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IT in EDUCATION

Practice Learning Resource Database
Teaching IT in Social Work
IT, Social Work Training and Europe
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This issue is devoted to IT and social work education, whether from the point of view of an *IT in Social Work* curriculum, the role of IT in course organisation and administration, or technology based learning.

Regardless of IT developments in agency practice, there seems little doubt that in Europe the strongest initiatives in the educational field have come from the Netherlands, where there has been significant central government investment, and a policy of concentrating activity in the interests of a coherent approach and high quality product. Peter Roosenboom’s overview of the scene and the role of *Causa* throws down the gauntlet to those who favour locally produced courseware and, in his eyes, lack strategic vision.

Albert Visser fills in important detail of the Dutch scene, while Morten Lindstrom and Bernd Kolleck show that Denmark and Germany are still at or around the UK level of action.

In a majority of European countries social work education and training is organised on a noticeably larger scale than in the UK, with schools of social work, sometimes, as in Holland, part of schools of professional studies. As most of us also know, social work education on the continent allows at least three years in which to reach qualifying level, rather than the UK’s two. In these senses other European countries have something of an organisational advantage when it comes to development or implementation of new initiatives.

The UK’s advantage lies in its wider multidisciplinary context, so that although most units are small, they can share the developmental initiatives of other social sciences, or occasionally of a medical school.

Nevertheless, social work lacks political clout in UK higher education, and that is shown in the low priority it receives in the provision of new technology opportunities. For example, after the second round of the Teaching and Learning Technology Programme (TLTP - a major courseware development programme) there is still no dedicated social work project, though Bournemouth University, together with the Centre for Human Services at Southampton, the Open Learning Foundation, and other partners has a "Caring Professions" project linking social work with nursing.

Papers from Jackie Powell and Peter Pettit and Josh Schweiso illustrate just two of the many local achievements in the UK. There are many such developments, spurred on by the encouragement of CCETSW’s Paper 30, which go to show what could be achieved on a national or regional basis given a more supportive approach and imaginative resourcing from the top. At the grass roots we are yearning for the chance to get moving!

CCETSW is to review its expectations of the social work curriculum within the controversial framework of a lurch to the political right in the approach to issues of racism and discrimination. Perhaps a different outcome of that review can be a firmer lead and greater help in making use of relevant new technologies.

*Bryan Glastonbury*
The Establishment of a Database of Practice Learning Resources

Jackie Powell

Introduction

The need to include computer literacy in professional social work training is now widely accepted. There are growing concerns that, without some opportunity to give critical consideration to the place of information technology in social work, and to develop some basic user skills, social workers will become increasingly alienated and disempowered in a workplace which is making increasing use of IT (LaMendola, 1987; Nurius and Nicholl 1989). In a recent article in this journal, entitled Databases and information systems in human services: where do we go from here?, Jan Steyaert (1992) states:

"Because social workers never really took up the challenge, the present introduction of IT applications does not follow social work rationality but the rationality of system analysts. Therefore the present introductions are a threat to social work values. This is clearly a vicious circle" (p20).

He went on to conclude that one important development in this field should be a shift in attention from hardware and software towards the environment where IT would be used.

The implications for the social work profession seem clear. Social work educators, in particular, have an important role to play in taking some initiatives in the development of relevant curriculum materials. Involvement in such activities, as Glastonbury and Rafferty (1992) argue, has a wider relevance.

"For social workers the computer is not an ethically neutral object: it is something which, for good or ill, affects people's lives. The integrity of the machine, software, control over access, and (in future) computer intelligence matters" (p86).

Some recognition of these issues is evident in the national curriculum laid down by the Central Council for Education and Training in Social Work (CCETSW). Qualifying social workers need to have knowledge and understanding of "computer and information technology, data protection and access to information, as relevant to social work practice" (CCETSW Paper 30, 1989, p15). However, whilst there is broad agreement about why, there is still uncertainty about how to achieve this goal of computer literacy for social workers.

The wider CAL development project

In 1990 the Department of Social Work Studies at the University of Southampton introduced a new two-year MSc programme, leading to the single professional qualification for social workers, the Diploma in Social Work (Dip SW). This new professional qualification involves both academic study and supervised practice placements in approximately equal proportions. Establishing this new course provided an ideal opportunity for embarking on the development of Computer Assisted Learning (CAL) materials. With funding from CCETSW and the University Project Fund work, co-ordinated by CEDR [1] and the CTI Centre [2], began on developing five modules relevant to social work education and training [3].

One of these involves the setting up of a database of practice learning resources: an index, searchable in a wide variety of ways and readily
updateable, of systematically categorised information about practice placements used by the Department. Initially the database is being set up as an aid to students and tutors identifying potential placements appropriate to individual learning needs. It will also assist in making the necessary administrative arrangements, which involve complex negotiations with a number of social services agencies. Furthermore, this work is seen as an initial stage in the process of evaluating students’ use of assessed practice placements, and in particular “monitoring that students’ feedback on the programme is taken into account” (CCETSW).

Given the differing interests surrounding the development of the database, it was set up as a joint activity, initially involving two members of staff, one academic and the other administrative, in the University’s Department of Social Work Studies. At a later stage, a Practice Learning Resource Manager from Hampshire Social Services Department became involved in the project. The agency’s interest in the setting up of the database has to be seen in the wider context of CCETSW’s requirement that social work agencies providing practice placements should be formally approved according to specified criteria. This move towards the accreditation of both agencies and practice teachers has led to the recognition that a computer database of agency practice learning resources would be of benefit both to approved agencies and educational institutions.

This paper reports the early stages involved in the setting up of this database. It provides a brief description of the system adopted, an outline of the information sought and our early trial of a pilot database. It concludes with some reflections on the lessons to be learned from the process so far.

Choice of system

Our immediate concern focused on the range of information to be collected, what form it should take and the possible ways in which it might be gathered. We were aware of the need to ensure that as far as possible, the particular experience, as well as the more common features, of each practice placement were included. Thus, both structured or categorised information and descriptive material would be sought. This collection of both quantitative and qualitative data was central to our thinking about the very nature of the database, its several purposes and our commitment to ensuring the systematic collection of students’ comments on their experiences of practice-based learning opportunities. The latter was regarded as an important consumer dimension to the overall process of professional education and training.

In broad terms, three categories of information were identified as relevant for inclusion in the proposed database. These were:

* a number of key features characteristic of each placement,
* more descriptive information about learning opportunities particular to that placement
* evaluative comments from both students and practice teachers on the learning experience.

Interwoven with these concerns were other more technical questions about whether to engage expert help in designing our own software or to seek out a package which could be developed in ways best suited to our perceived information needs. The immediate accessibility of the CTI Centre for Human Services proved invaluable during this early stage. The continuing informal dialogue was helpful in clarifying the various advantages and disadvantages associated with each alternative, and in the process, helped to identify the key features of the system required.

Through the networking contacts of the CTI Centre, a possible software package was identified and acquired for us to assess in terms of its likely potential for our use. This software package, a database system called Catalyst [4], broadly met our requirements. It is structured to incorporate both categorised information and descriptive (text) material, and was developed...
with the main aim of helping networks of organisations to share information. Having been designed as a tool to be used by groups of voluntary and statutory organisations working together, it is user friendly and well suited to the needs of both social work teachers and students. Furthermore, it has considerable potential in the development of an information exchange network for practice learning resources across the region and further afield.

*Catalist* provides a core record structure for entering information, including the name of the organisation, two addresses, postcodes, telephone numbers and contact names. Information recorded and available in this format is seen as relevant to the administrative tasks associated with the provision of placements.

As a database it offers two ways of structuring and selecting information. Firstly a maximum of nine categories, each containing nine sub-categories, can be defined by those setting up their own database. Secondly there is a keyword field where as many keywords as desired can be created and entered. Whilst the categories, sub-categories and text files structure the information in a particular framework, considerable flexibility is offered through the option to use an unlimited number of keywords. Selection can be made on either category/sub-category or keyword alone, or on combinations of both. Thus it has the advantage of relative simplicity coupled with a high degree of flexibility.

In addition, there are text files or memo fields which can be any length and can be used to store brief profiles of organisations or other descriptive material. These can also be set up relatively easily by the *Catalist* user.

**Collection of information**

The detailed design of the data collection tool took the form of a questionnaire to each practice teacher currently providing an assessed placement for one of our social work students. In a letter accompanying the questionnaire, it was suggested that the completion of the latter could be a joint undertaking between practice teacher and student and form one part of the review/assessment process. It was hoped that by introducing the task in this way it would be seen as a relevant and useful undertaking.

Reflecting our concerns for both structure and flexibility, specific pre-coded information was sought on the type and setting of the agency providing the placement, the key client groups with whom the student would have contact, and the main forms of intervention or methods of working likely to be undertaken. The development of these substantive categories, which reflected the system’s own structure of categories and sub-categories, was undertaken in conjunction with a local statutory agency, who had become interested in developing a similar type of database for the management of their practice learning resources.

