

ELFE-ESL

CASE STUDY VISIT REPORT

THE NETHERLANDS, 21th-24th January 2013

The Netherlands is an advanced country in terms of the use of ICT within education. It can be considered to be entering a 'post-experimental phase' of incorporating ICT into the educational process. In all schools visited ICT is firmly embedded in education process as an important tool in change of paradigm of education from teacher to learner centred which is well conceived and conceptualized. However, there was also very strong recognition of pedagogical autonomy and the fundamental concept of personalized styles and respect to individual autonomy, which does not encourage mandatory practices, paradoxically maybe considered as an obstacle in implementing the ICT in the way we seen to a compulsory level which raises the issue of equal access to quality education. From the evidence we seen, it seems that implementing such advanced use of ICT in pedagogy very much depends from enthusiasm and leadership of few active members of education community and scaling up such developments might be an issue. The other conclusion is that spread of personalized learning platforms will raise questions about working time and curriculum in the future.

With respect to Early School Leaving it was not seen as a local problem but more of an abstract issue, even if recognized by government as important goal. There was however, intuitive perception that ICT use for pedagogical purposes – personalized learning in particular, might be a powerful side factor to reduce ESL as it increases and student ownership, motivation, innovation and communication with peers and teachers and enhances student achievement.

The approach adopted during the study visit to the Netherlands followed the previously tried methodology in terms of focused or semi- structured interviewing and can be considered to be successful.

1.1 Country Background

Education is free and compulsory for children between the ages of 4 and 16. Schools can request voluntary payments from parents, but they cannot deny children access to schools on account of non-payment. Enrolment is free for vocational training, but pupils' families have to pay for books and materials. Although around a quarter of pupils who drop out of school without qualifications later return and some therefore then achieve basic qualifications, the number of pupils dropping out of school is still too high.

1.2 Education Structure

Education is compulsory for children between the ages of 6 and 16. Primary education begins at age 6 and lasts for 6 years. At this level, 69% of education is private but publically funded. The NER is 99% (48% girls). Of pupils enrolled in the first-year course, 98% stay on to the last year of Primary Education.

Secondary education begins at age 12 and lasts for 6 years. At this level, 83% of education is private but publically funded. 7% of pupils at lower secondary level and 69% at upper secondary level study technical training programmes. The NER is 89%. 4% of pupils have to repeat a year's course. There are 108,149 secondary teachers (43% women). The number of pupils per teacher (PTR) is 13: 1 in secondary schools.

1.3 ICT Policies

Schools are themselves responsible for the implementation of ICT in education. National support activities have been set up to stimulate the integration of ICT into the curriculum. These activities consist of projects, programmes and learning communities conducted by organisations that provide the necessary support to meet the existing needs of schools, such as the Kennisnet Foundation (for primary, secondary and vocational education) and the Surf Foundation (for higher education). Furthermore, it is the responsibility of the schools to design a vision, mission and strategy around the implementation and use of ICT in schools. The sectorial organisations are playing an increasing role in assisting managers and teachers to formulate their ICT vision and policy. Some sectorial organisations in secondary education and vocational education have been building up service communities and innovation platforms to this end.

1.4 Initial Teacher Training

One of the elements of government policy is to ensure that future teachers are well prepared to use technologies to support educational and learning processes. Since the mid-1990s, the government has provided those institutions with facilities, with the aim of playing a pioneering role in that area.

Institutions that provide initial teacher training are very well aware of the importance of building competences which enable ICT to be integrated into teaching. Although the use of ICT has become a normal part of Dutch education, technology is not compulsory in teacher training. At the moment several institutions for teacher training are working together to define a formal knowledge base of the basic ICT competences of initial teachers. School boards intend to use this notion as a standard for future competence overviews. In the Netherlands the government does not prescribe which courses are compulsory for training in general. ICT courses are therefore neither prescribed nor

compulsory. The initial teacher training institutes themselves formulate the curriculum, but, as mentioned before, the importance of building competences which enable ICT to be integrated into teaching is stressed by the government and the initial teacher training institutes.

1.5 Early School Leaving

Early School Leaving in the Netherlands is an economic, social, and individual problem. Tackling the problem of pupils leaving school early is one of the priorities of the Dutch government implemented by the 'Drive to Reduce Drop-out Rates' approach. The Dutch target is to have no more than 25,000 new early school leavers each year by 2016. An early school leaver is a young person between 12 and 23 years of age who does not attend school and who has not achieved a basic qualification (i.e. a senior general secondary, pre-university, or level-2 secondary vocational diploma). The Netherlands is adopting a 'prevention is better than cure' approach to the problem. Young people have better prospects on the labour market if they have a basic qualification. Partly due to the decreasing early school leaving rate, youth unemployment in the Netherlands is increasing only slightly and is in fact compared to neighbourhood countries relatively low. Studies show that finishing school has the effect of reducing the number of crimes and other offences against property.

