Table 13 shows the results for the personal qualities category. Cells are coloured to indicate which trajectory the quality corresponds with. In some cases, there may be more than one.

Table 13 Personal Qualities and Learning Trajectories

PERSONAL QUALITIES Acquired/developed	TRAJECTORIES								FAHS	FEPS	FHMS	FML
	1	2	3	4	5	6	7	8				
Confidence			yellow		orange			green	grey	grey	grey	grey
Incentive/motivation			yellow					green	grey			grey
Self-awareness/strengths			yellow					green	grey			grey
Maturity									grey			grey
Responsibility					orange				grey			grey
How to handle new situations					orange				grey			
More focused / disciplined			yellow						grey			grey
Taking the initiative / proactive					orange				grey			grey
More altruistic		pink							grey			grey
Stand up for rights / assertive			yellow						grey			grey
Become a better person									grey			
More thorough	cyan								grey			
Better able to concentrate									grey			
More willing to learn								green	grey			
Confidentiality		pink							grey			
More patient			yellow						grey	grey		
More common sense			yellow						grey			
Reliability			yellow						grey			
How to balance work/personal life								green	grey			
Better work ethic		pink						green	grey	grey		
Coping with pressure					orange				grey	grey		
More open minded / flexible		pink							grey	grey		
More productive	cyan								grey	grey		
Independence			yellow						grey	grey		
Stronger person			yellow					green	grey	grey		
More realistic view of work		pink							grey			grey
Handle emotion			yellow						grey			
Tenacity			yellow						grey			grey

The first observation is that every quality identified is consistent with one or more of Eraut's trajectories.

Two qualities relate to task performance; five indicate greater awareness or understanding; five are concerned with team work and seven involve judgement. There are none here for the trajectories academic knowledge and skills or decision-making and problem solving, which is explicable by the task orientation of these. Sixteen of the qualities are indicative of personal development, the pathway that might have been expected to correspond with this category.

By showing the colour coding of learning trajectories along with the Faculties where each quality was cited, it is possible to determine which students had opportunities to develop which competences. So, for instance, all Faculties provided opportunities for personal development, role performance and judgement. The different insight gained from this analysis from that conducted earlier is that it reveals where experience may be offered in a different aspect of the same trajectory e.g. students in FAHS were alone in citing the ability to cope with new situations, but that did not preclude other forms of personal development in the other Faculties.

When this mapping is applied to Generic Skills, a less clear-cut pattern emerges though all skills are consistent across the two models of analysis (Table 14). The variability in distribution is perhaps confirmation of the generic nature of skills encompassed.

Table 14 Generic Skills and Learning Trajectories

GENERIC SKILLS Acquired/practised	TRAJECTORIES								FAHS	FEPS	FHMS	FML
	1	2	3	4	5	6	7	8				
Team work						X						
Working independently			X			X						
Inter-personal skills		X				X						
Communication (oral, written, etc)	X											
Time management, planning					X			X				
Organisation		X			X							
Networking	X											
How to behave in the workplace		X										
Coping with pressure/ stress					X							
Leadership					X							
Punctuality					X							
Project management	X	X	X	X	X	X	X	X				
Report writing				X								
Making presentations			X									
IT skills				X								
Adaptability			X									
Problem-solving							X					
Active listening	X											
Working 9-5			X									
Multi-tasking	X											
Coping with/behaving in meetings		X										
Interviewing skills				X								
Research				X								
International travel				X								
Decision-making							X					
Negotiation								X				
Helping/supporting others					X	X						
Conducting literature review				X								
PDP e.g. CV writing			X									
Assessing self and others		X										
Analytical skills				X								
Assessing cost effectiveness								X				
Money management							X					
Minute taking				X								
Observation skills				X								

Here, five skills correlate with task performance, six with awareness and understanding, six with personal development, ten with academic knowledge and skills, seven with role performance, five with team work, four with decision making/problem solving and four with judgement.

The vertical block of red cells draws attention to the significance of team work, independence and inter-personal skills in all Faculties. Reading horizontally, project management produces an important result: projects provide the opportunity for students to develop along all eight pathways, hence may offer a good alternative when professional placement is not an option.