Considerable use has been made of the text file facility of the *Catalist* system to collect more descriptive material on the type of agency and locality served, the operation of an equal opportunities policy, the student’s role and involvement in the work situation and methods of assessing student competence. Seeking more qualitative information in particular areas of activity, as identified in the key CCETSW policy documents, Paper 26.1 and Paper 30, was seen as important, given the varying stages of development in the achievement of high quality practice teaching and the possibility of excluding areas of information perceived by informants as relevant to the provision of practice learning resources.

Of particular relevance here is CCETSW’s expressed commitment to notions of social justice and anti-discrimination. For example, CCETSW requires that "All practice learning must take place in an environment where there is clear staff commitment to enabling students to develop ethnically sensitive practice and to preparing them to combat institutional and other forms of racism". Furthermore, "The practice learning environment must also be one in which students can learn to combat other forms of
discrimination based on age, gender, sexual orientation, class, disability, culture or creed" (CCETSW 1989, p26). Many agencies and practice placements have made considerable progress in these directions, but it remains an area of both considerable uncertainty and innovatory practice. Both descriptive and evaluative comment on this aspect of the practice placement is vital to both our understanding and development of anti-discriminatory practice in social work.

Both practice teachers and students were asked to record their views on the practice placement, primarily in relation to the learning opportunities offered. These comments were also collected in the text file format.

Information, as outlined above, has been requested from each practice teacher providing an assessed practice placements used by the Department of Social Work Studies during the period October 1991 to July 1992. The response rate has been approximately 70%. The database has now been established and is in the process of being edited prior to its use by both social work tutors and students.

An early trial

As an initial phase of this major information gathering exercise, what might be described as a pilot project was set up to test out the software system and become more familiar with its uses. Using information routinely collected from agencies providing short non-assessed observational placements for our social work students, it has been possible to develop a relatively simple database of practice placements. This incorporates structured information on the type and setting of the agency providing the placement, its location, and the main client groups provided for, some descriptive material on the nature of the agency and learning opportunities available, and some evaluative comments from the student on the placement experience. Although very modest in its conception, this work has addressed many of the issues pertaining to the more ambitious project and has usefully informed its development.

By making use of a similar type of information, which was immediately available and which could, in part, be structured, a database was relatively quickly set up. This allowed us to become increasingly familiar with the system and provided an opportunity to test out some ideas about the use of categories and sub-categories, prior to developing them further for the main study. Furthermore, the achievement of some small measure of success in establishing this database encouraged us to pursue our efforts to introduce this initiative into the learning environment. It was initially introduced to our new students as part of their IT in Social Work curriculum. Subsequently, students have been given the opportunity to gain direct hands-on experience of this IT application, in part to familiarise themselves with micro-computers and working programmes, but also to learn about its use as an information system providing some details on a range of non-assessed placements. This phase of the work has been useful in identifying some of the difficulties associated with the introduction of a database for widespread use throughout the two-year social work course. Some of these can be resolved relatively easily prior to the introduction of the second database. For example, making the database directly available to tutors for use on their own PCs is likely to encourage its wider use. Others, particularly those with resource implications, for instance for a sufficiency of equipment and teaching space and adequate access to network services, require longer term strategies for resolution.

Reflections on work in progress

Although still very much in the early stages of developing a new initiative in the use of IT in social work education, a number of lessons have been learned. Some relate specifically to the introduction of information technology in social work, although others are equally relevant to any attempt to change the learning culture of an organisation. The introduction of computer assisted learning inevitably raises wider
educational issues, and may initially be perceived as a threat (Hammond and Trapp, 1992). Furthermore, the process of implementing any change, in this case very modest, does not rely on computer or IT expertise, but requires, among other things, time, energy and commitment from those initiating the change, and management support (Visser, 1991).

Neither of the two members of staff directly involved in this project had any real technical expertise. Both relied heavily on the support and advice of colleagues in the CTI Centre. Having access to a source of expertise is important in a number of ways. In addition to a more informed knowledge and understanding of the software options, is the ability to negotiate or act as an interface between the two rather different worlds of social work and information technology. Although this became less important once the software package had been chosen (at least in part because of its user-friendly design), the CTI Centre remained a first point of contact during the development of the system for our use.

The choice of system was a key decision, as it has significantly influenced the ways in which we have sought information. Having a framework within which there was sufficient flexibility to develop our thinking freely was very helpful. This was the right decision for us, although it was very important that some clear initial thinking about our basic requirements for the system was undertaken prior to any firm decision in this direction.

Seeking information on the practice placements directly from the practice teachers seemed to be the best option available to us. The issue of time, and whose time, has been an important consideration, and in framing our request in terms of a task relevant to the placement experience we have achieved a good response rate. Furthermore, involving both the practice teacher and particularly the student in the setting up of the database, as well as in its use, has been an underlying theme of student involvement in the development of this project.

Working collaboratively, within the Department of Social Work Studies, bringing together the professional/academic elements of accessing placements and the accompanying administrative tasks, and with a local social work agency to develop compatible systems, has hopefully contributed to the process of identifying suitable placements for our students. Furthermore, we are now in the process of acquiring a rich source of information about a wide range of placements, which can provide the basis for developing an effective monitoring system. This raises an important ethical issue as to what extent some information should be used only for research purposes and how this might be decided (Steyaert, 1992).

Finally, although perhaps most importantly at this stage in our development, we have set up an immediately relevant IT application for use on a social work course. This database was set up with a number of identified purposes. Firstly as an aid to students and tutors identifying potential placements appropriate to individual learning needs. Students are using the database to find out more about the types of placements used in the past and what previous students have reported about their learning opportunities. Tutors have made less use of the database, although plans to install the second database on tutors’ own microcomputers may encourage its wider use.

Secondly, the database was perceived as facilitating the administrative process, which necessarily involves a range of social work agencies. The collaborative activities referred to earlier provide some evidence of progress in this area.

Thirdly, the database was seen as an initial stage in the process of evaluating students’ use of practice placements. Little direct progress has been achieved here, although knowing that students’ comments on practice placements form part of the database has encouraged many students to seek to access this information. This point underlies one important lesson learned from our work so far, namely that if you introduce students to an immediately relevant IT
application and offer them direct hands-on experience, they will attempt to use it. This marks a small but significant development towards the goal of computer literacy in social work.

Notes

[1] These modules are being developed with a view to them being made more widely available in the higher education sector.

[2] Centre for Evaluative and Departmental Research (CEDR) based in the Department of Social Work Studies - further information about the work of this Centre is available from CEDR, Dept. of Social Work Studies, University of Southampton.

[3] Computers in Teaching Initiative - further information from the Editor of this journal.

[4] Catalist is available from Information for Action, 1 Roundhill St., Brighton, BN2 3RG.

References


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Information is a Many-Splendoured Thing!

Professor Norman J Smith

Norman Smith is Professor of Direct Practice, Department of Social Work and Social Policy, University of Queensland. His paper is published by and available from The Centre for Evaluative and Developmental Research, Department of Social Work Studies, University of Southampton, Southampton, SO9 5NH.
Developing the IT Skills of Trainee Social Work Students on a BA Social Work Degree Course

Peter Pettit and Josh Schwieso

Introduction

The use of information technology (hereafter abbreviated to IT) in the person professions is becoming an everyday reality in Great Britain. Initially IT became relevant to Social Service Departments through the adoption of Management Information Systems. These were an adjunct of the bureaucracy of local government in general rather than being adopted for specifically social work tasks. In recent years, however, the full potential of IT (by which we mean the whole gamut of information machines that have arisen from the combination of microchip processors, micro-technology, and advanced digital communications) has been recognised by social workers. This recognition has been driven partially by necessity, partially by enlightened anticipation of the benefits of this new technology.

IT in Social Work has a number of applications. Firstly, there is the use of personal computers to replace everyday office tasks such as writing, typewriting, routine note taking, letter writing and financial work. Secondly, IT is used as a means of keeping files and indexes, mainly concerning clients, but also including those on resources, service providers, and on social work staff themselves. The 1990 National Health Service and Community Care Act has played a crucial role in stimulating the development of resource and client databases (eg. Jack 1991; Oakley and Ramsay 1992). Thirdly, IT is used to provide information for clients and staff on such matters as those rights and responsibilities which emanate from relevant national legislation or local policies and procedures. Here, as with the two other applications, the possibility of networking individual machines, in particular allowing office PCs to act as terminals for centrally located mainframes or file servers, clearly extends the power of social workers to avoid wasteful duplication, to provide clients and staff with up-to-date information, and to provide that information fast.

