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<th>Introducing Service Improvement into Pre-registration Education for Better, Safer Healthcare</th>
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<td>University of East Anglia</td>
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| **Project Directors** | Jill Jepson – Undergraduate Course Director, Occupational Therapy  
                        Jon Larner – Undergraduate Course Director, Physiotherapy |
| **Project Manager & contact details** | Julie Collier  
                        Senior Research Associate  
                        School of Allied Health Professions  
                        Queens Building  
                        University of East Anglia  
                        Norwich NR4 7TJ  
                        j.collier@uea.ac.uk  
                        01603 591671 |
| **Partner Institutions** | East of England Strategic Health Authority  
                        NHS Institute for Innovation and Improvement  
                        University Campus Suffolk  
                        University of Bedfordshire  
                        University of Hertfordshire  
                        Anglia Ruskin University  
                        University of Essex |

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<tr>
<td><strong>Author (s) &amp; project role</strong></td>
<td>Julie Collier</td>
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Acknowledgements

The project was funded through Strategic Workforce Investment for Tomorrow (SWIFT) and the County Workforce Groups under the guidance of the East of England Strategic Health Authority (SHA). The SWIFT fund was created specifically to support delivery of the ‘Towards the best, together’ strategy (TTBT), over the three year period to March 2011. The purpose of the fund is to enable step changes in the workforce to be made which support TTBT implementation. The fund is an investment pool of £20 million for each of the three financial years and is drawn from the SHA’s Multiprofessional Education Training (MPET) allocation.

The project involved working across many organisations, and thanks are extended to:

- East of England Regional County Workforce Groups
- NHS Trusts
- Social care
- Private and charitable organisations

The project partners would like to thank the following people for their valuable input and advice during the project:

- Sue Lister NHS Institute for Innovation and Improvement
- Service Improvement Steering Group members
- East of England Steering Group members
- Placement Office Team - School of Allied Health Professions
Executive Summary

As we face the consequences of a worldwide recession and the need to cut national debt, more focus is on health and how to continue to make improvements whilst keeping quality and safety a priority. The demand for healthcare from a growing and ageing population, new technology and growing patient/user expectations means there will be increased pressure on the budget.

This document describes how we implemented the introduction of service improvement tools and techniques into pre-registration education for students in the School of Allied Health Professions (AHP). The Service Improvement Programme commenced within AHP in 2008 with year one BSc Occupational Therapy, Physiotherapy and Speech and Language Therapy students participating in two half day sessions provided by tutors in the classroom using the model provided by the NHS Institute.

Although student feedback was positive, it was recognised that it could not be sustainable if the workforce who hosted students weren’t prepared sufficiently to enable them to support students when they were on a placement.

Teaching staff at the UEA worked in partnership with members of five other Higher Education Institutes (HEIs) in the East of England to submit a bid to obtain funding through the SWIFT initiative to further develop the education programme. This was approved and each HEI was awarded equal amounts to implement the introduction of service improvement into pre-registration education. The bid and financial schedule can be found in appendix 13. The funding enabled the recruitment of a Senior Research Associate to continue to develop the project and move forward and address issues relating to communication and sustainability of the initiative.

Those 1st year BSc students who have used the tools in clinical placements in their 2nd year have demonstrated that they are capable of identifying areas for improvement around systems and process across the Eastern region in health and social care.

The programme has highlighted many areas for development in organisations across the region. In the period between November 2009 and July 2010 over 800 clinicians received the information, communicated to them via presentations and workshops and feedback has provided thought provoking issues.

Key points from the project

- Obtained funding through workforce investment
- Developed a teaching model to cover all three academic years to ensure students have complete understanding and confidence for the future
- Provided information and support to over 800 clinicians across Eastern region
- Provided teaching and support to 264 students in AHP
- Provided information and support to teaching staff in AHP
- Collaborated with other HEIs and agencies across the eastern region
- 2nd year students have successfully applied theory in practice
- Obtained feedback via questionnaire from clinicians, students and teaching staff
Background

The future of the NHS is dependent on services being geared up for change and redesign through the use of validated tools. Students who graduate with the relevant skills and knowledge will have a distinct advantage when looking for jobs. The 21st century world class commissioning framework for healthcare commissioners is outcome driven and it is an expectation that all services will evidence that they have implemented service improvement processes.

A priority of the NHS Institute for Innovation and Improvement (NHSI) is to develop capability for a self-improving NHS. One current stream of work is a partnership with Higher Education Institutes (HEIs) and local NHS employer organisations to develop short courses on improvement with an emphasis on safer care applicable to all professions as part of their pre-registration education. The principle is that the responsibility for improvement needs to be embedded in the initial stages of education and training with the message that everyone, whatever discipline or grade, has a contribution to make to provide better, safer healthcare, which will result in the willingness and ability of graduates to:

- Take action according to the scope of their role and work
- Engage with colleagues and communicate improvement ideas
- Challenge in a non-threatening way and be challenged in their own work
- Be objective and assess the impact and learning of improvement ideas

Improvement has been described as being a combination of the following:

- Public and patient involvement: listening and understanding user experiences and needs
- Personal and organisational development: recognising and working with differences in culture and people
- Process and systems thinking: understanding the effects of different practices and procedures
- Initiating, delivering and sustaining improvement: generating change ideas then knowing how to plan for and measure the effects of improvement

In 2006 the NHSI commissioned three consortia to pilot the introduction of the principles of service improvement into healthcare professional training using a model developed at Warwick University. In 2007 they recruited six more consortia to adapt the original pilots for their own courses. In 2008 the University of East Anglia (UEA) was one of twenty-three additional universities who joined the initiative. Having successfully introduced service improvement principles and tools into the pre-registration programme for first year student occupational therapists (OT), physiotherapists (PT) and speech and language therapists (SLT) during 2009, a one year Senior Research Associate post was developed specifically to facilitate the successful implementation of students’ service improvement education from the classroom setting in the School of AHP into the workplace.