Predictably, subject specific skills related to academic knowledge and skills and awareness and understanding as shown in Table 15. This pattern is consistent for all Faculties, providing reassurance that work placements are succeeding in achieving these learning outcomes.

Table 15 Subject Specific Skills and Learning Trajectories

SUBJECT SPECIFIC SKILLS Acquired/practised	TRAJECTORIES								FAHS	FEPS	FHMS	FML
	1	2	3	4	5	6	7	8				
Financial markets		●		●					▨			
Sales and marketing		●		●					▨			▨
Trade competition		●		●					▨			
Backstage management		●		●					▨			
Various roles in dance industry		●		●					▨			
Sound recording		●		●					▨			
Broadcasting		●		●					▨			
Video editing and DVD cutting		●		●					▨			
Event management		●		●					▨			
Translation tools		●		●					▨			
Foreign language competence		●		●					▨			
Translation into English, Chinese,		●		●					▨			▨
Data entry		●		●					▨			
IT packages e.g. Excel, SPSS		●		●					▨		▨	
Youth work		●		●					▨			
Advertising/media industry		●		●					▨			
Risk assessment tools		●		●					▨		▨	
Application of theory to practice		●		●					▨	▨		
IT problem solving/user support		●		●						▨		
Programming		●		●						▨		
IT packages e.g. XSLT, JAVASC		●		●						▨		
Designing and managing projects		●		●						▨		
EU project participation		●		●						▨		
How to explain practice		●		●						▨		
Chemical methods		●		●						▨		
Laboratory techniques		●		●						▨	▨	
Wind tunnel testing		●		●						▨		
Actuarial skills		●		●						▨		
Evaluating financial products		●		●						▨		
Construction techniques		●		●						▨		
Civil engineering contracting		●		●						▨		
Scientific techniques		●		●							▨	
Specialist techniques		●		●							▨	
Planning analysis		●		●							▨	
Devising experiments		●		●							▨	
Reading scientific papers		●		●							▨	
Protocols		●		●							▨	
Assays		●		●							▨	
Become comfortable ward setting		●		●							▨	
Buying skills		●		●								▨
Procurement and tendering		●		●								▨
Fashion retail and buying		●		●								▨
Writing company's publications		●		●								▨
Client interviewing		●		●								▨
Research		●		●								▨

The final category, knowledge, might have been expected to have a linear consistency with awareness and understanding. But as Table 16 illustrates, there are some exceptions: career decisions are more representative of personal development; versatility relates to task performance and role performance and research and development spans task performance and academic knowledge/skills.

Table 16 Knowledge and Learning Trajectories

KNOWLEDGE Acquired	TRAJECTORIES								FAHS	FEPS	FHMS	FML
	1	2	3	4	5	6	7	8				
Business operation		■							■			
Government dept's operation		■							■			
Macro policies		■							■			
Career opportunities /path to take			■						■			
Music business		■							■			
Automotive audio		■							■			
First Aid		■							■			
New culture and country		■							■			
Medical /pharma research industry		■							■		■	
Education		■							■			
Mental Health		■							■			
Addictions		■							■			
Procedures e.g. EEG, MRI		■							■			
Grants in NHS		■							■			
Ethics in NHS		■							■			
NJS and probation service		■							■			
Criminal justice system		■							■			
Web		■								■		
Programming languages		■								■		
Analogue circuits		■								■		
Telecommunications		■								■		
Cadence tools		■								■		
Cost assessment		■								■		
Training manual handling		■								■		
Budget control		■								■		
Oil rig industry		■								■		
Foreign language		■								■	■	
Airbus		■								■		
Operation multi-national company		■								■		
Astrophysics		■								■		
Slope stability, drainage software		■								■		
Annual licensing		■									■	
Radiation		■									■	
Dietetics		■									■	
Reality of job		■									■	
State of the art technology		■									■	
Water purification		■									■	
Odour evaluation		■									■	
Roles within an organisation		■										
Versatility of practical work	■				■							
Use of bioreactors		■										
Research and development		■		■								
Hotel computer systems		■										■
Accountancy		■										■
Legal work		■										■

If the four categories are now combined and compared with the learning trajectories, we obtain an overview of how many elements are involved in each trajectory (horizontal reading), and of the differing trajectories represented in each of my four categories

(vertical reading). Table 17 collates these data. Shading represents the number of subsets cited within a category e.g. there were two aspects of personal quality mentioned in respect of task performance, five that relate to generic skills and one involving subject knowledge.

