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# LOCAL SUPPORT FOR ONLINE LEARNERS WITH POSSIBLE LEARNING DISABILITIES

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## Introduction

This paper reports from a research study concerning online distance study for competence development of vocational rehabilitation clients. The students included in the study were adults with health problems participating in a rehabilitation process to re-enter into working life. As a group, the students are characterized by difficulties, problems and diagnoses, which for many represent learning disadvantages. The study examined the results of combining individual online distance learning with support organized by a local vocational rehabilitation enterprise. The study indicates that online line study with adequate local support may constitute a good solution for this target group of possibly disadvantaged learners.

As the largest online institution in Scandinavia, NKI has a long tradition of supplying distance online courses to vocational rehabilitation clients. Over time there has been some success with blended learning, i.e. online courses combined with local classes. However, individual distance learning has had less success, mainly because of an experienced quite higher drop-out rate among these learners. Blended learning has generally not been a good option, as individual needs differ, so that the possibility of getting a sufficient number of students needing the same course at the same time seldom occurs, and because of their personal social and health situation, the students need to start when they are ready and proceed at their individual pace.

In the search for solutions to support this group of learners to succeed in online learning a new concept of support was designed - the idea was to combine individual flexible online learning with local support in the 'learning room'. NKI collaborated with local vocational rehabilitation enterprises, which established a room furnished for learning with all necessary facilities including computers, Internet access, individual study areas and areas for social activities and co-operation – the 'learning room'. In addition, there is an educational counsellor available, who supports the students in deciding which online programme that is best suited for each individual. The local counsellor is also responsible for following up and to give advice and support to the students in their learning endeavour. Technical and practical support is supposed to be continuously and easily available. The students in the learning room can study any online programme, start at any time, proceed at their own pace and interact socially, and sometimes academically, with other students studying the same, similar, or different courses. Incidentally, they may have fellow students studying the same programme being ahead, behind or at the same stage of their studies. Specifically, it was considered for these students that bringing structure into their lives by requiring an agreement of meeting physically for learning activities at specified times and days would be very important for their success.

## Aim and method of the research

The main aim of the present evaluation study has been to find answers to whether the pedagogical and administrative arrangement of combining individual online study with local support in the learning room for this group of learners did function according to expectation, and not least, if results were satisfactory concerning completions, attitudes and achievements, to demonstrate for the Welfare and Labour Administration (NAV) as the funding source for rehabilitation processes that, individual online learning with local support could constitute an effective and cost-efficient solution for competence development, and eventually bring the users back into working life.

The research chose a sort of triangulation method (see e.g. Bryman 2001), including telephone interviews with students in the learning room (30), with local organisers (25) and local representatives of NAV (12). In addition, statistical data on completion and attrition rates were collected among the online students in the learning room and compared with results among other individual online learning students. The interviews were carried out

between August 2008 and January 2009 by the author of this paper, and answers were registered in writing during the interviews.

## Online learning and learners with learning disabilities

As a group, the vocational rehabilitation students do have a lot of difficulties that interfere with efficient learning. The following represents information from 2009 of clients' diagnoses as indicated from NAV to the rehabilitation enterprises (information is available for only about 25 percent of the population):

Table 1

Psychological diseases/difficulties	26%
Drug/alcohol abuse	5%
Muscle/skeleton diseases	32%
Mentally retarded	2%
Sense losses	1%
Socially maladjusted	7%
Other (ADHD, mixed problems, uncertain diagnoses)	27%

(Association of Rehabilitation Enterprises, 2010 unpublished)

The proportion of disabled students in distance education programmes may differ a lot. Estimates vary from 1.5% to 4% (Paist 1995, Moisey 2005). Letrud et al. (1997) estimated on the basis of an analysis of written assignments that over 10% of the participants in a vocational training programme for caretakers at NKI had serious reading/writing difficulties.

Supporting disadvantaged distance learners is a matter of both making online materials and communication universally accessible (W3C 2010) and support learners according to each individual's needs. Internationally there is great attention towards challenges concerning distance education and accessibility, partly as a result of distance education institutions being specifically attentive to service disadvantaged learners, and partly because electronic distribution and communication may involve great advantages, or disadvantages, for some learners with certain disabilities according to how accessibility issues are attended to, see e.g. California Community Colleges (1999), Banerjee (2003), TRACE Center (2003), Roberts & Crittenden (2009), Burgstahler et al. (2002), Burgstahler (2010).

