Fredrikke

Culture of Trust in ICT-aided Educational Interactions

Harald Nilsen (red.)

OM FREDRIKKE TØNDER OLSEN

Fredrikke Tønder Olsen (1856 - 1931) ble født på handelsstedet Kopardal, beliggende i nåværende Dønna kommune. Det berettes at Fredrikke tidlig viste sin begavelse gjennom stor interesse for tegning, malerkunst og litteratur. Hva angår det siste leste hun allerede som ung jente "Amtmannens døtre".

Kildene forteller at Fredrikke levde et fascinerende og spennende liv til tross for sine handikap som svaksynt og tunghørt. Hun måtte avbryte sin karriere som gravørlærling fordi synet sviktet. Fredrikke hadde som motto: "Er du halt, er du lam, har du vilje kjem du fram." Fredrikke Tønder Olsen skaffet seg agentur som forsikringsagent, og var faktisk den første nordiske, kvinnelige forsikringsagent. Fredrikke ble kjent som en dyktig agent som gjorde et utmerket arbeid, men etter 7 år måtte hun slutte siden synet sviktet helt.

Fredrikke oppdaget fort behovet for visergutter, og startet Norges første viserguttbyrå. Hun var kjent som en dyktig og framtidsrettet bedriftsleder, der hun viste stor omsorg for sine ansatte. Blant annet innførte hun som den første bedrift i Norge vinterferie for sine ansatte.

Samtidig var hun ei aktiv kvinnesakskvinne. Hun stilte gratis leseværelse for kvinner, inspirerte dem til utdanning og hjalp dem med litteratur. Blant hennes andre merit-

HØGSKOLEN I NESNAS TIDSSKRIFTSERIE ER OPPKALT ETTER HELGELANDS FREMSTE FOREGANGSKVINNE FREDRIKKE TØNDER OLSEN (1856 - 1931).

ter i kvinnesaken kan nevnes at hun opprettet et legat på kr. 30 000,- for kvinner; var æresmedlem i kvinnesaksforeningen i mange år; var med på å starte kvinnesaksbladet "Norges kvinder" som hun senere regelmessig støttet økonomisk.

Etter sin død ble hun hedret av Norges fremste kvinnesakskvinner. Blant annet er det reist en bauta over henne på Vår Frelsers Gravlund i Oslo. Fredrikke Tønder Olsen regnes som ei særpreget og aktiv kvinne, viljesterk, målbevisst, opptatt av rettferdighet og likhet mellom kjønnene.

Svein Laumann

SEVENTH FRAMEWORK PROGRAMME
Marie Curie Actions

Stimulators and Inhibitors of Culture of Trust in Educational Interactions assisted by Modern Information and Communication Technology.

The project *Stimulators and Inhibitors of Culture of Trust in Educational Interactions Assisted by Modern Information and Communication Technology* is implemented under the 7th Framework Programme Marie Curie Action, People No. 318759, in the years 2013-2015. Project website: www.sitproject.eu

Contact – Mails WEB https://europass.cedefop.europa.eu/en/home

List of participants

University of Szczecin, US, Poland, four participants

Nesna University College, HINE, one participant

University of Macerata, UNIMC, six participants

The Immanuel Kant Baltic Kant Federal University, IKBKFU, three participants

University of Kashmir, UOK, three participants.

List of participants

Poland

Prof. dr. hab. Maria Czerepaniak – Walczak - malwa_1@interia.eu

Prof. dr. hab. Elżbieta Perzycka - eperzyk@gmail.com

Dr. Aneta Makowska – anetamakowska1@o2.pl

Mgr Radosław Falkiewicz – Szult - r.fakiewiczszult@gmail.com

Norway

Prof. nadzwyczajny, dr Harald Nilsen – hn@hinesna.no

Italy

Prof. dr Pier Giuseppe Rossi - pg.rossi@unimc.it

Prof. dr Flavia Stara – f.stara@unimc.it ; fstara@libero.it

Prof. dr Babriella Aleandri – babriella.aleandri@unimc.i t

Prof. dr Raffaele Tumino – r.tumino@unimc.it

Dr Luca Girotti – l.gitotti@unimc.it (office) luca.girotti@gmail.com)

Dr Rosita Deluigi – rosita.deluigi@unimc.it

Russia

Prof. dr hab. Tatiana Grebenyuk - grebt@yandex.ru

Prof. dr hab. Svetlana Konyushenko – sm_intel@mail.ru

Dr Katherine Nechaeva – katenechaeva@gmail.com

India

Prof. dr Nisar Ali - professoreco49@hotmail.com

Prof. dr Ghulam Mustafa Khwaja (Meem Hai Zaffar) - meemhaizaffar@yahoo.co.in

Dr Maroof Shah - marooof123@yahoo.com

Innhold

FORORD[1]

Dette nummeret av *Fredrikke* presenterer noe fra innholdet i det internasjonale prosjektet med arbeidstittel *Stimulators and Inhibitors of Culture of Trust in Educational Interactions assisted by Modern Information and Communication Technology.* Prosjektet startet da medlemmer fra Italia, Russland, India, Norge og Polen møttes i den polske byen Szczecin juni 2013. Etter nødvendig forarbeid ut 2013 som gjaldt forskningsproblematikk, arbeidsrutiner, publisering og publiseringsformer, tidkrevende dokumentasjonsrutiner i forhold til Brussel, etc., har deltakerne besøkt læreinstitusjoner (skoler, høyskoler, universitet) og hentet inn kunnskap, forsket, besøkt andre institusjoner og møtt interessante personer fra de respektive land. Våre felles erfaringer er delte, fra de helt gode til de mindre gode. Fem deltakerland med like mange ulike språk og med et sjette språk, engelsk, som arbeids- og kommunikasjonsspråk var ikke egnet til å skape *bare* entydige og godt forståelige situasjoner. Til dette kom at vårt felles kommunikasjonsspråk også ble fellesspråket når vi kommuniserte med fagfolk, studenter, elever, etc. i besøkslandene. Vi møtte selvsagt også andre utfordringer som gjaldt generelle kulturulikheter, for eksempel åpenhet, lukkethet, det gjaldt ulike oppfatninger av forsknings-begrepet. Men – la oss legge til – gode, sosiale relasjoner var mange ganger til god hjelp, la oss holde fast på det.

Noen av spillereglene for dokumentasjon har vært å kunne vise til offisiell publisering, noe vi primært har løst gjennom å skrive artikler og nå senest forskningsrapporter. I mai og først i juni 2014 var det Norges tur å ta imot gjester, og destinasjonen Norge betyr Nesna represen-tert ved Nesna University College. Pliktbesøk hadde representanter fra India (Kashmir) og Russland (Kaliningrad), men med det gode rykte HiNe har skaffet seg i stor-Europa, kom også deltakere fra Szczecin og fra Macerata Universitet i Italia.

– Rapporten fra de russiske deltakerne er fra observasjoner og erfaringer de gjorde under sitt besøk i Nesna i mai-juni. De har bekreftet muntlig til meg at det var flere ting de fant interessant i møte med noen av lærerne de møtte fra samfunnsfag- og pedagogikkseksjonen.

- Den polske koordinatoren for prosjektet, professor Elzbieta Perzycka (hun var også i Nesna en uke i mai) sammen med professor Janusz Kowarski publiserer i sin artikkel forskning som har forbindelseslinjer til noe av tillitsproblematikken i vårt internasjonale prosjekt. Artikkelen handler om stimulerende og hemmende tiltak som knytter seg til implementering og bruk av IKT i yrkesfagrettete

---

[1] Bortsett fra forordet trykkes det øvrige stoffet i original form, det vil si engelsk.

skoler. Ikke uventet handler mye om eget initiativ og styring (bottom-up) eller top-down, men ikke så kategorisk som bare et enten – eller. Det finnes flest mellomveier.

- Norges eneste representant, professor Harald Nilsen, i rollen både som koordinator og forsker, legger her en rapport etter et forskningsarbeid med mål å registrere spesielt bruk av IT i pedagogiske kontekster, og der begrepet «tillit» eller rettere *indisier* på tillit har betydelig relevans i forskningsarbeidet som utføres ved spørreskjema og primært bundne svaralternativer. Spørreformularene handler i noen spørsmål eksplisitt om tillit, i noen spørsmål indirekte om tillit og i ulike sammenhenger i læreinstitusjoner i norske skoler. En viss andel av respondentene – det gjelder både elever, studenter og lærere/akademikere – er fra læreinstitusjoner i Nesna. I tillegg til forsknings-rapporten legger jeg også artikkelen etter besøk og observasjoner i læreinstitusjoner i Kaliningrad. Det er her jeg første gangen bruker benevnelsen *indikatorer på tillit*, og skriver (hevder) at slike indikatorer kan observeres i læreinstitusjonenes korridorer, i fristunder ute i skolenes umiddelbar nærhet, i det fysiske klasserommet som samspill - motspill, atmosfære, åpenhet - lukkethet, etc.), i verdikategorier som trygghet, ansvar og gjensidig ansvar, gjennom respekt og gjensidig respekt, etc. Jeg nevner særskilt at her ligger et intervju jeg hadde med rektor Konow ved KVN. I den ovenfor nevnte forskningsrapporten har jeg tatt opp igjen begrepet *indikatorer* på tillit (fra Kaliningrad-artikkelen), og utvidet repertoaret av indikatorer, for eksempel nærhetsmotiverte indikatorer for tillit eller mangel på, tradisjonsmotiverte indikatorer, intellektuelt (kognitivt) inspirerte indikatorer både for tillit og mistillit, tilgjengelighetsindikatorer, ofl.
 TAKK.

Szczecin, Nesna, Lillehammer, 19. Januar - 2015   Harald Nilsen

Harald Nilsen, Nesna University College, Norway

Culture of Trust in ICT-aided Educational Interactions

RESEARCH REPORT

Research period: October – November 2013, September – October 2014

Processing of data: November – December

Written report January 2015

ABSTRACT

The report is based on a pilot study. For conclusive results the questionnaires need stricter validation and require more schools representing a larger geographical area resulting in a better quantitative base and more representative data. As an answer to the difficult and often misleading question of "what is trust," I have chosen to define the answers of the respondents as trust indicators. I operate with the following indicators of trust inspired by cognition and self-awareness: depth-based indicators such as paper books instead of netbooks, proximity-based indicators such as parents, friends, and also teachers (in particular for students), tradition-based indicators such as the use of data tools and information sources, as well as socially motivated indicators. During the process of writing, the following question turned up repeatedly: what comes first, trust or the conditions for trust? This means, is trust an important driver for the establishment of good social relations or do good relations come first and create the conditions for trust?

1. AIMS AND METHODS

The main aim of the study is to map the extent of the use of information technology in teaching situations as well as the attitudes that pupils, students, and teachers have about using information technology. It is argued that the use of information technology can serve as an indicator for the degree of trust in electronic aids in teaching. The study includes also other trust-related topics, for example which teaching materials are preferred, and whom pupils and students contact for help with their tasks. In order to reach a sufficient number of respondents in reasonable time questionnaires containing mainly closed questions were used.