Table 17 Overview of Trajectories and Learning Outcomes, Student Feedback

	Personal qualities	Generic skills	Subject skills	Subject knowledge
TASK PERFORMANCE	2	5		1
AWARENESS AND UNDERSTANDING	5	6	45	43
PERSONAL DEVELOPMENT	16	6		1
ACADEMIC KNOWLEDGE & SKILLS		10	45	1
ROLE PERFORMANCE	5	7		1
TEAMWORK		5		
DECISION MAKING/PROBLEM SOLVING		4		
JUDGEMENT	7	4		

Reading across the rows shows that awareness and understanding is the most developed trajectory, with elements being found in personal qualities, generic skills, subject skills and subject knowledge. The latter are the two areas most involved, being represented by all 45 subsets of subject skills and 43 of the 45 subsets for subject knowledge.

If looked at as decision making alone, a vertical impression would be that generic skills were only found in relation to four subsets. However, if put in context with the other elements of the vertical reading, it can be seen that decision-making is found in combination with all the other generic skills which bring together the eight trajectories in multiple compounds. The complexity of these generic skills and personal qualities is revealed by the range of colours, confirming the difficulties we know to exist in assessing such 'wicked competences'. Conversely, subject specific skills are the most easily identifiable (hence assessable), involving as they do the combination of awareness and understanding and academic knowledge and skills.

In terms of Barnett's components of complexity in learning, subject knowledge corresponds with *knowing*, subject and generic skills with *doing*, and personal qualities with *being*. While assessments of the first two activities can be made objectively, we are reminded once more of the subjectivity of assessments reliant upon value judgements, hence the contentious nature of assessing personal development.

Summary of findings from Student Feedback 2007/08

What, then, does this investigation of the student feedback resource tell us?

- If has enabled us to identify the forms of learning that students perceive themselves to have achieved through their placement experience (application of knowledge, acquisition of new knowledge and skills, development of personal qualities)

- The four categories of learning initially identified have been found to be consistent with Eraut's learning trajectories

- The comparative complexity of assessing specific forms of learning has been indicated by the subsets within each of the four categories

- The reality of this has been demonstrated in Table 17 where the potential bundles of learning trajectories are envisaged

- The element of 'being' and 'becoming' is emerging as the most difficult outcome of PT to assess

Whilst it might be suggested that the complexity of assessing learning outcomes for professional experience is well known, this analysis has given some insight into the precise nature of what constitutes each form of learning, as claimed by 455 independent voices.

But what are the experiences that have brought about these learning outcomes? To investigate this, we need to move on to the next data source, the student stories of how they feel they became professional.

LEARNING TO BE PROFESSIONAL: STUDENTS' NARRATIVES

As with the student survey data, I sought to approach the stories afresh rather that to evaluate them against a predetermined set of learning outcomes. My method was therefore as before: as I reread each narrative, I drew up a set of recurrent themes emerging either explicitly or implicitly. Each of the 28 stories was then mapped against these.

Table 18, below, lists the 32 factors, roughly grouped according to their theme, and the profile produced for each narrator. There was clearly consistency with many of the themes arising from the qualitative survey feedback e.g. the importance of feeling valued or the honing of specific academic skills emerged in both.

The rows of this table show which student (numbered 1-28) mentioned or implied a given factor e.g. responsibility and trust was indicated by 24 students, those where the cells have been shaded. The total number of citations is given in the right hand cells.

By reading down the columns each student's profile is revealed. So, for instance, student 1 indicated 14 of the 32 factors: those mentioned are shaded.

