A Preliminary Case Study for Collaborative Quality Enhancement

A PRELIMINARY CASE STUDY FOR COLLABORATIVE QUALITY ENHANCEMENT

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ABSTRACT

Eight universities have collaborated in an Erasmus+ funded project to create a lean process to enhance self-evaluation and accreditation through peer alliance and cooperation. Central to this process is the partnering of two institutions as critical friends, based on prior self-evaluations of specific programmes to identify particular criteria for improvement. A pairing algorithm matches two institutions based on their respective self-evaluation scores. It ensures there are significant differences in key criteria that are mutually beneficial for future programme development and enhancement. The ensuing meetings between critical friends have been designated as 'cross-sparring'. This paper focuses on a case-study of the cross-sparring and resulting enhancement outcomes between Umeå University and Queen's University Belfast, and their respective Masters programmes in Software Engineering and Mechanical Engineering. The collaborative experiences of the process are evaluated, reported, discussed and conclusions provided on the efficacy of this particular application of cross-sparring.

KEYWORDS

Quality Assurance, International Collaboration, Faculty Development, Standards: 1, 10, 12

INTRODUCTION

The European Commission (2011) has set a strategy to become a smart, sustainable and inclusive economy by 2020. A key target is to improve European education and training and specifically this refers to the quality and relevance of higher education. External evaluation and self-assessment are defined as key roles. In September 2014 eight European universities began a collaborative Erasmus+ project to create a lean process to enhance self-evaluation and accreditation through peer alliance and cooperation. To date the project, which is designated QAEMP (Quality Assurance and Enhancement Marketplace - www.cross-sparring.eu), and its progress have been disseminated at several engineering education conferences, including the 11th International CDIO Conference (Kontio et al., 2015) and the 43rd SEFI Conference (Clark et al., 2015)

This paper describes the latest phase of the project, which involves the application of the devised new lean process to enhance the quality of higher education. The overall process is described in detail by Bennedsen et al. (2015) and can be defined in four steps, which are also illustrated in Figure 1:

1. Self-evaluation. Each institution evaluates one of their programmes against 28 criteria, which were produced based on the exemplary practices of many self-evaluation frameworks, including institutional standards and processes, national standards and processes, regional and global accreditation schemes and the CDIO standards (Clark et al., 2015). This culminates in the identification of several criteria that each institution wants to improve on their chosen programmes.
2. Pairing. A pairing algorithm matches two institutions based on their respective self-evaluation scores. It ensures there are significant differences in criteria that matter to them and hence they will be able to help each other in these areas.
3. Cross-sparring. Each institution visits the other with the goal of learning from and inspiring each other.
4. Enhancement. Each institution prepares a development plan for their respective programmes and institutions based on their cross-sparring experiences.

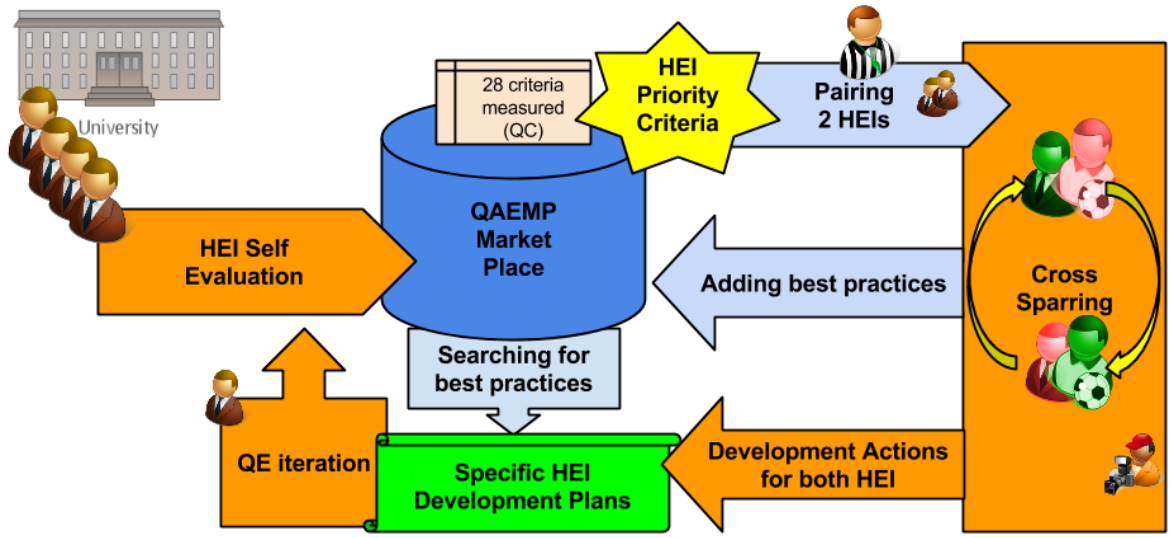

Figure 1. The Overall QAEMP Process (Bennedsen et al., 2015)