The Warwick model was modified and incorporated into all three years of the BSc studies at the UEA. This decision was made on the basis that by integrating the concept of service improvement across the whole pre-registration programme, the students will feel more confident and knowledgeable about translating theory into practice.

Warwick model of service improvement in pre-registration education

1. A minimum of an equivalent to a 1 day ‘stand alone’ introduction to improvement
2. Introduction to improvement to include:
• Exposure to a patient/service user experience
• Principles of process mapping
• Model for Improvement to include PDSA (plan, do, study, act) cycles

3. Practical application in a clinical setting:
• Supported, if possible, by clinical facilitators
• Setting appropriate to student
• An opportunity to test out PDSA tool in practice

4. Faculty and Clinical facilitator Development:
• Training faculty and clinical facilitators in the same tools and techniques that students are learning
• Make links to other areas of expertise e.g. leadership, management, leading change, clinical governance, safety etc
• Links to Higher Education Institutes and NHS targets

The project was supported by the resources provided by the NHSI with details of the website. Some examples of the resources were provided in the leaflet and in all of the presentations. The Improvement Leaders Guides and other resources were provided on a CD. The contents list for the CD is provided in appendix 10.

A Senior Administrator supported the project for the first eight months at two days per week and for the remaining four months at eight hours per week. This proved a valuable asset to the project.

Steering Group

A steering group was already in place prior to August 2009. Terms of Reference and membership were reviewed and agreed. The membership was comprised of stakeholders from health and social care from Norfolk, Suffolk and Cambridgeshire, and two students who were studying with School of AHP. A lay representative was not in evidence, though there was representation from a patient user organisation. The School does have a user group but it is focussed on research and there is no group for generic purposes.

Steering Group meetings took place at least every three months. Agenda and notes were distributed prior to the meeting and members had the opportunity to include items for discussion. Regular progress reports were circulated to the Steering Group and Strategic Health Authority and discussed at steering group meetings.

National and Regional Policy

Many policy documents were used to highlight the message that improvement is integral to NHS service delivery – for example:

Towards the best together, East of England Strategic Health Authority
18 week AHP Toolkit
Physiotherapy Pathway Improvement Tool
Releasing time to care, the productive ward series
Transforming Community Services
Modernising Allied Health Professions (AHP) Careers
**Aim of the Project**

To work between the UEA School of AHP, Trusts and other health and social care providers across the East of England region to facilitate the implementation of pre-registration service improvement so that students have the opportunity to put into practice the tools and techniques of improvement during their clinical placements and beyond.

**Objectives of the Project**

1. Develop relationships with placement educators/providers to enable them to fully understand the role and value of service improvement in context of students placements
2. Ensure that all members of School of AHP are appraised of the project
3. Support and provide teaching sessions to students
4. Develop outcome measures for the evaluation of the successful implementation of pre-registration service improvement education at the UEA
5. Contribute to the development of a model of practice across the region working collaboratively with other HEIs and health and social care providers

**Stage I**  
August – September 2009

- Develop a detailed action plan, communication plan, Gantt chart, progress report template and risk analysis and agree with Steering Group
- Review what has already been achieved and appraise model currently in use
- Obtain list of placement providers and develop a communication plan to include clinical networks that link in with the placement providers and potential service improvement champions
- Develop an information pack
- Obtain dates and venues for all planned regional and national meetings
- Link with all colleagues in faculty that are involved with students and placements
- Develop a bulletin template and use for circulating information to all networks and stakeholders
- Make links with other faculty of health colleagues

**Stage II**  
October 2009 – March 2010

- Develop teaching pack and deliver theory session to students
- Develop information pack for placement providers and plan visits through either placement education facilitators or placement co-coordinators
- Develop presentations and deliver workshops to teaching staff
- Attend placement educators courses for networking and information
- Develop a database of key contacts
- Provide a project update to senior management team/Steering Group

**Stage III**  
March – August 2010

- Develop outcome measures for evaluation of successful implementation of pre-registration service improvement training at the UEA
- Develop a final report that encompasses all aspects of the project including methodology and outcomes

The detailed action plan and associated documents can be found in appendix 1.
Implementation

Objective 1

Develop relationships with placement educators and providers to enable them to fully understand the role and value of service improvement in the context of students’ placements

Practice Educators/Coordinators

Students within AHP attend placements extensively across the east of England and, on occasion, as far as London. There were three databases based on the professions of the students (OT/PT/SLT) and it was agreed that an integrated database should be developed for all stakeholders involved in placement provision using the existing databases from the practice placement office, who co-ordinate all AHP students placements. The contacts included Co-ordinators, Practice Educators, Practice Educator Facilitators, Lead Clinicians and other members of multidisciplinary teams from health and social care (adult and children) from organisations across the East of England. These were amalgamated and modified to facilitate a merge of the three professions with the same providers. This enabled an overview of the organisations contact details for all the teams that would be involved in students’ placements.

A contact schedule (appendix 2) was developed from the main database of all organisations that had made an offer to host a 2nd year student for the placement chosen for the service improvement task occurring from 19 April to 11 June 2010. Each organisation was contacted by email offering the Research Associate to attend meetings to discuss and provide a presentation of the programme.

To support the message an information leaflet was developed (appendix 3). In the centre is a model of the 3-year programme, which was taken from a poster, designed by a 1st year AHP student which was presented at an international event in Berlin in 2009.

Leaflet content:

- An overview of the programme
- Information on process mapping
- PDSA cycle (plan, do study, act)
- Examples of students’ experience nationally
- Relevant website addresses
- Contact details

All information was sent by email and hard copies were handed out on the day of the meeting. A folder was created on the AHP section of the university website for service improvement. Students, tutors and clinicians could access all information through the UEA portal.

A number of presentations styles were developed to cover all eventualities and be flexible enough to use with a variety of audiences to communicate the service improvement message, with times ranging from 20 minutes to 60 minutes.