According to this analysis, the most frequently found issues were:

- Being given responsibility/trusted (24)
- Feeling valued (18)
- Having a variety of work (20)
- Applying coursework/being able to apply workplace learning to their programme of study (20)
- Acquiring new skills or knowledge (23)
- Having challenging work (23)
- Learning to communicate with different levels/types of people (19)
- Being part of a team (26)
- Independent working/self-direction (19)
- Time management (19)
- Organisation (19)

Table 18 EMERGENT CONTRIBUTORS TO BECOMING PROFESSIONAL, Stories 2008

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	N
Responsibility/trust																													24
Delegation to/training others																													9
Budget management																													3
Feeling valued																													18
Seeing through start to end																													9
Unpredictability, ad hoc tasks																													10
Variety																													20
Apply coursework/vice versa																													20
New skills/knowledge																													23
Challenge																													23
Demotivation through lack of																													1
Inspiring/enthusiastic staff																													12
Role models in workplace																													4
Networking																													11
Hospitality/socialising events																													12
Communication different levels																													19
Workplace behaviour																													16
Being part of team																													26
Independence																													19
Time management, prioritising																													19
Organisation																													19
Punctuality																													6
Attention to detail																													10
Job application processes																													10
Benefits of work experience																													10
Report writing																													7
Written skills																													10
Presentation giving																													7
Cultural awareness																													6
Volunteering additional tasks																													9
Additional qualifications																													3
Number issues cited by respondent	14	9	20	19	16	11	17	12	16	15	12	17	10	10	4	6	20	13	17	19	14	19	14	12	17	12	18	19	

Turning to individual profiles, the number of significant factors revealed by the narratives ranged from 4 (story 15) to 20 (stories 3 and 17).

Impressionistically, the emergent themes seemed consistent with Eraut's learning trajectories. In order to confirm this, each emergent theme was mapped against the eight trajectories. Table 19 represents this, using the same colour coding for each trajectory as before. The total number of stories indicating each is provided in the right hand column.

Table 19 Emergent themes and learning trajectories, student narratives 2008

EMERGENT THEMES	LEARNING TRAJECTORIES								
	1	2	3	4	5	6	7	8	N
Responsibility/trust					■				24
Delegation to/training others					■	■			9
Budget management				■					3
Feeling valued		■							18
Seeing through start to end	■	■	■	■	■	■	■	■	9
Unpredictability, ad hoc tasks					■		■		10
Variety				■			■		20
Apply coursework/vice versa				■					20
New skills/knowledge				■					23
Challenge	■		■		■				23
Demotivation through lack of	■		■						1
Enabling career decision							■		17
Inspiring/enthusiastic staff		■						■	12
Role models in workplace			■					■	4
Networking	■		■			■			11
Hospitality/socialising events			■			■			12
Communication different levels	■	■	■			■		■	19
Workplace behaviour		■				■			16
Being part of team						■			26
Independence		■	■				■		19
Time management, prioritising					■			■	19
Organisation		■	■						19
Punctuality			■						6
Attention to detail								■	10
Job application processes		■		■					10
Benefits of work experience		■					■	■	10
Report writing				■					7
Written skills				■					10
Presentation giving				■					7
Cultural awareness		■							6
Volunteering additional tasks	■	■							9
Additional qualifications				■					3

Learning Trajectories:

1 Task Performance
2 Awareness and Understanding
3 Personal Development
4 Academic Knowledge and Skills
5 Role Performance
6 Teamwork
7 Decision Making and Problem Solving
8 Judgement

As with the student survey feedback, synergy is found between the emergent themes and Eraut's learning trajectories. Lateral reading of the table produces one significant finding: being able to see through a task from start to end enables the student to experience all

learning trajectories. This can be compared with the finding in Table 14, that projects also involve all eight trajectories.

If the detail of each narrative (Table 18) is converted to learning trajectories, it emerges that only 3 of the 28 students did not experience learning of all eight forms (Table 20), though caution is urged as they may not have recognised that they had such experience. This tabulation is useful evidence of the range of learning achieved, but it does not give sufficient detail to be of assistance in curriculum or placement planning. For this reason, it is preferable to retain the emergent themes for discussion of this data source.