Central to the process is the partnering of two institutions as critical friends, based on prior self-evaluations of specific programmes to identify particular priority criteria they want to improve. The ensuing meetings between critical friends have been designated as 'cross-sparring'.

The paper focuses on a case-study of the self-evaluation and cross-sparring steps in the process between Umeå University and Queen's University Belfast (QUB), and their respective Masters programmes in Software Engineering and Mechanical Engineering. The cross-sparring concluded with respective documents from each institution reporting on the findings from their collaborative experiences, including the impressive practices, strengths, challenges and open questions raised during this process, which are described, evaluated and discussed in the ensuing sections of the paper. These findings will be used to evaluate the QAEMP process and make it more robust and applicable.

The paper is arranged into sections based on the following themes:

- Generic description of the self-evaluation and cross-sparring steps;
- Criteria to critique these steps;
- Umeå visit to QUB – experiences and findings;
- QUB visit to Umeå – experiences and findings;
- Joint discussion;
- Joint conclusions.

THE SELF-EVALUATION & CROSS-SPARRING PROCESSES (STEPS 1 & 3)

The basis for the QAEMP project matured from the partner institutions' involvement in CDIO and specifically, through self-evaluation and development of their programmes against the CDIO standards to complement their quality assurance processes. This project background is detailed by Kontio et al. (2015).

Self-Evaluation

The self-evaluation, or first step in the QAEMP project, generates data that initiates the whole enhancement process. A programme of study is chosen to conduct the self-evaluation, which should ideally be completed by the programme director(s) within a day. This data feeds into a 'marketplace' where participating institutions can be paired together to engage in peer-evaluation and opportunities to share best-practice regarding their implementation of teaching and learning. A robust self-evaluation framework has been developed, based on the following resources (Clark et al., 2015):

- Institutional standards and processes from the partner institutions;
- National standards and processes e.g. QAA in the UK;
- Documents relating to regional and global accreditation schemes e.g. ABET;
- Requirements and guidelines relating to particular learning and teaching frameworks e.g. CDIO.

This self-evaluation framework is based on 28 criteria, which are grouped under 10 themes as shown in Table 1.

Table 1. Final Criteria Classification

Theme	**Number of Criteria**
Programme Philosophy	1
Programme Foundation	4
Learning and Teaching	5
Assessment and Feedback	2
Skills Development	4
Employment	2
Research	1
Student Focus	4
Faculty Development	2
Evaluation	3

A measurement rubric has been developed for each criterion, using a maturity model rubric similar to the CDIO evaluation. This approach comprises six levels, with general expressions adapted to suit each criterion as shown in Table 2.

Table 2. Generic Measurement Rubric

Level	Description
5	Continuous improvement and development are evident
4	Evidence of implementation and evaluation are available
3	Implementation is underway
2	A plan to implement change has been produced
1	There is an awareness of the need to implement change
0	No intention to change

Cross-Sparring

In the QAEMP project the third step or procedure for collaboration between two institutions is symmetric – one institution studies the other and vice-versa. This procedure can be likened to sparring (in boxing) where sparring partners do not compete, but help each other develop through supporting, complimenting and sharing their skills and strengths. An overview of the whole QAEMP process is shown in Figure 1, which illustrates the steps involved: self-evaluation, pairing, cross-sparring and enhancement.

The cross-sparring model was developed to compliment the accreditation system and facilitate the dissemination of best practices in quality assurance and education among HEIs. The identification of best practices takes place when the actual cross-sparring is conducted. Institutions collaborate/spar to learn from each other as partners for a short period rather than competitors. They can identify their sparring-partner's strengths and challenges free from bias and provide more immediate feedback for development actions. An effective external collaborator (cross-sparrer) can help a partner institution (cross-sparree) reflect with greater impartiality and obtain a more objective view of its strengths and potential improvements, and at the same time identify best practices that can be useful for their own institution.

