Waving not Drowning
how Systems Thinking and Practice benefit NHS practitioners
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In 2002 the Open University funded research on how the study of Open University Systems Practice courses made a difference to the professional and personal lives of people working in the NHS.

The research was based on 20 individual in-depth interviews with participants who had studied OU Systems courses, three quarters of them holding an OU Diploma in Systems Practice.

The interviews covered the participants’ career histories; the Systems courses they had studied; examples of how they applied this learning to their NHS work; connections between OU Systems studies and changes in their lives in and outside work; the roles within the NHS for which they believed OU Systems courses would be appropriate and ideas for improving the content of OU Systems courses for people in the NHS.

Summary of the conclusions

The main points were:

- people with a very wide range of posts and responsibilities in primary and secondary NHS Trusts usefully apply OU Systems course learning at work.
- almost without exception, alumni recommend OU Systems courses for people in the NHS.
- studying Systems opens up a different way of thinking about situations, differing from other educational experiences, for example, professional clinical training.
- Systems concepts, methodologies and techniques are particularly useful for interdisciplinary work and projects. Those mentioned specifically include
  - patient pathway and patient access improvement
  - patient/service user community health care involving social workers and health professionals
  - the management of challenging behaviour in hospitals
  - risk assessment.
- Systems thinking is also particularly useful for preparing clinicians for management roles.
- The usefulness of OU Systems courses to practice and management in NHS work derives from:
  - a way of thinking based on a holistic understanding and appreciation of interconnectivities in complex situations, such as those in the NHS, but that also draws on systematic approaches.
  - recognition of different perspectives, specifically those of different professions in interdisciplinary work and management roles, and the perspectives of patients and carers.
  - the value of practice-based exercises and assignments enabling people to relate the material to their own experiences in and outside work.

Ray Ison, Professor of Systems, with special responsibility for the OU’s Systems Practice courses, says:

At the core of Systems practice is improving the quality of relationships. If you are a clinician, the patient is the focus of your interest. If you move into a different role, the nature of relationships changes. You need a different perspective.

OU Systems courses give people practical and conceptual skills to deal with their work situations and interactions with colleagues in innovative ways. These are thinking skills that are also practical tools. For some people, Systems thinking is a revelation; for others Systems thinking ‘fits’ and supports how they think already.

The Systems practitioner is a juggler. The balls are self, ethics, ways of knowing how to engage, and whether to look at simple cause and effect, or see something as part of a greater issue. Another ball is managing performance, the effective functioning of a group or organisation within the current environment, be that government, targets, specific diseases or other determinants of change.

The NHS can only be as good as the quality of its people. They need to feel valued, take local responsibility for issues, have enough time and a measure of autonomy. The interviews reported below confirmed what we already believed, that Systems training can offer immense value in the context of the challenges of today’s NHS and the practitioners working within it. A selection of responses are included in this report.
Assistant Services Manager (A & E)

I’m a number cruncher, monitoring performance. I gather and manipulate data – relating to targets on waiting times, for instance. My job also covers reception staff management and peripheral involvement in the services plan, budgets, resources.

We are now trying to resolve our queues up front. Our consultant heads a team on the redesign of patient flows in A&E: how we filter people through effectively so they don’t sit out front for four or five hours. Because of my Systems training, I’ve been able to facilitate for the team, asking questions that make them think about what they’re doing. They say, ‘Let’s do streaming’, so I ask, ‘What do you mean by streaming?’, or, ‘Let’s have a diagnostic cell’. Well, how does that help? I’ve been doing that kind of work.

Actually we train managers very well in this country but if you are trying to equip people for managing who are not managers, like doctors and nurses, how can you do that quickly and effectively? Giving them tools for thought is a good way of starting. Giving them that structure and the language is helpful. Because what it can do is speed you up.

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Research Coordinator for a Surgical Department

I work in a specialist unit researching into a type of cancer. My original role was to collect data but since I did the OU courses and gained more experience I’ve become involved in using it. I work with surgeons, helping them to engage with the data and write up papers.

The unit started with just me and one surgeon, not even a computer. Now we have four specialist surgeons, a stream of young surgeons, and I have two part time assistants. The lead surgeon has an international reputation and travels to demonstrate this technique. I’m tracking 165 patients worldwide including Europe, South Africa and the Far East, in addition to our own Trust.