Table 20 Narratives and Learning Trajectories

STORY	LEARNING TRAJECTORY							
	1	2	3	4	5	6	7	8
1	■	■	■	■	■	■	■	■
2	■	■	■	■	■	■		■
3	■	■	■	■	■	■	■	■
4	■	■	■	■	■	■	■	■
5	■	■	■	■	■	■	■	■
6	■	■	■	■	■	■	■	■
7	■	■	■	■	■	■	■	■
8	■	■	■	■	■	■	■	■
9	■	■	■	■	■	■	■	■
10	■	■	■	■	■	■	■	■
11	■	■	■	■	■	■	■	■
12	■	■	■	■	■	■	■	■
13	■	■	■	■	■	■	■	■
14	■	■	■	■	■	■	■	■
15	■		■	■		■		
16	■	■		■	■	■	■	■
17	■	■	■	■	■	■	■	■
18	■	■	■	■	■	■	■	■
19	■	■	■	■	■	■	■	■
20	■	■	■	■	■	■	■	■
21	■	■	■	■	■	■	■	■
22	■	■	■	■	■	■	■	■
23	■	■	■	■	■	■	■	■
24	■	■	■	■	■	■	■	■
25	■	■	■	■	■	■	■	■
26	■	■	■	■	■	■	■	■
27	■	■	■	■	■	■	■	■
28	■	■	■	■	■	■	■	■

1 Task Performance
2 Awareness and Understanding
3 Personal Development
4 Academic Knowledge and Skills
5 Role Performance
6 Teamwork
7 Decision Making and Problem Solving
8 Judgement

Table 18 illustrated the frequencies for citation of any given theme, and the number of themes cited by each student. The richest learning experiences were revealed in narratives 3, 4, 17, 20, 22 and 28. In order to explore the events and situations that brought about their learning, these six stories will be examined. They will be contrasted with story 15, which demonstrated only four emergent themes.

(4) Jessica, student of Sociology

Jessica had two separate placements between July 2007 and August 2008. The first of these was a small production company in London, dealing with video and mobile television. The placement was unpaid, and she describes herself as "a runner with an extended contract".

Because the company was small, she was given a wide range of tasks, and considerable responsibility. Work was episodic, with lulls and periods of stress. Jessica recognised that

> "Although being on a shoot was exciting and perhaps far more beneficial, experience-wise, than being in the office, the hours were very long and the majority of the work involved was physical."

Her ambivalence about this job meant that when the company went into administration four months in to her placement, she was actually relieved. She was sanguine about the experience, which had enabled her to apply in practice what she had learnt in years 1 and 2 of her course. She recognised that she had developed many skills such as time-keeping, organisation, delegation, as well as technical knowledge in the field of video production.

Jessica's second placement was with a trend forecasting company reporting in the fields of retail and hospitality. The company was growing dramatically and had clients in Europe, Asia and the USA. Her role as Client Services Coordinator was to assist the Managing Director and three Senior Consultants. She says:

> "Alongside scheduling the US trips, I had to assist the rest of the team, and complete other office duties like answering the phones, ordering stationery, buying tea and coffee and speak to our technician when we were having technical problems (which was almost every day). It was also my responsibility to liaise with our accountant and to chase our clients for money."

In addition to this, she was required to carry out small-scale research projects and produce travel guides. She recognised that the expansion of the company was causing stress and blurring responsibilities. With the appointment of a new member of staff, workloads became more manageable; as she gained experience, she began to be given more demanding tasks.

Jessica lists the many skills and competences that she has developed through her placements. She concludes:

> "In terms of personal development and change, this year has been particularly beneficial. I wouldn't say I have changed as a person so much, I still believe the same things and have the same outlook on life, however I feel I have grown as a person in a number of ways."

When she explains this, the changes relate to her career plan and understanding her own priorities. In other words, she is reflecting critically, exercising metacognition and efficacy skills. She has discovered that her intended career is not right for her, she does not wish to work in a stressful media environment and retail research is not sufficiently stimulating for her. These are all valuable outcomes from her professional placement, but assessing them clearly presents great difficulties.

Echoing the perception of so many of our students, Jessica feels

> "Working full time has given me a great sense of independence and I feel I have matured in my approach to life."

This is a good example of Barnett's model of professional learning being concerned with knowing, doing and being.