The cross-sparring process (CS) has been designed to be flexible, reactive, targeted, simple and compact. Once a pair of HEI's has been selected, two instances of CS take place, with the institutions visiting each other in turn. This gives each institution the opportunity to take on the role of both the 'sparrer' and the 'sparree'. For each pairing, the sparring partners are responsible for preparing, planning and leading the cross-sparring in turn to ensure it conforms to the guidelines. Together, they manage the delivery of the outputs, which include an internal report for the pairing institutions, output for the QAEMP Market Place and, if necessary, feedback on the process for the sponsor. Note that sponsor and observer roles can be added to evaluate or inspect the process. Sparring requires honesty from both partners to be mutually beneficial.

The sparring-partners must be familiar with the self-evaluation documents prior to the CS and agree on the number of criteria to be analysed. This enables the cross-sparrer to produce a short executive report at the end of their site visit and also to learn from the institution visited. The cross-sparree can then analyse this feedback to develop their enhancement plan and upload a description of any best practice to the web-based marketplace. The enhancement plan should address six areas regarding the scrutinised

priority criteria: (i) impressive experiences from the visit; (ii) strengths; (iii) challenges; (iv) development plan (define the precise actions for improving the quality of education); (v) best practices; (vi) any open questions.

The CS is composed of four main activities:

- Initialisation - Participants from each partner institution agree on their own priority criteria (for enhancement) from the self-evaluations and the focus, boundaries, roles, responsibilities and composition of the CS team. This activity is conducted in advance of either of the two visits and should require a workload of no more than sixteen hours per institution;
- Organisation and Preparation - the teams, the self-evaluation consultations, the visit agendas and production and validation of the CS plan. This activity is conducted in advance of the visits and should require a workload of no more than sixteen hours per institution;
- Sparring – at the cross-sparree institution identify evidence related to the priority criteria, best practices, challenges and potential improvement actions. Two days should be scheduled for this activity;
- Feedback and Development Plan - reporting actions, market place updates, sponsor notification, follow-ups and good practices. A workload of sixteen hours per institution should suffice.

A CS kit of instructions and document templates has been produced to facilitate the process for the partners.

CRITERIA TO CRITIQUE THE SELF-EVALUATION & CROSS-SPARRING PROCESSES

The participating institutions were tasked with critiquing both of the steps in the QAEMP process which they had actively participated in: the self-evaluation and the cross-sparring.

Quality of Self-Evaluation Process

To evaluate the self-evaluation content the following questions were applied to each criterion:

- Is the rationale understandable?
- Is the rubric understandable, and in accordance with the general maturity model?
- What indicators were used corroborate the measurement rubric level chosen?

To evaluate the self-evaluation framework the following questions were applied:

- Are all criteria relevant?
- Are some of the criteria overlapping?
- Are there missing criteria?
- Does the order of the criteria work or is there a grouping that would be more logical?

The partners were also free to feed back any other items they deemed important for this part of the process.

Quality of Cross-Sparring Process

To evaluate the cross-sparring comments were sought on:

- The pairing algorithm regarding the choice of partner.

- The site visits.
- The benefits accrued.
- The added value gained.
- The CS documentation.

QUB REFLECTIONS ON CROSS-SPARRING WITH UMEÅ

Initialisation, Organisation and Preparation

The CS began with the Initialisation activity. The compositions of the teams were decided, including the respective roles and responsibilities. It was fundamental that the members included those involved in the previous self-evaluations of their respective programmes. The key part of the initialisation activity was to identify and agree on the priority criteria for each institution. In theory, the pairing step of the QAEMP process should have partnered two institutions with suitable differences in their self-evaluations to easily facilitate and validate this activity.

Figure 2 shows a graph of the respective self-evaluations produced by QUB and Umeå (for their masters programmes in mechanical engineering and software engineering), with clear differences in criteria levels between the two institutions. Specific criteria where QUB scored themselves significantly lower than Umeå have been highlighted (encircled in green) and hence these were criteria were QUB could potentially learn and gain inspiration from Umeå. Five priority criteria were identified by QUB based on their institution's current priorities and to maximise the potential gains illustrated. They were ranked as:

1. Criteria 9 – Learner assessment.
2. Criteria 1 – A holistic view of learning.
3. Criteria 2 – Appropriate Learning Outcomes.
4. Criteria 18 – Wider stakeholder input.
5. Criteria 7 – Personal and interpersonal skills development.

