**Teaching & Learning Conference 7th July 2016**

**Theme 3:** Data Insights to Improve Learning

**Title:** Moving TowardsIndividualised Learning Experiences through Data Analytics

**Conference Content/Structure:**

Introduction:

* Distribute post-it notes on to each table
* Earlier this year I was awarded a VC Grant and a Teaching Excellence Fellowship
* The focus of these was peer-mentoring initiatives and use of data analysis to understand and develop teaching and learning in FACS, particularly further developing individual learning experiences
* Phil will demonstrate later the awesome dashboards that Corporate Information have setup for higher level management
* However, at present there are no dashboards for using data analysis to inform teaching and learning practices at an individual learner level.
* Today I want to demonstrate two of the 6 dashboards I have developed for Course leaders, module leader and personal tutors in FACS as a starter for what Corporate Information can develop for us moving forward

Setting for Personal Tutoring:

* I want you all to imagine you are a first year student and you have just got your results. You know how you and your close friends did this year and that when you come back in September you will have 1:1s with your personal tutor. I was your personal tutor last year and I will be at Level 5.
* Previously these sessions have been open verbal discussions with little visual aid for both student and tutor, but for this coming year I developed dashboards to visualise, evidence and discuss individual success, progress and personal development with my students and for other personal tutors in FACS.
* Using the Level 4 grades I created a personal tutoring dashboard
  + Set up for a FS student achieving on average a 2.ii with modules they did well in and some they didn’t eg Nadia Yasmin
  + As I demo get attendees to write down something they think about the use of the dashboard in this situation (positive or negative) on the post-it note
  + Explain what I can interpret from their scores
    - Average Level 4 mark for the student is computed – Nadia is similar to an average student
    - Highlight module successes – Nadia did well in Crime Scene Doc & IFS
    - Better at exam or coursework? Exam is bringing Nadia down
    - Ask student to explain what made modules/assessments lower scoring?
    - Ask students to identify from feedback some action points to improve these next year – see if Nadia can identify that she needs to focus on exam and if she does not know how to then meet to show her the exams and compare her answers to the answer criteria
  + Ask them to show their hands if it was a positive statement or a negative one – ask to pass these to me?

Setting for Course/level dashboard

* I also wanted to further understand the reasons for students’ success and areas for improvement as well as any underlying causes and cohorts to compare their demographic
  + Created course and module dashboards, but outside scope of the session for all staff to help them visualise modules they teach on, modules and courses they lead and manage
* Course/level dashboard to learn about individual and collective cohort demographics and whether these can influence and inform us about our current holistic teaching approaches
  + Set up for FS and FI BSc(Hons) courses at Level 6 for 2014/15
  + As I demo get attendees to write down on post-it note something they think about the use of the dashboard in this situation (positive or negative)
  + Show for this cohort
    - Disability – predominantly learning difficulties but does seem to affect ability to achieve a 1st
    - WP – high proportion of WP on our courses – does not seem to inhibit ability to get a 1st the way we currently teach, but may impact on most appropriate teaching method for those learners
    - Highest entry level qualification - no firsts for BTEC students - need to understand greater why this is – pilot PDP tutorials
    - Important to see if this is the case this year but not got data for this and unfortunately may not get it either
  + Ask them to show their hands if it was a positive statement or a negative one – ask to pass these to me?
* I have used this information to work with Course Leaders and AGL to develop a teaching and learning strategy for 2016/17
  + - Adoption of a wider peer-mentoring programme at Levels 4, 5 and 6 (outside the scope of this workshop) – shown to improve personal development by about 10% - more students improving in PDP marks through progression than previously ]

Future context:

* Dashboards developed need to be able to understand cause of potential issues in teaching and learning and be used before teaching begins not just after the fact to inform my teaching and learning approaches.
  + Most UG students have spent their educational life being differentiated for learning – to make it more individualised…
  + Can the new data centre generate dashboards for us to use at the start of the academic year, especially for Level 4s?
  + For this year we want to pilot identifying personal tutor groups for Level 4 based on highest entry level qualification eg BTEC students or AS/A level tutors etc. to focus on identifying and developing skills or learning approaches that these students may have developed prior to HE

Initial ideas after meeting with Mike Hamlyn:

This is what we did and key points with evidence (7 mins) eg personal tutoring dashboard for course/level – FACS department student highest entry qualifications, UCAS points, gender split, split for market segmentation (7 categories of behaviours and attitudes from entry survey).

Key recommendations and 3 key questions to get university to address: (7 mins)

1. How do u get students to engage with maths and data handling?
2. Can university provide us with this data as a dashboard to inform teaching and learning
3. Best interventions/approaches to support students who are struggling, improve students on borderlines and excel those who are improving with extra initiatives?

Post it notes for getting answers/ideas from audience

**Ideas for Pilot Strategy:**

Promote success of peer-mentoring and develop targeted teaching and learning approaches for different groups of students based on academic background and student progression moving through award. Target Level 6 project module to massively improve grades here.

*Level 4*

* Download population data from SITS (through Corporate Information in future or Mike Hamlyn or Andy Willits now – can provide to all course leaders and module leaders at the start as dashboard to inform our teaching) after enrolment in Welcome Week and separate students into groups based on highest level qualification type (not award)
* Market segmentation – survey on entry covering behaviours and attitudes – can we use this information to inform PDP – should we put them into one group or split them up?
* Put students into PDP group based on type of qualification background?
* In Welcome Week I host a 30 minute session for each qualification type to get anonymous ideas of what the students would like as support transferring into HE (Submission Box 1) and any worries they may have about being at university (Submission Box 2) – view to develop individual learner targeted sessions during Semester 1.
* Also use the above session to facilitate all students being set up with a Twitter account so they are part of the FACS online community?
* Get all students in
* Identify L5 to L7 students who did well (>60%) (diagnostic test fail (40-60) then (65% above) in maths tests to support maths tutorials in CPFS and general S4J tutorials or host separate revision/support sessions prior to maths test.
* **Identify low achieving but highly motivated people to be IFS mentors**
* Linking skills profile, all practical and tutorial sessions to specific SGAs in the module handbook or on Blackboard.

*Level 5*

* Can repeated practical groups for core/difficult modules be based on relevant module grades at Level 4 to give more targeted advice and support during sessions for different groups of students?
* Personal tutors to liaise with Award Leaders about compulsory support sessions for anyone at risk of failing modules.
* Level 5, 6 and 7 students identified as understanding data handling offering revision session for Level 5 students?
* Support/tutorials for answering applied questions?
* Give back their exam papers temporarily in a tutorial and discuss answers
* Revision session (flipped classroom)

*Level 6*

* Can repeated practical groups for core/difficult modules be based on relevant module grades at Level 5 to give more targeted advice and support during sessions for different groups of students?
* Level 6 and 7 students identified as understanding Bayesian Statistics offering revision/tutorial session(s) for Level 6 students?
* Academics offering/including specific project related data handling sessions in Week 1 or 2 of Semester 2 instead of AST?

*Level 6 and 7*

* MSci students to be a peer-mentor for Level 6 PDP during Semester 1 to simultaneously develop employability skills (Level 7) and support Level 6 research progress.