2. QUESTIONNAIRES

Work period: October – November 2013, March – May 2014.

2.1 Questionnaires 1 – 4

1 Questionnaires, pupils, secondary school, lower level (grade 8)

2 Questionnaires, students (Secondary school (grade 12)

3 Questionnaires, Teachers, secondary school, lower level

4 Questionnaires, lecturers

2.2 More about questionnaires

Among the project participants there was general agreement for use of questionnaires as part of data collection. Among students the questionnaires are a relatively common and popular means of collecting data (Nunan, p.143).[2] The data themselves are more amenable to quantification than qualitative data, for example open field notes, transcripts of speech and observers´ journals. However, one should note, the construction of valid and reliable questionnaires is a highly critical matter. Questionnaire items can be made in closed or open form. Using closed items the alternative responses is determined by the researcher(s). For open items the respondents can decide what to say and how to say. Questionnaires for our project contain mainly closed items, however a few items are in open form. Particularly pertinent for validation has been the wording of the questions. A

---

[2] Nunan, David 1992: *Research methods in Language Learning*. Cambridge. University Press.

danger with any type of closed items is that the "responses will be artifacts of the elicitation devices themselves" (ibid.). One should note the general fallacy for leading questions, too, and one should note still another fallacy, that of cross-cultural variation concerning language. One notes out of a common set of questionnaires given in English language, there is eventually a second step to translate the questions to the respective national languages. Because of pitfalls like these it is imperative to pilot any questionnaires, "in fact, I would argue strongly that our research should have a piloting phase" (cf. Nunan, p. 145).

3. RESPONDENTS

Pupils, grade 8 (13 years), N = 546; 262 girls, 284 boys.
Schools and geographic distribution: One school, village, northern Norway; one school, central Norway, densely populated area; one school, city, south-eastern Norway.

Students, secondary school / college (17/18 – 22/24 years), N = 256; 164 women, 92 men.
Schools/campus and geographic distribution: Village, northern Norway; city, south-eastern Norway.

Teachers, secondary school, lower level; N = 152; 88 women, 64 men.
Schools: Village northern Norway; city south-eastern Norway.

Lecturers (Academic teachers)**;** N = 104; 48 women, 56 men. Schools: Village northern Norway; small city southern Norway.

3.1 About the representativeness of respondents

The number of respondents – distributed into four categories – is relatively low. However, the study is useful for at least two reasons: 1) responses can be seen as indicators of levels of trust and 2) the study can be regarded as a pilot project.

PRESENTATION OF QUESTIONNAIRE DATA

4 PUPILS AND STUDENTS

4.1 Questionnaires: Pupils and students

Eight out of 12 and 14 questions for pupils and students respectively are identical. It is therefore natural to present data for these eight questions jointly for better comparison.

Question 1: *Information is reliable when*: Ca. 20 % of students and 25% of pupils choose alternative 1, *provided by person(s) you know personally*, which means a proximity-based indicator for trust. Between 30 and 35% choose alternative 3, *posted in textbook, newspaper, journal, etc*. This is a tradition-based indicator for trust, but the choice of textbooks can also be a cognitive motivated trust. Ca. 15% answer that information is reliable when it is from the Internet. This choice must be understood in the context of the Internet being a commonly used tool in Norwegian schools. Among students there is a difference between women and men; more than 20% of the men and less than 10% of the women choose the Internet alternative. There is a similar but less marked difference in primary schools. Alternative 5, *it is in line with your existing knowledge*, is chosen by between 15 and 20%, and alternative 6, *you can check in another way*, between 5 and 10%. The answers indicate that students and pupils choose alternatives that they have easy access to, which is a proximity indicator, but the answers may also be inspired intellectually. Here trust must be understood in a determined context; the context of school and learning is a social context, and choices are therefore influenced by the community.

Question 2: *What kind of devices do you use when working with your school-tasks?* (6 alternatives). More than 40% of the pupils and 60% of the students answer *PC*. Slightly more than 20% of the pupils and between 10 and 15% of students answer *mobile or smart phone*. Four to 5% of students and 12 to 13% of pupils answer *tablet computer*. Alternative 6, *others*, show little variation between students and pupils. About 15% of pupils answer *textbook*, and only 7 to 8% of students answer *others* without further specification. The significant preference for PCs demonstrates what is common equipment; here accessibility and proliferation are the decisive factors for choice (according to question 1), but the answers also indicate that pupils have more trust than doubt when it comes to net-based knowledge and information.

Question 3: *How often do you use the Internet in the classroom?*
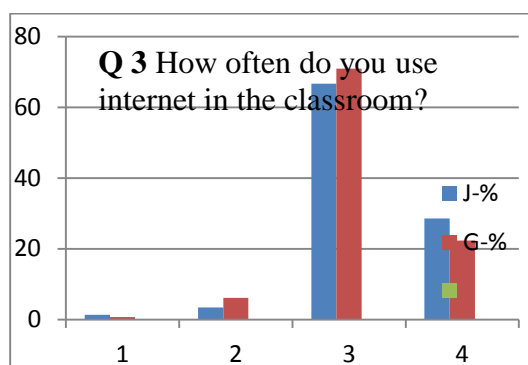
Figure 1   PUPILS   STUDENTS
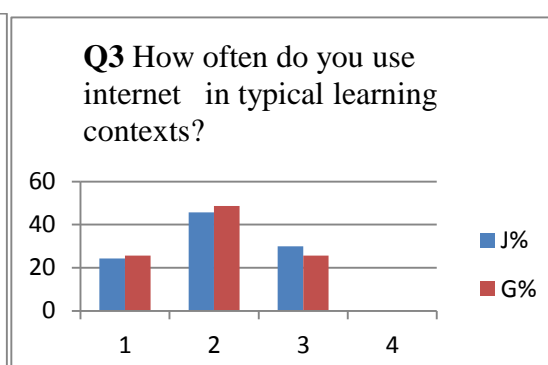
The answer alternatives 1 to 4 are: a) *every day, for all tasks*, b) *daily, for some tasks*, 3) *sometimes, for certain tasks*, and 4) *do not use it at all*. The chart shows clear differences between pupils and students in terms of use, well visible in all alternatives one to four. This pattern corresponds to the fact that the Internet is more commonly used in secondary school and in higher education than in primary school (*Monitorrapporter* 2010).[3] The priority of the Internet can be seen as a consequence of accessibility, which the question about what is most common in an educational context (see above) also covers. However, it can also be argued that both pupils and school as institutions trust this tool to a certain degree.

Question 4: *How often do you use the Internet at home?* This question shows the same tendency as question 3. Considerably more students than pupils use the Internet daily for all tasks: 20% of female and more than 35% males in higher education vs. 10 to 15% in primary school. In answer alternative *every day, for all tasks, daily for some tasks* the figures of higher education and primary school are 55% and 30%, respectively (see *Monitorrapporter* above). The same conclusion as for question 3 can be drawn: accessibility, making it common (being part of school culture), and general trust in the Internet as a database are the decisive factors.

There is an interesting connection between questions 3 and 4 (use of the Internet) on the one hand and question 6 (for pupils, corresponds to question 5 for students) about to which degree pupils and students check the reliability of information found on the Internet.

---

[3]*Monitor* 2010，available at: http://iktsenteret.no/ressurser/monitor-2010-samtaler-om-ikt-i-skolen

Figure 2   PUPILS   STUDENTS
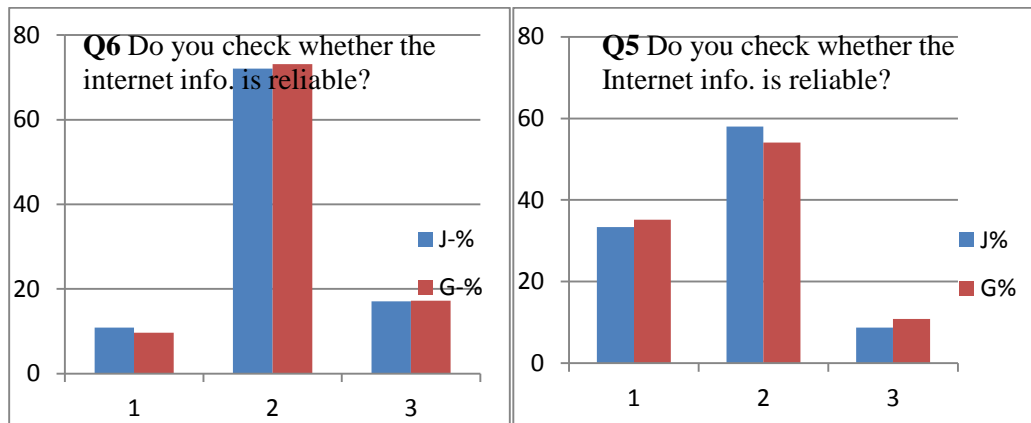
The charts show significant differences; while more than 1/3 of students answer that they always check information, only 10% of pupils do so. This means that pupils more commonly do not check their sources. The explanation for this difference can be that students have developed a clearer critical sense, a cognitively motivated doubt. They do not just retrieve information but also reflect upon its quality.

Question 7 (for pupils, corresponding to question 8 for students): *Whom do you ask for help when you have problems with your tasks/homework?"*

Figure 3   PUPILS   STUDENTS
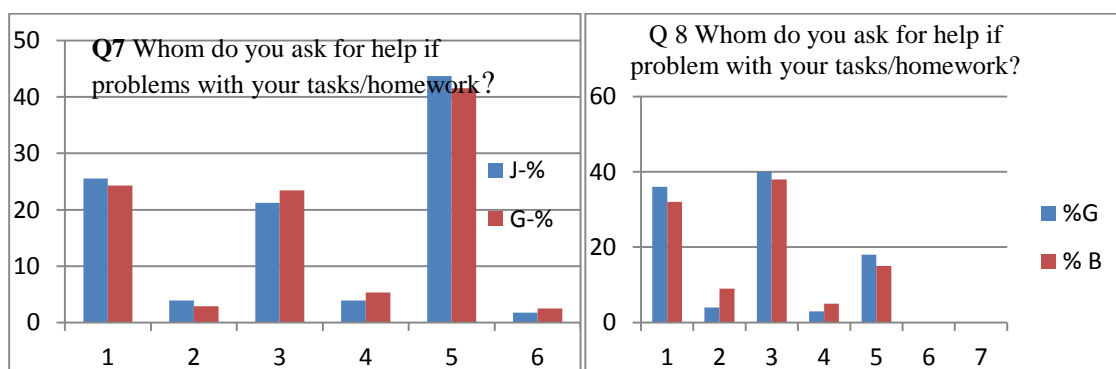
The alternatives are: 1) *a classmate*, 2) *a mate from outside the class*, 3) *a class-teacher or another teacher*, 4) *a friend on Facebook, Twitter, blog, chat, etc.* 5) *parents/guardian*, and 6) *nobody*. Alternative 3 shows clearly divergent preferences; students prefer their teacher (40% vs. 20% of pupils), and there is a corresponding difference in alternative 5, where 40% of pupils choose parents and guardians, while less than 20% of students choose that alternative. The figures and preferences

indicate that students have a different level of consciousness and are more focused on their presentations and tasks, have trust in the teacher's competence, while pupils rather ask parents (and potentially brothers and sisters); nevertheless, we think that Norwegian pupils also trust their teachers.