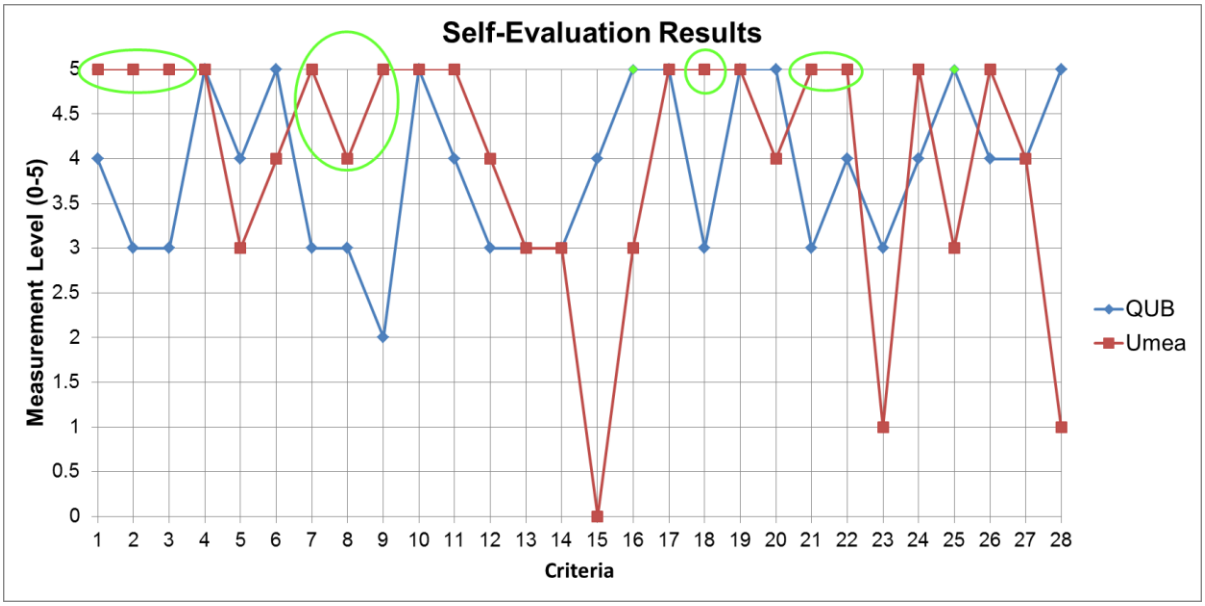

Figure 2. Graph of the Self-Evaluation Results for QUB and Umeå

Table 3 provides an explanation of these five priority criteria. It is worth noting that the original priority criteria specified by QUB during the self-evaluation step, which were used in the pairing step, were subsequently reevaluated during this initialisation activity in the CS process. Originally the priority criteria were 8, 12, 18, 23 and 25, the latter two not being supported by the pairing algorithm as seen in figure 2.

During the initialisation activity Umeå also identified five priority criteria for enhancement: 5 - Active learning; 8 - Faculty development; 16 - Research is used in teaching; 23 - Equality, diversity and equal opportunity considerations; 25 - Evidence of educational scholarship by faculty. It can be seen from figure 2 that these criteria all scored lower than the respective QUB criteria, except for criteria 8. Interestingly, they too had reevaluated from their original priority criteria, which were 6, 14, 16, 20 and 23.

