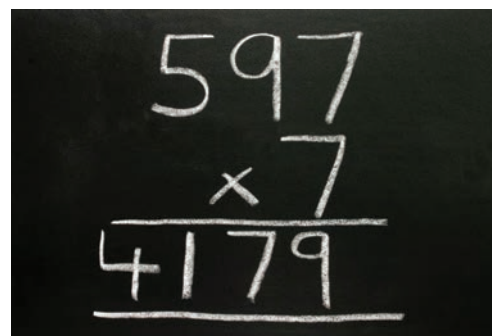




GOOD PRACTICE CASE STUDY



STANDARDISED NUMERACY ASSESSMENT PROCESS

SUMMARY

The **Standardised Numeracy Assessment Process (SNAP)** was initiated in April 2010 as a means of standardising the approach healthcare students and education facilitators have in the assessment of numeracy. The primary target for the project was the Education sector, however after the first collaborative meeting between Higher Education Institutes (HEIs), Colleges of Further Education (CFEs) and NHS Trusts, several NHS organisations expressed a keen interest in becoming involved and learning more of how SNAP could be of use to them in a healthcare setting.

SNAP is a web based e-learning resource freely open to all stakeholders and is designed to assess and improve the confidence and competence of new and existing students and healthcare employees when dealing with numeracy and drug calculations.

The numeracy project is funded by the Northwest Council of Deans of Health and NHS Northwest, and although it has been hosted by the University of Chester it has been delivered through a wide collaboration including several NW HEIs and service provider organisations. Collaborators currently include 56 NHS organisations, and 15 HEIs and CFEs within the North West region alone. However, use of the tool is continuing to grow both throughout the region and the UK increasing the diversity and scope of the free numeracy tool and allowing new uses for the resource to be explored. Promotion of the tool is on-going through offering training workshops and presentations within our stakeholder organisations but also through liaising with national

projects such as Flying Start for England. This national development preceptorship project for newly qualified nurses, midwives and allied health professionals has supported SNAP through promoting the tool and raising the profile of the numeracy resource on a national basis.

Since a soft launch of the tool was initiated in September 2011, the tool has gained widespread positive feedback and has proven to be a useful way of standardising assessments across a broad range of organisations, as well as supporting recruitment practices and continual professional development.

KEY OUTCOMES

- The establishment of a cross-sector collaboration between HEIs, Colleges of Further Education and NHS service providers strengthens the links between these organisations and has allowed a truly standardised tool to be produced, which can be continually developed to ensure that it remains useful to all stakeholders.
- The main objective was to standardise numeracy, in terms of level and approach, particularly in regards to pass marks for course admissions. This has now been achieved, with widespread positive feedback.
- In total over 71 organisations are involved in the North West alone, and SNAP has recently been accepted on to the Flying Start for

England Preceptorship project. This has led to 13 other organisations coming onboard, from outside the NW region and national collaboration is steadily increasing.

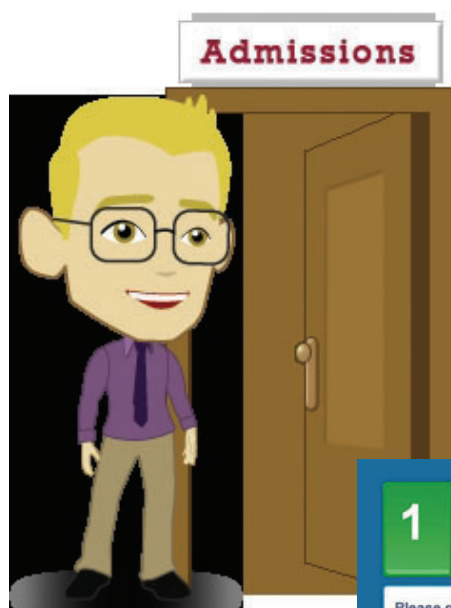
- NHS managers such as Ward managers and Matrons are using SNAP at the point of recruitment and admission into clinical posts. This allows new staff to be assessed before they enter wards, to ensure they are confident and competent carrying out drug calculations and medication administration, and have the required level of numeracy skills for their post, ultimately ensuring patient safety.