It is interesting to compare questions 7 and 8 above with question 8 for pupils corresponding to question 9 for students: *Whom do you ask for help if you have problems with your PC/PC-equipment, tablet, mobile/smart phone, smart-TV, and the like?*

Figure 4   PUPILS   STUDENTS
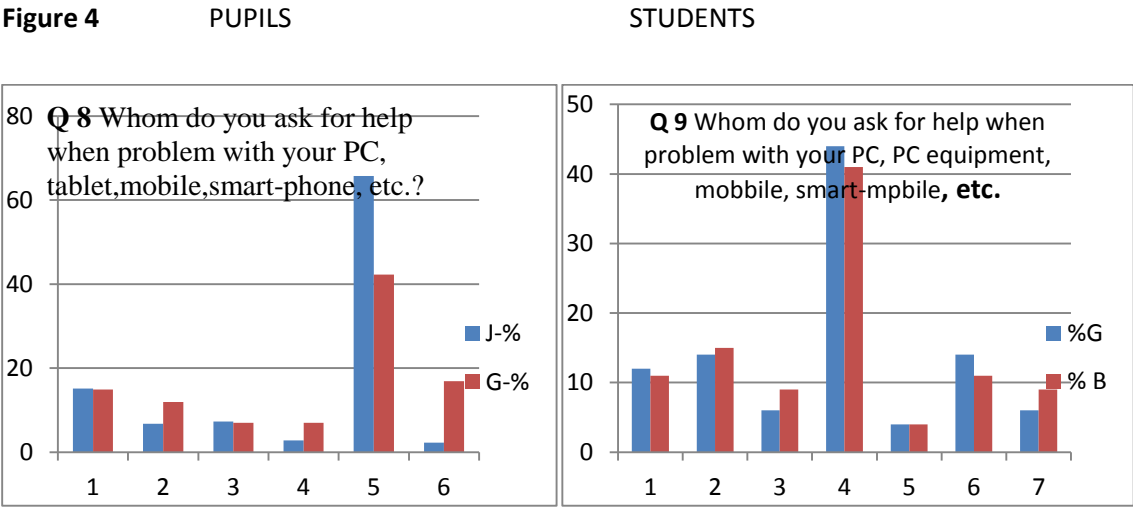
Alternatives 1 to 3 are the same for pupils and students. Alternative 4 for students is not used for pupils. Alternatives 4 to 6 for pupils correspond to alternatives 5 to 7 for students. Students rely to a considerable degree on the IT-service of their institution, while this service is less developed in primary schools. More girls than boys seek support from parents/superiors, and primary school pupils seek support from their home to a larger degree than students, of whom only 10% choose this option. Furthermore, more boys than girls manage without support from others. These choices can be interpreted in terms of opportunity and accessibility, but also with different degrees of trust.

Question 8 for pupils and the corresponding question 9 for students ask whom pupils or students would ask for help if they have a problem with a game or their PlayStation. The pupils' answer differs from what they said answering question 8. About 1/3 would ask friends for support, about 1/3 would ask parents/superiors, and one of four answers *nobody*. I interpret the answers in a way that they do not reflect trust or mistrust but accessibility as well as the fact that data games are different from homework.

Question 5 for pupils and the corresponding question 7 for students ask about how social networks are used for homework. The alternatives are *daily*, *once in a while when homework is difficult*, and *never*. Here the answers of pupils and students are similar. Between 15 and 25% answer *daily*, about 60% answer *once in a while*, and between 15 and 20% answer *never*. The answers indicate that young people find social networks useful, also in relation to school. Social networks are easily accessible for them, and they have no or small experience that problematizes this resource.

The last question (i.e. question 12 for pupils and q. 14 for students) that was common for pupils and students was the **open question** about what it means to trust someone. Three of four students as well as pupils answer *to rely on someone*, ca. 15% do not answer, and some answer *to mean something for each other* or *a good friend*. In general the answers do not show a deep level of reflection but are synonyms for the term "trust."

4.2 Questions exclusively for pupils

Question 10 asks pupils whom they address when they have personal problems. More than 40% of boys answer *friends (mostly classmates)*, about 1/3 of boys and girls answers *parents or guardian*, and 10% answer *nobody*. While question 10 focuses on problems, question 11, is about with whom young people would share their joys. Half of the girls and 70% of the boys answer *friends (mostly classmates)*; about 1/3 of the girls and ¼ of the boys answer *parents or guardian*, and some (more girls than boys) answer *Facebook friends*. Not unexpectedly close friends and also parents/guardian play the main role. The preferences here must be interpreted in terms of proximity-based trust in close relationships.

4.3 Questions exclusively for students

Note: Question no. 6 *What kind of Websites would you recommend as useful and reliable for studies?* corresponds (so to say) with questions 5 in the questionnaires for teachers and lectures. By a mistake this question drops out in the students questionnaire.

Question 11 asks students for their experience with plagiarism*.* One out of three answers *not used*, another third answers *poorly done*, one out of five answers *no experience*, and one out of teen answers *ok, I have used*. See the corresponding question that was asked to lecturers below.

Question 12: *How do you communicate with your lecturer outside the study institution?* Alternative 2, *contact by e-mail, Facebook, text message, etc.* is chosen by 55 (men) and 60% (women). Alternative 3, *take contact at any time when I need help*, is chosen by ca. 20%, and alternative 4, *no contact outside the study institution*, by ca. 10%.

Question 13: *How do you communicate with your mates outside of study situations?* 40% of women and 25% of men choose alternative 1, *personal meeting*; 1/3 of women and half of the men answer *e-mail/social media*, and one in four (both sexes) answer that they take contact any time they need.

It is difficult to evaluate whether question 11 about experiences with plagiarism is relevant for the problem of trust, and the relation to trust is more clearly seen in questions 12 and 13. The figures here relate to trust between people in general, and possibly also to the ways how trust generally is created or maintained. However, most of all the answers indicate the importance of accessibility to e-mail, text messaging, and social media.

5 Final comments on pupils and students answers

With the reservation that the study is based on limited data, one can nevertheless identify indicators of trust, and the report summarizes the following. It is clear that there are proximity-based (person-motivated) factors for trust, i.e. trust in friends and superiors; older pupils also trust their teachers, which can be called cognitively based trust. Both proximity-based and cognitively based trust are essentially trust in close relationships. Findings that show trust in textbooks and acknowledged net-based sources of knowledge can be seen as both motivated cognitively and by tradition but can also express a general trust in books more than in IT. Regardless of the meaning of the term trust, in this study many of the respondents' answers can be interpreted as being caused by natural access, i.e. in relation to proximity and to common patterns of use and common personal relations in the Norwegian school.

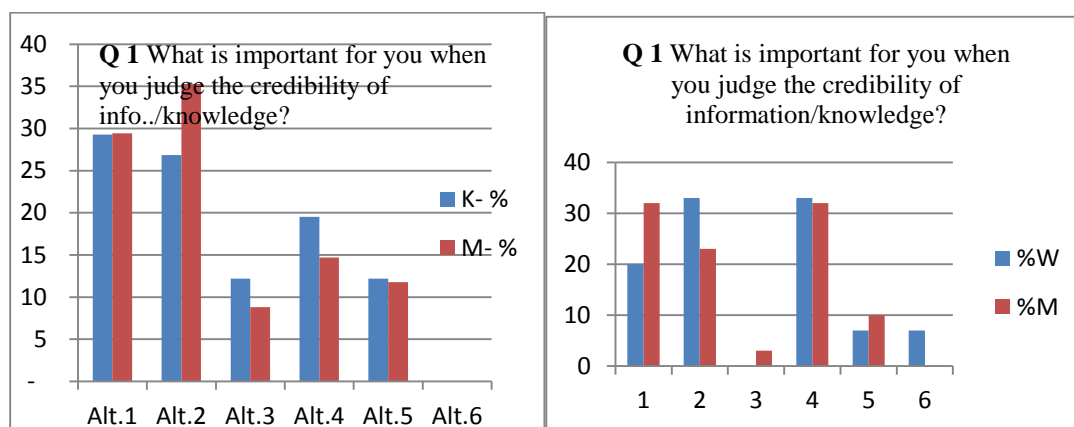## 6. TEACHERS AND LECTURERS (Academic teachers)

6.1 Questionnaires: Teachers and lecturers

With the exception of small linguistic nuances, nine of the questions for the teachers are identical with the questions for lecturers. Lecturers have an additional question about students and

plagiarism. For the sake of better comparison, the answers of teachers and lecturers are presented together.

Question 1: What is important for you when you judge the credibility of information/knowledge? See answer alternatives in the appendix.

Figure 5   TEACHERS   LECTURERS (Academic teachers)

Alternative 1 about who is behind the source shows some difference between teachers and lecturers and also between the sexes in the case of lecturers. Alternative 2 about the publication channel is also important, but here the patterns of sex in terms of teachers and lecturers are inversely proportionate. Alternatives 3 and 5 (about how information and knowledge is arranged) have a higher priority among teachers, while lecturers choose alternative 4, about whether knowledge and information can be verified, considerably more often. The general interpretation here is that trust is most strongly linked to source and author, and that both parts can be verified; this means trust has a cognitive character. New knowledge that corresponds to earlier knowledge also plays some role, and here we can speak of self-confirmed trust.

Question 2 is about what kind of equipment teachers and lecturers preferably use when they prepare lessons.

Figure 6   TEACHERS

Quest. 2 What kind of IT equipm. do you prefere to use when prepare lesson?
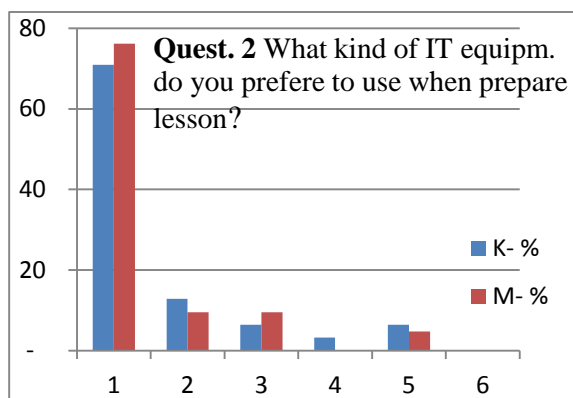
The chart for lecturers is an approximate mirror image of that for teachers. About 75% of teachers and nearly 80% of lecturers answer *PC*, and the remaining 20% are divided between alternatives 2 and 3, tablet and white board. In general the answers point at a preference for equipment that is most accessible and common during the time of the study, and the answers also are an indication that general acceptance (trust) of data tools is stronger than their rejection.