How is this power to be appropriated by social workers? Now that IT is becoming increasingly user friendly, with the ready availability of off the shelf systems, it is important that end users are involved in both the design of the appropriate software, the choice of hardware and, most importantly, in a position to directly control it. They owe it to themselves and their clients to become IT literate. For existing social workers this largely means in-service training. However, in the long run this must logically become part of pre-qualifying training for social work, if only because basic IT skills are an increasingly necessary part of the standard student repertoire. Here, as in so much else, the United Kingdom already lags behind some countries in Europe.

"A student social worker in Holland nowadays carries a box with floppy disks in her/ his bag, and is likely to spend hours looking at a screen, learning, for example, about law and legal matters from a courseware program. In another context, when there is teaching about financial assistance, s/he learns to handle a software package to calculate social benefits. An increasing number of students have a computer of their own. It is hard to recall that until recently student social workers knew nothing about computers, when now computer use penetrates the whole of society, including social work." (Visser, 1992).

The hope of the designers of this course is that it will not be long before it is as hard to recall a time when British social workers lacked IT skills.
Planning an IT and Social Work Module

The social work tutor team at the University of Reading took the opportunity, presented by the need to replace a two year, non-graduate CQSW, to plan for the introduction of a three year undergraduate B.A. in Social Work/Diploma in Social Work Programme. This programme is modular in structure. Core Modules cover the professional social work requirements that lead to the CCETSW award of the Diploma in Social Work. Complementary Modules taken in Years One and Two of the degree constitute the additional requirement necessary to achieve the award of the University of Reading B.A. in Social Work. It was decided to include an IT unit as one of the complementary modules.

The specific reasons for so doing were as follows:

a) meeting the expressed requirement of CCETSW Paper 30, Section 2.1.5, namely that the student social worker should acquire "knowledge and understanding of computer and information technology, data protection and access to information, as relevant to social work practice" (1991, 15).

b) meeting the need to equip students with sufficient knowledge and skills to operate within a social work environment where IT is increasingly used.

c) capitalising on the availability of a qualified member of staff and the availability of adequate and appropriate IT hard and software resources.

The team possessed a diversity of IT skills. For instance the first author had particular competence in the use of word-processing but was somewhat less at ease with other software packages. However, they felt that they had neither the capacity nor the inclination to take responsibility for the teaching of a substantial course in IT and Social Work. Therefore they asked the second author (JS), an experienced user of IT in a variety of academic settings and a recent Masters graduate in Information Systems and Technology, who was then teaching social and developmental psychology on the CQSW course, to draft an IT and Social Work module. To assist this process preliminary research into other courses of this nature was undertaken. In particular, contact was made with the CTI Centre for Teaching Initiative, located at the University of Southampton. It appeared that although there was considerable interest in the use of IT in social work in Britain, the United States and Europe, the available literature was concerned mainly with the application of IT to social work practice (eg. Schoech 1990) rather than with the education and training of pre-qualifying social work students or practising social workers. Papers that did exist tended to be quite general (eg. O'Reilly 1986). It was suggested by the CTI Centre for Human services that any course should be particularly concerned with issues of clear relevance to social workers in their day to day professional work rather than with such technological issues as, for instance, computer design.

As neither the social work tutor team, nor the second author (JS) - the person who was prospectively to teach the IT component - had any precise knowledge as to how IT was actually being used in local social work agencies, JS consulted with the local Social Services Department, and conducted a number of exploratory visits to local social work offices.

Delivering an IT and Social Work Module

The IT and Social Work course was planned to fit within the predetermined confines of a Year One Complementary Module to which 120 hours study time would be devoted, half of which was envisaged as class contact time and half as private work.

The module was timetabled for one morning (9:15 to 12:30) a week for two consecutive terms. The first hour of the morning comprised a taught input. This was followed, after a coffee
break, by an hour and a half "hands-on" session.

The decision as to what to cover in practical sessions seemed simpler than the decision concerning the taught input. The main focus for practical inputs was to familiarise students with those aspects of IT such as word-processing, spreadsheets, and databases that would be of immediate use to them as students per se as well as providing them with a grounding in the everyday use of IT in social work practice. The way forward in the taught sessions was less clear. Although it was intended that the students should acquire necessary practical skills, it was felt equally important that a degree level course should incorporate rigorous and intellectually stimulating content. To facilitate the achievement of these twin objectives the following topics were covered by lectures:-

Term 1:

- the nature of IT, including the distinction of digital from analogue communications
- the development of communication and of IT
- hardware - types of computer, the CPU, computer memory, keyboards and floppy disks, video screens and printers
- software - Operating Systems, WIMPS and GUIs, word-processors, spreadsheets, and databases

Term 2:

- data protection and computer ethics
- IT in Social Work;
- Management Information Systems
- IT as a personnel tool
- IT as a tool for the practitioner
- IT as a means of empowering clients directly.
- IT in the future of social work

Practicals were taught in the Faculty IT Centre. This well equipped suite of rooms had teaching sets of both IBM compatible PCs and Apple Macs. A decision had to be taken as to which of these types of machine was to be used for teaching and hands on experience. On the one hand, the majority the social work tutors were equipped with what they perceived as user-friendly Apple Macs. On the other hand the majority of stand alone computers available to students on the social work course are PCs as, it appears, are the majority of those used in the local Social Services Department. Last, but not least, JS's machine was a PC! Hence it was decided to use the PC laboratory for the teaching.

The IT Centre has five laboratories each with class sets of varying makes (BBCs, Archimedes, Apple Macs, IBM PCs) of computer. Individual machines are available for student use when they are not in use by a class. They are also available round the clock through a smart card entry system. In addition there are a number of stand alone machines distributed around the campus available on a first-come, first-served basis.

For practical reasons the maximum number of machines available for teaching purposes was 12. As there were 32 students, this meant that three parallel groups had to be run. Each group was made up of students with varying degrees of previous experience of IT, this having been assessed by a pre course questionnaire (see Survey 1, below). Because each practical had to be run three times, laboratory experience was organised in three week blocks, each student taking one block a term. In Term One the students were introduced to the Windows Graphical User Interface, and the basics of word processing. In Term Two they carried out spreadsheet exercises, constructed a small database, and used the Rainbow terminal emulation programme to access various remote databases such as the University Library catalogue, the NISS (National Institute for Software Services) collection, and BT's Yellow Pages. In addition a spare week was used to introduce them to the use of the ASSIA (Applied Social Science Index and Abstracts) CD ROM database, which is available on a stand alone PC in the Faculty Library.
The machines used were 386 PC compatibles, each with a VGA colour monitor, 4 Megabytes of RAM, a 3.5" floppy disk drive, taking 1.44 Megabyte High Density floppy disks, and a 50 megabyte internal hard disk. The machines access Brother dot matrix printers. Some also access a laser printer. All machines are equipped with a wide variety of software including Microsoft Windows 3.0, Word for Windows 2, Excel Spreadsheet 3.0. In addition all machines are linked, via a modem and terminal emulation software, to the University Amdahl and Sun machines, and to the Joint Academic Network (JANet) which allows electronic communication between all major academic campuses in Britain and abroad.

As it was not a core module it was felt that the assessment of the module should be essentially practical, and should not add appreciably to the student's already considerable workload. Hence students were required to word-process, according to previously agreed criteria, a research project on the development of social work that they were carrying out for the first author (PP).

Outcomes

Student skills and attitudes, with respect to both IT and the course, were measured by three questionnaires; one given to students in the summer before their entry to the B.A.; the second administered half way through the IT module at the end of the autumn term; and the third administered at the end of the IT module, just before the Easter vacation.

Survey 1. Although the contents of this survey may appear to be incidental to a description and discussion of the module, it seemed to us that some summary of the findings would be of interest to readers. These are indicative of the level of IT knowledge and skill in a population of largely mature and predominantly female students prior to taking the module. Previously acquired knowledge and skill is likely to be an important factor in their judgement of the impact of the module.

Of the 32 respondents, 20 had some previous experience of IT. The percentage data that follows refers exclusively to the latter.

Previous use of IT was divided more or less equally between work and home. Most of them had been using IT for between 6 months and three years, though there were a small minority who had used IT for more than 5 years. The majority had used IT in the last 6 months. 80% had access to a computer at home. The most common uses were for business or for domestic tasks. Not surprisingly virtually everyone had word processing experience, and nearly 50% had experience of spreadsheets, databases, and playing computer games. Very few had any programming experience or any formal training in the use of IT.

Students with computing experience had an essentially pragmatic attitude to IT. Half of them regarded IT as "just another tool". A similar proportion felt that they merely "got by with IT". A third "got a real kick" out of getting to grips with IT and a half felt that IT skills would be essential for social workers in the future.

Survey 2. At the end of the Autumn Term, when the students had received most of their lectures on IT and three practicals each on the use of Windows and word-processing, feedback was sought using another questionnaire. 20 out of 32 students completed the questionnaire.