Based on a study of characteristics of students with a wide range of disabilities, including learning disabilities and psychological disabilities at Athabasca University, Moisey (2005) reported that disadvantaged students did not show markedly different completion patterns from the average student population, and also that adequate support services result in better study results.

A study by Shonfeld & Rohnen (2009) reported that, according the students' own statements, students with learning disabilities benefit relatively more from online learning than 'regular' and 'excellent' students concerning improvements in learning, self-directed learning, participation in forums and satisfaction from online labs and the final grade evaluation.

## Results

### *Interviews with local representatives of NAV*

Interviews with 12 case handlers/managers from 11 different offices of NAV, who had some experience with the learning room solution, demonstrated very positive attitudes towards the solution of combining individual online study with local support. Some conclusions:

- Individual online learning combined with follow-up, support, guidance and social presence in a group of learners is much more effective than individual online distance learning for vocational rehabilitation users.
- The learning room solution functions much better than face-to-face for many users because the solution in practice gives much better individual follow-up, and also because many users have a history of bad

experiences from previous school attendance resulting in negative attitudes and anxiety for participating in settings that reminds of a traditional school situation.

- The learning room solution is more flexible and better adapted to users who have to relate efforts to unpredictable physical and/or psychological conditions that vary from day to day.
- Online learning combined with support and other activities, such as work practice in the vocational rehabilitation enterprise, is a good basis for success in returning to working life.

One manager put his viewpoint very clear:

*"We are so certain about the efficiency of the learning room solution that we have told the rehabilitation enterprises that they have no choice. They have to establish the learning room solution if they wish to continue to be part of the co-operation with the Labour and Welfare Administration in the future."*

### ***Interviews with local representatives of vocational rehabilitation enterprises***

We interviewed advisors from all the 25 rehabilitation enterprises that had experiences with the learning room solution. The general impression of the interviews was that:

- The local counsellors expressed a firm belief that the learning room solution represents an arrangement and organisation of online learning and local support that have proved its worth for the user group in question.
- They report that the users are satisfied both with online learning and local support, and that there is very little drop out among learners in the learning room. It seems that the only drop outs are students having so many health problems that study becomes impossible or that succeed in returning to ordinary working life before they complete the course.

### ***Interviews with students***

The student group consisted of 18 women and 12 men, randomly selected, coming from 7 different vocational rehabilitation enterprises. They varied in age from below 20 to well over 50, a majority being over 40 years old. A majority had quite low previous education, and most of them had completed at least one study programme through online learning at the time of the interview.

12 of the 30 interviewed students informed that had succeeded in returning to full time or part time work, and most of them meant that their studies had been the major reason for success in getting the job. Some statements:

*I am back to work – completed the Accounting programme in March 2008 – the study was incredibly important, and I got a job before I finished, a job I could manage with my health problems.*

*I am back to work – the study was important to get started – I believe it works for the majority of people in the system.*

*I am in a job where I do not apply what I learned, but I believe the study was important because it demonstrated that I am willing and able to learn...*

*I am working as apprentice and did get the job because of my online course.*

28 of the 30 respondents were generally positive concerning their experiences with individual online learning with support in the learning room. Typical statements:

*I am very satisfied – very good.*

*I have nothing to complain about.*

*Superb, I cannot praise it enough.*

*Superb, I found it interesting; I liked both the course and the pedagogical solution.*

*I am very happy that I did not have to work alone; good to have somebody to ask; good to have fellow students to ask and discuss with, not least those who were ahead of me in the same course. ...*

The majority pointed out flexibility of online learning as the most important aspect, specifically related to their health problems, which make it impossible to follow fixed progression schedules. (Full transcripts of all interviews are presented in the original report (Rekkedal 2009).)

### *Statistics on study success in the learning room*

The answers both from participants and local supervisors indicated relatively high completion rates. Statistical data to possibly confirm positive completion rates relative to the general online student population were collected October 2010. The statistics clearly demonstrated that impressions from the interviews were correct – the learning room solution has had a significant positive effect on study success measured by completion rates.

As both groups of students can follow their individual progression schedule, at the time of data collection, students may either have completed their programme, still be active studying, or have withdrawn. To get a sufficient number of cases, we chose to select students recruited to the four most popular vocational study programmes among rehabilitation students (Accounting, Salary and Personnel work, Office worker and Caretaker) during the four year period from 1. January 2006 till 31. December 2009 and registered study status per October 1<sup>st</sup> 2010

Results are presented in Figure 1.