Question 3 is about what kind of equipment teachers and lecturers use most frequently in their classes. One may expect that the answers here correspond to those of the pupils and students in their question 2 (see above in part 1). More than 75% of female and 60% of male teachers answer *PC*, and for lecturers the corresponding figures are 70 and 60%, respectively. The smart phone receives 15 and 10% of the answers of teachers and lecturers respectively. The white board alternative is chose by approximately 10%. 10% of lecturers answer *other*, without writing down a specific piece of equipment.

Question 4 asks who is asked for help if teachers and lecturers have a problem with their IT equipment. The answers are similar among teachers and lecturers as well as among women and men. 40% answer *colleagues from work*, one third answers *IT coordinators of their institution*, and between 10 and 20% answer that they fix the problem themselves. The answers here indicate a trust in close relations, i.e. that proximity and cooperation act as stimuli for trust or that they create an atmosphere of trust stimulating cooperation.

Question 5 asks for an **open answer** to the question of what website teachers and lecturers recommend for their pupils or students. The teachers answer: *snl.no* (*Store norske leksikon*; Norwegian encyclopedia) 62%, *ndla.no* (*Norsk digital læringsarena*; Norwegian digital teaching arena) 20%, and about 15% answer *Wikipedia/Google*. The answers of the lecturers are more nuanced. More than one in four answers *net-based textbooks on the reading list and other net-based teaching and supervision aids*; 20% answer *ndla.no*, 15-20% answer *snl.no*, around 10% *BIBSYS/Oria*

(library search engines), less than 10% *Google*, and a few answer *other*. In general the answers refer to acknowledged and authorized websites. The answers can be seen as favoring known and relevant sources adapted to the situation, but also as making conscious choices on the base of cognitively based trust.

Question 6 is related to question 5 and asks how often teachers and lecturers check their pupils and students' use of net-based knowledge (honesty, references, quotations, etc.). About one third of the female and 10% of the male teachers answer *always* (note the gender difference here), and the corresponding figures for lecturers are ca. 25% (both genders). The alternative *I check occasionally* is chosen by 60% of female teachers and 80% of male teachers, corresponding to about 65 and 70% of lecturers (both sexes). The fact that so many only check their pupils' work when they have a suspicion may indicate that teachers trust their pupils to a large degree. However, the limited material could also be indicated in terms of "we don't bother to check" or "it looks ok."

Note: Question 7 for lecturers about plagiarism is not in the questionnaire for teachers; its result is presented later here.

Question 7 for teachers corresponds to question 8 for lecturers. It asks whether the teacher's visible trust in his or her pupils creates the conditions for reciprocal trust. Nobody chose alternative one, calling reciprocal trust just a slogan. Alternative 2, that reciprocity is the core of trust, is chosen by 75% of female and 60% of male teachers. For lecturers the figure is 60% for both men and women. The alternative *no opinion* is chosen by 15% of female teachers, 35% of male teachers, and about 25% of male and female lecturers.

Question 8 for teachers, corresponding to question 9 for lecturers, is similar to the question above. The question is whether schools with a special focus on trust can influence the general level of trust in society (see appendix for complete question). More than half of (male and female) teachers agree with this statement, and the corresponding figure for lecturers is two third of women and less than 50% of men. 20% of female teachers and 25% of male teachers partially agree; the corresponding figures for lecturers are 20% (women) and 50% (men). 6 to 7% of lecturers disagree. The general picture that the answers of questions 7 and 8 (8 and 9 for lecturers) create is that a belief in trust has the power to create trust in close relations, in other words that trust generates trust.

Open question, Q. 9 for teachers corresponding to 10 for lecturers, asks what trust means. The answers mirror the answers of pupils and students. Three in four answers *to rely on someone*, some answer *reciprocal respect*, and one in five did not answer. The answers show that the questions did not engage the respondents.

Open question, Q.7 for lecturers ask about experience with plagiarism of their students (see also the corresponding answers of students above). One in three answers that plagiarism is wrong or bad, about 15% answer that it damages integrity, 15% answer that plagiarism happens, 15% do not know or have little experience, 10% answer that plagiarism is common, and 10% did not answer. In the corresponding question to the students I express doubt about how those questions can be related to trust, in other words, whether they are relevant here.

6.2 Final comments on the answers of teachers and lectures

It is easy to point at similarities between the answers of teachers and pupils. The answers of teachers and pupils raise the same question: to which degree are the answers of the respondents an expression of trust? The question also touches the character of the questionnaires and the validity of the study. The study cannot provide conclusive results; it is designed as a pilot study. Where the study provides answers in terms of action patterns, these action patterns in the form of choices can be interpreted as indicators for trust and degrees of trust (see also my final comment on the section on pupils and students).

In terms of using data tools and IT, the answers of teachers and lecturers indicate that their trust has a cognitive and self-aware character. Trust based on experience appears when lecturers do not feel a strong need to check their students' work for plagiarism. The answers also indicate that close relations (the micro-level) generate trust, also in larger contexts, such as a school environment or society at large (meso-level). Trust in close relations can be found among teachers as well as among pupils. Here the question can be asked whether it is proximity and cooperation that generate trust or whether an atmosphere of trust is the engine or platform that connects people and initiates cooperation and positive social relations. There are reasons to believe that both alternatives are possible.

Report given 20th January – 2015 Harald Nilsen

Tatyana Grebenyuk
Svetlana Konyushenko
Katherine Nechaeva
Immanuel Kant Baltic Federal University, Kaliningrad, Russia

Confidence in relationship between subjects of educational communication in Nesna University College

Abstract

The article focuses on the practice of building confidence educational communication between the subjects of educational process in Nesna University College, Norway. As researchers and personnel of international exchange program, the authors represent a piece of information, which was collected during their visit to that educational institute under the 7th Framework Programme Marie Curie Action, People.

Key words: confidence, trust relationship, educational communication, information and communication technology (ICT) tools.

Special attention of the research under the SIT project has been paid to the problem of trust relationship between subjects of educational process.

The humanistic orientation of education, the need for pedagogical support of a student in the formation of subjectivity of the person, in the development of his motivation for learning and creativity identified the relevance of the process of forming trust relationship between the subjects of educational communication. Theoretical analysis shows that the interpretation of the concept of "trust relationship", "confidence" has many aspects.

From the ethical-philosophical position, *confidence* is defined as a universal moral value based on faith, love and friendship, on the relationship of disinterested mutual support and affection (John Locke, Immanuel Kant, Georg Hegel, etc.).

From the socio-psychological point of view, *to trust* means to entrust oneself at the disposal of another person. A trust relationship between people is understood as a way of activating responsibility to future generations, an orientation to the formation of personality that has a "culture of trust" (Francis Fukuyama, Piotr Sztompka).

The destination of trust relationship in the educational process is being defined from different theoretical positions with consideration of the issues of improving the pedagogical

interaction effectiveness in developing trust relationship while solving upbringing and education problems.

Psychological and educational studies consider different aspects of the scientific approach to the problem of forming trusting relationships through the coping with the following tasks: empathic interaction (Aleksei A. Bodalev, Vladimir N. Myasischev, Maiya I. Lisina), conflict resolution (Aleksei V. Yurakov), developing valuable relation to oneself, to another, and interaction with the world (Tatyana P. Skripkina), self-disclosure (Evgeniy P. Ilin), emotional responsiveness (Irina A. Zimnyaya), full equality of educational process participants (Boris Ts. Badmaev), full personal development of a child from the perspective of humane pedagogics (Valentina Ya. Lykova, Anatoliy P. Smantser).

One of the key challenges of higher school is to increase confidence in the interactions of teachers and students that directly affects the quality of teaching. Currently, the scientific and pedagogical community shows some signs of a broader understanding of the results of educational activities, which include the credibility of the subjects in the educational process, i.e. the degree of their communion, empathy, assistance in obtaining the educational outcome. This approach to education quality implies mutual responsibility of teachers and students for the results of educational activities. The efficiency of interaction of educational process subjects is one of the indicators of the educational process quality at the university, which the level of future specialists training, the success of his professional activities, as well as the success of professional fulfillment of higher school teachers depend on. Here, we understand *the interaction of subjects of educational process in higher school* as a process of displaying the individual modes of action and communication between a teacher and students, aimed at each other, determined by their functional-role and personal position, the consequences of which are: mutual changes in activity, communication, relationships between pedagogical process participants as well as their personal development. The purpose of the interaction is personal and professional development of all participants in this process. Like any goal-oriented process, the interaction of teachers and students should be manageable (specially organized) and be diagnosed.

So how the interaction of subjects of educational process in Nesna University College is being built?

In the very beginning of our visit we met Sven Erik Forfang, the rector of the university, who impressed us with his open and friendly attitude and understanding students' problems. During our conversation he pointed out that the university college is a real resource center for the Helgeland

County, and a special place where his associates and visiting colleagues conduct scientific researches of a regional character, have international meetings, discuss problems of the county.

Familiarization with the university activities as a whole showed that indeed the educational communication space of friendly relationships between students, students and teachers had been created there. This allows us to speak about feelings of joy and satisfaction that those students experience while studying at the university. More likely they will be ready and motivated to learn throughout life.

We attended a number of seminars and meetings with the university professors. By demonstrating professional responsibility, Marian B. Sivertsen, Oddbjørn Knutsen and Erik Bratland presented some results of their works and definitely proved that the institute can be characterized as an organization of trust relationship between students and teachers. At present, such teacher responsibility is the requirement of time due to the modernization of higher education system, based on intensification, diversification and individualization of the learning process. In our collective view, it is necessary to enhance the role of higher school teacher in building trust interaction in educational communication.

More and more new requirements to a teacher are being made. One of the demands is a high level of competence to organize trust relationships between the subjects of educational processes. Such skills will help to create new forms of delivering training sessions successfully, to develop and design methodical support for the classes, to participate in international grant activity, to realize different projects together with the students, and a long run to contribute to the development of the educational communicational environment. Accomplishing these tasks, a university teacher becomes the key figure of the innovative development process of the whole higher education system.

There is much to be said thereupon, and we would like to thank Dr. Elsa Løfsnes for her warm welcoming and for the demonstration to us a technology of teaching webinars based on the Adobe Connect software service resources (AC). Indeed the most rapidly developing technology today is the technology of web conferencing or webinars. This form of the implementation of educational communication has several advantages:

- wide geography of the participants of educational communication;
- high degree of interactivity;
- comfortable environment for the participants of educational communication;
- representativeness of teaching materials, etc.