The questionnaire revealed a number of interesting points. Despite the intention that the course be a mixture of both skills and knowledge based work, the students clearly regarded it as predominantly a skill learning exercise. Thus attendance was better at the practicals (75% had attended all of them) than at the lectures (only 15% students had attended all of them). Likewise only 25% had read anything of the course text, and only 35% any general texts on IT other than the course text (Carter, 1989). This failure to read was not due to an inadequate reading list. All the 15 students who expressed a view on the matter claimed that the reading list was sufficiently comprehensive for their needs.
Turning to the lectures the students generally seemed satisfied with the topics covered. Again a preference for a practical orientation showed through. Most would have preferred less input on the general history of IT and of communications technology. The large majority (80%) wished for more on operating systems and on word processors. The majority of the students who passed judgement on the lectures and associated handouts found them informative.

It was with the practicals that the students showed a clear dissatisfaction with the course. Just over half had been able to follow and complete the work sheets for the practicals. However, under half felt that the word processing sessions had improved their skills in this area. Students expressed a need for more time to be spent on the practicals, and for more teaching of basic skills.

The message from this survey seems quite clear. Students main concern was with practical skills and these were not seen as being satisfactorily addressed. In the light of this feedback it was decided, at least as far as this group of students was concerned, to attempt to accede to their requests. As a result the lecture input was reduced to a 30-45 minute input, and the practical session increased to 2 hours 15 minutes.

Survey 3. At the end of the course the students were once more asked to fill in a short questionnaire. The aim of this was to investigate the degree to which their use of and perspectives on IT had changed since the course began. 22 out of 32 students returned the questionnaire.

Nearly half the respondents had obtained machines. These were mostly IBM compatible PCs though one student had an IBM PS/1, two had laptops, and one had an Amstrad word processor. Of those students who had supplied their own software, most had gone for word processors. A few had invested in spreadsheets, one in a database and one in a graphics package. Many of the students purchased machines primarily to obtain word-processing facilities for their degree course. This enabled them to avoid having to compete with other students for use of the Faculty’s somewhat stretched IT facilities. Some students intended that these machines would also be for domestic or other business use.

The question "How competent are you in the use of the following software packages?" was asked in the first (pre-course) survey and again in the end-of-course survey. The table shows the students' responses.

<table>
<thead>
<tr>
<th></th>
<th>Very</th>
<th>Moderately</th>
<th>Not very</th>
</tr>
</thead>
<tbody>
<tr>
<td>Word-processing</td>
<td>1</td>
<td>14</td>
<td>3</td>
</tr>
<tr>
<td>Spreadsheets</td>
<td>1</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Databases</td>
<td>1</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>Games</td>
<td>1</td>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td>Summer 1992</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Easter 1993</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Word-processing</td>
<td>9</td>
<td>12</td>
<td>1</td>
</tr>
<tr>
<td>Spreadsheets</td>
<td>2</td>
<td>11</td>
<td>8</td>
</tr>
<tr>
<td>Databases</td>
<td>0</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>Games</td>
<td>4</td>
<td>8</td>
<td>6</td>
</tr>
</tbody>
</table>

It is clear from this data that the students did become appreciably more skilled at word-processing, and more skilled in the use of spreadsheets. There was a rise in familiarity with, though not necessarily in the skilled use of, databases. From the above we would conclude that the course effectively increased the level of students' knowledge and skills of word-processing and spreadsheets, whilst doing little more than raising their awareness of databases. Students were also invited to indicate possible changes to course content and presentation in the light of their experience. A total of 46 suggestions were received. There was little shared agreement as to how matters might be improved. The widest agreement amongst respondents (11 suggestions) was that there should be more hands-on activities. Some students (5) felt that the course had been too academic and an equivalent number would have liked to see it more directly applied to social work.
Staff Views

After joining with the second author to plan and draft the module, the first author’s essential role became that of background consultant and confidant, particularly with respect to helping to manage the high levels of anxiety that the module and its contents had, understandably, generated within the students. This role was enormously facilitated by the fact that he also acted as Year 1 course coordinator for the programme, as well as being personal tutor to a substantial proportion of the students. The second tutor (JS) was solely responsible for the IT teaching inputs and the tutoring of practicals. Although he possessed IT qualification, this was the first time that he had taught IT at an undergraduate level. This generated a degree of anxiety and apprehension and an overly prepared and academic taught input. In retrospect it seems that these students needed a simpler course, in which basic definitions and explanations of terms (e.g. digital, floppy disk) were offered and reinforced, and in which the taught content was tightly related to the practical sessions. It has to be said that by making the assessment wholly practically based, the tutors can be said to have signalled to the students that the course was to be regarded primarily as a practical experience.

The strain was not restricted to the students! Beginning IT students, whatever their discipline, have very little capacity to recover from their mistakes when, for example, opening the wrong window in Microsoft Windows. As a result the practical sessions proved to be enormously exhausting, with the tutor rushing from student to student within each practical session. Students were quick to engage in mutual assistance if the tutor was attending to others. Even so some students complained about their having to wait for long periods in order to be helped by the tutor!

Discussion

Firstly it has to be said that we were not entirely happy with the quantity of returns for the second and third questionnaire. It proved remarkably difficult to get returns from some students. Most of those who answered the third questionnaire were those who answered the second one. In addition it seems that about 75% of these respondents were those who had identified themselves as IT users in the original survey. The process of evaluation is being repeated for the second intake to the degree programme. For this group, completion of the three questionnaires will be a requirement of the course assessment.

With the next cohort of students the course will be changed in the following way. Each session will open with a short tutor input, to be followed by two parallel practical sessions each servicing 10-12 students. In this way each student will enjoy a hands-on session every week for the whole 20 weeks of the course. The taught session will focus on material necessary for the practicals which follow and provide an introduction and stimulus to student directed private study into the broader knowledge base of IT.

The tutors recognize that very little actual output was demanded of the first cohort of students. Hence most of the evaluation offered here is based solely on student perceptions of, rather than more objective measures of, changes and developments in their performance with IT.
the revamped course students will be set regular exercises to be completed during the practical sessions. These will contribute to a portfolio of work to be handed in when the course is completed.

More material on IT and social work will be included. In terms of the taught inputs it is intended to include separate inputs on Equal opportunities and IT in Social Work, and Ethics and IT in Social Work. On the practical side there will be a session demonstrating the possible uses of videodiscs in social work training (the equipment is available in the faculty but we were unable to get use of it this year).

In concluding it might be appropriate to make mention of one of the few areas where a slight difference in priorities between the social work team, for whom IT is still largely a question of word-processing, and the IT tutor, has surfaced. Up to now the course has been able to use existing equipment and skills, and has thus cost the Department of Community Studies, within which the course is located, very little. The faculty library has borne the cost of acquiring bibliographic databases on CD ROM, such as ASSIA and ERIC. What though of specialist social work databases that would run on desktop machines, such as CHIAC and CCLAWS? The social work team have been reluctant to invest resources in these programs. In part this is due to a degree of uncertainty as to how well they would be used. However it seems likely that the fact that such programs have so far not, despite promises, been available for the Macintoshs which those tutors use has also played a part in the reluctance to invest scarce resources. This minor difference is, we suspect, a harbinger of possible difficulties to come. If social work training is to incorporate IT skills then some, perhaps short term, increase in funding may become necessary.

References


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The *Causa* Approach to Curriculum Development

*Peter Roosenboom*

**Introduction**

Curriculum development on IT is very much needed in schools of social work all over the world. This observation is based on numerous contacts with teachers of schools of social work during HUSITA conferences and elsewhere. A survey in EC countries in 1993 revealed the same fact.

In the Netherlands, Hogeschool Eindhoven has invested a lot of effort in developing social informatics to fill the gap. *Causa* is the expertise centre on IT of Hogeschool Eindhoven, Faculty of Care. This faculty (about 4000 students) consists of a school of social work, a nursing school and several schools for paramedical professions such as physiotherapists and logopedists. *Causa*’s expertise is focused on the use of IT in social work and health care, on the teaching of the use of IT by professionals in those areas, and on the use of IT in teaching (computer assisted learning) and testing students.

At present *Causa* employs 20 staff, not all full-time (14 fte).

**Curriculum Development in Social Informatics**

*INSP.* Looking back I see three stages in Dutch curriculum development in social informatics. State financed curriculum development at a national level started some 8 years ago with *INSP*, the Informatics Stimulation Programme. It supplied computers and standard software to seven schools of social work (of about 30 at that time). Teachers used this to develop training courses to educate their colleagues and provide learning materials. Comparing this with the current situation in some European countries, I must say we have been very privileged in the Netherlands with *INSP*. It was an important push forward. However, it lacked cohesion and too much stress was placed on computer literacy. This is not to express disapproval: we had to start with computer literacy efforts and develop a comprehensive view on how and what to teach to our students.