Table 3. QUB Priority Criteria Descriptions from Self-Evaluation Rubric

Priority	Criteria
1	*Criteria 9 – Learner assessment* Assessment of student learning is aligned with the learning outcomes and the learning experiences and consideration is given to the type, level and amount of assessment employed. This ensures that there is no over-assessment of students and that the assessment used promotes learning. Using a variety of assessment methods accommodates a broader range of learning styles, and increases the reliability and validity of the assessment data.
2	*Criteria 1 – A holistic view of learning* For an effective learning experience it is important that the different components of the programme are linked together in a meaningful way. That way the student has the potential to gain a complete understanding of a discipline and consider potential career options. To achieve this, the programme team need to reflect on the programme structure and content to ensure coherency in the meeting of programme goals.
3	*Criteria 2 – Appropriate Learning Outcomes* Setting appropriate learning outcomes helps to ensure that students develop a foundation for their future careers. Specific and detailed learning outcomes for personal and interpersonal skills, and professional skills, as well as disciplinary knowledge need to be identified such that they are consistent with programme goals and can be validated by programme stakeholders.
4	*Criteria 18 – Wider stakeholder input* With a focus on preparing students for life beyond higher education, it is important that programme development takes place in a way that engages a range of internal and external stakeholders e.g. Industry Advisory Board and Benchmark Statements. This ensures that the programme is 'fit-for-purpose' and has the potential to produce the best possible graduates.
5	*Criteria 7 – Personal and interpersonal skills development* Personal and interpersonal skills development is embedded in the learning experiences to demonstrate that it is a combination of knowledge and competencies that is required to be effective in the discipline beyond higher education.

Before any sparring could take place, it was necessary to organise and prepare the agendas and logistics for each visit. As the first meeting scheduled was Umeå's visit to QUB, the first agenda was prepared by QUB. This was developed after carefully examining Umeå's self-evaluation along with their stipulated priority criteria.

Cross-Sparring Visit to Umeå

Each visit was scheduled for two days. The agenda for the visit of Umeå to QUB addressed Umeå's five priority criteria; two on the first day and three on the second day. QUB presented evidence of their indicators and practice in each of these criteria to inspire Umeå and enable them to experience an approach that they could potentially implement or tailor to their own programme. The agenda also included an introduction to QUB's school and programmes, a tour of the school's facilities, discussions on QUB's priority criteria and ended with collaborative reflections on the process thus far.

Umeå prepared the agenda for the visit of QUB to Umeå one week later. This agenda followed a similar format to the previous, but started with a broader university overview to better explain and set in context the higher education system in Sweden compared to the UK. Umeå addressed the QUB priority criteria by presenting their indicators and relevant specific practice to inspire QUB and provide relevant examples and experiences for QUB to consider for implementation to enhance their programme.

As already explained, the CS kit includes several documents that must be completed as the CS progresses. These documents prompted the partners to comment on specific topics, which are described from QUB's perspective in the following sections.

Observations of Priority Criteria at Umeå

Criteria 9 - Learner assessment: Umeå implement a project assessment and management system called SCRUM, specifically for iterative software development cycles, which merits investigation regarding its suitability for the iterative CAE design optimisation phase of a mechanical engineering design project.

Criteria 1 - Holistic View of Learning: Umeå apply a comprehensive matrix of all programme learning outcomes mapped against assessment strategies that gives an effective holistic view of learning. Programme Directors at Umea are allocated a significant percentage of their time (typically 6%) to complete an Annual Programme Review (APR) document as part of a very structured process, which is comprehensive in its consideration and stakeholder inputs.

Criteria 18 - Wider stakeholder input: Local company engagement in curriculum development at Umeå and student employability was efficiently and effectively managed to the benefit of all. A key part of this was the careers day, where external companies interact with different cohorts at various stages in their studies, in a full day of career focused events.

Criteria 8 - Faculty Development: The 1-year Catalyst programme, which piloted a methodology to engage staff in pedagogical development, was a valuable and stimulating example of how the common problem of staff development in this area might be effectively improved by stimulating cultural change within a Department / School.

Findings at Umea

The Faculty structure at Umea and the provision of mathematics teaching across degree programmes without context by the mathematics department appears to have contributed to attainment and retention issues. QUB's School of Mechanical and Aerospace Engineering

(SMAE) faced very similar problems in the past and have been able to resolve these by bringing the delivery of mathematics teaching within the School.

Despite the different programme themes there were many areas of similarity between the two institutions' approaches to teaching. One example of this would be the learning outcomes, design methodology and assessment methods in the first year introductory modules, although the period of delivery and opportunity to embed the course as part of an integrated curriculum at Umea seem more restricted by their programme structure.

***I**mpressive Experiences and Strengths at Umeå*

There were many positive experiences witnessed at Umeå, but these stood out:

- The quality assurance loop implemented at both Faculty and programme level in Umeå: observe-analyse-propose-implement. It is an inspirational system, which allocates an impressive amount of resource to complete the loop
- The industry engagement at various levels of programme development and delivery.
- The growing demand for their Software Engineering degree and the associated positive impact of alumni on the local economy.