Outcome

This element was by far the most time consuming but was considered essential and a valuable part of the project. Much has been learned from this exercise. Many of the organisations had changed their names and logo and many clinicians had moved employment which resulted in constant update of the database and communication of this to the placement office. The contact schedule shows that many organisations were contacted several times before a response was made. In one instance the placement co-ordinator
could only offer one date in the whole project period and could not be accommodated due to pre-existing bookings. They were unable to offer an alternative date. This was the only organisation that hosting 2nd year students that did not receive a visit. It was not always possible to organise meetings through Educator Coordinators as they did not have access to group meeting dates, so a variety of approaches needed to be adopted, for example:

- Team leaders and service managers meetings
- Through colleagues in other teams
- Education leads meetings
- Assistant Directors meetings
- Governance meetings

Many organisations did not have a communication system that enabled all three professions to attend one session and the clinicians were often spread across the region. Although working for the same organisation they did not have regular communication with other teams. This highlighted the fact that there is still an element of silo working in evidence. This also meant several visits to one site to reach all the educators.

The offers of placements were sometimes retracted, often that particular placement had already received the information and the presentation, which increased the workload, as another offer had to be sought and visited. This impacted on the visit schedule as the visits had been planned around the placement where 2nd year students were originally undertaking the service improvement task. Where teams did attend joint meetings it tended to be OTs and PTs. Occasionally nurses were invited. The message from UEA was that anyone in the workforce was welcome providing the relevant educators were present.

Process mapping workshops were provided to two organisations whose teams requested more support following the presentation. These consisted of between 2-4 hours with teams identifying an area to map. They were very well attended and the outcomes were discussed at a follow up meeting. Other workshops were provided relating to improvement, such as identifying gaps through the development of a service specification.

UEA collaborated with University Campus Suffolk (UCS) to provide workshops designed to run for 2 hours for nurses and AHPs in Suffolk. They were jointly provided with the UEA. Attendance was poor and it was identified that the fliers were not circulated with enough time for clinicians to book time to attend. The two Universities shared information and facilitated the extension of the communication system across the two counties.

Around 102 teams were provided with a presentation and leaflet, which equates to approximately 750 clinicians.

Other Meetings were attended to ensure that the service improvement message was being acknowledged at a more strategic level.

**Senior Managers**

- PCT provider – A 10 minute slot was allocated at the Assistant Directors meeting to disseminate the leaflet and a brief overview of the project. The team agreed to facilitate the dissemination of information through locality meetings
- NHS Commissioner - A meeting with contractors to raise awareness of the impact that service improvement in pre-registration will have in the future
UEA Faculty of Health

- Faculty of Health Executive meeting. A 10 minute slot was provided to present a brief and provide information leaflets. This resulted in an invitation to attend a meeting with members of Nursing and Midwifery (NAM)
- A slot was allocated at the NAM Pre-registration Management Board meeting to provide a presentation and information leaflets, with time for questions. This meeting resulted in an invitation to meet with members of the school to discuss the plan for inclusion of service improvement teaching for 2010/11

Practice Educator Facilitators (PEFs)

A 40 minute presentation was provided to 30 delegates at the Regional Practice Educator Facilitator workshop.

The Norfolk and Suffolk PEF team facilitated some of the meetings with educators and colleagues and disseminated information through their news bulletins and meetings they attended.

Practice Educator Course

A fifteen minute presentation was provided at fifteen new and experienced practice educator courses. These courses are designed for the clinicians who take responsibility for AHP students whilst they are on practice placement. The course runs for one day so it was difficult to allow more than a short presentation. Delegates were offered the contact details if they wanted a more in depth presentation in their workplace. The leaflet and copy of the presentation were provided. A breakdown of delegates is as follows:

<table>
<thead>
<tr>
<th>Practice Educator Course</th>
<th>New</th>
<th>Experienced</th>
<th>Total</th>
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<tr>
<td>OT</td>
<td>86</td>
<td>48</td>
<td>134</td>
</tr>
<tr>
<td>PT</td>
<td>70</td>
<td>35</td>
<td>105</td>
</tr>
<tr>
<td>SLT</td>
<td>21</td>
<td>4</td>
<td>25</td>
</tr>
<tr>
<td>Total</td>
<td>177</td>
<td>87</td>
<td>264</td>
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These figures are in addition to the numbers quoted in the previous section.

Other methods of information transfer included newsletters, workshops and providing posters and leaflets at events.

Events

Institute for Innovation and Improvement - National Students Experience of Service Improvement – September 2009
UEA Learning and Teaching event – April 2010
Norfolk County Workforce events – October 2009 and May 2010
Quality Innovation Productivity Prevention (QIPP) Conference November 2009
AHP Service Improvement Conference - York May 10
Networking Education in Healthcare (NET) 2010 Planned for September 2010
Institute for Innovation and Improvement – London July 2010
Student involvement

In 2009 two students in AHP developed posters and submitted them to the NHSI for sponsorship to attend an international event on quality and safety in healthcare. They were successful and attended the event in Berlin. In 2010 a student submitted a poster and NHSI provided sponsorship to attend the same international event in Nice. Unfortunately due to a volcano eruption flights were suspended. However the student was given the opportunity to attend an event in London.

Bulletins/Newsletters

- Broadview – UEA news letter
- PEF Newsletter – Norfolk and Suffolk counties
- A progress report was circulated to members of the Steering Group and SHA at least every 2 months

Key points from objective 1

- Developed an integrated database of multiprofessional contacts across the eastern region
- Networked and disseminated information to clinicians through presentations, conferences, bulletins and workshops to clinicians at all levels across the eastern region
- Designed and developed an information leaflet, which was disseminated to over 800 clinicians
- Provided short sessions to 264 clinicians at UEA who attended Educator courses
- Attended Senior management meetings
- Provided workshops to teams to build their confidence and skills in mapping processes
- Students developed posters for international conferences
Implementation

Objective 2

Ensure all members of School of Allied Health are appraised of the programme

The AHP teaching staff required some education about the service improvement project, and this consisted of an event and some lunchtime sessions in AHP School. This was particularly important as teaching staff are required to visit students during their clinical placements and may therefore be required to offer advice about the project. Some of the teaching staff are members of the steering group so they are familiar with the programme and it is expected that they will continue to support their colleagues.

