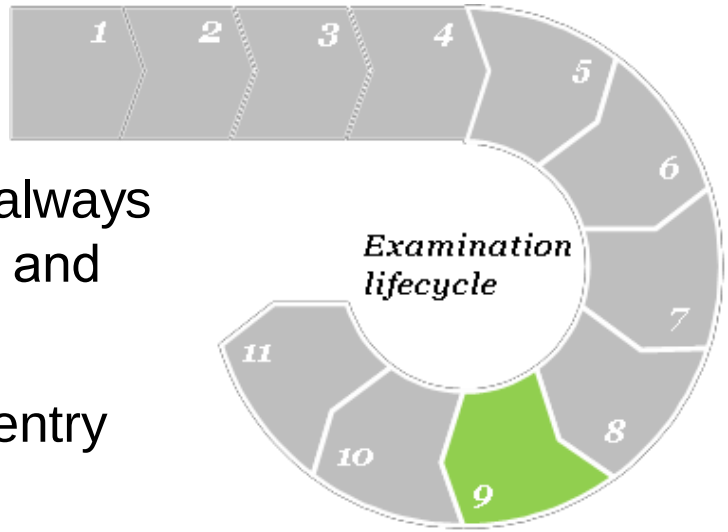
- Identity authentication procedures can be difficult, unclear or not implemented due to time pressures
- Limited CCTV coverage in examination venues
- Invigilator selection process do not always consider:
  - physical fitness (e.g. level of visual acuity, stamina)
  - pre-employment background checks – in the same way ongoing positions are screened
- Invigilator profile does not always facilitate recognition of technology-enabled cheating methods

Implications

Venue based opportunities for cheating can go undetected

Stage 9: Key risks identified

Marking & result data entry



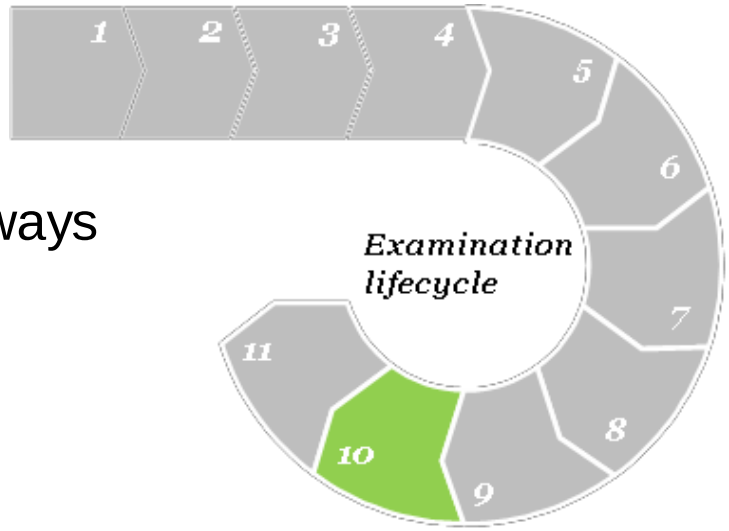
- Systematic approaches to marking are not always employed, potentially as a result of ‘custom and practice’
- Variability in exam marking practices, data entry processes, multiple individuals involved
- Experiential security and integrity methods not widely discussed, disseminated or updated
- Pre-employment screening procedures for casual staff are not always as consistent as for ongoing roles

Implications

Opportunities for ’mark adjustments’ and intervention (cheating) is possible after exams have been sat

Stage 10: Key risks identified

Final Storage



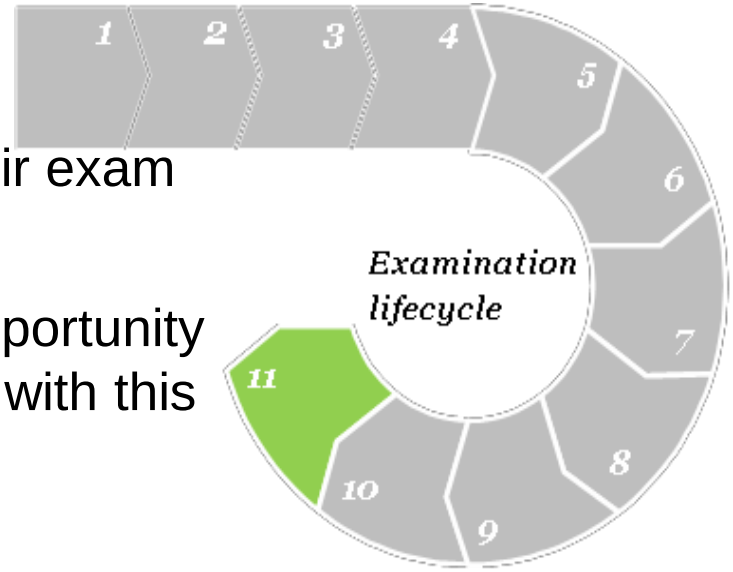
- Storage and disposal procedures are not always widely known or consistently applied
- Practices are often based on individual preferences rather than risk-based decision making
  - e.g. administration offices, academic staff offices, cupboards in shared spaces
- Controls across different sites can vary

Implications

Unwarranted post result adjustments and appeals are possible and access may advantage subsequent cohorts

Stage 11: Key risks identified

Student viewing



- At Melbourne we allow students to view their exam scripts after they have been marked
  - Few students choose to take up this opportunity but there are potential risks associated with this practice
- Variability in storage management
- Controls around viewing (eg. groups) are not always considered
- Diversity in practice based on personal preference

Implications

Those determined to cheat will find ways of doing so and will seek the weakest link in the chain/lifecycle to gain an advantage

University of Melbourne Integrity Protection Framework

Following on from the work of PWC, the University of Melbourne is rolling out the following framework to protect the integrity of our examination process:

Personnel Integrity

- Pre-employment screening
- Suitability assessment of individuals involved in each stage of the process
- Segregation of duties

Physical Integrity

- Access control – buildings & facilities
- CCTV and other monitoring systems

ICT Integrity

- Use of University-owned hardware and software
- Use of passwords and other protective security measures
- Access control

Source: *PricewaterhouseCoopers Consulting (Australia)*

Conclusions

- Whilst we are looking to significantly enhance the integrity of the examination process, we cannot completely eliminate all risk of academic misconduct
- Ways to cheat will constantly evolve and we will need to similarly evolve what we do to reduce the opportunities available
- Collaboration, sharing experience and sharing practice will lift our collective capacity to reduce the opportunities to cheat
- A holistic view of all aspects of the examination process (cycle) is needed if the opportunity to cheat is to be managed
- Adopting an Integrity Protection Framework facilitates the establishment of control mechanisms critical to all stages of the examination lifecycle

Questions and discussion

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