

A PEDAGOGICAL CONUNDRUM: TEACHING COMPLEX FORENSIC INVESTIGATIONS TO MIXED EXPERIENCE GROUPS AT LEVEL 7



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INTRODUCTION

- Lecturer in Criminology and Forensic Studies University of Portsmouth
- School of Criminology and Criminal Justice offers a range of UG and PG programmes
- A L7 (MSc) we offer a flexible framework MSc Criminal Justice
 - There are Distance learning options for several of the pathways
- Students choose a core pathway or joint pathway which dictates their exit award
 - For example, MSc Crime Science and Forensic Investigation
- Students on All courses take core modules in Research Methods and Ethics; Dissertation and the core module(s) for their pathway(s)
 - Forensic Investigation is the core module for the FI pathway
- Students then Choose optional modules to study, from across the framework
 - Forensic options include Applied Forensic Science and Aquatic Forensic Investigation



FORENSIC INVESTIGATION

- One of the modules that I co-ordinate
- I was asked to take over the module during the Summer, for October start
 - No opportunity at this point to make any changes to structure of module at this stage

LEARNING OUTCOMES

•Critically appraise the utility of forensic methodologies to support investigation requirements.

•Defend and justify investigative decisions made in the use of forensic methods based on investigation requirements.

•Design and formulate an appropriate strategy to recover forensic evidence in response to investigation requirements.

•Develop skills in evidence assessment, recovery, analysis and interpretation.

•Plan, manage and organise an appropriate forensic investigation response to a range of situations and crime contexts



FORENSIC INVESTIGATION - STRUCTURE

- 7 x 3 hour practical classes
 - Investigative scenario
- 2 x 1 hour VR practical sessions
- 1 x 4 hour immersive investigation (HYDRA)
 - Different scenario
 - Students are immersed in an investigation Real time actions are requested from them
 - They must respond through interactive logs detailing rational and decision making
- 2 hours lectures
- Tutorials
- Set work activities on VLE (Moodle)





THE CHALLENGE

- Potentially a mixed experience group
 - Stretch and challenge all students whilst ensuring L7 standard maintained and learning outcomes met for all
 - How to maintain interest and enthusiasm for those with 'experience' ensuring it is not a repetition of anything they have done before
 - How to ensure those with no experience are not overwhelmed or lost
- Potentially a number of our returning UoP forensic students familiarity with our teaching spaces
 - Students can find it challenging to notionally confront a new scenario in a familiar space
 - New and unique scenarios required that reflect the level of study
 - We have a range of scenarios at UG that map to the module learning outcomes for L4-6 modules
- Need to plan for these challenges without knowing the cohort demographic

FORENSIC INVESTIGATION – COHORT

- Once the academic year started the cohort demographic was available
- 26 students registered on the module
- 42% Have previously studied a forensic subject at UG all but 1 studied BSc Criminology and Forensic studies at UOP
- So less experience in the group than anticipated
- Other UG subjects include
 - Biomedical science; Law; Criminology; Sociology; Psychology



NEW THIS YEAR - PEER REVIEW – 'BUDDIES' AND GROUP DISCUSSIONS

- Each student paired with a colleague with different experience
- Encouraged to meet and reflect on their decision making and outcomes after each session
- Peer review of scene notes, photographs, plans and decisions
- They do not work together at the scene
 - Exposure to different approaches

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- It is not a process for the experienced to teach those without experience
- They have developed wider peer review groups

 motivated to discuss their outcomes via
 reflective discussion





'Finding collaborative solutions within pairs or groups' (Cadola et al, 2020)

OUTCOMES - PEER REVIEW

- Feedback supports findings in the literature
 - Student centred learning (Cadola et al, 2020)
 - Providing the independence required at L7 (QAA, 2020)
- Students are reporting that they feel they have deeper learning because they are explaining, reviewing and discussing their thoughts and processes with peers
- They are undertaking reflective practice to identify and fill gaps in knowledge

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- The mixed experience has enabled the recognition of different viewpoints – everyone is valid
 - E.g. one law graduate has bought crucial experience of understanding bias in court to the discussions – enables wider context to thought processes

⁴Having students work as teams in order to improve their motivation and level of understanding through peer collaboration and feedback'

'Collaborative learning activities vary widely, but most centre on student's exploration or application of the course material'

Collaborative learning helps students develop improved teamwork skills and promotes critical thinking

NEW THIS YEAR – VR SCENES





Promoting critical thinking regarding the use of innovative technology in learning and training Gauging students opinions on varied methods of forensic subject learning and teaching (Mayne & Green, 2020)



NEW THIS YEAR – SCENARIO BASED MODULE

- Complex major crime scenario
- Initiated with a search scenario SIO led objectives
 - Briefings Communication
- Same Investigation throughout
 - Develops into associated scenes as module progresses
 - Utilising different spaces
 - Layering the learning experience
- Linked scenes Developing skills in scene management, co-ordination, consideration of complex contamination matrices



"A master's degree programme should ...enable students to apply and adapt problem solving skills to unfamiliar, complex and open ended situations" (QAA, 2012)



OUTCOMES – SCENARIO BASED MODULE

 Varied pedagogies to support student learning (Shukla, 2021)



- Supports those who have less experience as they retain familiarity with the investigation
- Develops investigative practice, critical thinking and wider impact decision making
- Supports those who are aware of the teaching spaces to notionally vary their spatial familiarity through clear scenario information
- Allows the continued development of all practical skills

'Observation based learning is the part of experiential learning pedagogy in which the 'learning by doing' approach helps grow observational skills'

'Problem-based learning pedagogy is student-centric...this does not focus on solving a problem with a defined solution. Instead it allows developing other desirable skills and qualities, including gaining knowledge, enhancing...collaboration and communication and enhancing curiosity'

'Case-based learning pedagogy...develops critical, logical and analytical thinking skills...and evolves the insightful judgement skills...This pedagogy can play a vital role in understanding the complex and interdisciplinary topics that do not have pre-decided solutions or where evaluation and analysis are required, and conclusive remarks come through result impetrations and alternative explanations'



MODULE DEVELOPMENT

- Module restructure Add further lecture hours, at key points
- Utilise feedback from students effectively
- Retain the buddy/peer review system But provide some more opportunities for formative feedback from tutors – Add tutorials
- Retain the immersive learning supporting wider critical thinking and decision making
 - HYDRA session sits at a point (week 5) where decision making skills need particular focus and development
 - Allows the students to develop these, and their team working skills

All suggestions welcome

What experience do you have? Have you encountered these challenges?





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