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- Managers are also using the tool during staff appraisals to support CPD, as it allows clinical staff to assess and develop their numeracy skills, and gives staff in non-clinical roles an idea of what level of numeracy is required to gain access onto a healthcare related programme.
- Several HEIs across the North West have been piloting the tool with their colleagues and are looking to use SNAP with their March intake of students, both at entry level and for ongoing development.
- There are no confirmed figures in regards to rates of success in completing numeracy assessments, as each HEI administrator takes ownership for individual organisations. However qualitative feedback suggests that students are using the tool successfully and find it a robust assessment and learning resource. They report positive feedback in regards to the e-learning style, as well as the level of interaction, areas covered, and the fact that it is not simply a question and answer tool. Lecturers also rate it highly, as it easily creates and reports on numeracy assessments.



BACKGROUND

There was recognition from the Nursing and Midwifery council (NMC) and other Professional bodies that there was a need to improve on the confidence and competence of healthcare professionals in performing numeracy and drug calculations. These concerns led to The University of Chester being supported by the Council of Deans of Health (Northwest) and NHS Northwest Strategic Health Authority to lead the SNAP Numeracy Project in order to facilitate recruitment, and development of pre-registration students and existing healthcare professionals. Although the primary target for the project was the Education sector, it has been realised that numerous NHS Organisations are keen to become involved and have been welcomed into the collaboration and to use the Numeracy Tool.

AIMS & OBJECTIVES

- Design a tool that provides an engaging and interactive world learning experience.
- Provide HEIs and NHS organisations with a freely available, open source, standardised numeracy tool to be used for the assessment and development of new and existing staff and students throughout the North West.
- Enable prospective and existing healthcare staff and students to gain an insight into their current level of numeracy, and aid them to develop, improve and consolidate those skills.
- Facilitate a standardised, robust, approach to the assessment of numeracy throughout recruitment within pre-registration nursing and other healthcare- related education programmes
- To promote numeracy throughout the North West and beyond.



KEY STAGES OF SET UP

April 2010 – the project was initiated with the appointment of Mike Brownsell as project manager, who worked to bring together all relevant partners and collaborators. Since then interest has grown to encompass over 70 organisations.

May 2010 – Wirral Health Informatics Service was appointed as a software development company, following a limited tendering process.

Feb 2012 – Kieran Kelly was brought in as project administrator working closely with Mike Brownsell, in a role that developed into project coordination and management of SNAP throughout the region.

Mar 2011 – Alpha –pilot was launched. This identified significant software and functionality issues, which have now been successfully rectified. Six organisations were involved including 2 NHS service providers, 2 HEIs and 2 CFEs. Feedback was gathered on what was good about the tool, what could be improved and whether it could prove useful for each organisation. This feedback was very positive in regards to the tool itself.

Apr-June 2011 – Second main pilot was carried out with 25 organisations. This was very successful, and proved that SNAP was now a fully functional, robust tool.

June – Sept 2011 – Feedback gathered from the first two pilots was analysed in detail, and the tool was improved to meet customer requirements, so that the team felt confident it would meet the needs of all collaborators going forward.

1 Q360) To clean a blood spillage from the floor you are required to mix a bleach solution with water. The instructions say mix one part bleach with four parts water. How many ml. of water should be added to 150ml. of bleach cleaner?

Please give your answer

ml

SKIP QUESTION SUBMIT & PROCEED



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Sept 2011 – Ongoing – A 'soft' launch of the tool was rolled out in Sept 2011 when all collaborators were told that the tool was fully functional and ready for them to use. At this point Kieran Kelly attended a range of meetings with Directors, Ward Managers, Directors of Nursing and Matrons within NHS organisations as well as with Senior Lecturers in HEIs, to give them an insight into how the tool could be used to their benefit. Several training sessions have also been delivered to those people who will be managing the SNAP accounts in their departments and administering the tool itself e.g. ward managers/staff nurses/practice education facilitators/L&D staff.

After meeting and presenting to the Flying Start for England editorial board, the numeracy project was welcomed on to the Flying Start for England website to aid the promotion and raise awareness of the project to NHS and Educational organisations throughout the UK.

March 2012 – a 'hard' launch is planned for the spring of 2012, following a full analysis of the pilots to date. In the period running up to this launch there will be ongoing development of the tool based on user feedback.

HOW IT WORKS

The SNAP tool delivers a web-based, standardised level 1 and level 2 numeracy assessment tool which is context specific i.e. all question scenarios are based on real-life situations and incidents that have happened on wards e.g. drug errors. Questions supplied by health and academic professionals are peer-reviewed before being released in the system. The tool asks participants to calculate answers and solve maths problems, but doesn't teach them about the subject beforehand. Therefore some independent study may be required in order to reach the next level of assessment.