I apply Systems principles subconsciously. I think them all the time even if I don’t write them formally. The training changed the way I thought. I began to picture things and it helped me to think through more clearly. We work with charities, general practices, and other hospital departments, all of which have their own priorities, and these impact in some way on what we do.

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Project Officer, Estates Department

I design and oversee alterations to the hospital. Last year I did a job worth £2.25 million, refurbishing the main operating theatres, then 18 years old. We have three hospitals, one a mental health plus two main hospitals. Originally separate, the net result is duplication of services. So they’re rationalising, and I’m trying to get in on the ground floor. We’ve no-one looking at the building side, yet we’ve doctors and specialist nurses driving between buildings to run separate clinics!

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My job is to make sure everyone is fit for purpose. I’m responsible for the practice development for all 340 nurses, plus line management for clinical nurse specialists, and general responsibility as a member of the senior management team of the nursing directorate in a high security hospital, equivalent to Broadmoor, Rampton.

Systems studies have changed my thinking processes; the way I analyse information. When you train as a mental health nurse you take the patient’s perspective in the way that you deal with them. When you become a manager, it’s about a way of working with people that facilitates understanding on both sides. I try to explain to others how it impacts on them and how it impacts on me. I use this a lot, even if it’s only in dialogue.

I came across Systems training when I went into management and I used it with student nurses, and even ran in-house courses on diagramming techniques as an aid to revision. I was able to apply my knowledge to different settings in the NHS.

Systems training has certainly given me a theoretical understanding of change. The only thing alive in the NHS is change.

During my Systems studies I identified areas that caused needless problems.

I trained as a psychiatric nurse but left when a relative became ill, and I was needed back home. Now I’m in engineering.

There’s a terrific drop-out rate in nurse training and in nursing generally. A lot of this could be avoided. During my Systems studies I identified areas that caused needless problems. Using Systems approaches, some minor alterations would benefit the NHS and taxpayers. One of the biggest problems in my experience is that the NHS is run as a bureaucracy and not a service.

Systems thinking helps people to think of themselves as part of something larger, to give them a positive overview, and to think of their role within it. Systems also helps people to match stated aims to actual actions: often these do diverge significantly!

Health care professionals focus on the treatment of the individual; suddenly they have to think about things that are wider than just one patient and they don’t have a framework.

I was Director of Human Resources in a hospital until the Trust merged with another, so I became freelance. There’s a shortage of HR people in the NHS. So I will do a fixed piece of work or they call me in when there’s a vacancy.

Throughout my career I have found Systems useful in helping people to understand and see why things aren’t as simple as they appear. With Systems, you can take something that everyone has heard of and show them how it can be different. You can make a messy situation into something that you can pull some strands of sense out of.

Health care professionals focus on the treatment of the individual; suddenly they have to think about things that are wider than just one patient and they don’t have a framework. We put people in situations where they are good at whatever it is, then we ask them to supervise three or four other people and within a year they are running a whole department – and they fall down. There’s a lot of falling down in people management issues, and no doubt in budget management issues as well. But we don’t equip them with a way of translating their skills at looking after a patient into entering the management role.
Senior Training and Development Officer, Primary Care Trust

I was senior training and development officer, providing training and development to all non-clinical staff. It was really management and personal development with a broad brush.

I came in as a management trainee, then specialised in personnel management and later specialised in training.

I found the whole idea of Systems thinking very interesting, but boy, did I struggle with it. It was enthusiasm that kept me going on: I found the whole idea very exciting. It’s got so many potential applications. It helped me in terms of my role and what I was doing.

At one time, there were exciting new developments in mental health services with the establishment of primary care mental health teams. I worked with one of the first teams established, and they were struggling. It was a wonderful opportunity: I worked closely with the team leader and I think it helped her to think through some of the issues she was facing. Since then the service has moved forward: there’s a lot closer integration between what’s happening in the community and what’s happening in the hospital. Maybe my work didn’t achieve that much, but I felt what I was doing was a bit of a trigger.

Health Informatics Researcher & Practice Nurse

I’m a practice nurse in a London clinical practice two days a week, and for the other three days, I work on a research project about how computer systems are used in general practice.

