



Project Title: Supporting student transitions within a strategic partnership in Scotland

Keywords: student transition; student motivation; employer engagement; strategic partnership

Name: Sally Crighton

Report submission date: 31st October 2019

Names of any key staff associated with the project: Felicity Bryers, Laura Howe, Andrew Potter

Contact point: Sally Crighton

Executive Summary

As part of their commitment to building a Hydro Nation (Scottish Government, 2015), Scottish Water approached the Open University in Scotland (OUiS) with a request to establish a bridging qualification from an Higher National Certificate (HNC) in Water Operations from Glasgow Clyde College, a qualification held by many of their employees, to an MSc in Water and Environmental Management at Heriot-Watt university. Their vision was that this partnership would assist professionals in the water industry to transition more readily from further education qualifications to honours and masters level study. Their hope was that this opportunity would help more employees to become more qualified leading to better performance.

The project took two years from initial conception to launching in February 2015 and the first cohort of students began their Open University (OU) study in October 2015. The substantial contribution of Jackie Baker, as Business Development Unit (BDU) manager in the OUiS, in all aspects of the formation of this strategic partnership and subsequent initial support of Scottish Water employees as OU students is gratefully acknowledged.

This project aimed to work with the first cohort of Scottish Water employees who expressed an interest in the partnership, providing a co-inquiry platform to explore how better to support them in the transition from HN study to HE study: how to flourish and realise the aspiration of participation in higher education, both in terms of well-being and enjoyment of the subjects being studied.

At the outset, it was hoped that the project would contribute to development of a revised model of employer engagement in the OUiS including inviting staff from different areas across the OUiS - academic, student support, BDU, Associate Lecturer – and also students to engage in joint scholarship work. Since the start of the project, however, alongside organisational change, the OUiS has seen considerable changes in staffing, notably in the directorate team and in the BDU and some links with academic staff have not yet been reestablished within the reorganisation. Working with Scottish Water to discuss the outcomes of this project, in line with redefined strategic objectives (The Open University, 2018), is thus a recommendation of this project rather than an outcome, as originally hoped, (Raes et al, 2011; Schein, 2013), and constitutes a legitimate goal adjustment giving all stakeholders an opportunity to reflect and readjust rather than a 'drifting goal', (Kim and Anderson, 1998).

In reflecting this project, (Schön, 1991), it is not surprising that not all of the original aims were met, as the nature of this 'real world' research became increasingly and surprisingly "messy", (Robson, 2002, p.4). The research was positioned against a backdrop substantial institutional change: Group Tuition policy implementation and Student Services alignment as part of the Students First transformation strategy, (The Open University, 2014). Various difficulties in implementation relating to this project were experienced and noted briefly in this report, (Oakland & Tanner, 2004).

The project has been successful in as far as we have gained deeper understanding of the experience of the transition from HNC study to OU study, as a Scottish Water employee. It has focussed on one particular workplace within the strategic partnership in Scotland, but it has highlighted some areas for development in employer engagement generally across the university.

Aims and scope of your project

This project aimed to gain understanding of the experience of the first cohort of Scottish Water (SW) employees who expressed an interest in the pathway from their HNC qualification through OU study towards MSc study in the strategic partnership between Glasgow Clyde College, The Open University and Heriot Watt University.

Within the articulation agreement, students with an HNC in Water Operations from Glasgow Clyde College receive 90 credit transfer points towards an OU BSc Honours (Open) pathway. Students begin their OU studies with mathematics modules, which are required to meet the requirements of the MSc programme. They then choose from a selection of Science, Technology and Management modules to complete a BA/BSc Honours Open degree. To allow for different interests and specialisms, five alternative routes through the BA/BSc were agreed with Heriot Watt university as sufficient preparation for entry to their MSc in Water and Environmental Management.

The learning model was the standard OU distance learning model where students study part-time in their own time to suit their individual needs. Students are typically in full-time employment with Scottish Water coming from various areas of the company and have a range of previous educational experience.