The teaching materials developed in this period were produced by teachers who worked from their own viewpoint, which contained little experience of informatics. In fact we were all beginners in the field, and the only role models available were teachers of informatics in our technical schools, training software engineers in such topics as Wordstar and dBase.

Evaluating the *INSP* programme, the lack of a comprehensive philosophy became apparent. A framework was needed that would not imitate the teaching of engineers or IT training in standard applications, but was suited to the training of social workers.

*VIT.* As a follow-up to the *INSP* programme a new government stimulation scheme was started 5 years ago. It was called *VIT* ("Renewal of IT"). For schools of social work it aimed at developing a curriculum philosophy, at formulating learning goals and describing teaching modules. Producing concrete teaching materials was forbidden. Out of this, and based on research about the way IT was adopted by practice, *Causa* developed in co-operation with Hogeschool Amsterdam and Rijkshogeschool Groningen learning goals and made 17 module descriptions.

The curriculum philosophy was to base teaching on what is needed in practice, and integrate IT teaching into the existing disciplines. IT was not to be an isolated discipline with a technical character, but part of other disciplines which would include the role of information generated or transported by IT as it is in practice. Also the professional use of IT was to be taught in most cases by the teachers of social work methods - in fact the teachers who are the least interested in
computing, yet are interested in analyzing the process of social work with clients and the use of IT in face-to-face relationships between workers and clients.

The curriculum on social informatics was published under the title "Meer dan Computers" (More than Computers) because it is more about information than computers. It was very positively received by schools of social work and Causa received a grant to work out the curriculum by producing concrete teaching materials and training and supporting teachers in all schools of social work to use the new materials.

Causa. At the present time Causa has finished 3 of the 17 modules, Registration in Social Casework, Registration in Residential Care for Mentally Handicapped People, and Information Systems for Human Resource Management.

Our approach to curriculum development now is based on the lead of a national expertise centre (Causa). We have moved from teachers developing teaching materials for themselves, based on individual views, to professional curriculum development based on a comprehensive philosophy, with clearly formulated learning goals drawn from research in the field. The development is not now done by professional developers for themselves, but for a nation-wide user group. The material is produced both in dialogue with experts in the agencies, and with teachers as the future users.

Causa's curriculum developers work closely together with teachers at Hogeschool Eindhoven School of Social Work. These teachers do not have to do the research or the writing, but they monitor the process and review the results. In a way they produce the specifications of the product. Even the best professional developer needs the feedback of an experienced teacher.

At first an outline of the module is produced and presented at an Audit Committee. These committees consist of experts from the agencies and teachers of other schools of social work who are experienced on the subject matter. The module is audited through to the end of production, and when it is corrected it is ready to present to the teachers who are going to use it. When their schools buy the teaching materials they receive the module with training for the teacher who it to use it and help with all necessary technical installation.

The schools have indeed to buy the teaching materials. In former state financed development projects the materials were distributed at cost to encourage greater acceptance, but now the Council for Higher Professional Education (which supervises the innovation projects of which ours is one) demands selling at market prices in order to accustom schools to pay for market-place teaching materials.

I must add that Causa is in fact not only producing teaching materials in this project, but is also testing a new way of innovating professional education. Traditionally every teacher develops his/her own teaching materials. Now at Causa we try to centralize this process in one expertise centre. I think we have developed a good method of combining the professional skills of our developers with the expert knowledge of field workers and teachers. Another point is that Causa's developers not only produce teaching materials: they are also working on projects for social work practice such as automation planning, teaching and training social workers, and producing software programs. This allows them to bring the newest developments in the field into the teaching materials.

To date this method has proved rather successful, though there are some problems:

* Teachers are not very pleased by the idea of having to use materials developed by others.

* Schools of social work are not accustomed to buying teaching materials: they are more willing to give a teacher 300 hours to develop materials rather
than spend a tenth the cost on buying materials from another school. This is caused by the way budgets operate.

* Our approach means that teachers of informatics have to hand over their work to teachers of social work methods. Both sets of teachers are sometimes unable or unwilling to co-operate.

These problems are not easy to solve. We work on them by informing the managers and teachers of schools of social work of the advantages of using the teaching materials - professionally produced courseware using state of the art software for a far lower price than self-developed output.

The current programme is scheduled for 3 years and we still have more than 2 years to go. I strongly believe that we have not only developed a good way of producing IT teaching materials, but also a good method of curriculum innovation in general. I am sure that expertise centres like *Causa* can offer a strong stimulus to innovate professional education.

*Peter Roosenboom is Director of Causa*

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**Computers in Social Work Education: a European Perspective**

*Bernd Kolleck, Morten Lindstrom and Albert Visser*

**Introduction**

This article is a result of co-operation between the Fachhochschule fur Sozialarbeit in Berlin (Germany), the Sociale Højskole in Aarhus (Danmark) and the Faculty for Higher Social Education of the Central Netherlands Polytechnic in Utrecht (Holland). It is about the concern of three teachers in social work around how the computer will and actually is influencing social work education and social work practice. The first step is to become aware of the present situation. Therefore we are going to give an overview of similarities and differences between the three countries concerning the impact of computers in social work and social work education.

**Historical perspective: the development of social work.** Western industrialised countries have had an almost parallel development in social work and social work education. There are many similarities in the theories and attitudes towards social work and mutual influences are numerous. Early this century social work emerged as a reaction to certain circumstances in the new industrial society. In the 1950s numerous schools for social work education were founded. In this respect the schools followed developments in society. Until the 1980s the schools were always told they were lagging behind developments in "the real world". Changes in social work practice were nevertheless followed by changes in the social work curriculum, albeit with a delay.

The influence of practice on education has grown stronger in the 1990s, can be seen as practice agencies "pulling" the educational institutions to make their education and curriculum more immediately responsive to service needs. Partnerships between schools and agencies have also grown stronger and more widespread.

**Computers in social work.** With the advance of technological innovations another situation has been created. In Germany now we can see new developments in educational methods being used before any changes in professional practice can be seen. Indeed it is now possible that the social work curriculum is changing towards incorporating the application of new technologies, with a delay before social work practice follows. Here education can be seen as
"pushing" institutions in social work practice to improve their techniques. In many parts of Europe the schools are able to supply a range of courses for those agencies wishing to apply new technologies, while professional practice is supplying schools with applications that can be taught to students. In the north-western European countries computers are becoming a daily working tool for the majority.

The discussion about computer applications in social work and social work education started early in the 1980s, shortly after personal computers began to intrude on society to a larger degree. Before then mainframe computers were used to cope with very large databases for such matters as social insurance and welfare benefits. These applications had been quite critically viewed by social work professionals because of their social consequences. Of major concern was the risk of IT exercising control over clients. The situation has changed decisively since the personal computer came in. Many working places have been influenced by computing facilities. Only a few teachers, students and social workers now think they can avoid technology. Nevertheless the mainstream attitude toward computers is not enthusiastic, and there is substantive discussion of the pros and cons of IT dependence.

The computer has become an issue between clerical, administrative and social worker staff in the context of who should do the actual computer work. Fear of losing jobs is another part of the problem. The trend still seems to be towards an acceptance of computers as a working tool, as long as programs can be of real use. Social workers have to be convinced of the advantages before they start using the new tool. Once that obstacle is overcome, the computer becomes a necessity.

Computers in Social Work Education. Schools of social work in the countries we know about started with computer courses in the 1980s, some schools very early, some a bit later. The general motivation was the awareness in social work practice of a demand for computer skilled social workers, or agency decisions to introduce computers, and a future demand could be anticipated. With this perspective it became clear very soon that other university or school departments were not able to deliver the sort of computer education that specifically served and considered the requirements of social work practice. Hence specific material on computer applications in social work came into existence, which could only be shaped in the social work practice and training process. Furthermore, although it was realised that the process of social work might be changed through new technologies, they nevertheless had to be integrated with the tradition of social work education and research.

In general new technologies were intended to support the effectiveness of social work. Technology had to be shaped for the needs of the field, and creative applications developed. Clients should not only be served in a better way, but be supported in their self-reliance and independence. Ideally, the implementation of IT should take care that the influence of central bureaucracies is diminished.

Education has to reflect the needs and application possibilities of practice, so it is important for the curriculum to contain demonstrations and reflections on application examples. Hence a range of application areas need to be considered, such as administration and management, communications, social planning and research, case planning and therapy. It is no accident that these examples will also reappear in the wider curriculum of social work education.