The event was provided in July 2009 and was open to all AHP teaching staff and clinicians from across the region. The National lead for Service Improvement for the NHSI delivered a presentation followed by a facilitated workshop. In addition to the event, two one hour lunchtime sessions were provided.

Lunchtime session Nov 2009:

Teaching staff were supplied with a presentation and a question and answer session. They were given the leaflet and a copy of the presentation.

Lunchtime session March 2010:

Teaching staff were given a copy of all the resources that were handed to students and a copy of a resource CD.

The placement visit schedule was circulated (appendix 5), so that teaching staff could see whether the area they were going to had been prepared in advance or if an appointment had been made to provide the information and presentation.

Outcome

The initial event was not well attended by teaching staff. The first lunchtime session was very well attended and it appeared that the message was successfully disseminated. The second session was sparsely attended and therefore an email message was circulated offering to provide one to one meetings to enable the information packs to be handed out. Some teaching staff accepted the offer but many did not. Those that did not attend the sessions or a one to one had the information sent to them if they requested. Visiting packs were available and left in the service improvement office for collection; several were not collected.

Key points from objective 2

- Provided a workshop event open to all teaching staff and clinicians
- Provided lunchtime sessions to teaching staff
- Provided information packs for visiting tutors
Implementation

Objective 3

Support and provide teaching sessions to students

Below is a breakdown of numbers of students by profession who have had service improvement education in this period – total 244:

<table>
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<th>BSc Year 1 – 2009 Cohort (Theory)</th>
<th>BSc Year 2 – 2008 Cohort (Theory and Feedback from Practical Placement)</th>
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<tr>
<td>Occupational Therapy</td>
<td>44</td>
</tr>
<tr>
<td>Physiotherapy</td>
<td>24</td>
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<tr>
<td>Speech and Language Therapy</td>
<td>41</td>
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<tr>
<td>Total</td>
<td>109</td>
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*This number dropped to 86 prior to placement

<table>
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<th>MSc Year 1 – 2009 Cohort (Theory)</th>
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<tr>
<td>Occupational Therapy</td>
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<tr>
<td>Physiotherapy</td>
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<tr>
<td>Total</td>
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Detailed lesson plans were developed for all the sessions and circulated to relevant tutors who were assisting in facilitation. Lesson plans can be found in appendix 4.

1st year BSc 2009 Cohort Sessions were provided 24 March and 21 April 10. The first of the two sessions was an introduction to the principles of service improvement and examples were given. Students were required to use post it notes to map a task from their personal life (in small groups) and feedback on flip charts to the whole class.

In the second session, an example of a patient experience was handed out and students worked in groups to process map the patient journey and identify areas they felt could be improved. Post it notes were used and a brief plan written on flip charts and each group provided feedback to the whole class.

Students were handed a questionnaire at the end of the second sessions and asked to complete this before leaving the classroom. An evaluation report was circulated to students and teaching staff and is included in appendix 11. Key points from the survey can be found in objective 4.

Key points 1st yr BSc 2009 Cohort

- The students identified at least 9 areas for improvement in the ‘real life’ patient journey, for example too many assessments, too many people involved in the assessments and too many delays. These are all areas that have been identified in real clinical settings.
- The students produced plans that incorporated some valuable objectives. Some were recommending that referrals and equipment were addressed much earlier in the pathway and training staff to work multidisciplinary and share work load.
- The students produced measurable benefits such as decreased steps in a process, better use of staff skill mix and reduction in length of stay in hospital.
**1st year BSc 2008 Cohort**  Sessions were provided to students in early 2009 in the same format as the 2010 cohort and a survey was completed and can be found in appendix 12.

**1st year Pre-registration MSc 2009 Cohort**  Two sessions were delivered in December 09. A questionnaire was handed out for completion in class and the results are part of an evaluation report, which was circulated to students and tutors.

The outcomes were very similar to the 1st year survey in terms of confidence levels and belief in the concept of service improvement, and therefore not included in this report.

**2nd year BSc 2008 Cohort**  Preparation sessions were provided prior to the scheduled placement commencing 19th April to SLT students on 11th March and to OT/ PT students on 18 March 10. The sessions were separate due to timetable scheduling issues. This built upon the two sessions that students had received in their 1st year. Students were reminded of the work they did the previous year and the presentation was provided. A work pack outlining the placement task and resource CD were provided to students.

**2nd year BSc 2008 Cohort Placement**

During the placement the students were expected to identify an area for improvement, process map it and complete a template that is included in the pack. The template is designed to answer the questions from the model of improvement as follows:

- **Aim (what are you trying to accomplish)**
  - With a description of the problem

- **Objectives**
  - The steps you plan to take to address the need for improvement

- **Outcome measures**
  - The change your improvement activities should make and how it will be measured

Students were able to contact the school either by email or telephone for support and guidance in developing their plans and ideas.

Below are details of the pack provided to students:

- Introduction to service improvement with contact details
- Description of the model for improvement with a simple framework
- Example of a process map
- Examples of students experiences nationally
- Testing learning diary
- 10 high impact changes for service improvement delivery
- Template for documenting ideas
- Copy of any presentations used in teaching sessions
- Improvement Leaders Guide – Process mapping analysis and redesign

A placement visit schedule was developed that detailed where students were located and the name of the visiting tutor. A column was added to show whether the providers had received an educational visit from the research associate. The anonymised schedule can be found in appendix 5.

Following the placement the completed templates were handed in for review and a feedback session was provided on 24 June 2010.
2nd year BSc Placement feedback session

The first part of the session focussed on students feeding back to small groups on their improvement idea. The second part involved working in larger groups. All students worked in mixed professional groups to discuss the following points:

1. What went well
2. What were barriers or difficulties
3. How did students deal with difficulties
4. What have students learnt
5. What skills do they need for the future

The sessions were facilitated in four groups of approximately 20 students and presented on flipcharts. The report from this session is in appendix 6 and includes a list of students’ service improvement ideas.