Activities

Setting the scene

Various members of OUIS staff in Scotland, including the first named author, attended an event in February 2015 to celebrate the launch of the strategic partnership. Several SW employees present introduced themselves as keen prospective OU students, noted in this project as SW students. Shortly afterwards a face-to-face meeting to meet Scottish Water employees who had expressed an interest in becoming the first cohort of students to choose to follow the partnership pathway. Students had an opportunity to ask questions about their OU study and what sort of support they might expect from their tutor and from the wider Student Support Team staff within the OUIS. Staff from the Open University in Scotland invited to the event were: Felicity Bryers and Laura Howe, (Associate Lecturers in Mathematics & Statistics), Fiona Laukner (Study Support Advisor), Jackie Baker (BDU manager) and Wendy Berndy and Sally Crighton, (Senior Lecturers in STEM). Wendy and Sally had previously met with academic colleagues at Heriot Watt university to discuss how best to inform students about the MSc part of the partnership at that first meeting, with the intention of contacting students once they had progressed with their OU study.

Getting started in mathematics

Students on the pathway are expected to begin their OU studies with the mathematics modules required to meet the requirements of the MSc programme: MST124 *Essential mathematics 1* and MST224 *Mathematical methods*. Our experience is that unless students have some experience of studying mathematics, such as can be gained in a pass at Scottish Higher grade, then our advice is that they should start with the introductory module, MU123 *Discovering mathematics* before progressing to MST124. As for all students interested in studying mathematics with the OU, SW students were advised to visit our [MathsChoices](#) website to help them to identify the best place to start their studies. This website contains information about our mathematics modules and online diagnostic quizzes to help students to identify their starting point in mathematics.

The first named author, in the role of staff tutor responsible for allocating students to tutors on level 1 mathematics modules managed the allocation of SW students to either Felicity Bryers or Laura Howe. This was a manual process, as there is no way to identify these students as being Scottish Water employees on our IT systems. This allocation of students to these two tutors was an important part of the project methodology, as these ALs later would later conduct interviews with their students. The idea was to establish Felicity and Laura as tutors for all SW students in the future so as to start to establish a learning community.

Ethics approval

We worked with the Student Research Project Panel (SRPP) working group to gain approval for our qualitative research with Scottish Water students. The group kindly approved our research and offered useful advice on our methodology. A great deal of thought had been given to the wording in the email messages inviting students to participate and to the details of the script around which the semi-structured interviews would be based. (Appendix 1)

Methodology

Of the thirteen students who first expressed an interest in the partnership, twelve were invited to participate in the project. The remaining student had decided not to register for OU study at that time.

Felicity and Laura conducted 30-minute semi-structured interviews with each SW student. Since they were carrying out interviews with their own students, they already had a good working relationship and can thus be viewed as insider researchers (Gair, 2012). We thought that given the hectic lives of SW students they were likely to invest time in speaking with their own tutor. Felicity and Laura made voice recordings of the interviews and wrote detailed interview notes.

After all the interviews had taken place, Felicity, Laura, Andrew and I met, in a one-hour online meeting, to discuss overall impressions of the conversations with students. This conversation and the subsequent thematic analysis formed the basis for our initial analysis of the data.

Later in the project, (September 2018), Andrew conducted follow-up semi-structured interviews with students who progressed to study MST224 with the specific intention of following up initial interest as the MSc as a study destination. The decision was then taken to combine this information with transcripts of conversations held by Felicity and Laura earlier, together with an overall investigation of how SW students had fared from inception to the start of October 2019 presentations in the OU, collecting what we know up till now. This approach has emerged as a way of making sense of the partnership viewed as a 'system' and experiences of SW students within it, inspired by the approach taken in another eSTEEeM project report, (Reynolds et al, 2018). To this end, three broad archetypes have been created by analysis of all available data. They are not intended to be exhaustive but offer a snapshot of what we know so far about how this cohort of students fared upon which to build further conversations. This approach seems appropriate in terms of anonymisation of data so that no individual student is identified in the analysis.

Findings

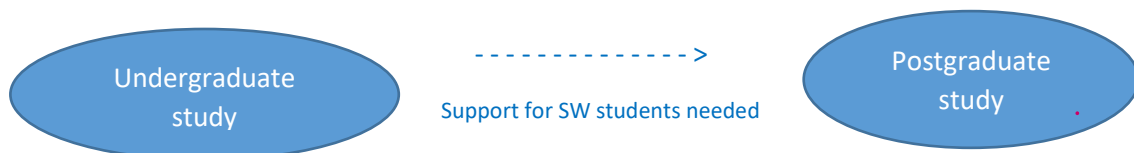
The first round of interviews with SW students with their tutors, Felicity and Laura, took place in March/April 2017. The tutors as interviewers noted that all SW students who participated were pleased to have been invited to comment and had clearly given much thought to their responses

Archetype 1: I would walk 500 miles ... would I walk 500 more?