Challenges at Umea

Due to their Faculty structure and also the nature of provision of tertiary education in Sweden, there were two key challenges identified and discussed:

- The inability of programme directors to contextualise the delivery of modules facilitated by other departments/schools, specifically mathetmatics.
- The retention of students stemming from the inability to specify the level of mathematics ability of incoming students.

Evaluation of the CS Process

From a QUB perspective:

- The self-evaluation and pairing steps of the QAEMP process worked well to identify priority criteria.
- The CS visits benefit from agendas which provide introductions to each institution, providing a broad university context, rather than focused at the school/department level.
- The CS kit was pack was too complicated and even confusing, so needs simplification.
- The CS visit duration of two days was appropriate to cover the five priority criteria of each institution.
- The distance between Belfast and Umeå added two further days for travelling to each of the visits, which makes them almost week-long events.
- The mismatch in disciplines between QUB and Umeå (mechanical engineering and software engineering) proved to be beneficial and not a shortcoming.
- The fact that the CS teams had not previously met was not a problem as the process structure facilitated effective communication.
- The CS process provided useful feedback to both institutions, enabling them to formulate development plans for their respective programmes.

UMEÅ REFLECTIONS ON CROSS-SPARRING WITH QUB

Focus criteria for improvement in Umeå:
Criteria 5 – Active learning.
Criteria 8 – Faculty development.
Criteria 25 – Evidence of educational scholarship by faculty.
Criteria 16 – Research is used in teaching.
Criteria 23 – Equality, diversity and equal opportunity considerations.

Synthesis of elements of the visit to QUB transferable to Umeå:

The QUB partner has done a lot of work on active learning, faculty development, and educational scholarship that is an inspiration for the Umeå partner. There is also work on equality and equal opportunity implemented in QUB that can be transferred to Umeå.
Criteria 5 - Active learning: The curriculum in QUB ensures that active learning is emphasised in more or less every module the students take.

Criteria 8 - Faculty development: A course in university pedagogics is mandatory for all teachers, which ensures a minimum level of pedagogic knowledge. The teaching track for some of the faculty ensures that at least some of the teachers have time for pedagogical development.

Criteria 25 - Evidence of educational scholarship by faculty: The teaching track ensures that at least some faculty members engage in educational scholarship. Close ties to the CDIO community as well as other networks facilitate cooperation projects with other institutes.

Criteria 16 - Research is used in teaching: The design of the QUB curriculum is permeated by the results of educational scholarship. In the later parts of the studies, the students choose between “tracks” of modules that have been designed by research groups at the school.

Criteria 23 - Equality, diversity and equal opportunity considerations: Steps have been taken that have resulted in a certification for gender equality. Every person serving on an appointment board is required to have taken a course about the ethical and legal aspects of hiring new staff. All decision bodies must have female representation.

Impressive experiences and strengths:

The work that has been done by the QUB partner in creating an integrated curriculum and integrating active and interactive learning in many courses, as well as basing much of the teaching on design-build-test projects is very impressive.

Following research that shows that engineering students learn mathematics better when taught in context and by engineers, and noticing that the mathematics teaching was not working for the students, the QUB team decided to teach their students mathematics themselves, rather than outsourcing to another School within their institution. This shows great initiative and dedication.

The Umeå team was also impressed by the amount of educational scholarship the QUB team engages in. In particular, the way they use scholarship as a means to identify causes of problems they see in their teaching is impressive.

The programmes at QUB have a 95% retention rate, which is truly inspiring.

Challenges:

In Umeå, the programme team for the Masters program in Computing Science Engineering does not have the same amount of control over the curriculum or the way courses are taught as in QUB. The programme is owned by the Faculty of Science and Technology, but the courses are given by departments (primarily the Department of Computing Science, but also the Math and Physics departments as well as the Department of Applied Physics and Electronics). This makes it more difficult to create a truly integrated curriculum and to ensure that active and interactive learning is encouraged.

Transferable success factors:

- Teaching track lecturer positions with dedicated time for educational scholarship, development as a teacher and dissemination of best practices, but also academic standards that the lecturers are required to fulfill.
- Stress active and interactive learning in all courses.
- Teach everything, including mathematics, in context.
- Require female representation in all decision bodies.
- Require training for every person participating in a recruitment/interview board.
- Student diagnostics at the beginning of studies.
- Base the pedagogical development of the study programme on a structured and well developed approach such as CDIO.
- Analyse the learning styles of the students and try to help them to develop new learning strategies, geared towards life-long learning.