<table>
<thead>
<tr>
<th>Some key findings from 2nd yr BSc placement feedback session</th>
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<tbody>
<tr>
<td>• Students found that the project encourages communication with multidisciplinary team</td>
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<tr>
<td>• Some students thought they had to implement the improvement idea</td>
</tr>
<tr>
<td>• Educators not always supportive and often focussed on cost and resources</td>
</tr>
<tr>
<td>• Students would like more process mapping training to gain more skills and knowledge about systems</td>
</tr>
<tr>
<td>• Students wish to increase communication/assertiveness/negotiation skills</td>
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</table>

Outcome There were nine students who were absent from the session. Of the 88 students that had the original teaching session prior to placement, three did not participate in the placement and one student who did participate did not hand in the completed template, bringing the total to 84.

Many students had misunderstood the breadth of the task and had taken it much further and implemented the improvement idea. Many students had appeared to have jumped from an idea for improvement to a solution with no evidence of mapping the process. The separate list of student ideas can be found in Appendix 7 and is grouped into themes.

Themes:

- Communication (between staff)
- Pathway Improvement
- Patient Information

Overall the ideas were fairly even split between communication for staff, patient pathway improvement and patient information. 11 chose to look at data systems to improve services. 67 (80%) students reported that the teams that they worked with agreed to take their ideas forward and 23 students reported that they involved users of the service in their improvement ideas.
Key points from objective 3

- Teaching provided to 1st and 2nd year BSc students in OT/PT/SLT and to 1st year MSc students in OT/PT
- 1st year students showed clearly that they were able to identify areas for improvement and measurable outcomes in a theoretical context
- 2nd year students translated theory into their practical placement and identified an area for improvement
- The majority of students were supported by educators to develop a plan whilst on placement
- Some students did not feel supported by their educators, but were able to demonstrate that they could complete the task
- Some students carried out the service improvement plan with support from their educators
Implementation  

Objective 4

_Develop outcome measures for evaluation of successful implementation of pre-registration service improvement education at University of East Anglia_

Questionnaires were developed for the following groups:

- Students from AHP
- Placement Educators and colleagues who support students on placements
- Teaching staff from AHP who visited students on placement (visiting tutors)

**Student survey:** A questionnaire was handed to students following all lessons as follows:

- **1st year BSc Cohort 2008 following two sessions in the classroom in 2009 (appendix 12).** Not discussed in this section as the outcomes are similar to the more recent survey in 2010.
- **1st year BSc Cohort 2009 following two session in the classroom in 2010 (appendix 11)**
- **2nd year BSc students following placement where service improvement activity took place (appendix 6) and is also discussed in objective 3**
- **1st year MSc students following two sessions in the classroom (not included in this report)**

**Outcome of 1st year student survey conducted in 2010**

68/109 questionnaires were returned:

<table>
<thead>
<tr>
<th></th>
<th>34/44</th>
<th>(77%)</th>
<th>15/24</th>
<th>(63%)</th>
<th>19/41</th>
<th>(46%)</th>
<th>68/109</th>
<th>(62%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occupational Therapy</td>
<td></td>
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**Key points from the 1st yr BSc Cohort 2009 survey following theory session**

- 97% of students thought that service improvement is important or very important
- 94% of students thought that service improvement is important to patient safety
- 72% of students were keen to get involved with service improvement
- 53% of students were confident about being involved in service improvement
- 87% of students felt that service improvement training is important to professional development
Outcome of 2nd year student survey following placement feedback session June 2010

A questionnaire was circulated following the feedback session. 21 of the students who attended the session did not receive the questionnaire in class and so it was sent to them and also to 10 other students who did not attend the feedback session. Of a total of 86 students who had attended a placement, 84 completed the service improvement task and 61 questionnaires were completed and returned (73%). The numbers possibly would have been higher if all students had been offered the questionnaire in class.

Over 93% of the students who responded did attend the preparation session and so would have received the work pack and resource CD. 61% accessed the CD and 43% found it useful or very useful. A list of comments relating to the CD is in the report and some listed below:

- The booklet resource was very useful…..
- Reading some of the stories of previous service improvement tasks
- Lecture notes

59% of students devoted between 60 and 240 minutes to service improvement and 3% less than 10 minutes. A further 16% of students spent over 4 hours on the task. The results are encouraging in that the expectation was for the task to be completed in less than 4 hours.

The significant outcome is how supported students felt from the practice educators as 20% said they felt either not very or not at all supported (a further 7% were unsure), the majority of these were PT students (10) which is over half of the PT students who responded. 23% of respondents said they felt either not very supported or not at all supported by visiting tutors and a further 15% of students felt unsure as to whether they were supported, again majority of these were PT students (10). The confidence levels have risen since there first year session as this survey showed that 72% feel confident about using service improvement tools in the future compared to their response in the first year (in cohort 2008) which was 55%.

Some of the students’ comments have been included here. Some students felt that more support is needed and that educators need more preparation. However, there were some positive comments:

Comments from student survey

“I do not feel I pushed hard enough for my improvement to be implemented, so next time I intend to complete my service improvement 3-4 weeks into placement which leaves me the same amount of time to try and implement my idea” (PT)

“Upon reflection, glad I did it, not keen at the time” (OT)

“Educators didn’t seem to know about the task but willing to help after I had explained what I was required to do” (PT)

“Think it’s a very good idea and vital to our learning” (SLT)
Visiting Tutor Survey: A questionnaire was sent by email to all tutors who were involved in visiting students on placement where a service improvement task was taking place. They had the option to either return by email or place in the university internal post and the report can be found in appendix 8.

Outcome The questionnaire was circulated to 25 visiting tutors. Of these, 21 actually provided visits to students on this placement. There were 18 responses:

OT 7/7
PT 8/9
SLT 3/5

Over half said they were involved or very involved with students in service improvement. Just over a quarter accessed the resource CD. Over 94% felt they were prepared when visiting students on placement regarding service improvement. 61% spent less than 10 minutes talking about service improvement when they visited students on placement. Whilst over 83% felt that service improvement is important only 67% felt it would help students get a job or enhance their future prospects.