The Adobe Connect software package is a secure and flexible system of web-based communications for training, web conferencing and collaboration on the Internet, fully allowing to organize remote educational processes at the university. Unfortunately the Adobe Connect is not being used for educational interaction in Immanuel Kant Baltic State Federal University, and therefore we were especially glad to take part in that webinar model, so we could evaluate the following advantages of the technology:

- AC offers a wide variety of useful tools such as course material setup and webcam and video sharing;
- AC helps to cut down on travel costs, which usually a sensitive topic for many students;
- thanks to the interactivity, this is a good way for realization of many kinds of classroom training, which are used in traditional face to face delivering;
- interactivity of AC also helps to engage attendees, so the presentations remain memorable;
- it makes somewhat easier teaching classes with an innovative educational technology of *live* communication (role-playing games, training sessions, workshops, debates, etc.);
- there is always a possibility of recording any on-line training for later viewing/reviewing all types of educational activities of the session (video lectures, work history in the chat, slides, full access to the files, etc.);
- high availability of all content files (documents, presentations, assignments, etc.);
- compatibility with MS Office.

Using this system in training allowed subjects of educational process to plan their activities with due regard for their employment, to create a more comfortable environment for learning and to move from the previously used technologies such as chat, forum, e-mail, etc. to more interactive forms of communication.

Also it should be noted that the distant interaction between the subjects of the educational process is being carried out from the position of trust and may lead to a positive educational result only if such indicators of trust as communion, empathy, assistance exist and are implemented in the

educational process. Exactly these concrete signs of trust most obviously show that trust does form an educational unity of educational communication subjects, and it is being realized with tools of ICT.

To conclude this short narrative of confidence in relationships between subjects of educational communication in Nesna University / College, let us highlight the particular experience that we gained during our visit to Norway. We believe the international exchange of technics and ideas, the information and kindness we observed and received will help to build trust and confidence in relationships between teachers and students of our university: the relationship based on reflection, empathy interaction, sincerity, truthfulness, honesty, responsibility, cooperative partnership with equality, fairness and openness.

Harald Nilsen, Nesna University College, Norway

Trust in Schools in Kaliningrad? - Background – Observation – Interpretation

Abstract

The focus in the article is data from observations made in schools in the city Kaliningrad, autumn 2013. However as a background I add a short review of what is written and what people say about *trust*, what is it really, and what does it means in a practical context. We should listen to the Principal of the secondary school KVN (Norway) who claims that "trust *is* not, but we have to build it". Through observation the article uncover the concept *trust* as a construction of reciprocity, responsibility, closeness, receptiveness and presence. Trust tied to social media and IT is a hard – maybe dubious, too – challenge. The answer for me is to start neither with trust nor distrust, but by *critical, unprejudiced* thinking (c.f. ETS research below). Through observation I have no evidence that critical thinking was on the agenda in the context referred to here.

Background

-The article "The Face of Trust? What we talk about when we talk about trust?" (Nilsen, H. 2013) problematizes in short form how we speak about trust in Norway. From a personal perspective trust is how a person (A) perceives another person´s (B) reliability and truthfulness in particular, immediate situations or in general by experiences over and over again. Moreover, this first article mentions moralistic trust, i.e. growing up in a culture of general, uncritical rely on authorities, close family members, and the like. Further the article refers three newspaper chronicles written by well reliable persons that in a period of considerable immigration and ethnic diversity in Norway, participated in a choir of different voices. The voices as such imply readers who understand trust as "to rely on" someone. Only one of the three authors, a lawyer, expands this monolithic view of trust, linking trust to *honesty* and argues that in small, transparent societies people prefer to be honest to each other. Honesty and dishonesty as well are also core elements of trade and economy.

 -Further background for observation in schools in Kaliningrad will be a written memo about trust (Halvorsen, L. J. 2003). The author pinpoints the "rational choice-theory" (ref. to Williamson and Hardin). This theory deals with people in general making rational choices, and select available resources suitable for own interests. Trust is to be judged to risks, benefit, and economic profit. Halvorsen also refers to Uslan talking about moral confidence in an inclusive community. Moral

confidence reflects the collective experience and values of a society. Trust in this context is the collective values we have internalized as a child and these values are reinforced by experiences later in life. Moral confidence represents a positive view of humanity, i.e. people in general are worthy our confidence.

-Arne Svilosen is a theologian and has wide experiences in his profession as a priest, as a mentor and tutor and as a social worker. In conversation with me (12th August 2013) he says that trust *is* not, but must be built as a silent negotiation between one and one, between one and a group, between group and group. Trust, he emphasizes, means investing in a community. Confidence means "to believe in". I see a clear connection between trust and security, trust is a tool to fulfill man's existential needs for security, he underlines. We should know, Svilosen emphasizes, that in the space of trust are both the freedom of the will and the election of responsibility. We have the freedom to position ourselves as trust donors, but we also take on the responsibility to be trustworthy. Trust is my intuitive reaction or my experiential reaction to other's honesty, competence and goodness. "Shall we repeat about trust and security," Svilosen asks. And he continues. «Human being´s basis is to feel safe, confident, this is existential. By trust the human has given itself as object for self-reflection. How is it to be me? How do I deal with being me?" Svilosen ends.

-December 2013 I meet the Principal Finn Olav Konow, KVN,[4] Christian Secondary School North-Norway. On my request to talk about trust, the principal puts the term into cultural context and will talk specifically about culture of trust at their own school. "Confidence must be built," Konow starts, "an important signal is transparency, openness, it is for us an important, ethical principle that apply between teachers and students. Openness and reciprocity also apply to students in relation to the physical building and in relation to furniture and equipment, including computer equipment. With us, all doors are open doors, students have free access to rooms and furniture, and easy, unpretentious access to their teachers and school management. An important norm is to build mutual respect, Konow underlines, when teachers is the first and in front to respect the students, it sends the signal that we value them and trust them. Our school is a construction site where we invest in mutual respect and confidence. The tool is communication through words and actions, through mutual respect and equality. Knowledge, Values, Closeness are the school's building blocks, the Principal ends.

I interpret the school´s platform of practice like building a culture of trust at various levels; at the *macro* level, i.e. as trust between the students and the school institution as a resource, at the *meso*

---

[4] KVN is the acronym for Kristen Videregående skole – Nordland.

level, i.e. trust between teachers and students and at the *micro* level as mutual trust between students. Openness, mutual respect and equality seem to be the keys.

-Irvin R. Katz (2006). In 2006 ETS (Education Testing Service) stated in an overall view from a research on critical thinking skills – in which more than 6000 College students took part – that there is a gap between the student´s ICT literacy and the level of ICT skills that colleges and companies expected them to have. Students may be tech savvy what concerns pure technology and entertainment, however do not master *critical thinking well enough* (my italics).[5] The test covers seven ICT literacy skills areas that the assessment should measure: - *Defining, - Assessing, - Managing, - Evaluation, - Integrating, - Creating,* and - *Communicating* (my italics).

Why I am inspired to put ETS´s research as part of background for our project "culture of trust in educational context assisted by ICT", is as follows: (i) The research review does not mention at all the concept "trust", however (ii) Out of the seven points measuring ICT literacy skills, two of them, i.e. *Evaluation* and *Communication* include (in my mind) "trust" or at least press attention to trust. Accordingly, let us study test results on point 4 in ETS research, *Evaluation*: About 50% only of the test takers used a strategy that minimized irrelevant results; slowly more than half of the test takers did discriminate between biased sources and authoritative, objective sites (sources), and about 50% appeared to recognize that educational and official government sites are less likely to contain biased material than do com. sites.

In my opinion, those who do not care for the difference between relevant and irrelevant information, and do not discriminate between biased and authoritative sources are either not aware of *trust* at all in this context, or they practice a crude, naïve form of *trust* or they are indifferent to the concept *trust*. About the third, official sites versus com. sites, we may suggest that the concept *trust* is included in the context, i.e. the students trust educational and official sources more than do they trust com. sites.

Here one has to repeat Part B (p. 3 – 5) in the application form of our project SIC, "(…) Culture of Trust in Educational Interaction (…)". Part B offers a suitable guide what concerns indicators for stimulators or inhibitors of trust (quotation, p. 4): "(…) it is important to find out what are the elements of the culture of trust towards diverse media transmissions because of their *source* (who is

---

[5] Cf. SIC, project application, part B, p. 4 "The need for a critical selection and use of media content is a major challenge for modern education which aims among other things to implement self-education, self-searching and making a use of adequate knowledge and skills from the perspective of personal and collective welfare. (…) concerning the cognitive aspect is the shaping of the culture of trust towards students using the new media. This refers to such behavior as respecting the copyright law when using the resources of the internet, using the media according to the objectives and principles set by the teacher, (…)."

the author of the information), *content, motives, objectives* and *circumstances* (my italics) of resorting to the transmissions (why, in what situation)."

Obviously, evaluation and critical thinking is highly relevant in proportion to *Communication* (item 7 in ETS´s research). Reliability should be the foremost of norms in all steps of research work when one communicates the research results to listeners and readers. One may conclude that weakness in evaluation of sources influences the trustworthiness of communication, too. Lack of explicit focus on the norm of being trustworthy in communicative situations should give inspiration to our SIC project to make the conception of trust more visible in educational context.

-For additional background for my observation in schools in Kaliningrad I am stimulated by written articles, all of them printed in: Czerepaniak-Walczak, M. & E. Perzycka (eds.) 2013: *Trust in Global Perspective*. Szczecin.

-Anna Zembala from Germany pinpoints in her article "Trust and School Environment/Pedagogical Space" how internet offers a fair chance to introduce and making a new image of the school on the school´s web site, and how new image in one´s turn influences the pupils´ impression of the school.

-Beata Stelter, Poland, underlines mutual cooperation in her article "Trust as a Necessary Factor in Teacher – Student Interaction".

-Jowita Krajewska, Poland refers to school to be a learning organization in her article "Trust as a primary factor in the strategy of the contemporary school functioning as a learning organization".

-Maria Czerepaniak-Walczak, Poland problematizes the concept "trust" in different contexts in the reflective article "Educational contexts of trust: trust towards education, trust in education, education for trust".

-Elzbieta Perzycka, Poland discusses trust in a practical-theoretical perspective with the focus on self-education in the article "Trust in the Technology and Digital Media in the Context of Pre-Theoretical Understanding of *Self-education in the Network*".

In relation to and continuation of the section "Background", the article introduces a list of *indicators of trust*. These indicators act as analytical tools for the assortments of data under concideration.

Indicators of Trust? (macro-/meso-/micro levels)

- School as learning organization; (cf. Jowita 2013) (example of macro level)

- School corridors; bill/posters of theorems, i.e. words of wisdom/quick-witted slogans/ value-words, word and phrases, etc. (example of meso level)

- The physical classroom; furniture, placement of desks (pupils), bill/posters of theorems, i.e. words of wisdom/quick-witted slogans, etc.) (example of meso and micro level)

- The classroom atmosphere;

all over atmosphere (organization)

-severe, hierarchical class-organization, i.e. authoritarian structure teacher(s) – students

-equal, horizontal structure

atmosphere in details

-freedom, physical & mental

- openness between people/easy access to books, equipment, to each other, etc.