People are very tired of huge organisational changes. It’s difficult to watch something and not have an opinion, if you can see how it could be better. It’s not just frustration; it’s demoralising. Most people don’t think in systems. It’s out of character and they don’t understand the reasoning behind it.

Systems training has given me an awareness of issues, but also allowed me to laugh at myself. As a Systems practitioner, you do tend to stand out as an oddball, a different thinker. I just think the more people that do Systems in the NHS the better. We’ll all have a better understanding of what’s happening in the community and what’s happening in the hospital. Maybe my work didn’t achieve that much, but I felt what I was doing was a bit of a trigger.

Senior Occupational Therapist

I work in the community, based in a GP surgery serving a small population, going into people’s homes as they are discharged from hospital, assessing needs. I’ve a special interest in MS (multiple sclerosis), working with people as they deteriorate.

Systems thinking helps predict where disasters are going to happen. It’s trying to prevent those disasters, helping my OT colleagues, especially those in social work, to be more proactive in predicting where disasters may occur and helping care managers and care organisers to be prepared.

Most people in social work services don’t plan. They deal with today and let tomorrow take care of itself. So Systems helps them think a little more broadly, more holistically.

I recommend Systems courses all the time to the senior OTs and senior nurses, and senior physios and the people in our LHCC (local health care cooperative) offices, they are all trying to run a system.
NHS Consultant

We make people more conscious of their systemic thinking; even then they don’t realise they have changed their way of thinking until they are pushed into it!

I do consultancy for the NHS. I had a clinical career in radiotherapy treatment planning. I did psychology with the OU, then discovered systems via behavioural psychology and management. I became interested in management in the NHS, and was promoted within my discipline.

Once I started doing the Systems Behaviour course and realised the implications, I became an Associate Lecturer for the OU and did a facilitators’ course. Eventually a colleague and I started a consultancy.

One of things about Systems is there is a latency. We make people more conscious of their systemic thinking; even then they don’t realise they have changed their way of thinking until they are pushed into it. It’s the old phrase ‘joined up thinking’ that has become corrupted because the government have got hold of it. It’s about how you think beyond your experience. Not just about a set of tools.

Systems course students soon acquire sophisticated ways of understanding what’s going on, but often they are not in a position to do anything about it. This can be frustrating, either something that festers all their lives – or they do something about it.

IT Project Manager

From my Systems studies I can put a more practical slant on that.

Until recently, this was a 750 bed district general hospital managed by a trust board, then it merged with four other trusts. As a result I expect my role to expand further.

Like most people in the NHS, I am in this job by accident rather than design. I was a staff nurse. There were few opportunities to progress into senior ward management, so I took a secondment, looking at a resource management initiative – manpower and deployment – then a post in health system informatics. Now I’ve moved into more mainstream IT and project management.

I manage the human interface, the business side of using computers. My previous clinical knowledge can be complementary, and I’ve some insight into how people work and the problems they face. From my Systems studies I can put a more practical slant on that. I have applied a lot of my training practically: bed management, queuing theory. I tracked people through, and used that to come up with a project proposal for a bed management initiative.

I have also adapted some of the problem-solving approaches and concepts around managing in organisations, especially managing groups and people who aren’t necessarily accountable to you. You’ve got to motivate them and get them to do things they won’t want to. Without that knowledge, my job would have been harder and I wouldn’t have achieved some of the things I have done.
I was a project officer for a Joint Investment Plan between the local authority and health trust, researching the number of people with disabilities, and the services in existence. We then matched needs to services, identifying gaps, and devising a plan to get people with disabilities into work.

I also worked for the Mental Health Partnership Trust on their Investigation into Untoward Incidents, relating to people who had received mental health services and committed suicide. I investigated what had been done, and what could be done better, highlighting the difficulties, to prevent similar occurrences.

I was a police officer. I did an OU Systems degree because I wanted to widen my horizons. It’s having a holistic view of something and breaking it down so it’s easier to understand. I found that very useful, not only in problem solving, cause and effect scenarios, but also in training people, and persuading them to look at other arguments.

Systems is a tool for taking people from the known to the unknown in a logical sequence, something understandable. And you can show them. People like something black and white, that they take away and think about.

Being a lay person I found that people on the mental health team took things for granted. They didn’t question. I questioned and that was often when we got to the real cause. When I’ve got a problem I go back to Systems training.