Visiting tutor comments

“Perhaps students can be the ambassadors now, in terms of them converting the workforce using a small presentation or some such resource to start to make up for the loss of you [Snr Research Associate]. Could this be a standard PP (PowerPoint) perhaps, which they could then show and talk in a very simple way?” (OT)

“That students email the visiting tutor their ideas before the visit. This will enable visiting tutors to anticipate the level of engagement that may need to happen on the visit. Indeed, the visiting tutor could email the student some thoughts/ideas that help them prepare further”. (OT)
Practice Educator Survey: A questionnaire was designed and provided by web link to survey monkey for completion by all educators across the region who were involved with students while they were on placement where a service improvement task took place. The web based survey link was sent to 118 contacts by email.

<table>
<thead>
<tr>
<th>Questionnaire sent by Profession</th>
<th>% of total</th>
<th>Questionnaires returned by Profession</th>
<th>% of profession</th>
</tr>
</thead>
<tbody>
<tr>
<td>OT</td>
<td>50</td>
<td>OT</td>
<td>28/50</td>
</tr>
<tr>
<td>PT</td>
<td>27</td>
<td>PT</td>
<td>12/27</td>
</tr>
<tr>
<td>SLT</td>
<td>37</td>
<td>SLT</td>
<td>26/37</td>
</tr>
<tr>
<td>Other (Admin/Training)</td>
<td>4</td>
<td>Other</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>118</td>
<td></td>
<td>66</td>
</tr>
</tbody>
</table>

Participants were given four weeks to complete the survey. An electronic copy of the questionnaire was also provided by email for those who didn’t want to or couldn’t access the website. The contacts were asked to disseminate the web link to their colleagues who were involved with students during that placement.

Outcome The closing date was extended by 2 weeks to encourage more responses. 66 clinicians responded (56%) and the report can be found in Appendix 9. The response was satisfactory given the anecdotal feedback relating to the clinicians time constraints and how infrequently they access their emails.

The results are encouraging in that 94% felt that service improvement is important or very important and 59% thought that the student’s ideas were useful or very useful. 65% felt that it would help students get a job or enhance their future prospects.

43% of educators devoted between 60 – 240 minutes supporting students in service improvement, and only 4 respondents spent more than 240 minutes. A third spent between 30-60 minutes. Of the 66, 29 respondents wrote in the comments box split by 15 OT, 4 PT and 10 SLT.

OT Comment
“The 2nd year student came well informed and motivated on this issue and therefore I had to do relatively little as an educator other than provide guidance to focus their idea. Hopefully it will always be this easy”.

PT Comment
“I think this is a very valuable part of the placement experience. I hope we will start to see the impact of this on the newly qualified clinicians who come through because they can offer so much in this respect if they feel empowered to do as students”.

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The following two were of concern:

SLT comments:

“The time demands that were requested of us to learn more about the UEA’s service development project was too much. We offer placements to the detriment of our existing clinical work. We do not have the time to offer time to hear about these non essential aspects. Students will learn about existing dept service improvements whilst on clinical placement. Expecting them to come up with their own plan and be supported in it by clinical educators is unrealistic.”

“It needs to be clear what the expectations are of the educator when implementing the service improvement element and both students and staff need to be sending the same messages. The project was deemed to be very useful to the department (but this was because it was a project that the educators decided on)

I noticed a clear difference between educators that had attended the training day and those that had not. I felt that educators should be informed upon agreeing to take a student that this course is available and prospective dates supplied. As it was, I had to search out this course myself. It was very useful and it seems a shame that more educators don’t seems to know about it.”

The results of the survey suggest that whilst the majority of respondents are enthusiastic and committed to the concept of service improvement, there is still a significant minority who fail to recognise that it is relevant and some who have very strong feelings about introducing another area for students to learn in what they feel is an already full programme. If their perception is that it is extra work, there is much to be done to win hearts and minds and encourage them to think differently.

The lack of evidence that teams are working multidisciplinary and cross organisationally makes it more difficult to disseminate information effectively. There was one comment from an educator that they didn’t receive any information. Their Co-ordinator had been unable to provide dates for a presentation as none of the educators had any joint meetings, so it was agreed that the information would be circulated through the co-ordinator.

A comment from one of the students related to the educator who did not have a clue about the service improvement task. That particular team had two visits and a total of 27 clinicians attended the presentations. The organisation is not large, which again highlights issues with communication.
Key points from educator survey

- Although the message to students that only a plan was expected whilst on placement, some took the planning into action and completed the service improvement task. This was either because they misunderstood or because they were eager and were supported to enable this to happen.
- Some educators did not feel prepared for students to identify areas for service improvement.
- Some students did not feel supported either in the practice placement or by their visiting tutor.
- Nearly all of the educators who responded to the survey thought that service improvement was important.
- Over half of educators who responded to the survey thought that the students service improvement ideas were useful.
- Some students were given a service improvement idea to consider rather than choose one for themselves.
Implementation Objective 5

Contribute to the development of a model of practice across the region working collaboratively with other Higher Education Institutes and health and social care providers

Other Higher Education Institutes

Members of Higher Education Institutes across the region joined representatives from SHA and NHSI twice in this period. The meetings consisted of a round robin approach to disseminating information and discussion regarding any issues or information that people wanted to share.

Each University had approached the implementation of the programme differently and were at different stages. The UEA team were committed to ensuring that placement providers had information and support and had invested a large amount of the resource in this objective. Some were not convinced this was necessary. One university had not yet commenced the programme and were looking for a model and requested the documentation and written resources from the UEA, which was provided.

The NHS Institute evaluation focussed on the student perspective with little information about placement providers or HEI experience.

It was generally accepted that all universities would take the Warwick (Institute) model and use it with some modification where necessary and all were using the NHSI presentation slides to a greater or lesser extent. The UEA were further along the programme in that the plan included students taking theory into practice in 2010. Others were still considering which year the practical placements would take place.

The UEA did work closely with UCS in the initial stages of the project. The Project Lead left the UCS in May and recruitment is under way at the time of writing.

The AHP Steering Group contributed to the development of several posters and these were used at conferences, displayed in AHP and provided to SHA and NHSI.