- helpfulness, *to be nice to the others* (Faltova 2008)

-mutual cooperation; (students – teacher(s)/ students – students/ one – group,

communication; open/unpretentious (example of micro level)

values in general

-safety (the most existential in humans life)

- mutual truthful, reliable, responsible, honest (moral trust.)

- intuitive negotiation and respect

- The school´s website (reputation/marketing?, cf. Zembala 2013)

Observation as method

The material for this study is collected from observation in six schools, all i all nine classes in which are involved pupils/students age 7 – 8, 12 – 13 and 16 – 17. It is convenient to call this study *case studies* limited to nine single classroom-observations and a limited duration (Nunan 1992,74f.). The aim of the study is to collect data, to interpret and describe a limited phenomenon, namely what is the connection between classroom-activities and *culture of trust*, a complicated interplay neither easy to describe nor easy to justify. The study is based on observations of selected, however ordinary classroom-activities,[6] and in a few cases the observations are added by so-called "stimulated recall"

---

[6] Concerning the conceptions of «classroom-observations» one should have problem with the following: Out of innumerable occurrences and activities in the classroom during even a short period, what should be in focus of

(op. cit. 94f.), i.e. the teacher´s comments on the previous classroom events under study. The study is *qualitative*, the overall goal is holistic understanding seeing social interaction and connections as different from fragmentary knowledge (op. cit. 231) and Patel & Davidson 1995. The personal based, subjective perspective of interpretation (cf. "Forståelseshorisont", "horizon of understanding", Føllesdal et al. 1990:101) interferes with the validation of results. The subjective perspective is enhanced by the mode of observation where "open" observation was used rather than a pre-prepared observation form. However, in this instance open observation is preferred because classroom activities change continually, and one activity influences other contemporary activities. Concerning subjectivity of observation and interpretation, one distinguishes between "a low inference descriptors", i.e. description of observed behavior on which it is easy for independent observers to agree or disagree, and "high inference descriptors", i.e. description of observed behavior not easy for independent observers to control or agree or disagree with (Nunan 1992, 60).This current study is clearly based on "high inference descriptors".

The classrooms are an active arena for diverse activities, and there are many facets of teaching and learning. It is impossible to describe the diversity of activities and the *meanings* of all activities. Focus on some things implies that some things are overlooked. Therefore this study is not going to present "heavy" conclusions, but is meant to prepare and motivate further more detailed studies in this field.

The collection of data and interpretation

-Everything is connected to everything, therefore the article as a start point gives a short view of Kaliningrad as context for the schools, even – I admit – it is dubious how to judge the reciprocity in this constellation. The first and the last experiences with Kaliningrad was crossing the border into and out of the town. For me it appeared to be an overwhelming strict control, a symbol of suspicion, but personally I do not know if such suspicion affects the inhabitants of the city in general, or for example also influences the school environment in particular? Nor do I have the knowledge nor the experience of the government in general and with political leaders about their views on school and on school as a learning community. But my overall impression after visiting schools, public libraries, school administration and high-tech businesses, schools and learning have strong position and high status. I think young people in Kaliningrad believe that the school gives them something important and necessary for their future, the most existential in man's life. During observations in the classrooms, I was thoroughly convinced that school and learning are respected and highly valued.

---

observation, how to separate useful data from useless? For me, naturally I placed focus on forms of social *interaction* between teacher and pupils, and between pupils – pupils as well (cf. Nunan 1992, p. 159f.).

My second, physical meeting with Kaliningrad gave the impression of a well-organized city, busy people, heavy traffic, varied trade and general living standards. The streets and markets were crowded with people, most with serious faces, but one cannot interpret the appearance and behavior as an expression neither of confidence nor distrust of the city and of the political regime in which the schools´ system is involved and part of.

So – the third point – meeting with schools: *The school and the outdoor area, entrance-section and the corridors* are the first meeting with schools in general, and often one can observe pupils also outside the school and in the corridors. Of the six schools I visited, I observed groups of pupils 7- 8 years old ran and played and talked and cried while a little older students relaxed in small groups or walked slowly along. The situation resembled schools and pupils in Norway; freedom to walk, run, talk, play, shout and … doing nothing. And when we, visitors, greeted "hello", pupils replied open and faintly smiling. The atmosphere was – as I observed and understood it – open and safe. In many of the schools were the walls of the corridors decorated with awards for academic achievement in competition with other schools, and awards or trophies for sports skills. Similar exhibition is widely evident in Polish schools, but not so evident and widespread in Norwegian schools. To show performance of any type and value means to highlight and promote the school, and it creates a sense of "belonging to", the pride that this is "my" school. The feeling of "belonging to" one may connect to social capital and motivation effect inspired by *value introjections* – general values in which individuals are part of, and which appear as the good, valuable things to do (cf. Portes 1995, 1998, in Torche and Valenzuela 2011, p.184-5). Pride and belonging to also provides associations with confidence, and confidence is an existential basis for security. We can also say that security is an indicator of trust in the meaning "to believe in" (Svilosen, in conversation 2013).

From outdoor areas and corridors to the classroom. The classroom is the school's core arena. An arena of relationships, a venue for teaching and learning, an arena of success and loss, a venue for friendship, but also contradictions, a venue for order and leadership and responsibility, also an arena of trust and doubt, an arena for safety but also frustration, a venue for freedom and duty, an arena for order but also disorder – sometimes chaos – a venue for positioning, success and failure, a venue for communication, negotiation, agreement and disagreement. Some of these properties fall under my observations, however far from all. What I observed was classrooms with tables and chairs, cabinets and shelves, blackboard, teacher's table or arena, walls with maps, flags, photos, slogans and rules of order, sometimes words of wisdom about life, about work, about duty, etc. Everything seemed recognizable, what we may call "ordinary" and "normal". Most often pupils were sitting paired in three or four rows, and at a number of 12-15 and maximum 30 in the room, however

usually fewer than 30. Twice I was in classrooms where students sat in groups of four around tables. Roughly spoken the classrooms look like those for example in Poland, the Czech Republic, Slovakia and Norway if we ignore so-called new, open schools.

The physical classrooms signaled order and discipline, but the rooms were not *particularly* inspired as an arena for energy and stimulated learning, however not particularly uninspired. In some rooms the walls were decorated with drawings, colors, encouraging texts and /or texts with the appeal and encouragement for learning and knowledge. The teachers positioned themselves clearly; the overall relation between teacher and students were hierarchical, but not rigidly authoritarian, and on the lowest steps the teachers appearance was slowly different from those on higher steps On the lowest steps – four observations in different classes and groups – the teachers were inspiring, inclusive and warm, and "constructed" the atmosphere of "liking me and liking you". In the higher settings (12-13 and 17-18 years old – total six observations – the teachers were clear and formal, and signaled something like "you are here to learn". However some teachers also showed natural presence and interest of the individual student. Teaching methods at the upper steps seemed rehearsed, i.e. procedures of standards like stimulus – response, input and output, and use of standard methods and (often) use of multiple choice tasks. There was, so to say, no room for freedom, open reflection and individual initiative. At the lowest grades (suggested above) the situation was different. The teachers at steps 1 – 3 invited the pupils to different dynamic and inspiring activities, i.e. movement, singing, forms of playing, language stimulation – typical multi-sensory learning. All in all I experienced at these lowest grades an atmosphere of freedom, openness, friendliness and closeness, an atmosphere of confidence (cf. *to be nice to the others*, Faltova 2008, p. 94). About this last – closeness and confidence – I made interesting observations. In a few cases the teacher "touched" the pupil(s) very carefully, a warm, friendly gesticulation, for example at the pupils´ desk or standing at the blackboard. The female teacher's image in relation to the pupils I interpret like: "I am here for you." This form of image produces *energy* for learning. When trust is an important prerequisite for safety and wellbeing in general, we can also go the other way and say that wellbeing creates an atmosphere of trust between participants in the community.

From an overall impression of the students – teacher relations, activities and atmosphere of the classrooms, we may ask which superior *values* that were in front during the ordinary lessons and activities? At the most general level schools signal that students come to learn, and that teachers were the most responsible for what goes on about learning. The teacher was a conductor in a hierarchical order. At the lowest grades the teacher constructed – in my interpretation – clearly "we" atmosphere, i.e. the classroom and the school as such presented itself in a positive image, perhaps

an image the students expected and a picture of confidence. At the higher steps the "tone" and the atmosphere between teacher(s) and students was more neutral, however not indifferent, habitual (routine), but not "wrong" or visible demotivating. The atmosphere was, from my point of view, not particularly motivating, but I did not observe that the students had special negative attitudes. Students seemed obedient, and it may be a sign of confidence, however a sign of tediousness, too? I experienced otherwise during short breaks that both younger and older students were free to take contact with us visitors, "observers". Attitudes like those I interpret as signs of general openness and confidence.

Now, as a brief summing up of my findings – however made out of thin observations – I will speak about the classroom atmosphere similar to what Coleman calls "closure networks", "those networks with sufficient ties of a sufficient intensity between a certain number of people so that no one can escape the notice of others – as sources of social capital. Closure networks are powerful because close contact among individuals facilitates monitoring and enforcement of common expectations and norms through the sanctions and rewards."[7] The closure networks include – in my opinion – both the individual and the collective level of *reciprocity*, one of the four-fold typology of social capital (cf. note 5, p. 185). Reciprocity in this setting one can compare to the concept "thick trust", referring to trust with a short radius, encompassing only others who are close to the truster (for example pupils – teacher), sociologically speaking, (…).[8] Reciprocity is about *reciprocation*, "reciprocity is a way to establish a personal relation and not only to obtain something I need and cannot procure myself – although that motivation is also present – because things do not circulate independently from people" (Mauss 1967).[9] This is my impression from the classrooms in schools in Kaliningrad, that reciprocity is the proper concept to describe on a general level the classroom atmosphere. One can vary the atmosphere and add; not intimate atmosphere of reciprocity, however teacher – pupils relationships were partly embedded in warm and friendly atmosphere, partly – in gymnasium and lyceum – embedded in relationships of neutral, however safe atmosphere.[10] On a continuum running from bad to superior learning conditions, one may vote for; "not superior and not bad, but safe", and, I suggest, a reasonable trustful atmosphere between teacher and pupils/students.

What the article communicates about reciprocity and about trust between teacher(s) and students is valid for the relationships between students, too. That means, I observed no social imbalance, no quarrel, no self-centered, unwarranted behavior and inappropriate competition, no bully around, no

---

[7] Referred in Torche and Valenzuela 2011, p. 183.
[8] Referred in Torche and Valenzuela 2011, p.185-6.
[9] Referred in Torche and Valenzuela 2011, p. 188.
[10] Atmosphere described here reminds me about my talk with the Principal of the school KVN, referred to in the paragraph "Background".

tyrannical, top-down utterances, and the like. All in all there were a visible lively, social balanced, mutual responsible atmosphere in the lower classes while the atmosphere in the higher classes was calm, balanced and seemingly responsible. Out of these characterizations one may suggest there was an atmosphere, not of distrust, but an atmosphere of trust partly mixed with joy and energy in the lower classes and in the higher classes an atmosphere seemingly mixed with average of energy and individual involvement and interest at a medium or passive level.