Potential improvement actions for Umeå:

Form a group of teachers interested in pedagogical improvement and scholarship.

Form partnerships with other institutions that are interested in pedagogical improvement and scholarship.

Investigate the possibility of design-build-test courses that stretch the whole academic year. In particular, the introductory course could be considered.

Design a diagnostic test for new students. Possibly also use a learning styles test. Use results to better understand the students' strengths and weaknesses. If possible, involve other programmes as well.

Use peer rating (but not assessment) on courses that involve group work. QUB has consistently used peer rating and have documented the improvements in self-assessment shown by the students.

Investigate the possibility of changing the content of the mathematics courses the students take, as well as the way in which mathematics is taught (aiming for context and active/interactive learning).

Investigate the possibility of having teaching track lecturers similar to the ones in QUB. This is not something that can be achieved in the short term, but perhaps in a number of years.

Focus on the things that can actually be influenced and changed. Wasting time by trying to change things in areas where there is no or limited control is counterproductive.

CONCLUSIONS

The self-evaluation and the cross-sparring steps in the QAEMP process have been described, discussed and evaluated by two institutions involved in a pilot of these initial steps in the process. It was a very positive experience for both parties and identified specific areas for enhancement in their programmes under scrutiny. In addition, the cross-sparring proved stimulating as an activity, which allowed the partners to learn from each other and be inspired by each other in a very friendly and conducive environment.

The programme self-evaluations from each institution proved very beneficial in identifying the key criteria for the cross-sparring visits and associated agendas. The arguments and indicators provided in the self-evaluations to justify the marking rubrics for each criterion were very valuable in this regard.

The pairing algorithm used to partner QUB and Umeå seemed to work well, based on the self-evaluations, but both institutions found it useful to revisit their priority criteria to maximize the gains from the ensuing cross-sparring visits and this proved worthwhile. Five priority criteria were identified by each partner and the two-day visits were an appropriate amount of time to cover them. The fact that the two partners were evaluating different programmes from different disciplines did not hinder the process, but benefited it by ensuring the focus was on the criteria and not the respective content. Both teams concluded that the CS kit produced by the QAEMP team requires simplification.

Participants from both institutions found that the practical implementation of this process works and when rigorously applied can facilitate the mutual enhancement of the programmes under scrutiny.

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BIOGRAPHICAL INFORMATION

Charles McCartan is a senior lecturer in the School of Mechanical and Aerospace Engineering at Queen's University Belfast. His scholarly interests include developing, applying and evaluating active and interactive learning methods, teaching mathematics to engineers, first year introductory courses, the assessment of group projects and the transition from school to university. In addition, he is a professional engineer with experience in industry, research and consultancy. He is a member of the Society of Automotive Engineers (SAE) and a Fellow of the Higher Education Academy (HEA).

J Paul Hermon is a Senior Lecturer (Education) in the School of Mechanical and Aerospace Engineering at Queen's University Belfast, is Programme Director for the Product Design Engineering degrees there and Co-Chair of the CDIO UK & Ireland region.

Fredrik Georgsson is a Doctor of Technology. He received his M.Sc. degree in Engineering in Computing Science from Umeå University in 1996 and a Doctoral degree in Image Analysis in 2001 also from Umeå University. In 2015 he was appointed as Excellent Teacher within the pedagogical meriting system used at Umeå University. At the moment he holds position as a senior lecturer in Computer Science and is appointed faculty subjects coordinator at the Faculty of Science and Technology at Umeå University. He has presented and published over 45 papers. He is a Co-Chair of the CDIO European region.

Henrik Björklund received his PhD in Computer Science from Uppsala University in 2005. He has since worked as a researcher and teacher at the RWTH Aachen, the Technical University of Dortmund, and Umeå University. Since 2014 he holds a position as Associate Professer in Computing Science at Umeå University. He is currently the programme director for the Master's degree in Computing Science Engineering.

Jonny Petterson is a lecturer at the Department of Computing Science at Umeå University. He has multiple times been awarded for his pedagogical work and he is a member of the educational council at the Department of Computing Science. He is the project leader of the Catalyst Project and he has a long experience in teaching and coaching within Personal development and leadership.

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