- ✚ Studying since 15J, currently at level 3.
- ✚ Motivated and resilient.
- ✚ Some have agreed time for OU study at work.
- ✚ On track for MSc study at Heriot Watt university, or other postgraduate study, but are uncertain of benefits gained for investment of more time.
- ✚ Some communication with fellow SW students.

Learning experiences and needs

- Some difficulties were encountered in registering on current module. Improved mechanisms for processing registration and sponsorship paperwork are needed.
- Development work is needed to put in place support and motivation for SW students considering another transition from degree level to masters level study. What are the benefits of postgraduate study? For whom?
- Are there further joint SW/OU collaboration possibilities, for example Hydro Nation Scholars programme?
- Encourage mentoring of new colleagues and peer support: what worked and what didn't work to try to establish a Community of Practice (Wenger, 1998) within the SW workplace.
- What has studying towards a degree meant for the SW student's role in SW? In what ways have they translated into capabilities within the workplace?



Archetype 2: I'm on my way ...

- ✚ Between 30 and 180 credits gained with the OU.
- ✚ Not currently studying.
- ✚ Credit transfer of up to 90 points from HNC study.
- ✚ Might return to OU study if conditions were right.
- ✚ Some communication with fellow SW students.

Learning experiences and needs

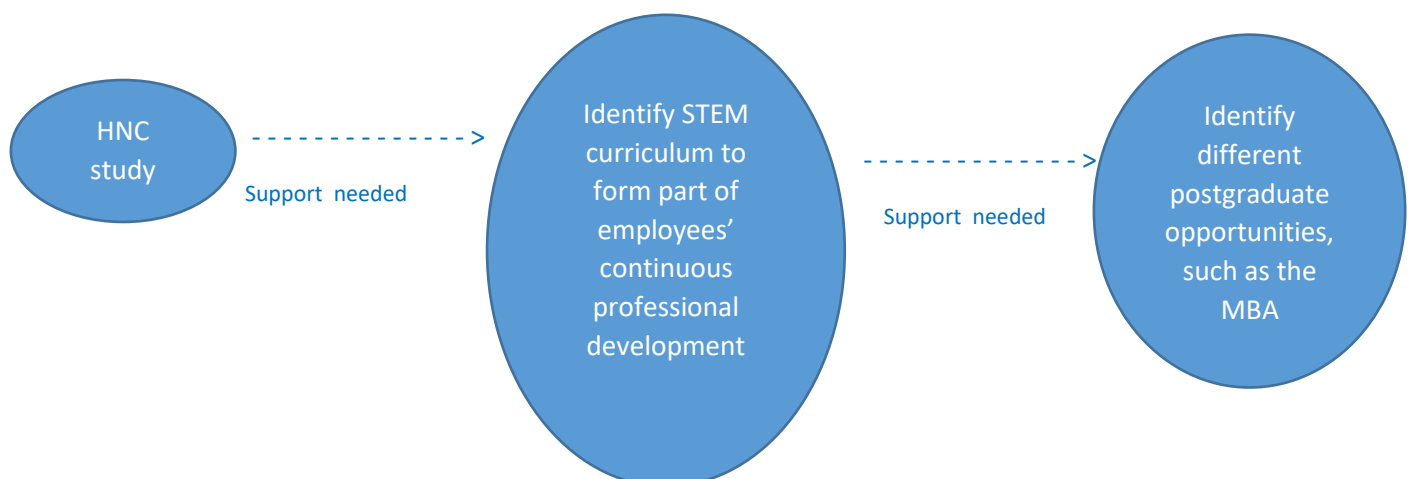
- Students have had very positive experience of OU study in terms of tuition already. Individual conversations are needed to gauge where SW students are now and if further study might be relevant for them now or in the future.
- Improved mechanisms for tracking student progress are needed. Have opportunities been missed to catch up with these SW students?
- Encourage mentoring of new colleagues and peer support: what worked and what didn't work to try to establish a Community of Practice within the SW workplace.

Archeptype 3: It's over and done with?

- ✚ No OU credits achieved yet.
- ✚ Not currently studying.
- ✚ Up to 90 points from HNC study
- ✚ Might return to OU study if conditions were right.
- ✚ Work-study balance and priorities weren't possible; some already have a degree and need different opportunities; some found that there was no time for study given work conditions and family commitments
- ✚ Some communication with fellow SW students.