The school administrators informed us sometimes especially on attitudes in general towards the use of ICT in teaching, and we visited classes at both low classes and higher classes using ICT as a tool to play or for simple tasks, and for solving mature problems, too. Examples of equipment were film, audio tape, computer, whiteboard ,multimedia projector, digital camera, printer, visual help such as Power Point, and software, for example operating system "Windows OC", text editor and the editor of raster graphics. The overall impression was that both administrators and teachers spoke positively about the use of ICT in teaching, and the schools worked that all students should have access to computers and the skills to use IT. Sometimes I tried, with weak, critical voice, about the use of ICT in teaching, but it was hard to receive answers. Maybe the teachers did not like to talk about the topic at all, or language difficulties made it difficult to make serious conversation. My observation is that neither school administrators nor teachers (and students) expressed personal view and critical reflection concerning the use (misuse) of ICT in teaching (cf. Katz, ETS research). General attitudes can be interpreted in all over point of view like this: Everyone had generally positive attitudes and beliefs of ICT as a useful tool for school and for the future.

Final comments

Trust and an universal ethic refers to systems of norms and values about being trustful and trustworthy. Further these systems include an overall social dimension of *reciprocity*. In a social context trust and reciprocity constitute, one says, a superior atmosphere of harmony, work ethic and work motivation, these are valid in the school context, too. At the analytical level, reciprocity and trust – these relations – refer to individual experiences, neither easy to observe nor easy to catch anyhow. My observations in schools in Kaliningrad do not prove with high reliability trust nor distrust between teacher(s) and students and between students – students. Nevertheless, I suggest, as a result of my observations, that the presence of trust, both at meso and micro level, was easy to see. That means; discipline, keeping one´s issues under control, clear organization of learning procedures, clear leadership combined with calm and safe atmosphere, however now and then lively and amusing, too, all these characteristics appear to qualify for trust, at least at a certain level. And moreover I proved (for myself) that giving the concept *reciprocity* a focal point of view in the

observations, I highlighted reciprocity as a relevant tool for speaking about trust. Reciprocity integrates the individual and the collective levels in observation and analysis, looking at the same time for the social structure between teacher and students, and the structure between the students. My experiences from observations in Kaliningrad have an encouraging effect upon looking forward to next observation procedures in schools in Kashmir, March – April 2014.

References

Czerepaniak-Walczak, M. & E. Perzycka. 2012. "Quality of the Exchange Program." In the Application form*: Seventh Framework Program. Marie Curie,* SIC, No. 318759, Part B, p. 4 – 5.

Czerepaniak-Walczak, M. "Educational contexts of trust: trust towards education, trust in education, education for trust." In: Czerepaniak-Walczak, M. & E. Perzycka (eds.) 2013. *Trust in Global Perspective* (45 – 57). Szczecin.

Føllesdal, D., L. Walløe & I. Elster 1990. *Argumentasjonsteori, språk og vitenskapsfilosofi*. Oslo. Universitetsforlaget.

Halvorsen, L. J. 2003. *The phenomenon and conception of trust,* 19/2003. Volda University/ College. http://www.hivolda.no/attachments/site/group15/notat19_03.pdf

Katz, I. R. 2006. *ETS research finds college students fall short in demonstrating ICT literacy*. National Policy Council. http://crln.acrl.org/content/68/1/35.full.pdf

Krajewska, J. "Trust as a primary factor in the strategy of the contemporary school functioning as a learning organization." In: Czerepaniak-Walczak, M. & E. Perzycka (eds.) 2013: *Trust in Global Perspective* (233 – 242). Szczecin.

Nilsen, H. & H. Bueie. "The fifth basic skill ICT as a learning resource." *The New Educational Review* 2007, Vol. 13, No. 3 – 4 (139 - 152).

Nilsen, H. & H. Foltova. "Assumptions for better learning in the classroom; 1st. International school, Czech Republic." *The New Educational Review* 2008, Vol. 16, No. 3 – 4 (89 – 99). Nilsen, H. "The Face of Trust? What we talk about, when we talk about trust? A background." In: Czerepaniak-Walczak, M. & E. Perzycka (eds.) 2013*: Trust in Global Perspective* (35 - 42). Szczecin.

Nunan, D. 1992. *Research Methods in Language Learning*. Cambridge (US). Language Teaching Library.

Patel, R. & B. Davidson. 1995. *Forskningsmetodikkens grunnlag*. Oslo. Universitetsforlaget.

Perzycka, E. "Trust in the Technology and Digital Media in the Context of Pre-theoretical Understanding of *Self-education in the Network*." In: Czerepaniak-Walczak, M. & E. Perzycka (eds.) 2013: *Trust in Global Perspective* (193 - 203). Szczecin.

Stelter, B. "Trust as a Necessary Factor in Teacher – Student Interaction." In: Czerepaniak-Walczak, M. & E. Perzycka (eds.) 2013: *Trust in Global Perspective* (179 - 190). Szczecin.

Torche, F. & E. Valenzuela. 2011. "Trust and reciprocity: A theoretical distinction of the sources of social capital." *European journal of Social Theory* 14 (2), 181 – 198). SAGE. http://est.sagepub.com/content/14/2/181.short

Zembala, A. "Trust and School Environment/Pedagogical Space." In: Czerepaniak-Walczak, M. & E. Perzycka (eds.) 2013: *Trust in Global Perspective* (129 - 138). Szczecin.

Additional reading. The articles refers to classroom activities and examples of cooperation, closeness, responsibility, reciprocity, respect – all in all how to build trust.

Nilsen, H. "A w ten ósmy dzien podrózy … dzialac, dóswiadczac i uczyc sie." In: Perzycka, E. (eds.) 2006: *NAUCZYCIEL JUTRA* (139 – 156). Adam Marszalek.

Nilsen, H. "Nilsen in conversation with the writer, pedagogue and thinker Inge Eidsvåg. The school, the teacher and the school: Challenges in the 21st Century." *The New Educational Review* 2007, Vol. 13, No. 3 – 4 (283 – 280).

Janusz Kowarski, Complex of Vocational Schools in Koło

Elżbieta Perzycka, University of Szczecin

Stimulators and inhibitors of ICT implementation and use by teachers holding managerial positions in the vocational school - research report

Abstract

In the context of the critical theory of technology by A. Feenberg (1991, 2010) and S. Cooper (2011), this paper draws attention to the size of the activities relating to the implementation and use of ICT in vocational school by teachers holding managerial positions. This is the portion of an extensive case study research, which was conducted in the secondary vocational school in Poland. Three research objectives were completed: **cognitive** - identification and description of stimulators and inhibitors of ICT implementation and use by teachers in the vocational school; **practical** – establishment of directives for local authorities, school headmasters, teachers and workers in the field of optimization of activities related to the conditions for ICT implementation and use; **theoretical** – development of a model of the implementation and use of information and communication technologies in the vocational school.

Key words: stimulators, inhibitors, ICT, coda, arc of work.

Introduction

The procedure for the research preparation, its performance and the results obtained may relate to any workplace, as they relate to the following areas: social interaction, technology management and organization of the company.

The theoretical part was based on an integrated management style, which is comprised of: a) management through quality (Deming, 2000; Peters, Waterman, 1984; Osborne. 2008), b) management through information and communication technologies (Barney, Griffin, 1992) c) management through innovation (Juran, 1967). On the one hand, implementation and use of ICT in the school gives satisfaction to employees that can work with modern equipment, but on the other hand, this situation causes the escalation of fear, anxiety, and concern in relation to what is new and unknown. Tension arising from the emotions of employees very often refers to those who feel

threatened by colleagues or employers by forcing them to implement and use new technologies. How this situation can be solved? The research aimed to answer this and others questions. Schools, just like other institutions, restructure their business and strengthen their development in building reference models, which are then verified in practice (Szkudlarek, 2010). The conservative mainstream of education criticism aims to make the school an efficient instrument of cultural transformation, so it becomes a place that provides young people with a significant amount of knowledge important for the functioning in the world of developed technical civilization. Process that determines the successful management of issues related to the implementation and use of new technologies is a *change*, or rather skillful *management of change*, which is an important context for the many activities of employees who manage the school.

Methodological basis of research

The research was qualitative research and focused on the people in a particular institution and/or social organization. The research included biographical method (Schütze, 1983) and the techniques covered narrative interview, document analysis and participant observation.

The research included meaning-oriented analysis i.e. coding, condensations of the meaning, interpretations of the meaning, language-oriented analysis and narrative analysis.

Narrative interview consisted of a main part - the interview and the analytical part. Translation of the interview was followed by: a) extraction of the narrative, descriptive and argumentative part in the text,; b) determination of the proportion and the relationship between these parts and qualitative assessment by counting the number of markers that describe the number of specific expression - (stimulators and inhibitors); c) structural description of the narrative interview was to determine the dominant events, style of presentation and logic of continuity of topics and relationships between them - codification, i.e. the assignment of factors, stimulators and inhibitors to the category (field of study); d) analysis involving the separation of topics, categories, which are the common denominator of other interviews, and determination of a separate category of topics that are specific to a single narration, including a reaction to change by C. Carnall; e) commentary specifying the relationship of the individual to the described facts and experiences - analysis in the context of fields of study.

Results of research analysis show two types of *trajectories*. The first is the trajectory, which presents and describes in detail and in chronological order step-by-step development of certain events relating to the part or the whole life of the narrator. The second is the *diagram of trajectory*, which is a kind of projection of the possible development of events including components for the improvement or change of situation for the better. *The result is something that can be usefully called*

*the **diagram of trajectory***, or action plan for the improvement of the current situation or phenomenon that is to be improved in the near future under the influence of planned activities.

As a consequence, the *diagram of trajectory* leads to the occurrence of the ***arc of work***. In the case of this research, the **arc of work** is the task associated with the change of the inhibitors or stimulators or their liquidation in the context of the field of study to which they are assigned. However, before implementation of improvement processes, it is necessary to make **diagnosis** (Srauss, Fagerhaugh, Suczek, Wiener). A significant phrase occurring in the description and analysis of the trajectory is **coda**. The next step was to establish the relationship between the ***optimum conditions*** for the implementation and use of information and communication technologies in secondary vocational school and ***stimulators*** having their own characteristics and originating in a particular field of study. $O_w = f(s_1....s_n)$, where O_w means the optimum conditions for the implementation and use of ICT. In contrast, signs $(s_1....s_n)$ are factors (pacemakers), which affect the optimization of conditions for the implementation and use of ICT in vocational school.

Optimum conditions for the implementation and use of ICT are directly proportional to the number of stimulators and inversely proportional to the number of inhibitors.

Key finding is ***optimization***, which is defined as the determination of the best and the most favorable solution.