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Cardiac Nurse Specialist in NHS Trust and Primary Care Trust

I mostly teach and undertake audits but I have an outpatient clinic, so do some clinical work. I’m employed by the hospital trust but the PCT pays for two days a week for my service.

It’s unusual to straddle hospital and PCT but it’s the way forward. It was done on the back of an NHS initiative to develop a framework for coronary heart disease. Standards had to rise. It’s much better having the full picture. There’s no point in establishing new standards in hospital and once the patient walks outside, having no structure to support them.

Systems thinking is useful for patient journeys/pathway work.

We’re developing new multi-disciplinary paperwork. In the past, paperwork was fragmented because everyone had their own bits. We’re making people write things down in one place so others can come along and read it. It’s much safer from the patient’s point of view.

Coincidently I did the courses and then my job changed, and the courses became more useful to me. Maybe it’s because I had that experience, my practice changed, and it was recognised, because I had been in the same job for 12 years.
I’m head of Risk Management in a NHS Acute Trust, responsible for fire, health and safety, security, manual handling, violence and aggression, claims, complaints and clinical risk.

I was a physiotherapist previously. Management involves an approach which is different from any clinical profession. As a clinician you are taught specific methods from which you don’t deviate. In management you have to look at various systems. Systems training gave me title to a way of dealing with something, making me aware of a different approach to problem solving – and it gave a choice of methods. It opens your mind to other options. I don’t use anything specifically, but it’s there if I need it.

The Systems learning was a foot on the ladder to me realising there was a need for further development. Otherwise I would have stayed as a clinical professional and not moved outside to general management. Systems courses would be useful to anybody going from clinically based training to a management role. People enter a profession, then they go into management and may have to manage a team and have responsibility for budgets and staff. At that point it’s nice to have a tool box to pick from.

I’m setting up one of the new teaching PCTs, developing the policy for Research and Development and also in associated areas such as the NHS University. The DoH set up an initiative to develop education and learning in primary care, which would also aid recruitment and retention. My work is helping define the concept, because the policy was pretty thin, and also to show what that means practically, on the ground.

I did a doctorate, connected with systems implementation in the NHS. After HE teaching, I returned to the health service. I’ve a mixed background but very much within systems, organisational behaviour, innovation management. A mixed background can cause problems in career development because people like to put you in boxes.

There’s a strong link between the Systems studies – organisational learning, learning feedback loops and how organisational culture develops – and what I’m designing now, which is quite exciting. When we talk in the NHS of whole systems I find it amusing because it’s a natural part of what I do, connections, networking and so forth.

Systems work is very useful to those in managerial decision-making roles but I also think there’s a potential for those in clinical disciplines to have courses on Systems thinking to give them additional perspective on their decision-making.

It’s important to have any course participative, interactive. The OU has a good record in this. Courses have to fit with service demands, so they need to be delivered in a flexible format, which the OU is also good at.

I would recommend systems courses for people doing management, and certainly for people going into disease control.
OT Services Coordinator

I work for the professional advisory service for OTs in a mental health trust. Mine is a support role, gathering and disseminating information about various OT services. I also manage the contracts, including those outside OT such as chiropody and speech and language therapy, with other trusts or PCTs.

Systems training has changed the way I think. It’s still new and not coming naturally yet. It’s making me think more about other people’s perspectives, how people do things. I have a better understanding of some of our support departments, such as IT, HR and finance.

We had problems with running a temporary staff bank, deciding how much HR should manage and how much we took on. I identified a problem – a block with HR – and why it wasn’t working, why we were getting enquiries but people weren’t applying. I developed an information leaflet. My boss was impressed with me, that I identified the problem and then asked her if I could look at it. It all seems to be working now. I’m quite proud of this.

One of things Systems has done is giving me more confidence in how organisations work. I feel that I know more what people are talking about. It’s taken away some of the mystery.

Information Analyst

I’m one of eight analysts in the department. I worked in radiology before as HI secretary, then became the administrator, looking after all the department’s clerical staff. I got involved in the commissioning of the new radiology systems. That’s when I broadened my horizons.

We use a PAS (Patient Administration System). Information is entered by a range of people: doctors, nurses, administration, even pathologists with lab tests. There’s an enormous problem countrywide, getting everyone to enter data correctly, understanding what they are putting in, particularly nursing staff. Clinicians recognise the importance of information gathering, but when it comes to priorities, data collection is at the bottom after patients, doctors, bedpans.