Learning experiences and needs

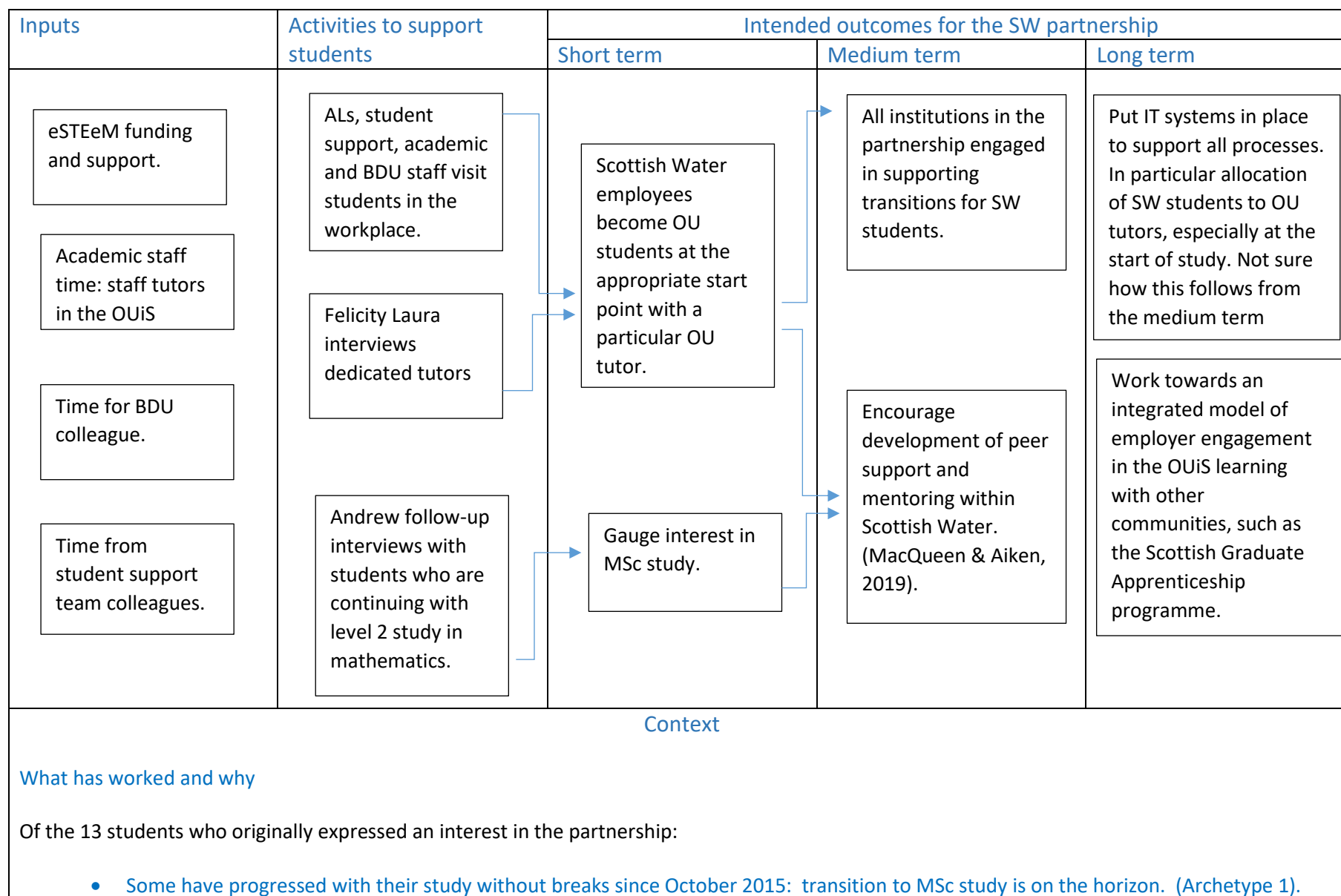
- OU modules were started but not completed. Conversations are needed with individual SW students to understand their needs and help them to identify their options and properly to establish an identity as a SW student.
- Some didn't choose the best starting point. Much more guidance is needed to establish study motivation and the right place to start as well as raising awareness of what to expect in becoming an undergraduate student as an SW employee to ensure the best possible transition to OU study. Each SW student should be aware of their own OU choices.
- Aim to re-establish a mechanism whereby each SW student beginning their OU study is allocated to a particular tutor for their first OU module.
- Manage expectations in the SW workplace and explore exit routes. Often just one module is enough to satisfy skills requirements. (For example, MU123 provides a qualification at SCQF level 7 accepted by most PGDE (Primary) providers in Scotland.)
- For those with degrees already the partnership route didn't support their workplace needs. Identification of curriculum needed to support workplace learning is needed. Possible different postgraduate options might be a better fit.
- Encourage mentoring of new colleagues and peer support: what worked and what didn't work to try to establish a Community of Practice within the SW workplace.