Another component of IT education is the impact of technology. Besides the positive effects there are risks, where new technologies add to social problems, among them the deprivation and marginalisation of those who meet the demands of modern information societies and are victims of unemployment and poverty. These considerations directly lead to a discussion of "technicalisation" and relevant economical and social theory.
One way of helping underprivileged groups is by using computers to overcome deficits in education. Computer programs, for example, can help people to compose correct texts, write letters and demands or fill in forms. It also helps to get relevant information on rights and resources in a convenient way. These possibilities have to be developed and introduced into social work practice.

Questions of personal rights and data protection are relevant in all countries, and social work has a special responsibility because of the many large databases filled with often very intimate personal data that can be used to compose complex personal profiles. The practical needs for protecting such data gives social work a unique role and position in the development of data protection, and it is a duty of the profession to fulfil these demands.

Of course, some hardware and software knowledge has to be taught to the students in order to educate skilled computer users, not technicians. Moreover, students have to be enabled to take part in change processes that are necessary with the change of machinery and computer software. So they must be enabled to co-operate and communicate with technicians, programmers and engineers to ensure the proper representation of professional values.

When schools of social work start teaching about computers the first topic is often word processing, and later comes another topic which can be labelled Computers in Social Work. Students have taken an interest in word processing and other aspects of office automation because of the usefulness in enhancing study skills. A significant number of the students write their thesis/project work on the computer.

Denmark. In Denmark the part of the course that deals with computers and social work has not been very successful so far. This is mainly due to the fact that teachers themselves lack training. The aim has been to integrate computers, as becomes relevant, into any of the social work curriculum areas. This integration only takes place if the teacher is aware of the possibilities. The training of teachers must be carefully planned and put into action through goodwill and interest, and in the end the teachers should take up issues themselves, and seek support from a range of sources, some outside the boundaries of a school of social work.

As a start a network of schools was formed to introduce computer training in social work. This group dissolved itself once the initial task was fulfilled 5 years ago. Now networking between teachers who teach the same subject is established.

To sum up, one can say the computer training in social work education in Denmark lacks a great deal, but the students get to know the computers on a basic level.

Netherlands. In the Netherlands the introduction of IT in curricula for higher education was a centralised effort by the Ministry of Education and Science. It launched a 4 year special plan to stimulate Informatics, starting in 1984. This had a great impact on social work studies. At that time there was hardly any university or polytechnic department nor any social work institution that worked with computers.

The schools selected for the project received material and financial support from the Ministry of Education to set up further training schemes and curriculum development. The main products were a basic course on informatics for students in social work and a greater awareness about the application of IT in social work curricula for some enthusiast teachers. Still the implementation of IT in social work curricula was very small.

The Ministry for Education and the Council for Higher Professional Education decided then on a further central stimulation project (the VIT-project). The VIT-program Social Informatics started in 1989 and aimed at producing an overall curriculum for computer use in social work education. It started with a vast survey about the use of computers in the social services,
very broadly defined according to Dutch human services practice. This produced a lot of information about actual developments and needs in practice. From this survey the project management decided to have 20 modules developed that could be combined in several ways to fit into a connected curriculum. The 20 modules contained one on basic informatics and 19 on specialised subjects.

For the period up to 1994 learning materials will be developed that fit into the modules. One polytechnic (Eindhoven) is project manager, but all other departments for social work education are invited to make contributions. It is a real co-operative project, and all 26 schools for social work in Holland are now in the position to implement any of these modules in their curriculum.

So far development has mainly concerned professional practice applications, but there are also new developments in educational technology. Computer based training is growing but is dependent on the development of courseware. The amount of good courseware is still very low. For social work education there is a special project at the Hogeschool Midden Nederland and Courseware Midden Nederland which aims at developing 100 hours of courseware for the social work curriculum. There is courseware being developed for the following topics:

* several topics in social law
* research methods
* communication techniques
* writing a thesis
* project planning

To make the picture complete mention should be made of another central initiative. The Higher Professional Education Council and the Ministry for Education funded a final project that is called ITO (Information Technology in Higher Education), which is meant to describe all current experiences which use IT in higher education, and develop a reference model from that material. This project is managed by Holland’s Open University.

We strongly believe in Holland that to get IT accepted in higher education central stimulation and funding is highly effective. Schools and universities that are supplied with hardware, software and substantial support for integrating IT into curricula can more easily reach a critical mass, after which they can rely on their own strength and consolidate their efforts. The phase of stimulating the early users also creates a co-operative climate that can continue and be very helpful in the phase of consolidated use.

Germany. In Germany most social work schools are equipped with hardware and software, though not all of them on a sufficient scale. Many schools received their equipment through a government programme called CIP (Computer Investment Programme) for universities and polytechnics (Fachhochschulen) in 1985-1988. The programme is still continuing, with special attention to the eastern states. It was to avoid a lagging behind of higher education in the fields of computer science and application and was certainly a success. Quite a lot of computer programs, courseware, communication and information services were developed as outcomes.

Schools of social work have a pioneer function for the introduction of computers in social work. Counselling programs like those for social benefit calculations, debts, housing problems, as well as information systems for handicapped persons, social service institutions, literature and software were developed in school projects. Programs for computer application for youth centres have been developed. Telecommunication networks are built up from schools. Many professionals get their basic training in special courses offered by schools of social work. Yet there is also a feeling of uneasiness about this, as teachers are not sure whether or not their courses really meet the needs of practice. Computer science in social work lacks evaluation, because the practice is often still unable to apply the new tools.
Certainly the possibilities of schools are limited, and the bigger and more profitable software products like those for management information or book keeping come from professional software producers.

Reflections.

One has to realise that there is a great difference between raw data and useful information as identified through a human process. Similarly computer generated material cannot be assumed to be value free. There is a famous example in Holland. The Ministry for Education and Science had a floppy disk produced by a dutch software firm about student allowances. Apart from the fact that there were many mistakes in the software a curious thing happened: each time there was any reasonable doubt in answering a question the software choose the outcome which was less favourable for the student, and more favourable (financially) for the ministry. Then, after a discussion in the media, along came a new program, made by a student and distributed by the student union. The new program made other choices and came to much more favourable outcomes for the students. After some discussions this program was accepted by the Ministry. But now everybody has a good example of the values involved in software!

The values of social work should be integrated into the software. Once you deal with people, you have a problem of human values. The software developed for use in social work should be checked by social workers, following a fundamental discussion of values. An example is about the registration and exchange of information on clients. Traditionally client files are written and physically kept in locked drawers. You need a key or access to the drawer, and people around can see who is looking into which drawer. In the near future journals are going to be computerized. The key to the drawer is going to be a matter of who is allowed to access the computer network which holds the information produced by the social worker. The exchange of files between public bodies is going to very fast and easy once you can use electronic mail or local networks. At first sight this seems an advantage. On second sight all the worries begins. Who is receiving the file? Who has access? What is happening with it?

With the introduction of personal data into data processing the use of computers becomes a matter of social responsibility. The contextual limitations of computer generated information must be recognized and compensated by other ways of gaining knowledge, mainly through direct communication with clients and colleagues and the use of social theory and analysis. It would be dangerous to suggest that computers in social work will make the social worker redundant. It has shown in surveys that sometimes the client is more open to answering a computer questionnaire, but eventually always wants to talk with a real person. Moreover there is evidence from experiments in Holland with expert systems on social benefits that though the expert system did have the correct rules and gave the correct answers, the social worker sometimes came to quite different conclusions because there are matters of discretion and interpretation.

The guiding principles are those of integrity and balance, ensuring acceptable values, and keeping the technology as a servant not a controller of people.

Professor Dr. Bernd Kolleck is from the Fachhochschule, Berlin, Dr Morten Lindstrom from the Sociale Højskole Aarhus and Drs Albert Visser from the Hogeschool Midden Nederland.
The Joy of Learning and Teaching Statistics and New Technologies

Bernd Kolleck

Statistics does not appear to be a favourite subject for social work students. However, when taught in the context of a small research project which is defined by students’ interests, methodological theories can become an interesting foundation, data processing an efficient tool and statistics a challenging instrument for data evaluation.

Several years ago I started teaching formal basic courses in empirical research and statistics in a school of social work. The courses ran over one year with lessons of three hours a week. It was quite cumbersome to keep the students’ interest alive over the whole two semester period. Many students were not easily motivated to learn statistics and computer applications. Even with a bunch of different data examples it was difficult to persuade the participants to accept that formal methods are really somehow useful.

Seminars in the form of practical empirical investigations had been held in departments of sociology, where time for a seminar was typically eight hours during one year. I thought this time would be too short and the interest in empirical research perhaps too low at a school for social work. It was just by chance that one year we nevertheless started a project. We were asked to perform a survey on participants at an international conference which was to take place that year in Berlin (ICSW, International Consortium for Social Work), with free admittance for all student researchers.