The Dutch ESL-programme has been successful in implementing various measures at national level:

- Compulsory school attendance and basic qualification obligation.
- Personal education number, all pupils have been allocated an education number, which makes it possible to track them.
- Digital Absence Portal, all school absenteeism is registered by a simplified computerized reporting procedure.
- Career Orientation and Guidance to prevent the wrong choice of programme, one of the primary reasons to drop out of education.
- Transfer to follow-up education programme made less of a major stumbling block for pupils.
- The care structure at school and locally has been strengthened.

Since 2002, the 'Drive to Reduce Drop-out Rates' approach has already led to a reduction in the number of early school leavers from 71,000 in 2001 to 38,600 (provisional result for the 2010-2011 school year). The objective of the former Balkenende II Government was to reduce the number of new early school leavers to 35,000 by 2012. In 2010, the Rutte-Verhagen Government tightened up the target, setting it at a maximum of 25,000 new early school leavers by 2016.

2 Institutional Visits

The members of the visiting panel were:

Bert Imminga, AOb (the Netherlands), organizer

Eleni Zografaki-Teleme, OLME, (Greece)

Ivan Sos, OZPSaV, (Slovakia)

Guntars Catlaks, Education International, expert

The panel visited three institutions: 1 upper secondary school, 1 vocational education institution and 1 higher education institute responsible for the pedagogical training of general upper secondary school teachers:

2.1 NHL University of Applied Sciences, Leeuwarden

This is a higher education institution that offers among other study programmes also teacher education (the post graduate) initial pedagogical teacher education (Bachelor and Master degrees) and continuing professional development post-graduate courses for all teachers in secondary education in the Netherlands. There are appropriate ICT facilities and the institution implements national policy on ICT use. In 2009 the national ADEF ICT competency and knowledge base was adopted for all teacher training departments. The teacher training department of the NHL has implemented the national ADEF ICT competency base which comprises 1) Attitudes; 2) Instrumental skills; 3) Information skills, 4) Pedagogic skills; 5) Development and arrangements.

Staff members have compiled an online ICT –pedagogy portfolio, in the same way students should. The department is planning to develop a strategy for 21st century skills. This implies extensive use of web 2.0 tools, social media, flexible learning and testing tools etc. There is no, however, specific strategy for using ICT tools to eliminate ESL.

The panel had a meeting with management team: dean, two coordinators ICT& Education, then a separate meeting with three staff representatives, and another separate meeting with four students. There was a brief round-up meeting at the end of the visit with the management.

2.2 Hondsrug College Emmen

This is a secondary school, situated in a small town. The school has 2000 students comprising both lower (12 – 15 years) and upper (15 – 18 years) secondary education levels, of low and medium socio-economic background, funded partially by state and parents fees. There are 156 teachers. 81% of students' progress successfully from the first to the final year of education and 90% of those continue to further education and training.

The school has a specific policy on ICT use for pedagogical goals, with teachers who have received special training on ICT and continuing professional development for instrumental and pedagogical use of ICT. The school implements innovative individualized teaching approach based on iPad use by students and teachers.

The school has a formal policy on early school leaving, having a special group of teachers which monitor the students, registering the absence of students through a special app, monitoring the time between graduating school and enrolling tertiary education, and trying to help students to choose a right profession. There is no, however, a specific strategy in eliminating ESL through use of ICT.

The panel had a meeting with management team, two teachers, and three students from 4th and 3rd grades respectively.

2.3 Grafisch Lyceum Rotterdam (VET)

Grafisch Lyceum Rotterdam is an upper secondary vocational education institution which offers programmes on graphic design. The students' age range is from 15 years to 18 years. There are

approximately 4000 students (majority male) and 183 teachers. The school is located in inner part of a large city -Rotterdam, and most students come from middle income families. The school is fully funded by state. 65% of all students' progress successfully from the first to the final year of education and 50 % of those proceed to further education and training. School is intensively equipped with ICT which is constantly updated. Every teacher has a laptop or MacBook and there are 3240 devices (desktop, laptops, I pads) available in school. In every classroom there is a beamer or smart board. ICT is a part of the vocational training, but also all the information for students or employees is available on the intranet. Lesson, schedule (changes in schedule), readers, absence, extra lessons or training, events, contests are on the intranet. Regarding the ESL there are procedures in place tracking every student presence or absence in school linked with instant messaging to the parents.