In summary, the overarching message for each archetype is that SW students need better to understand the transition and feel in control of it. (Heathcote & Taylor, 2007).

Evaluation and discussion

The following logic model (see W.K.Kellogg Foundation, 2004) draws on the theory-based (Weiss, 1997) approach to evaluation, and seeks to articulate the expected links from specific project actions and resources to the intended long term outcomes. It is unusual that everything in a project works as intended, this approach provides a tool to identify where and perhaps why something diverged from the plan, and to identify implications for the long-term outcomes. Here, it was used to clarify thinking during the project.



- Some have gained OU credits not necessarily following the original pathway and are not currently studying with the OU. (Archetype 2)
- Some have found that OU study hasn't worked for them at this time, have not yet achieved OU credits and are not currently studying with the OU. (Archetype 3)

During the interview phase of this project the SW student cohort had typically changed jobs within SW, with some moving to different locations. Students had various experiences at work some being mainly office-based and for others shift work and off-site visits formed a substantial part of their job. All SW students noted the challenge of finding time for OU study with the 'day-job' and other commitments. What has worked best is where SW students have started their study at the right place and have been able to agree some time during working hours for OU study. As for all OU students, however, sometimes for various very good reasons successful completion is not possible at that particular time. For some SW students it wasn't possible to strike a work-life-study balance that worked for them, but there was no one factor in isolation that proved a barrier to study. Ideas for development of support for SW students are given for each archetype.

The short-term aims of the project have partially been met. We aimed to provide tailored support to facilitate the transition from HNC study to OU study (with the long-term goal of postgraduate study) and, although some students started in the right place with OU study and are on a pathway to the MSc, many did not start at the right place for them: all SW students registered on MST124 at the beginning of their OU study where MU123 (or other) would have been more appropriate. From the data, the reasons for this are completely understandable:

- Starting with MU123 means an extra 30 points of study therefore lengthening the time taken to complete a qualification.
- At first glance it seems that MST124 study is achievable, but the pace and intensity of study was underestimated.
- For SW students who are not interested in the pathway, a starting point other than modules in mathematics.

Revised guidance and individual support for SW students is recommended, as detailed in "Learning experience and needs" sections of descriptions of archetypes.

The medium-term and long-term aims are still to be achieved and are addressed in the recommendation section of this report.

Suggestions for development

Areas for development suggested in the “Learning experience and needs” sections of the archetypes are very broad and follow-up actions have deliberately not been attributed to any particular stakeholder. The archetypes rather are intended to provoke discussion and to identify opportunities for further development work within the partnership to be guided by BDU colleagues in the OUIs.

Colleagues across the university, such as from Open Programme may be interested to identify where SW students are within their Open degree as part of an overall awareness of successful employer engagement partnerships.

Impact and dissemination

Our thoughts on setting up the strategic partnership and subsequent exploration into the experience of the first cohort of students was shared within the HE community in Scotland (Crighton & Berndt, 2017a) and the STEM community (Crighton & Berndt, 2017b).