The class decided to take the opportunity, and as there already had been some lectures on theory (the theoretical foundation of empirical research and the research process), we started right away with a brainstorming to define our primary research interests. Conference participants were to be asked about the conference, about their practice and problems in social work. Literature on past conference surveys was searched and read. Soon a lively debate started about whether and how we should also ask about the political background and opinions on issues of social politics; as time was short, the discussion was delegated into subgroups.

In the meantime, the group was interested to learn how to formulate survey questions, as this would necessarily be the next step to be done. Then the main topics of the questionnaire were divided among five subgroups with about six members each, with the whole group discussing and modifying the results. Time always being short, the teacher made a cautious final editing, which nevertheless brought him pronounced criticism from some students who thought their opinions might be counteracted. But then an agreement had to be found, the questionnaire was typed into a computer, and a decent layout was created with the help of a student tutor in the computer centre. The questionnaire was pretested in interviews with other teachers, changed again, translated into three foreign conference languages with the help of foreign students, and then printed. A lot of this organisational work was done outside the lessons, giving us time to repeat some methodological background, especially a repetition of the research process, and talking about some elementary statistics.

The first half year ran by quickly with high activities of the students and a considerable output. Students had learned to develop a process of investigation, to formulate hypotheses and convert them into questions for a standardised interview, and to organise the interviewing. In the seminar methodology was handled as a necessary tool rather than learned as a prescribed topic. The research project had become interesting. No additional motivation from the side of the teacher was necessary: the survey had become a motive in its own right. So, after the summer holidays, the course was quite eager to continue, to process and evaluate the data.

Of course, attending the conference with the possibility of making contacts with many social workers from all over the world, was a special event and a great experience for all the students who could go. More than 250 questionnaires were filled in and returned.

Data coding and processing would not have been possible without the help of a student tutor - or with extra effort from the teacher. Before the data were typed in, a data entry mask was prepared to make the
Now the time had come to have a look at the results of the research. Students were instructed how to produce frequency tables of single variables and contingency tables of two variables along with some statistical measures. For many students it was the first time they used a complex program like SPSS/PC, so it kept us busy for about three lessons. The hardships of learning a complicated software application were overcome with relative ease because the program gave us a first insight into the results of the research, which was gradually completed as we went through the process of learning about statistical analysis. Finally, we had a couple of interesting tables that seemed to be worthy objects for further analysis.

I had announced the chi-square test as an especially challenging topic, but interesting and fundamental insofar as it helped to understand modern statistics. The learning of the chi-square test was performed using one of the most interesting tables that had been produced before. The demonstration of the test logic took one lesson and was repeated twice with an increasing level of complexity and some exercises as well a critical discussion about its use (and abuse).

Once the theory was learned and understood, the application was easy. It gave us the opportunity to evaluate the data including the notion of statistical significance. Only a few lessons were left to produce a final report in several working groups and combined with the help of the tutor, who also contributed some business graphics.

The report is 79 pages long and contains a chapter on the methods and procedures as well as chapters on statistical analyses. The satisfaction of the participants with the conference as a whole and the different events were reported along with critical remarks some respondents wrote in the open question fields. Most interesting for the students were the answers concerning questions on satisfaction with the job of a social worker, on socio/political difficulties in different countries, and on the strength and nature of international co-operation. The report was printed and passed on to the conference organisers and other interested practitioners.

Encouraged by this experience, we now have a course in the form of a research project every year. The themes are always found through a discussion process. Several working groups elaborate their favourite research subject. Subsequently, the results are introduced to the whole group and the best or most promising is chosen by the students. This serves to train students in formulating a research proposal, the evaluation of different requests and the final decision making. Themes we studied in subsequent years were "Motivation of social works students", "Housing situation of students" and "Violence in public traffic".

The study on students’ motivation showed a stronger degree of motivation in the first year which diminished during the time of study. A great number of students indicated that they had to work for their living and could not spend the whole time on their studies. The differences between the students were very high, ranging from those who said they would spend 20 hours a week working and studying to those who worked up to 60 or more hours a week in both fields together. We also asked for an evaluation of the quality of the teaching. The results showed, that the rating was similar to that of the students’ own motivation and performance - good to medium with a high deviation between different teachers.

An interesting result was also produced by a question on the reasons for studying social work. We could compare the results to those of five different surveys which had used the same question before and thus formed a time series. It could be seen that motives for studying social work had considerably shifted from motives of the social-political and caring type ("to work politically", "to change society", "to support the needy", "to help my neighbours", etc.) to more personal motives ("to get a better understanding of myself", "to have an interesting job", etc.) as well as to motives around individual careers ("to change to a university", "to build on my practical experience", "to build on my previous job", etc.), and with a negative correlation between these three different types of motives.

The results were published in an internal newsletter in the school as well as on special leaflets. The reaction was encouraging: some other classes on social structure and empirical research took the results as basis for a discussions. Moreover, the results on students’ motivation became the basis for a pamphlet on the general situation in the school. It said that the
Computer-Based Learning in Social Work Education

Albert Visser

Computer Based Learning (CBL) is a relatively new phenomenon in education and learning that cause a lot of discussion. Some hate it (and this is more the case with teachers than students) and some enjoy it. Is CBL really a new challenge to improve student learning, both in outcome and quality? In this article I will describe the interesting case of the Department for Social Work Studies of the HMN Polytechnic in Holland. There, the general feeling after a period of trial and error, is now positive.

Top down is not enough. Since 1984 there have been several projects in Holland that fostered the gradual development of awareness that computers could be used in higher education. This did not, however, result in a general acceptance of computers in education. Apparently some scattered initiatives were not sufficient to achieve this.

One of the measures taken on a high level came as a demand from the Ministry of Education and Science that each Polytechnic make a midterm plan for the implementation of Information Technology (IT) covering hardware, software and infrastructure. These plans were made by the HMN Polytechnic, but this top-down treatment did not really work. More needs to be done than just a plan from the top. Teachers are not easily convinced to do something they did not help develop themselves.

The next step the HMN Department of Social Work took was to appoint a change agent for this subject, called the CBL co-ordinator. His goal was to facilitate teachers in drawing software or professional applications into their curricula. This was mainly a
person-to-person approach as experience showed that group meetings were unsuccessful, perhaps because it is rather humiliating for a teacher to admit ignorance in front of a group!

**Problem solving: a strategy for change.** After a period of "let 1000 flowers bloom" where every teacher who wanted to try out something with courseware could get support, there was made a shift towards a more structural approach. The CBL co-ordinator worked with the idea that CBL can be a solution for certain problems in the educational process. Problems are here defined as the difference between a desired state and the actual state of affairs. The solution helps move towards the desired state.

The sorts of problems which come under consideration, and the formulated solutions are:

1. The curriculum is no longer appropriate for current professional practice. It appeared that more new technology was used in practice, both office automation like word processing and professional applications like client information systems. This pushed educational institutions to adapt their curriculum to this development. To find out what the real changes were, a survey was conducted and corresponding curriculum modules were developed.

2. There is a high number of students in the classroom, which makes it very difficult to give them individual feedback. Teachers are used to group teaching, whether in a small group or a large lecture room filled with students, although the latter is less appreciated by both teachers and students. If the group tends to be too large the learning results decline, mainly due to the monolithic way of teaching and the limited possibilities for feedback. So in a situation with large numbers of students interactive computerised learning materials really help out. This was the case in one new specialism at the HMN Polytechnic on Social and Legal Aid. This was growing so rapidly that the teachers were confronted with problems of developing materials for large numbers of students. As a result we developed, together with a software house linked to the Polytechnic, some CBL packages for this discipline. They were ready just in time and the teachers were very enthusiastic about the contents and about the outcome, even though they did not develop the courseware themselves! It also fitted well into the curriculum, and the students were very positive about it. They could approach the courseware individually or in pairs, received all the feedback they needed and could choose a learning route that fitted their personal learning style. This is a feature you cannot get in traditional teaching: you could never choose between styles, you just had to fit into the system. We could not establish whether the outcomes were better or worse, but certainly we noticed a more positive attitude of both teachers and students towards the topics of social law.

3. Teaching is boring, either in the contents or by the teaching style, so students are less motivated. The students are unmotivated, reducing the capacity (and eagerness) of the teachers. Since the invention of printing teaching was done in two ways: by talking, where the teacher talks and if you are lucky students can talk too and ask questions, and by means of the written word - books, readers, papers. Because the number of students increased so much, learning became more and more passive: professors giving lectures to large numbers of students, students listening and the rest of the time reading (and of course some writing). Learning technology now makes it possible that students practice some more interactive learning in working with computers and learning software. This now appears to offer a good challenge to both students and teachers: students love to do some more active learning, to learn by problem solving. I happened to overhear some students who had just worked with courseware about unemployment benefits. They did so by trying to solve some cases about real practice. One of them said to the other "I did not know learning could be fun, even these dull legal matters can be so interesting now we are working with courseware". The teacher too is very positive: she conducts two "response lectures" where students come with questions about the courseware and the cases. She claims that after a courseware session questions are more to the point compared to students who just read a book or have a lecture on the topics! She feels more challenged and has more satisfaction in teaching.