There were meetings with management team, one teacher, and two students from 1st grade.

3 Outcomes of Meetings

3.1 Brief Description of Interview Process

The interviews were conducted using an informal semi-structured interview technique. The interview schedule was distributed prior to the meeting. All respondents indicated that they had seen the schedule. This approach was adopted to ensure that the views and experiences of the respondents were encouraged and captured in an objective manner. The panel took care not to influence the responses from the respondents.

The following section lists the major themes to emerge from open discussions held within the various interviews. All discussions were held in a very open and constructive manner. The following themes emerged from points, statements and responses made by the participants during the meetings. These were audio recorded for all meetings. The themes were extracted from notes made by the panel members, the audio recordings and subsequent discussions of the panel, usually in the evening following the interviews.

Most of the discussion consisted of approaches and experiences of ICT in Education, however the panel did try to ensure that ample time for comments related to Early School Leaving was available. The panel obtained very few comments on the use of ICT in reducing ESL as this seemed to be implied in the prior discussions on education and ESL. Therefore, the panel has not reported ICT and ESL as a distinct topic.

3.2 Emergent Themes by Institution

Institution	NHL University of Applied Sciences, Leeuwarden
Category	Management and Staff
ICT in Education	
1.	In past ICT skills were taught separately from pedagogy, now the current approach is integrating both as E pedagogy – developing full on-line portfolio by pre-service

- teachers themselves
2. This approach increases and sustains **students motivation** as they are developing their real applicable course material for use in future
 3. On-line platform also creates mutual and permanent **communication** between pedagogues and their students
 4. On-line platforms also allow for **international collaboration and networking** as never before
 5. Existing policies encourage **creativity and entrepreneurship** and ICT in education has indispensable role as tools of this

Early School Leaving

1. E-pedagogy helps teachers to understand and align tasks to the **individual needs** of students and therefore reduce risk of ESL
2. Students have different **learning styles** and react negatively to traditional methods which imply full class teaching for average level
3. Students are more motivated to learn through ICT because that better corresponds with their **socializing and communication habits**
4. ICT can **follow students' progress** or regress digitally but not much more than that, the rest depends on social and family policies
5. **ESL is not really a problem** in general secondary education

Institution	NHL University of Applied Sciences, Leeuwarden
Category	Pre-service Teachers
ICT in Education	
<ol style="list-style-type: none"> 6. Role of teacher is changing in ICT environment from direct knowledge transmission (lecturing) to guiding and counselling 7. Teachers attitude must change as well – coaching is more demanding but also more effective if each student's progress is the goal 8. ICT use improves communication between teachers and students 9. E-pedagogy allows to learn in individualized way and adjust to skills and competences of individual learner 10. ICT will not really replace teachers as physical presence and real contacts remains essential 11. Education is extension of society – if society has adopted ICT and is operating as knowledge society not industrial one, education should also use ICT as platform of communication and learning 12. Society has become so diverse that education must respect this diversity and attend to the various needs of different groups 13. However, teachers also should not be all same – diversity of teaching styles is beneficial for learning as well but all teachers should be able to use all methods 14. School (teachers) should give vision of the better future 15. Government is not the right authority to tell teachers what and how to teach – pedagogical autonomy is crucially important 16. ICT in education is not a goal – the goal is personalized learning respective of different needs and interests and for achievement of this ICT is useful tool for what 	

respondents feel well prepared

Early School Leaving

6. Main reason for ESL is **personal problems** of students
7. There are also **social problems** why some students may be exposed to ESL
8. **Tailoring teaching** to student individual needs is most important
9. **Respect for diversity** in broad terms including different ways and speed of learning can reduce exposure to ESL
10. Students should feel **ownership over their learning** – if given options they feel deciding which increase motivation
11. There is more **individual choice and responsibility** for student – school does not impose ideology but offers range of possibilities how to develop