References

- Crighton, S., Berndt, W. (2017a) Paper presentation, 3rd International Enhancement Conference: Inspiring excellence – transforming the student experience, 6th-8th June 2017, Glasgow, UK.
- Crighton, S., Berndt, W. (2017b) Paper presentation, Horizons in STEM Higher Education Conference 2017: Making Connections, Innovating and Sharing Pedagogy, 29 & 30 June 2017, Heriot-Watt University, Edinburgh, UK
- Gair, S. (2012) 'Feeling their stories: contemplating empathy, insider/outsider positionings, and enriching qualitative research', *Qualitative Health Research*, vol. 22, pp. 134–43.
- Kim, D. H., & Anderson, V. (1998). *Systems archetype basics: From story to structure*. Waltham: Pegasus Communications, Inc.
- MacQueen, H. and Aiken, F.J. (2019) Supporting distance-taught students in the workplace, in *Higher Education, Skills and Work-Based Learning*, DOI 10.1108/HESWBL-04-2019-0048
- Oakland, J.S., Tanner, S.J., (2006) Quality management in the 21st century – implementing successful change, *International Journal of Productivity and Quality management*, vol. 1, no. 1-2, pp. 69-87.
- Raes, A.M., Heijltjes, M.G., Glunk, U., Roe, R.A. (2011) The interface of the top management team and middle managers: A process model. *Academy of Management Review* vol.36, no.1, pp102 – 26.
- Reynolds, M., Shah, R., Van Ameijde, J. (2018) Framing professional competencies for systems thinking in practice: final report of an action research eSTEEem inquiry. The Open University, Milton Keynes.
- Robson, C. (2002) *Real World Research*. Second Edition. Oxford: Blackwell Publishing Ltd., pp4, 172, 195.
- Schein, E.H. (2013). *Humble inquiry: the gentle art of asking instead of telling*. San Francisco: Berrett-Koehler Publishers.
- Schön, D. (1991) *The Reflective Practitioner*, Aldershot, Ashgate Publishing Ltd.
- Scottish Government (2015) *Hydro Nation strategy*. Available [here](#). Accessed on 1st September 2019.
- Wenger E. (1998). *Communities of practice: Learning, meaning and identity*. New York, NY: Cambridge University Press.
- W.K.Kellogg Foundation (2004) *Logic Model Development Guide* available at: <https://www.wkcf.org/resource-directory/resource/2006/02/wk-kellogg-foundation-logic-model-development-guide>
- Weiss, C. H. (1997) 'Theory-based evaluation: Past, present, and future', *New directions for evaluation*, American Evaluation Association/Jossey-Bass, 1997(76), 41–55

Appendix 1 Email message to invite students to think about where they start to study mathematics

To all Scottish Water students planning to study MST124 Essential Mathematics 1 with The Open University (OU), September 2015

First of all, I would like to say a very warm welcome to the OU to all of you. I am delighted that you are interested in studying with us.

An induction session has been arranged at the Bridge, Glasgow SW office from 16:00 – 19:00 on the 23rd of September. The room is Campsie 4. This is an opportunity to meet your OU tutor and to ask any questions you may have about studying with the OU, especially getting off to a good start. It would be good to discuss how we can best work together to support you through your studies. Please let me know if you are able to come along to this meeting so that we can be prepared to welcome you. If you can't manage to come along in person, I understand that a conference call on the day can be arranged.

In the meantime, I wonder if you would kindly take a moment to consider the following question? We have found that some students hope to start MST124 without the mathematical skills or knowledge necessary to complete the module successfully. This can lead to a situation where the student is either trying very hard to catch up or is unable to catch up and then drops out or defers the module until another presentation. MST124 assumes that you have a good working knowledge of, in particular, algebra. The module description says that this includes 'algebraic manipulation, such as multiplying out brackets, factorising simple expressions, solving linear and quadratic equations, manipulating algebraic fractions and manipulating powers of variables'. I suggest that if you haven't already done so, you test your skills using the quiz 'Are you ready for MST124?' which you will find at the top of the MST124 website. You might like to explore the website too - for example, have a look at the study planner in the centre block and at the books which are under 'study resources'. If your registration isn't yet complete and you don't have access to the website, you can also find the quiz here <http://mathschoices.open.ac.uk/are-you-ready-quizzes>

If you feel happy with your performance on the quiz, that's fine and you can move on confidently. If you're not so sure, then please get in touch with me either directly by email or at the induction session.

I look forward very much to meeting you on 23rd if you can come along. Please feel free to ask me any questions in the meantime.

With best wishes,

Sally

Sally Crighton

Senior Lecturer in Mathematics & Statistics

Appendix 2 Email invitation to students to participate in research

Dear [individual student's name](#)

The Open University tries very hard to give the best possible support to every student and therefore is always interested in feedback from students. To this end we have set up a small research project which aims to help us gain a better understanding of students' experiences of OU study whilst working for Scottish Water. We are sending this to you as one of the first enquirers to the pathway from your HNC studies to OU study. We are very interested to hear about your experience and hope that you can, very kindly, find some time to speak with us.