Key points from objective 5

- Collaborated with UCS to provide workshops for a consistent delivery of the service improvement message
- Contributed to meetings at regional level
- Provided project documentation and information to other HEIs and SHA
- Provided posters developed by members of AHP to SHA and NHSI
Workforce Development

Having a member of staff with additional skills and experience gave students, faculty and educators access to resources and expertise relating to commissioning, service specifications, examples of audit carried out in the workplace, business case advice and practical advice relating to the NHS processes and structure, which all contribute to a successful outcome when addressing service improvement issues:

- Provided a teaching session on commissioning for palliative and end of life services to 2\textsuperscript{nd} year MSc students in Occupational Therapy and Physiotherapy
- Provided guidance on developing audit tools and proposals
- Provided examples of service specifications (Diabetes, Chronic Obstructive Pulmonary Disease, Speech and Language Therapy, Palliative and End of Life)
- Provide service improvement sessions to MSc post registration students in School of Nursing
- Provided advice and resource to the development of service improvement in the syllabus for School of Nursing and Midwifery
- Provided a session on the commissioning cycle to MSc post graduation students in school of nursing as part of their leadership module
- Provided guidance to a 3\textsuperscript{rd} year BSc Physiotherapist student in developing service improvement initiatives whilst on a placement
- Provided facilitation for ‘Dragon’s Den’ style business case session with 3\textsuperscript{rd} year students
- Provided guidance to community service on developing service specification
- Provided mapping workshops in various settings across East of England region
- Provide guidance to tutors who included the PDSA in their publication
- Worked collaboratively to produce a chapter in the AHP CPD book
- Developed a business case for proposal of short courses for future revenue possibilities

Lessons Learned

- Students showed that they were capable of identifying areas for improvement
- Perception of clinicians that service improvement is an ‘add on’ and not integral to delivering quality
- Misunderstanding regarding what students were expected to undertake on placement
- Concerns that placement providers already under work pressure with staffing issues, and that this would impact further on their daily work load
- Perception of some teaching staff within AHP that clinicians and service providers are not ready to support implementation
- Database complex and required multiple revision
- Provider organisations not having identified leaders – difficulties in getting dates for presentations as perceived as someone else’s job
- The value of visiting all placements locations cannot be underestimated

Challenges

- Some requirement for motivating students to understand the relevance of service improvement
- University as a whole could embrace service improvement
- Embedding service improvement teaching in all Faculty of Health Schools in the future
- Tackling the perception of some clinicians that hosting students is at the detriment of their service
- Keeping up the momentum and enthusiasm and supporting service providers with limited resource in the future
- Triangulating the outcomes from students ideas, so that the University can see the value of teaching the subject

**Conclusion**

Below is a rough representation of time allocated to each of the five objectives:

![Project Objectives Chart]

The objectives of the project were met and no changes were made to the original plan. As described previously, objective 1 absorbed over 50% of the budget and was considered a priority. The process of developing relationships through the workshops and presentations has provided a basis for any future collaboration.

The educator survey and anecdotal comments from many clinicians show that the workforce welcomed the preparation and are using some of their learning to take their own services forward as well as empowering them to support students in the future in context of service improvement.

The objective to identify champions in the workplace has been a challenge as most educators don’t feel they are able to commit due to issues such as lack of support, lack of adequate staffing levels and also lack of expertise and knowledge around service improvement. The challenge is to win hearts and minds rather than wielding the heavy stick.
There were some teams that showed passion and commitment by requesting facilitation for a workshop and the outcomes were extremely encouraging and showed that they were proactive and determined to improve their services and will use the outcomes to take the service forward in partnership with other teams. These teams could be contacted for support in championing the future.

Most teams were supportive of the students as is evidenced by the student survey report. 80% agreed to consider taking the improvement ideas forward and it is hoped that in many cases the outcomes of the students’ ideas will be programmed into the plans for services and should impact on service user outcomes in the future.

There was some misunderstanding regarding what students were expected to undertake whilst on placement. The message was very clear that students were not expected to implement the plan. From some of the students examples and some educator comments from the survey this message either was not understood or heard or clinicians decided they wanted to go ahead.

Some students felt that they were well prepared and others felt they needed more time and resource to prepare for the placement. Very few students felt that it was not valuable and most rose to the challenge admirably. Some students did not feel supported by the visiting tutor. This may have a correlation with the fact that some visiting tutors did not collect the resource pack or ask for any information.

What the project has shown is that there is still lack of understanding or differing priorities, causing resistance to service improvement. There appear to be areas that are working in relative professional isolation and many areas that would benefit from further training sessions on mapping processes and implementing improvement. The Educator survey showed that some clinicians might need to be reminded of their commitment to the content of the Knowledge and Skills Framework (KSF) where service improvement is a core competence at all levels.

The ideas and plans produced by student's shows clearly that they are capable of implementing tools and techniques of service improvement and with a little refinement to the structure of the course can be enhanced significantly and can contribute to their level of confidence and knowledge and also to the systems and process in the work place. This will ultimately lead to further improvement in the work place as more students become involved from the UEA (Nursing and Midwifery, Medical Students etc).

The Steering Group meetings were not always well attended mainly due to work commitments of the members and time taken to travel to the venue. The lack of lay person perspective was a disappointment and will be addressed by the School for the future.
Recommendations for discussion

**Strategic focus**

**East of England** - Contracts should be reviewed to incorporate service improvement and should triangulate with County Workforce Development, Strategic Health Authority and NHS Commissioning bodies. More awareness training is required on the expectation of service providers in relation to hosting student placements.

**Quality, Innovation Productivity & Prevention (QIPP)** – Currently this initiative is not looking at innovation/improvement from students’ perspective. The events also tend to be focussed on a single profession, which has been nursing and midwifery. More emphasis on multidisciplinary working is required as the whole ethos of improvement is about working across boundaries, organisations and agencies.

**White paper** – Has implications for service improvement programmes and education requirement with GP Consortia – Social Enterprise means that courses could be chargeable, which would bring in revenue for UEA.