We recognise the impact Jessica's experiences have had on her, and it is doubtful whether we could have given her a comparable experience other than in the world of work. But can we quantify this development for purposes of assessment?

(5) Will, student of Entrepreneurship in Technology, IT and Business

In contrast to Jessica, Will spent a year in the Marketing Department of a leading multinational software company at their offices in Greater London. He was one of three placement students in the department. His own account expresses the nature of his work:

> "The majority of my core time was spent supporting the Enabling Business Flexibility programme and Volume Marketing. These required daily attention and were where I managed to experience most of my sole management of projects. Along with my day-to-day areas, were several large ad hoc projects, which were pivotal to my development this year."

Amongst the latter were major sporting events at Wimbledon and Wembley. Of these, he comments

> "It was an excellent experience to have exposure to executive level customers and enjoy some of the 'perks' that working at X can offer by attending the dinner and staying the night in the hotel developing my networking skills!"

One of the things Will found particularly beneficial was to see projects through from start to finish. He reflects:

> "Seeing the whole process enables you to appreciate what goes into a marketing play and to see first hand what works and learn from the things that didn't work so successfully."

Team work played a large part in Will's development. Together with work on a wide range of activities, it inspired confidence and risk-taking. He was given responsibility to organise an important event, which brought him intrinsic satisfaction:

> "It was an extremely rewarding experience to be entrusted to take control of such an important event. The feedback received was excellent with the whole event being marked either 4 or 5 out of 5."

Role models were also central to his development. He critically evaluates the leadership style of each of his managers and identifies that which inspired him most and which he would hope to embrace.

In short, Will had a highly successful and enjoyable year, which developed him personally and professionally. His concluding comments therefore come as a surprise:

> "I would not change anything from my year but it has allowed me to see that the IT industry is not one I could now see myself developing a career within. During the year I managed to carry out a week of work shadowing at X's advertising agency, Y. This was an excellent experience, meeting many likeminded people in a younger, vibrant organisation. This is where I believe my next career step lies and it was only through my placement year that I was able to discover this. From this, I hope to set up my own company incorporating a business built on creativity."

Once more, the student's narrative reveals deep learning of a kind that could not be replicated in the university setting. Like Jessica, he has been able to formulate a new career plan through reflection on his experiences. His placement was very different from hers, yet he had the opportunity to develop the same range of competences, involving learning along each of Eraut's pathways. He, too, has combined knowing, doing and being/becoming.

(17) Maham, student of Chemical Engineering

Maham begins his account with a graphic description of the job application process and its impact on him during his second year of study. He was fortunate to receive three placement offers, two of which he accepted, working during the summer vacation on a 2-month contract in one company before moving to his main placement. This experience enabled him to compare two engineering establishments.

In both placements he applied his academic learning and acquired new skills and knowledge. In his principal placement, Maham records that he had

> "the opportunity to develop my team-working skills and to achieve results in a fast-paced high-pressure environment that is driven by client demands."

He had to prioritise tasks, liaise closely with his colleagues and clients, and ensure that every detail had been incorporated in design plans.

His placement company operates a scheme whereby placement students mentor school pupils. Of his experience as mentor of two pupils he says

> "This thoroughly tested my communication skills as I had to make sure that I gave clear instructions and information to the students, and also to ensure that the work had been completed correctly."

In other words, Maham had extensive responsibility and his employer provided a real situation where he had to assume a *quasi* managerial role.

His employer also ensured that he gained experience of working with colleagues in a range of disciplines and of varying levels of seniority. He was able to work with clients on 'real' contracts, thereby learning how to represent his company. His work routinely drew upon his competence in report writing and making presentations. He recognises that gave him

> "an overview of not only the different stages that projects go through from start to completion, but also [the chance of] developing the different skill sets that a process engineer needs in order to complete the various tasks."

Once again, being able to complete a task from its inception to its conclusion is important for learning.

Thanks to an excellent employer, Maham left with experience that contributes to Engineering chartership. His own words convey what is arguably the real value of his placement, though:

> "My 13 month placement at Z has made me aware of the wider implications of my work as an engineer and has provided me with invaluable experience of team work and allowed me to recognise what a worthwhile and rewarding career a chemical engineering

degree can support."

