Graduate Apprenticeships: Skills recognition, acquisition and application

beyond the classroom.
SKILLS AND EXPERIENCE THAT MATTER

Prof Sally Smith & Dr Ella Taylor-Smith
@ComputingNapier

Building on Best Practice for Public Sector Degree Apprenticeships, Middlesex University, 11 Sept 2018
Graduate Apprenticeships

• Introduced in Scotland in 2017.
• Funded by Skills Development Scotland (initially ESF funding)
• 4 year degrees in which students are in full-time work (Scottish degree is 4 years)
• 3 frameworks: Software Development, Information Technology Management for Business, Cybersecurity
• One day on campus p/w, work-based learning within Professional Practice modules
Background

- SDS Technical Groups (mainly industry reps) established demand - identified deficit of computer science graduates, especially within cybersecurity
- Technical Groups developed course frameworks
- SDS issued invitation to tender for places on frameworks – colleges & universities
- Included was WBL ‘manifesto’
- Curriculum was to be employer-led
- In Scotland, no fees – can take out student loan
  – Potential for widening access to students from debt-averse backgrounds.
- Open to all ages –i.e. including established employees.
Research focus

• Students’ motivations and aspirations
• Students’ concerns
• Students’ experience of the GA
• Identity (as both employees and students)
• Identity (compared to other first year Computing students)
• WBL: interface/ integration between university study and work

The aspirations and experience of the apprentices (students) is missing from much of the GA discourse.
Method for rich picture workshops with new students

• One workshop with new apprentices (n=22);
• Mirror workshop with 1st year on-campus computing students (n=20).

• Each workshop:
  – Survey (individual) about background, jobs, motivations, aims, challenges.
  – Rich Pictures (group; see right) about aims & aspirations; desired outcome; worries.
Findings: workshop survey

Demographics:
• Just over half of each group consider themselves to be middle class.
• About a third of each group: neither parent went to uni or poly.
• Apprentices more diverse in terms of age (1/3 over 26).

Paid Work:
• Half the GAs have been employed by their current employer for more than 18 months, including one employed for 28 years);
• 18.2% joined to do the apprenticeship.
• About a quarter of the on-campus group have a part-time job beyond uni (2/5 of these are relevant to their degree); most of the others are looking for one.
Findings: workshop survey

Aims
• GAs more likely to mention degree qualification and, in terms of skills, benefits to their employer.
• Both groups’ main skills objective is coding/programming.

Worries
• All: learning and understanding.
• GAs: work/study balance, academic environment, their job.
• On-campus: living away from home.
Rich Picture themes: Hazardous Journey

- Both groups recognised that there would be challenges ahead (which is good).
- Pictured as a hazardous journey, or a game.

GA RPs above

On-campus students’ RPs left
Rich Picture themes: material wealth

Wealth as aim, outcome and motivation, drawn by both groups.

GA RPs

On-campus students’ RPs

Middlesex University, September 2018
Rich Picture themes: money worries

The GAs did **not** mention money worries, but the on-campus group were concerned about debt, becoming broke, paying bills.

On-campus students’ RPs

Middlesex University, September 2018
Rich Picture themes: balance

- The GAs were particularly worried about achieving a balance between work and study (and the rest of life).
- On-campus students noted the challenge & importance of sleep, relaxation, socialising.

On-campus students’ RPs

Middlesex University, September 2018
Method: Life narratives

- In-depth **semi-structured interviews** with our GAs.
- Questions aim to uncover chronological life narrative leading up to apprenticeship and current experience of GA.
- Focusing on **background, identity** (including transitions), and **work-based learning** (especially in terms of space).
- 15 interviews completed.
- Hoping to continue interviews throughout course and repeat with new cohorts.

Middlesex University, September 2018
Life narratives: initial findings

Note: the 8 interviewees so far had all been in their job for at least 18 months prior to starting the degree—they had a stable and established work identity there.

- Time in current job: 18 months to 28 years.
- Range of technical skills, e.g. from self-taught but experienced programmers to new-to-programming.
- Academic qualifications from almost none to a degree in another discipline.
- Half had done Modern Apprenticeships in IT.

Middlesex University, September 2018
Life narratives: initial findings – work-based learning

- Most interviewees had agreements to adapt their role to apply their learning for Professional Practice module (e.g. work with another department).
- GAs discussed their work systems (etc.) with each other (regarding uni modules).
- Some began to apply university learning to their work (or at least to thinking about it).
- Understanding of WBL not currently explicit. (Not assessed at the time of interview).
Conclusions / implications

- Importance of understanding and considering the student (apprentice) perspective and situation throughout. **Diverse.**
- GAs expect **challenging** journey to get degree.
- End goal / identity **skilled** employee / manager, with **material wealth**.
- GAs have **current work identity**, some with **extensive skills**.
- GAs value uni cohort: e.g. sharing info about work and study, making **friends**.
- Some uni / work integration, but **WBL still a bit vague**.
Workshop – your own perspectives

Draw a Rich Picture depicting:

Context and conflict for public sector apprentices
References