Institution	Hondsrug College Emmen
Category	Management and Staff
ICT in Education	
<ol style="list-style-type: none"> 17. Use of ICT for pedagogy (branded as iPad school) is significant as profile of the school in competing for students with other schools in the region 18. The main reason why to use ICT is to change structure of learning – from reading ready-made information in forms of books or digital books to constructing new knowledge during the learning 19. Student centred learning is the important approach, which can be enforced by ICT but does not depend or is not caused by it 20. The fundamental concept is personalized learning allowed by new software through learning applications which allow each student to follow individual curriculum with constant feedback and adjustment of learning tasks 21. ICT use allows for much more time to communicate with individual students 22. Workplace has changed from fixed in time and space to mobile and virtual 23. Role of teachers is changing towards being guide and councillor 24. Teachers preparation must change as they cannot be taught profession as in past for rest of their career 25. Teachers development must be step-by-step process and use of the new technology is not mandatory 26. Education standards must change as well as diplomas will not be relevant anymore as in past, but profiles and portfolios 27. School architecture must change as well, as old industrial style classroom model will disappear replaced by open flexible space arrangements adaptive to individual work patterns 28. Society is developing faster than education and schools are just catching up with trends in society 29. ICT allows for directness, instant feedback and validity of learning process 30. Teachers are still in charge of developing content and constructing variable 	

- curriculum for students with ultimate decision making power but there is a danger of computer controlled system
31. Some **teachers are afraid** of technology led development but they don't have chance in longer term
 32. **Borders for teachers between work and home** are disappearing. The "system" requires you to be constantly on-line
 33. There are **technological pathways** and **philosophical pathways** in education policies and interaction between them is not direct

Early School Leaving

12. There is application which allow for **continuous monitoring of student progress** through learning tasks and warns about risk of ESL due to underperformance
13. ICT allows to use **benchmarks for passing** as indicators to monitor and prevent ESL
14. **ESL is not problem in this school**
15. ICT is not directly linked to ESL as **early school leaving is influenced by other factors** such as social and personal
16. However, **motivation of students as well as their self-esteem** is increased through learning with ICT and in personalized way
17. With personalized learning which is not restricted to mandatory presence, learning benchmarks and passage of tests in restricted time and space, **concept of ESL may become useless in future**

Institution	Hondsrug College Emmen
Category	Students
ICT in Education	
<ol style="list-style-type: none"> 34. Most students prefer learning from teachers as it is more easy to ask teacher than search internet 35. Teachers role is important but different – there could be more students in the class 36. Home work now is done in the class so borders between school and home are disappearing 37. Learning is fun and there is much more choice when learning on iPad 38. Methods of learning do not depend on technology – you can read book on iPad 39. Critical awareness of information – question was raised is it as bad as shown in TV news? 	
Early School Leaving	
<ol style="list-style-type: none"> 18. Main reason for drop-out is social or personal problems, it has nothing to do with ICT 	

Institution	Grafisch Lyceum Rotterdam
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Category	Management and Staff
ICT in Education	
40.	ICT is indispensable for the learning at the school as they teach graphic design which is now performed digitally in the industry
41.	Education (VET) must grow alongside the progress in respective industry or be ahead of it ideally
42.	Innovation is not possible without use of new technologies including ICT
43.	Flexibility is important in VET so students can be apprentices in the job and still study
44.	Curriculum in VET cannot be developed autonomously but must be coordinated with industry
45.	Besides use of computers for design, ICT is used for personalized management of students in the schools providing and exchanging all information through the portal
46.	Communication between students and teachers also takes place through the portal
47.	“Flipping the classroom” is the term used for describing pedagogy model, which implies that students learn prepared course material individually and at personal time and pace, while classroom presence is reserved for individual or group project tasks replacing activity previously known as “homework”
48.	This model changes the role of teacher to guide and councillor but also allows more time for individual students
49.	Teachers role remains important as leaders of the learning process management
50.	Also school remains important as social community where students meet and interact
51.	Internationalization of education means we should involve more foreign students and collaborate in international projects why policies regulating language of instruction should be liberalized
Early School Leaving	
19.	ESL is not a problem except for early grades short practical course
20.	It is possible to decrease drop-out of not so motivated students by imposing stronger regulations and mandating full day attendance in school
21.	There are more applicants (demand) every year than study places

Institution	Grafisch Lyceum Rotterdam
Category	Students
ICT in Education	
52.	Students are accustomed to using modern technology for all aspects of life, however they did not feel that that this brings a pedagogical change
Early School Leaving	
22.	There is personalized monitoring system – each student has a profile which constantly shows attendance and performance and they are aware of it

23. ESL is **personal** problem
24. Students who drop out have made **wrong choices** of what they want to learn

4 Analysis of Outcomes

4.1 Discussion on Emergent Themes

All of the meetings were held in a very open and friendly manner. This resulted in 52 themes on ICT in Education and 24 themes in ESL. Although these are not all independent, and contain some terminological ambiguity, they do represent a coherent vision and attitudes towards the investigated topics.