His experience enabled him to travel along each of Eraut's learning trajectories, though not necessarily developing or acquiring the same skills and competences as the previous students who also experienced each trajectory.

Whilst engineering projects could be provided within the curriculum to simulate some of his experience, they could not nurture the sense of dealing with 'real' contracts, in real time and with real colleagues and clients. This might facilitate application of knowledge and learning new skills and facts through action, but the potential to be and become is compromised by the simulated nature of such projects.

(20) Adam, student of Business Management

Adam had profited from the preparation given in level 2 of his programme of study to reflect critically on the nature of placement to find. This had led him to conclude that

> "I would like to gain experience working for a large multinational organisation. I believed that exposure of working in an international environment will be very beneficial to my career because globalisation is a prospect facing more and more businesses these days."

He was also seeking an opportunity to learn about cross-cultural communication. He obtained a position as Secretariat Administrator in a multinational oil company.

Unlike the previous narrators, Adam's programme of study was not directly related to his role in the placement company: he found himself involved more in law than in business. Nevertheless, among the benefits he derived were these:

> "IT skills that I gained at university were undoubtedly the most useful, as I had to work with some software packages on a daily basis. There were many aspects of organisational behaviour that were useful to me, including theories of job motivation and satisfaction that I found useful to witness in practice."

He had set himself 3 personal and 3 professional objectives and describes how he achieved each. This included researching the company's operations, and the energy industry in general; contributing monthly to a share scheme; networking and listing his contacts for future use; familiarisation and practice with new equipment and in a variety of departments; team-work and application of theories of organisational behaviour. Of this he says

> "As my knowledge of the work processes increased, I became more confident in dealing with clients and building relationships both internal and external to the organisation, I have learnt the importance of communication, team work and attention to detail."

Adam is typical of many students who discover a completely new career pathway as a result of their placement experience. For him

> "This broad exposure has led me in a new direction as a business analyst."

He ends

> "My placement has been a challenging, rewarding, and enlightening experience that has given me many transferable skills that I will be able to take forward in my future career."

In other words, Adam is illustrating once more a combination of knowledge, action and being. This has entailed experience along each of Eraut's learning trajectories. Could such an experience be replicated in the curriculum? It would certainly be possible to challenge students of one discipline with tasks demanding they work with or engage as a member of another discipline. Indeed, cross-disciplinary PDP work at the University of Manchester aims to do precisely this (see http://learningtobeprofessional.pbwiki.com/ , proceedings of SCEPTrE Conference March/April 2009).

(22) Miyanda, student of Psychology

Miyanda's role was within the Assessment and Consultancy Unit of the Home Office. The unit is responsible for ongoing assessment of staff and testing of new applicants.

She was involved in the design of assessment tasks and their marking guidance, as well as piloting and evaluating the tasks. This entailed team work and also developed her knowledge and understanding. She, too, mentions the benefits of seeing through a task at all stages:

> "It was really useful to attend this meeting as it was the final stage of the centre. I really enjoyed seeing the centre through from beginning to end. I now have a much better understanding of the requirements that need to be met by candidates that are successful for this programme."

Managing several tasks simultaneously required time management and organisation, which she acknowledges "needed discipline."

Being engaged in 'real' activities produced benefits for both herself and her colleagues:

> "I can see that occupational psychologists' work can impact the individual and teams alike. My observations at workshops highlighted the development needs that the individual may have, regardless of position within an organisation. Delegates walked away from development workshops feeling pleased with what they had achieved."

This remark indicates how her self-confidence grew through interaction with people of varying seniority. She says

> "I was given a lot of independence and found this encouraged me to be more confident."

Miyanda lists a range of skills, competences and understanding that she feels she has developed through her PT. Like many students, she had had vacation and other part-time work but distinguishes between it and the impact of her placement:

> "Although I had been in employment prior to the placement, the experience developed me even further. For example, the working hours and the hours I worked were nothing like I had experienced before. I had to adapt very quickly to my new schedule. I had greater responsibilities than those at previous jobs such as the importance of keeping information and documents strictly confidential."