Who can access the tool?

SNAP is completely free, and open to the public, but people must register to use it fully. Otherwise they can only access an unmarked sample test. Non-registered users have limited accessibility to raise public awareness and promote usage.

If someone requires further access, they can contact Kieran Kelly, who will approach their Clinical Director/Educational Lead to enquire whether their organisation would like access for all staff/students. This is completely free, and will remain so, as it is publically funded.

Once an organisation registers for the tool, it can be accessed by students/staff from that organisation, who then just need to sign up individually. After access has been approved by their administrator, they may then log on and use the site independently. Managers may also request that job applicants/new recruits/existing staff undertake formal assessments at the point of admission or as part of staff appraisal and continuing professional development.

Are assessments certificated/validated?

There are no formal certificates issued as yet, but when a participant completes the assessment, they will be sent an email containing all their details and a pass mark, which they can print out and keep as evidence in their CPD file or for pre-employment checks.

Passing the SNAP assessment at level 2 is equitable to achieving a grade C in GCSE maths, or Skills for Life Numeracy at Level 2. This is one of the minimum requirements for entering a higher education/healthcare course. The SNAP team is currently working towards embedding the numeracy resource within healthcare-related programmes.

How/When is it used?

- As a learning resource during healthcare cadetships, Access to Nursing, and other healthcare programmes within colleges of further education
- During selection processes for admission to pre-registration nurse education and other allied health professional preparation courses by Higher Education Institutes
- By service provider organisations wishing to confirm and further develop the numeracy skills of its newly recruited and/or qualified staff, plus existing (e.g. mentor and supervisor) workforce.

RESOURCES

Development of this tool has been jointly funded by the Council of Deans and NHS NW.

The project has been led by a small team at the University of Chester, who have had vital support from an ongoing Steering Group and Senior User Group. The Wirral Health Informatics Service has also been pivotal in the maintenance and development of the online tool.





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KEY CHALLENGES

- **IT difficulties** – there were key software and functionality issues during the initiation and alpha pilot stages. For example, when different stakeholders tried to access the tool they had various problems with log-in details and server error messages, due to organisations having different browsers and internet speeds. This was overcome by the project and web development teams analysing each area in detail and revising each aspect of the tool to ensure that it met user requirements.
- **Continual Promotion** – it is easy to get initial signup to the tool, however it is more difficult to encourage organisations to actually use it and embed it within training programmes/ appraisals. This is an ongoing challenge, which is being addressed by the team offering to do presentations, workshops and training sessions in order to answer key questions and encourage people to use it.
- **HR Guidance** – many organisations have asked what they should do if clinical staff are constantly failing assessments, or if new recruits are not achieving the desired results. This is difficult to answer as it is up to individual Trusts to make these decisions. However the team have created an overview document that advises staff to approach their own HR departments in the first instance for guidance, and to consider other underlying issues which may be causing people to fail assessments, such as a lack of confidence.

KEY LEARNING

- Designing an effective e-learning site is difficult and time-consuming and requires expert guidance. In hindsight further expert knowledge from a proven e-learning pedagogist would have been advantageous. The Senior User group had a steep learning curve in assisting the web developer to not only develop the web page, but also the educational structure.
- Having such a wide range of stakeholders raises challenges in terms of the language used in questions. Feedback suggests that questions were bulky and overwhelming to some users. Therefore clinical providers should be asked to provide briefer scenarios when submitting questions.
- The tool wasn't very intuitive to begin with, and it was difficult to navigate around the site, which had an effect on reputation. The site now has a range of online support, such as voiceovers, but it is important to put this in place right from the start.

NEXT STEPS

- A hard launch is planned for the Spring of 2012, to coincide with the rolling out of the tool by HEIs to their new intake of students.
- Formal evaluation will then be undertaken, to determine how successful the project has been as a whole and to gain an understanding of what impact it has had upon stakeholders.
- Following analysis the tool may be re-launched with new features, based on user feedback in 2012/ 2013. For example it could include additional specialities, or be aimed at people working outside of the healthcare profession.
- The team will continue to raise awareness of the tool, working closely with Flying Start and eWIN to promote it within other organisations.
- Embedding the tool within Higher Education Institute (HEI) programme modules is currently being explored

SUPPORTING MATERIAL

[The SNAP Tool](#)

[HR Guidance Overview](#)

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