**HEI focus**

**General Principles** - Possibly including an introduction to some change management techniques and principles to equip students with the skills to empower them to feel confident and assertive and able to take responsibility for negotiating with their placement educators to find an area for improvement.

2\(^{nd}\) year - Use the outcomes to review the plan for 2\(^{nd}\) year placement. The focus could be on students mapping a process whilst on placement then bring the map back into the classroom and working on the P part of PDSA throughout the year, weaving in the process map. This may help to give students more focus on systems and processes and not try to rush into the solution without understanding what underpins the problem.

3\(^{rd}\) year - Extend the 2\(^{nd}\) year work into the elective placement and use the outcomes to integrate into the other parts of the course. It could underpin the business case process and audit sessions. For example, the clinical audit process and outcomes of audit form part of the cycle for improvement and this could lead into a business case development. Students will then see the relevance of how improvement links in to the bigger picture and the significance of improvement in pathway development.

**Practice Educator Handbook** – This will require updating and expanding for educators to truly understand that this is a subject that is integral to education as a whole. The educator feedback suggests that they either didn’t read the handbook or that the information wasn’t explicit enough.

**Placement Information** – Placement providers should be encouraged to provide the School of AHP with an annual update and description of their service, particularly as many services will be re-configuring to meet the demands of the changing health and social care climate.

**School of AHP Visiting Tutors** – More work is required to ensure that all members of staff, particularly visiting tutors, are fully engaged and knowledgeable about service improvement to enable meaningful support students.
Centre for Interprofessional Practice – More emphasis could be focussed on service improvement when problem solving or ‘root cause’ analysis. Below are some areas where principles of service improvement could be included:

- **Level 1 - group work with a patient case scenario** - This is an opportunity for introducing service improvement and looking at the pathway for service users
- **Level 2 - Workshop 1** - Students having an opportunity to share thoughts on communicating with a multiprofessional team could be tied in with how students worked with MDT when looking at pathways and how they could be improved
- **Level 3 - Interprofessional Student Conference** - Learning and working together for better patient care - mapping a patient/user journey could be used as an example of how multidiscipline teams work together and how vital it is to patient outcome
- **Level 4 – Workshop** - Listening to firsthand accounts from service user perspective is the crux of identifying issues in a pathway and gaining knowledge of organisations available to help the user is another example of how pathway mapping can be used to identify gaps and constraints

**Educator portal** – More educators need to know about the access to the portal. This is a new method of obtaining information and the spread will help to ensure that educators receive all documentation effectively and consistently.

**User involvement** – More focus will be needed on this aspect. The School is reviewing the strategy for user involvement and hopefully will expand to include generic projects.

**New and experienced educator courses** – The course is currently under review and is likely to be extended to run for two days. This is a good opportunity to consider how service improvement training will be included and what length of time will be allocated. The current 15 minute presentation will only be effective if educators have been exposed to the tools and techniques in practice prior to attending the course.

**Short courses as an income generator – Continuing professional development to agencies in addition to NHS**

- Process mapping and PDSA cycles and the wider implications
- Commissioning cycle, including business case development and process

The ideas are as a result of the feedback from educators. The courses could be provided to providers such as social enterprise, voluntary and charitable organisations, social care and private health care. This could include the CD and resource pack, which could be developed further for marketing purposes.

**Continued support to clinicians** - Resource will not be available to continue to visit placement areas to provide presentations/workshops/meetings. An alternative method will need to be explored to ensure the programme is sustained with engagement from stakeholders. The development of the educator portal provides opportunities to not only advertise the new website facility, but also to market all the information available. A service improvement folder is in place and it will require a mechanism to inform all clinicians that it is there. It also has implications when queries or updating issues arise.

**Celebration of success for UEA** – An event is in the early planning stages and is likely to take place at the end of 2010. Students will have the opportunity to present their ideas and aspects of the programme will be shared and debated. The posters that have been
developed will be showcased along with any materials that have been developed during the programme. Resources used that were supplied by Institute for Innovation and Improvement will be available with website addresses. The event will link in with current national, regional and local strategy and plans.

**Glossary of Terms (in alphabetical order)**

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
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<tr>
<td>AHP</td>
<td>Allied Health Professions</td>
</tr>
<tr>
<td>BSc</td>
<td>Bachelor of Science</td>
</tr>
<tr>
<td>CPD</td>
<td>Continuing Professional Development</td>
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<tr>
<td>HEI</td>
<td>Higher Education Institute</td>
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<td>Knowledge and Skills Framework</td>
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<td>Master of Science</td>
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<td>NAM</td>
<td>Nursing and Midwifery</td>
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<td>National Health Service Institute for Innovation and Improvement</td>
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<td>Occupational Therapy</td>
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<td>PCT</td>
<td>Primary Care Trust</td>
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<td>PDF</td>
<td>Portable Document Format</td>
</tr>
<tr>
<td>PDSA</td>
<td>Plan, Do, Study, Act</td>
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<tr>
<td>PEF</td>
<td>Practice Educator Facilitator</td>
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<td>Physiotherapy</td>
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<td>East of England Strategic Health Authority</td>
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<td>SLT</td>
<td>Speech and Language Therapy</td>
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<tr>
<td>SWIFT</td>
<td>Strategic Workforce Investment for Tomorrow</td>
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<tr>
<td>TTBT</td>
<td>‘Towards the best, together’</td>
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<td>UEA</td>
<td>University of East Anglia</td>
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Appendix 1  Action Plan

Appendix 2  Contact Schedule of Appointments

Appendix 3  Information Leaflet

Appendix 4  Lesson Plans

Appendix 5  Placement Visit Schedule

Appendix 6  2nd year Student Placement Feedback Report Including Student Survey

Appendix 7  Examples of Student Service Improvement Ideas

Appendix 8  Visiting Tutor Survey Report

Appendix 9  Educator Survey Report

Appendix 10  CD Content List

Appendix 11  1st year BSc Session Evaluation 2010

Appendix 12  1st year BSc session Evaluation 2009

Appendix 13  SWIFT Funding Bid and Financial Details