There is strong commonality between the interviews in terms of perceived reality and less in terms of evaluation of it, although perhaps presented in different way. There is great integration between themes as most of them are closely interrelated in causal and correlative relationship. The following section extracts Master Themes on the basis of their emergence as a theme but also in the intensity of their expression during the interview.

4.2 Identification of Master Themes for ICT in Education

1. **EMBEDDED:** There was strong sense that ICT has become indispensable part of life in knowledge society, work and leisure and also in education, that living in modern society implies use of ICT and learning cannot happen outside this modus vivendi. There was also strong consensus that education has tendency to lag behind development of society and must catch-up.
Themes: 1, 5, 11, 17, 28, 39, 40, 41, 42, 43, 44, 52.
2. **PERSONALIZED:** The ICT use was commonly perceived as means to an end – changing structure of pedagogy from knowledge centred to learner centred implying complete restructuring of curriculum and teaching/learning methodology from whole classroom teaching to individualized curriculum, style and tempo, including assessment and feedback.
Themes: 9, 16, 18, 19, 29, 34, 45, 47.
3. **TEACHERS ROLE AND LEADERSHIP:** There was commonly agreed perception that teachers role is or will change significantly in the context of personalized learning, from lecturer and examiner to guide, councillor and tutor, implying very different skills set and professional development patterns. There was also agreement that teacher will remain extremely important in those roles for the learning of individual students as an authority and trusted consultant but also as coach who can inspire and motivate.
Themes: 2, 6, 7, 10, 14, 15, 24, 30, 31, 35, 37, 48, 49.
4. **WORK-LIFE BALANCE:** There was emerging awareness among teachers and students alike that personalized learning via ICT is eliminating borders between working/learning time and leisure time, as individualized learning styles which do not overlap in time and space requires adaptation of teachers to individual students learning patterns and vice versa.

While currently this model being in the stage of early development and enthusiastic reciprocity does not create problem, becoming mainstreamed it will likely pose important challenges to curricular and pedagogical work regulatory frameworks.

Themes: 32, 22, 36.

5. **COMMUNICATION:** It was clear that ICT beyond primarily use for individualized learning are no less frequently used for communicating purposes and indeed both functions are very integrated. The communication is facilitated both between students and teachers, teachers and parents and among students themselves.

Themes: 3, 8, 21, 46.

6. **DIVERSITY:** There was strong sense of diversity in society and need of education respect and reflect that diversity, including internationalization. It was also perceived that ICT tools can enhance such respect and reflection through individualized learning and counselling but also in design of group or industry sensitive curriculums. Furthermore the concept of diversity was extended to acknowledgment of different learning but also teaching styles.

Themes: 12, 13, 4, 51.

7. **SOCIALIZATION:** In discussing changing roles of students and teachers in individualized learning environments, it was understood that schools remain important as physical spaces for community building and socializing although that means shifting of their purpose and infrastructure of education, including architecture, must develop accordingly.

Themes: 50, 27.

4.3 Early School Leaving

1. **INDIVIDUAL CHOICE AND PERSONAL RESPONSIBILITY:** This emerged as dominant theme as all respondents emphasized increasing individualization of curriculum and learning and, while, on the one hand ESL was not considered to be an important problem, when that occurs it was mostly explained as personal problem not responsibility of education structures, but on the other hand, it was strongly perceived that such personalized learning increases motivation and resilience.

Themes: 1, 2, 5, 6, 8, 11, 17, 18, 23, 24.

2. **MONITORING AND MANAGEMENT:** ICT is also used for monitoring and management purposes with increasingly sophisticated soft-ware tracking each student progress and regress, which allows constant control and intervention.

Themes: 4, 12, 13, 20, 22.

5 Conclusion

The Netherlands is an advanced country in terms of the use of ICT within education. It can be considered to be entering a 'post-experimental phase' of incorporating ICT into the educational process. In all schools visited ICT is firmly embedded in education process as an important tool in

change of paradigm of education from teacher to learner centred which is well conceived and conceptualized. However, there was also very strong recognition of pedagogical autonomy and the fundamental concept of personalized styles and respect to individual autonomy, which does not encourage mandatory practices, paradoxically maybe considered as an obstacle in implementing the ICT in the way we seen to a compulsory level which raises the issue of equal access to quality education. From the evidence we seen, it seems that implementing such advanced use of ICT in pedagogy very much depends from enthusiasm and leadership of few active members of education community and scaling up such developments might be an issue. The other conclusion is that spread of personalized learning platforms will raise questions about working time and curriculum in the future.

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