This message is from [Felicity Bryers/Laura Howe](#) and from me to ask you if you might be willing to spare around half an hour of your time to speak with us about your experience of OU study so far. This would involve a telephone conversation with you and [Felicity/Laura](#) at a date and time to suit both of you, hopefully in the near future. I very much hope that you might be willing to have a chat about your experiences so far.

We hope that the information gained will allow us to develop better support for students like yourself and your colleagues. Moreover, we hope that our findings will help us to develop our relationship with Scottish Water and to identify further ways your employer can support you during your studies.

We would like to explore the following points

- what you felt were your strengths and the more challenging aspects on starting your OU studies
- if you managed to build on the strengths and overcome those challenges
- if there is anything you would like to pass on as advice to colleagues thinking about embarking on OU study
- if there is anything the OU did, or could have done, to help you
- if there is anything that Scottish Water did, or could have done, to help you

together with any other reflections you would like to share with us about your experience of OU study.

The project findings will be shared **all anonymously** with Scottish Water. All information will be treated in confidence and results shared with Scottish Water will be in an anonymised form. No direct quotations will be shared without your permission.

If you have any questions whatsoever then please don't hesitate to contact [Felicity/Laura](#) or me,

If you are willing to take part in the research could you please complete and return the attached consent form to f.a.bryers@open.ac.uk/l.j.howe@open.ac.uk

We look forward very much to hearing from you!

Sally Crighton, Staff Tutor, The Open University in Scotland sally.crighton@open.ac.uk 0131 549 7940

[<consent form here>](#)

Student Consent Form

Scottish Water students' experience of OU study

If you are willing to take part in this research project please tick the box, complete the details below and return the signed form- electronically to [...].

At any time during the research you are free to withdraw and to request the destruction of any data that have been gathered from you, up to the point at which data are aggregated for analysis.

Your participation or non-participation will not affect your access to tutorial support or the results of your assessments.

The results of any research project involving Open University students constitute personal data under the Data Protection Act. They will be kept secure and not released to any third party.

All individual level data will be destroyed within three months of the project closure

- I am willing to take part in this research, and I give my permission for the data collected to be used in an anonymous form in any written reports, presentations and published papers relating to this study*

Please provide your contact details below so that we can arrange a time and date for this interview:

Name:

Student PI:

Contact Telephone
No:

Contact Email
Address:

Signing this form indicates that you understand the purpose of the research, as explained in the covering letter, and accept the conditions for handling the data you provide.

Signature:

Date of Signature:

Please return completed form to: [....]

Prompts for use during interviews with students

Aims

- To ask students about their experience of studying with the OU so far.
- To ask how the experience could be improved from their point of view.
- To ask what advice they would give to colleagues about to start on OU study.

1. Background

- What was your role in SW when you applied to study with the OU?
For example, full/part time, shifts, is it an office job or an 'out and about' type job?
- What was your educational background at school and beyond?
Standard Grade or equivalent/Highers (including maths?)/Degree (subject?)
HNC
- Why did you apply to study with the OU? How was the partnership pitched to you? What were you told that encouraged you to apply? How did you think studying would fit into your working life?
- What were your hopes at the beginning? What were your worries?

2. Progress through the OU

(Note: We need to have full details of the student's progress so far through the OU before the interview.)

- Describe how you feel about your progress so far with OU modules.
 - Did you feel that you were prepared for the module(s) you have taken?
 - Did you know enough about how distance learning works and the time commitment involved?
 - How was study with the OU different from studying for your HNC? In particular, did you find that you needed to develop new study skills for OU study that were not needed for your HNC?
 - What could be done to help make the transition easier?
 - Did you come across unexpected barriers in your OU studies? How did you deal with them?
 - If you cancelled, changed or deferred a module, why did you do this? What could have helped you to stay on the original module?
 - Do you feel happy with the way your studies are progressing? *(Note: Reassure students that they are doing well!)*

3. Support for your studies

- Support from the OU. Has this met your needs? How could it be improved? (For example, more tutor contact, face-to-face, phone or online)
- Support from Scottish Water. Has this met your needs? How could it be improved? (For example, more working time allowed for studying)

4. The next step

- How do feel now?

5. Your advice

You have been a pioneer in this venture. What advice would you give to a colleague who was considering following the same route?

Final report document was submitted to esteem@open.ac.uk on 31st October 2019