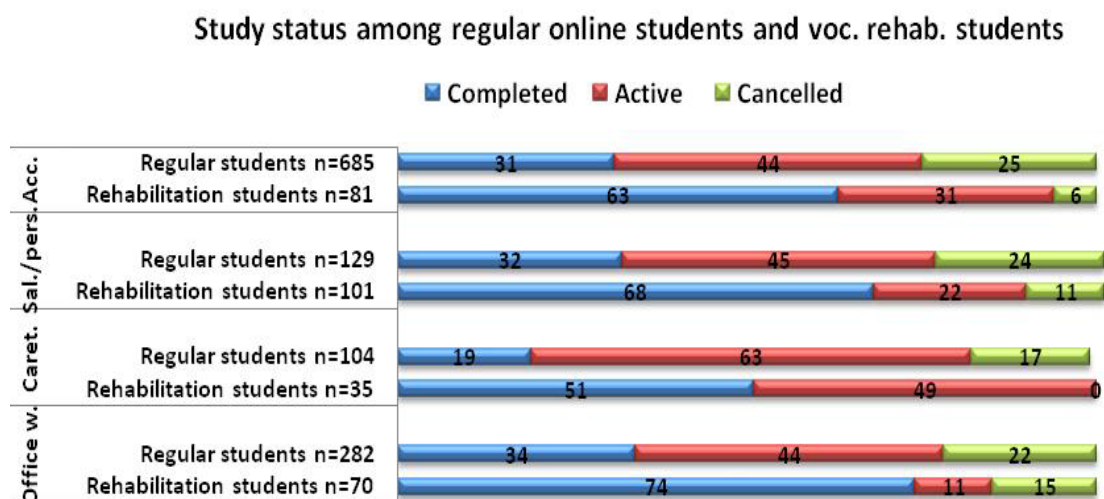


Figure 1 Study status October 2010 for regular students and vocational rehabilitation students in the four programmes, Accounting, Salary and Personnel work, Office worker and Caretaker (percentages)

The differences between the two groups were tested by the chi-square method. The statistics demonstrated that there were significant differences between the two groups of students in all the four study programmes in study status showing that the vocational rehabilitation students had higher completion rates and lower drop-out rates than the regular online students.

Table 2 Statistics for differences between the groups

Study programme	$\chi^2$	df	p
Accounting	34.40	2	<.001
Salary and Personnel	8.11	2	<.025
Caretaker	16.66	2	<.001
Office worker	38.41	2	<.001

Conclusion: The learning room solution, where vocational rehabilitation students in addition to individual online distance study participate in an organized local support system with physical attendance in a structured social learning environment together with other learners, including ICT infrastructure, and technical, social and practical

support, results in significant higher completion rates than among the regular population of online distance students. Looking at the number of students in the two groups, who still are active studying, the data also indicate, that the rehabilitation students proceed at a quicker pace through their studies than do the ordinary online distance students.

## Summary, conclusions and discussion

This study was initiated to evaluate to quality and success of online distance learning combined with support supplied by local vocational rehabilitation enterprises among students who take online courses for competence development as part of a vocational rehabilitation programme in their endeavour to return to working life.

As this group of students include many individuals with learning disadvantages, because of health problems and/or previous experiences of failure in the school system, it has been a great challenge to find adequate learning opportunities. Great differences in individual needs restrict enrolment possibilities in ordinary classes. Thus, online individual learning with free enrolment time and individual progression schedules has been considered to be a good solution. However, case handlers within the social security system have been reluctant to accept and finance online learning for this group, because experience has shown that many of these students have had difficulties in succeeding in learning situations that require personal involvement, autonomy, and ability to plan and give priority to study without external pressure, control and structure.

As the learning room solution had been in operation for some years, and the solution was adopted by more and more vocational rehabilitation enterprises, it had been time to assess the solution for possibly further development. NKI has also been involved in developing the solution further for another target group, with at least some similarities concerning learning needs and learning disadvantages, inmates in prisons.

The interviews with case handlers in local Welfare and Labour Administration (NAV) offices, local advisors in the vocational rehabilitation enterprises, and students, clearly demonstrated that in general all parties found that online distance education functions well for this group of learners on the condition that they also participate in a structured learning environment of social, technological and practical support.

The study shows that with the adequate local support these students, in spite of the fact that they as a group has many characteristics of learning disadvantages, perform better than the regular individual online distance learners.

The study gives a good platform for developing the learning room solution further, to expand the solution to other target groups, such as prison inmates, and to disseminate information to the public and organisations responsible for vocational rehabilitation activities.

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