Could such experience be replicated in the university setting? Expectations regarding punctuality and attendance could be formalised, but without the reality of workplace boundaries, it is likely that students would be reluctant to observe them. Ethical considerations and confidentiality can be incorporated in the curriculum through use of real cases and data, and tasks such as the devising, testing and implementation of an assessment could be simulated on campus. However, Miyanda learnt much from

observing experienced colleagues and found their examples inspiring. She explicitly notes:

> "I learned a great deal, some of which may not have otherwise been possible to attain
> without a placement year at this stage."

Like her fellow narrators, she has experienced complex development of inter-related skills, through her action, application of theoretical knowledge, enhancing her understanding and bringing about change in her.

(28) James, student on Tonmeister music course

The final student whose experience on PT demonstrated development along all eight learning trajectories had a placement in a well-established, multi-national company, at its London site, in the domain of digital media.

James' role was in the Professional Products Group. He quickly familiarised himself with complicated software, enabling him to provide technical support within Customer Services. Of this he says:

> "Since I was responsible for answering all incoming calls, I soon became quite proficient at
> thinking on my feet and finding answers quickly. I was well aware of the fact that time
> means money!"

His team was relatively small, so he was often left with considerable responsibility when others were out of the office. His competence led to him being sent to Amsterdam to demonstrate at the company's tradeshow. He was subsequently sent to give training in Sweden, Denmark, Italy, France and finally Las Vegas. He was fully involved both professionally and personally in the life of the company. His confidence grew with the responsibility he was given, and this in turn led to higher performance from him. He clearly thrived on the pressure, noting of his Amsterdam experience:

> "By the end of the week (…) I was pretty exhausted; not only was the work during the day
> very draining, but socialising in the evening with the bosses of the company, and on
> occasion perspective customers, was quite tiring. That said, it was a fantastic week, from
> which I learnt a lot."

James was so intent upon becoming part of the team that he found accommodation in London in order to be able to socialise more fully with his colleagues. A chance meeting when out with them brought him in contact with one of his favourite musicians. This resulted in James' being invited to work with the musician's sound engineer at some gigs, thereby applying his Tonmeister knowledge and skills.

One of the most rewarding events James cites was his being involved in winning a multi-thousand dollar contract. It has suggested a potential future career direction for him:

> "I found being a part of such a business deal very exciting and satisfying. This has given
> me a taster into the sales side of the business, something that I thought I might like to pursue
> further, later on."

James' performance in the company was so impressive that he was asked to stay on for the summer, following completion of his contract. If there were any doubt about his personal development his response should dispel it:

> "Having thanked him, I then negotiated a salary increase, which (his boss) agreed to and increased further!"

During the additional two months, he was involved in interviewing Tonmeister applicants for the following year's placement. This experience led him to understand what is like to be 'on the other side of the table' and he feels that

> "when I next have to go for a job interview I will be a lot better prepared now that I have a better understanding of employers' desires."

Of the whole placement, he concludes

> "Although my sound recording skills may not have been furthered by taking the placement, I feel my all-round understandings of industry and the real working world have been hugely increased. All in all, it was an absolutely fantastic year for me, full of extremely valuable experiences I will continue to benefit from for the rest of my career."

Like the other narrators, James demonstrates learning along all eight trajectories, and has a sense of being different as a result of the action and knowledge derived from the period of placement.

Much of his development has been achieved through engaging in real industrial situations, with real clients and contracts, none of which could be simulated adequately in the university. He learnt from the example of colleagues, something which a short period of work-shadowing could not achieve so deeply.

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These six narratives serve to remind us of the complexity, diversity and richness of the work placement experience. Whilst on the surface they may show learning of similar types, when this is probed more deeply, we find that the eight trajectory labels are insufficient: they merely show that learning of each type has occurred, resulting in a misleadingly simplistic overview, as we saw in table 20, above. For this reason, we return to the detailed experiences originally identified in the stories, and codify them as subsets of the learning trajectory. Table 21, below, demonstrates the codes allocated within each trajectory, and will serve as a point of reference for the discussion to follow.