4. The pressure to increase educational productivity is laying heavy stress on the organisation of education. A higher proportion of young people are entering higher education, and many older people take a second chance to learn a profession or to get properly qualified. Quite a number of students have a job and study part-time, which adds further to timetabling difficulties. Good courseware can provide an opportunity for students to learn interactively at
home or in lunch breaks in their office.

**Favourable conditions.** To realise the implementation of CBL some favourable conditions are needed:

- There needs to be enough good quality courseware.
- It is necessary that use of CBL is integrated in the institutional policy for educational change.
- A positive attitude in the teaching team towards innovation is very helpful. This can be achieved by demonstrating one or two "success stories" of CBL.
- The contents of the learning software has to fit into the existing curriculum.
- It is very essential that no negative implications concerning employment of teachers are involved.
- CBL materials need an added value over "traditional" learning materials. This can be the case in client simulations (cases), in offering possibilities in choosing learning styles, or in the chance to work interactively on subject matters.

**Support the teachers.** To achieve all this the HMN Social Work Department supported the teachers with a number of measures. There is compensation for teachers who are going to work with CBL in money, time or equipment; there is technical support for both teachers and students by computer assistants; and there is sufficient hardware and software available. Last but not least we conducted a substantial program of teacher training to train teachers to work with the new technology.

Although there are positive effects to the use of CBL in higher education, it is good to realise that it will only be an addition to the more traditional ways of teaching and learning, and always a relatively low percentage. Certainly in social work education the face-to-face contacts with teachers remain very important. Therefore we should not over-emphasise computer use. It is only useful to introduce CBL to topics where it has an added value or where it does offer a solution to existing problems.

Integrating CBL in the curriculum needs a substantial financial input, not immediately compensated by higher efficiency. The main gain of this will be a better learning and teaching environment for students and teachers. The effectiveness and quality of learning will improve. This will result will be better professional workers. Nevertheless a critical attitude towards these developments is required, but that is nothing new for social work educators!

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**Computers in Teaching in Danish Social Work Schools: the Past and Present**

*Morten Lindstrom*

IT is the newest subject in schools of social work. No other subject has been introduced to the schools over the years without a lengthy discussion as to what weight the subject should have, how exams should be held, etc. This was not the case with computers. To some people they were suddenly there, to others after a spell of agony and pain. The story in short is as follows. The schools applied to the Ministry of Education (for 3 years in a row) and finally in 1987 the funding came from a central fund on computers in teaching. Two of the 5 schools are more or less integrated into universities, and they could use computers the university provided, but the 3 remaining schools had to build up knowledge from the very beginning.

One lucky circumstance was the long time the Ministry had taken. The computers was now only a third of the price, and the schools could get much better value for money. The computers also had to be installed in a special room. Schools of social work were not used to special classrooms for just one subject, and this subject could not be handled by any of the teachers at the time. No one had the background. How should the teaching be, how should the classroom be secured (some secured the room to such an extent that the students could not get in!) and who should support students and the software?
Someone had to be in charge. These were new questions to the schools, and in some cases have still not been answered satisfactorily. After selecting a computer firm (the 3 schools chose Olivetti) the problem of choosing word processor, spreadsheet and database started. One Danish word processor firm had a good offer and was chosen.

The curriculum. It was obvious the students should be taught a word processor, but what other software to teach? Were there an ideology and theories to be aware of? Computer scientists apparently saw many, but could they be applied to social work and to what degree should the students learn a new scientific subject, when their curriculum was already so packed? The schools (all the 5 of them) invested in a course for teachers to develop the curriculum in 1987/88. This ended with a course in 2 parts. The first (one week) was to teach the students a basic knowledge of computers (word processor etc.). The second (also one week) had a focus on the use of computers in social work. The first part was placed in year 1 and the second part in year 3, the idea being that students could use the computers as a tool for their project work and other items they had to do during their education. This would make students acquainted with this new world in a sort of "normal" way, and they would see and feel for themselves the usefulness.

The second part of the course caused many frustrations, a problem being the difficulty of showing students what was actually happening in the field. Kommunedata is the controlling developer of software for the social services in local council work, and Kommunedata based their development (and still does to a large extent) on mainframe solutions. The schools did try to get an agreement with the firm, enabling the schools to get an on-line possibility. In the beginning the firm wanted the schools to pay as normal users, which was out of the question. Then the problem of security stopped the development. The schools cannot have access to personalised data (because of data protection procedures), and since most of the systems of interest were in this area, the agreement never came into action. One school was (because of data protection procedures), and since normal users, which was out of the question. Then the problem of security stopped the development. The schools cannot have access to personalised data (because of data protection procedures), and since most of the systems of interest were in this area, the agreement never came into action. One school was

Another approach was to invite system developers and users into the schools, but students did not benefit a lot from these demonstrations. They knew too little about computers to be able to ask any questions of relevance, and to see someone flicking through 25 screens in 5 minutes did not really give them a chance to get the insights necessary.

The curriculum problem then sums up to this: the overall aim was to integrate computers in all subjects taught at schools of social work. Until the teachers and students could be expected to have a sufficient knowledge of computers, special courses should be offered. The students average 28-29 years of age (the age is dropping slowly) when they start the social work education. This amounts to an average 10 years gap between their previous education and entering social work schools, so not until the late 1990s will students come through who have high school IT exposure. When this occurs the social work schools will be able to concentrate in offering computer teaching as an integrated part of each subject.

The first part of the new material was partly successful. The students had the offer to learn word processing, and many went into the courses and actually used the computers during study. The second part caused many problems and took many resources in the planning. When there were reductions in staff (cuts in funding from the Ministry of Education) the courses for computers were cut back. The courses are not compulsory and there are no exams. Had this been the case, one would have had to maintain the courses and developed them rather than cutting them down. Another difficulty is the lack of skilled teachers. Some teachers have taken a personal interest in computers, and use them for various reasons as a daily working tool within their own subject, but most are still not using the computers at all and do not want to know about them. This will not change until staff are being replaced with younger colleagues, but it is a fact that teachers tend to stay for very many years. Having a very low level of turnover the prospect for the future looks to year 2000 and beyond.

The present situation. At present the schools are very dependent on one or two people who act as the local computer expert. This is a very vulnerable situation and you see some schools having great difficulties maintaining basic training when the expert leaves. Students meet computers to a large extent when they do fieldwork training and later get employed by local councils (more than 50% work here). In other services the computers are mainly on
A secretary’s desk, but slowly moving into social work. Some employers ask for computer qualifications when advertising jobs. Thus there is a growing pressure on schools to give the students sufficient skills in computer training.

The schools have the equipment, even though 5 year old computers have difficulties coping with the newer software. The teachers need further training and it can be foreseen that pressure from outside might make the schools change attitudes and give a higher priority to computer training. Also pressure from students will change the situation. They will know computers better in the future, and accept them as a useful tool both for their own study and the future working situation. Along with this we see better software, which can actually be used. Until the beginning of the 1990s many software developers have frustrated social workers with promises which could never be fulfilled and with very user unfriendly screens. The development of software on the Windows and/or OS2 platform should give many more user friendly interfaces.

The future should also include teaching the students on-line communication for the purpose of collaboration and searching information in databases. This part of the computer field seems very useful once you get to know it.

International relations. Studying social work is to the majority of students still a Danish experience, but the EC and other parts of the world have had a growing number of students visiting for a shorter or longer period during their studies. Teachers visit collaborating schools or take over part of the education for a college in another country. Thus becoming a social worker will to a larger extent in the future be an international experience. This is a new challenge to computer teaching, but one which might more easily be overcome since computers by nature are an international item and developed as such. Email communication can maintain contact between teacher and students, the students can use word processors and other software in the visited school, as if they were working at home. The more social work specific software is needed in each country, the greater the potential inspiration to developers, since methods of social work in the anglo-saxon world are not that different from each other. This implies possibilities for more than "one country software", which has not been the case so far. The possibilities are many: we just need to make the world understand, and that should only take a few years!

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Software Reviews

One of the later issues of Volume 7 of New Technology in the Human Services will concentrate of software reviews. Our last issue devoted to the subject was two years ago, and we anticipate some important changes.

If any readers have or know of software that they would like to see reviewed and included in the catalogue, please get in touch with us. The basic criteria for inclusion is relevance to the subject (human services practice, management, administration or training), capability of running on a micro (PC or MAC), and available as freeware, shareware, lease or for purchase.

We would also be delighted to hear from anyone who would like to undertake reviews, either short ones which go with the full catalogue, or longer reviews for important software.