The NHS is such a complex bureaucracy: systems help to get your head round it and clarify it as much for yourself as anybody else. And allow you to see the wood for the trees.

In an informal way, Systems thinking has helped me to see how other people’s workloads impinge on us all. I nag everyone to keep all our information organised so that we all understand it, with a system that anyone can go to and access another’s work if they’re on holiday.

The NHS is such a complex bureaucracy: systems help to get your head round it...
Systems is often seen as data but on the softer side it can help people capture the whole picture very quickly and sort through what they need. And that’s helpful, as not everybody has an organised mind like me. But you can’t necessarily engage people if they don’t think like that.

On the personal side, I tend to be more practical and less emotional, less stressed than colleagues because I go through things logically. What Systems training has done is legitimise and give a profile to what I would have done naturally. It’s given me more tools to do it with.

Everybody uses some system or other, especially in the NHS. They may not appreciate it but the whole thing is a huge system.

I’m responsible for all primary services, taking the lead on clinical governance, overseeing the management of primary care – all GPs, community dentists, optometrists, pharmacies. I also lead on older people’s services. I was previously assistant chief executive of another health authority. My background is nursing. It was a natural progression into management.

I use systems in most things I do, mainly the softer side, in change management. Even in smaller issues, it’s about sitting down at the onset and deciding what the issues are, the connections between them, who the stakeholders are, then actually applying that. I use it around consultation too.
Open University courses in Systems Thinking and Practice

The Open University’s Faculty of Technology offers 30 years’ experience in the teaching of systems. It is the largest academic grouping in Systems in the world.

Undergraduate courses

These two courses lead to a Diploma in Systems Practice and can be taken as part of an OU BA or BSc, or the named BA Business Studies, BSc Technology or BSc Computing and Systems Practice.

**Systems Thinking: Principles and Practice** (T205)

This course will help you to become more effective in working with people and technology to handle complex situations, allowing you to identify central issues, explore their components, analyse the interrelationships involved and develop and understanding of the system as a whole and the possibilities for intervention.

**Managing Complexity: a Systems Approach** (T306)

We are confronted constantly by images of the world as unknowable, random and complex, but are usually given no means for understanding such complexity or for resolving the problems it creates. This course adopts the most recent and innovative advances in Systems thinking and applies them in areas such as development systems, organisational change and learning, sustainable development and your environment, and professional practice.

Successful completion of these two courses gains a Diploma in Systems Practice. They can be taken by graduates or non-graduates. There is also a residential school entitled *Experiencing systems* (TXR248).

Postgraduate courses

There are also a number of relevant postgraduate courses available from the Open University, including T834 Quality: delivering excellence; T836 International operations management; T860 Environmental decision making: a systems approach; T861 Environmental ethics and T862 Enterprise and the environment. From November 2004 there will be T850 Exploring information systems and T851 The information systems toolkit and from May 2005 T852 Learning from information systems failures and T853 Information systems legacy and evolution.

**MSc in Information Systems** (from 2004)

This programme is for a wide range of planners, stakeholders and users of information systems. If Information Systems (IS) are a significant aspect of your working environment or routine living experience and you want to understand more about:

- Why they are the way they are
- How they are designed
- How they evolve over time
- And why they so often disappoint or even fail

then you will find this MSc extremely useful.

Study packs

As an introduction, or for people who do not want to take a diploma or degree level course, there are three study packs:

- **Systems thinking and practice: a primer** (T551)
- **Systems thinking and practice: diagramming** (T552)
- **Systems thinking and practice: modelling** (T553)

Find out more by looking at these websites:

Bespoke Courses and Services

The Open University can add value to the study undertaken by NHS staff. With groups of 15–20 students we can appoint specialist tutors (called Associate Lecturers) who can work with the group to orientate their study to organizational learning and leadership within the NHS.

We can support the work of groups of NHS students with customised tuition and consulting.

The Open University can also offer courses, drawn from existing course material and tailored to the specific needs of an organisation. We are in the business of designing ‘learning systems’!

For further information about OU Systems courses look at our web site at www.ouw.co.uk, phone (01908) 652918, or write to Customer Services, The Open University, PO Box 188, Milton Keynes, MK7 6DH.

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