Characteristics of the research group

According to the Act on the Education System (1991), a managerial position at school is held by the nominated or qualified teacher, who was appointed to hold the position of a headmaster. School may also be managed by the person who is not a teacher. A headmaster of the vocational school covered by the research has been appointed in a competition for five years. The main tasks of the school headmaster that were the basis for the research on inhibitors and stimulators include: 1) carrying out pedagogical supervision, subject to Art. 36 paragraph 2; 2) caring for the students and creating conditions for the harmonious psychophysical development through pro-health activities; 3) implementing resolutions of the school council and the school board adopted under their competences; 4) managing funds set out in the financial plan of the school and accepted by the school council and taking responsibility for their proper use, 5) carrying out tasks related to the safety of students and teachers during organized classes and activities; 6) cooperating with universities and training centers for teachers in the organization of teaching practice; 7) organizing and conducting tests and examinations in the school referred to in Art. 9 paragraph 1; 8) creating conditions for action of e.g. volunteers, associations and other organizations, in particular scouting

organizations, the statutory purpose of which is educational activity or expansion and enhancement of forms of teaching, education and care. In addition to the above functions within the school, the role of a headmaster is to represent the school. Being a headmaster of the vocational secondary school is special because, apart from preparation for life, shaping the attitudes of students and developing their passion, they must also prepare students to the profession and the labor market as future employees. This important role forces a headmaster of the vocational school to create the conditions for the professional education of students, which becomes a very difficult task to be implemented in the situations, when the financial condition of local government units that govern secondary vocational schools is not at the best level. Table 1 shows the microstructure of the propositional content polarized into the groups of stimulators and inhibitors.

Tab.1. Microstructure of propositional content selected from the narrative interview of the school headmaster

Stimulators	Inhibitors
Participation in congresses and conferences, awareness of information society development, career progression, the position of a headmaster - new school - a vision of the digital school management with the use of ICT, facilitation of Teachers Councils, education - postgraduate studies in computer science applications, the desire of one's own development - following the development of new technologies, passions, amateur radio - electronics – computer science, contest applications, participation in many projects, opening IT faculty in the Complex of Technical Schools in Koło and Profiled High School of Information Management (LPZI), post-secondary school for IT technicians, the pace of development of the network and equipment in ICT in the Complex of Technical Schools in Koło , the desire to promote the school by applying new technologies in the environment, satisfaction of working in a modern school for staff and teachers. Fighting for students (school registration), promotion of school.	No time to increase the knowledge in the position of a school headmaster, the lack of good access to the Internet at home - village, lessons taught by the headmaster, the lack of funds to improve information systems at school, the lack of policy of the Local Government Units in the development of ICT in schools, the lack of a common information environment for all schools in the Koło poviat, liquidation of mobile phones in schools (cost savings?), difficulty in obtaining approval for a digital school log, slow reactions of ProgMan company to proposals for changes in the e-log. Low awareness of local government officers and councilors of the need for implementation and use of information and communication technologies in schools.

Source: own study

Stimulators and inhibitors of ICT implementation and use in the workplace of the secondary vocational school headmaster

In order to diagnose the inhibitors and stimulators, the following documents were analyzed: 1) work plan for the school year 2012/13; 2) pedagogical supervision plan for 2013; 3) a letter to the Poviat Starosty in Koło for the implementation of digital school log in the school year 2012/13 in the Complex of Technical Schools in Koło; 4) report of pedagogical supervision of headmaster for the first semester 2012/2013; 5) a letter to the Board of the Poviat in Koło to increase the budget of the Complex of Technical Schools for monitoring; 6) a schedule for the matriculation examination in May 2013 - a written part; 7) school schedule for the oral matriculation examinations - spring session 2013-05-20; 8) farewell speech for classes of the 2 and 3 year cycle of vocational education of June 15, 2012; 9) plan of teachers' duties for 2012/2013; 10) a list of performance allowances for teachers for the first half of 2012/13. The research also included observations of the headmaster and carrying out of interviews.

Based on the analysis of documents, Table 2 presents the specific microstructure of propositional content selected from the above mentioned documents.

Tab.2. Microstructure of propositional content selected from the studied documents of the school headmaster

Stimulators	Inhibitors
A plan of installing communicators at several points in the school, writing articles for scientific conferences, installing wireless internet using WCDMA - 900 MHz system, installing connection with fixed IP - site monitoring, controlling the use of information and communication technologies by teachers, filling school with digital technologies - management, summary of the "Halo Kosmos" project, expanding the network infrastructure with fiber-optics, improving information - lists of dates of matriculation examination.	Writing many letters in the same case, frequent changes in teachers' duties, too long boot of the WORD system.
coda b = (**a** ∩ x) = (**1** ∩ 1) = **1**	

Source: own study

Stimulators and inhibitors identified during the research (interview, document analysis, observation), underwent the conjunction of factors derived from research techniques by Boolean algebra - Tab. 3.

Tab.3. Table of truth - triangulation for stimulators and inhibitors of selected by the research techniques.

No.	Equation of truth	a	b	c
P_T	$(a \cap b \cap c)$ (Conjunction)	1 (constants) result of narrative interview	1	1

Source: own study

$$P_T = (a \cap b \cap c) = (1 \cap 1 \cap 1) = 1$$

$$P_T = truth$$

The reactions of secondary vocational school headmaster have been compiled in Tab. 4 in relation to stimulators and inhibitors referred to the reactions by. C.Carnall.

Tab.4. Reactions of school headmaster in the process of implementation and application of information and communication technology

Reaction by C.Carnall	Refusal	Defense	Rejection	Adaptation	Internalization	Other
	-	-	-	YES	YES	YES

Source: own study

Observation showed that there is a mismatch between the declared opinion of staff concerning the reaction to the implemented and used ICT and their reaction during the observation. The observed phenomenon highlights the need for control and surveillance of staff by supervisors.

While searching for solutions and new applications involving ICT in order to improve the organization of school work, two factors were taken into consideration. The first is the insensitivity (habituation) to external stimuli; in the present case these are distortions arising from the relationship with the stakeholders, teachers, students and parents in the process of working with information and communication technologies. In headmaster's opinion for many years they have immunized to repeated stimuli in the workplace such as: frequent movement of teachers, students or parents, and noise. Moreover, external stimuli hinder the performance of work. The second is the satisfaction with the performance of professional tasks understood as an increase in self-esteem - satisfaction with the implemented innovative solutions involving information and communication technology (habitus). A headmaster meets employees in solving technical problems and does not leave them without help. In an interview there was a sentence - the inevitability of the implementation of

information and communication technologies - sign of the times and the need to keep up with the development of new technologies. Condition for the effective implementation and use of information and communication technologies by staff of secondary vocational schools is the requirement to create the circumstances for stimulators to be in advantage over inhibitors.

Transformation of inhibitor into stimulator - the use of arc of work

The consequence of finding inhibitors is launching an improvement process by applying arcs of work with the intention of eliminating inhibitors or changing them into the new stimulators. The optimal trajectory of the implementation and use of information and communication technologies can be expressed by the formula $To = \Sigma (\text{łp1}+..... + \text{łpn})$, where To is the trajectory of optimum conditions of implemented and used information and communication technologies, and $\Sigma (\text{łp1}+..... + \text{łpn})$ is the sum of the arcs of work to be done on the inhibitors to eliminate, reduce or change them into stimulators. Arcs of work are actions of a school headmaster concerning the design of activities based on the diagnosis, evaluation, process of change and improvement. Table 1 presents inhibitors that change into stimulators as a result of the arcs of work.

Table 4. Sample arcs of work for the disclosed inhibitors

No.	Inhibitors	Arc of work	New stimulators
1.	A large amount of equipment, saturation, the responsibility for keeping it fully operational	Making employees aware of: (1) the amount of existing equipment as the school property - the amount of equipment testifies about school development, (2) access to information and communication technologies in schools, and (3) access to sources of information and data. These opportunities occur, when information and communication technologies in school are diversified. Hardware can always break. Responsibility is a very good feature of the employee as it is the evidence of serious, deliberate performance of professional duties.	- Employee satisfaction with the school having a large amount of equipment. The observation and appreciation by a headmaster of employee engagement in the process of monitoring and control of the proper functioning of information and communication technologies in schools.
2.	Large maintenance costs of ICT equipment	- Replacement of equipment for more reliable and energy-efficient	- Using reliable equipment

No.			
			- Energy-efficient equipment - Safety of work
3.	No power, no Internet	- Strategic stations outside of serves to be equipped with UPS	- Habit of naming and saving documents at the beginning of work makes it possible to avoid surprises of losing their contents.
4.	No habit of saving data while working on a computer	- Instruction with exercises based on naming a document created, which when closing a document generates a window with the request: Save changes to doc? -	- Satisfaction with writing texts without mistakes
5.	The pressure of time to execute documents	- Avoiding creation of documents in a hurry	- Stress-free organization of working time
6.	Adjustments and amendments introduced by the school headmaster in the documentation already created	- More precision in defining the content of documents created in order to avoid amendments	- Clear, precise tasks - Time saving
7.	The large number and the amount of documentation on the desk, which prevents quick access to the documents - (irritability and nervousness)	- Recommendation of improving working conditions by the Health and Safety inspector	- Stress-free working conditions
8.	A large number of icons on the computer desktop (a waste of time while searching, nervousness)	- Recommendation of archiving digital documents - folders	- Using archived documents
9.	- Fatigue when creating documents (sight)	- Breaks –Health and Safety guidelines	- Paying attention to health in the workplace

Source: own study

Employees of secondary vocational school, who hold official and managerial positions, firstly show stimulators related to the organization of work, and then stimulators relevant to the predisposition of workers and those arising from the school management. One of the conditions for the efficient

implementation of ICT is to avoid stressful situations (inhibitors) by a headmaster by striving to create the circumstances, in which work results are satisfying for the staff. This is possible through the creation of optimal conditions for the use of ICT in the workplace, including: 1) meeting the legislative requirements related to the implementation and use of ICT; 2) implementing a vision of school work, which takes into account innovative activities using ICT; 3) optimizing measures to improve the conditions for the work organization of staff and the quality of school work.

Summary

Based on the analysis of the obtained results, it is proposed to introduce the following groups of changes in the process of ICT implementation and use by employees managing vocational school:

I - the group of stimulators and inhibitors resulting from the **imposed forms of work** (top-down implemented solutions) by the school authorities - (issuing certificates on guilloche, keeping digital school log, the need for reporting, making presentations, statements for the Teachers Council, etc.,

II - the group of stimulators and inhibitors resulting from the **participation in activities,** where apply standards of using ICT - (EU projects, digital applications, digital protocol log of the Teachers Council, e - learning, educational information system (SIO), correspondence, etc.),

III - the group of stimulators and inhibitors resulting from the **own initiative** of employees, which aims to improve the work at the given position,

IV - the group of stimulators and inhibitors resulting from the **own interests** in the use of ICT - passion,

V - the group of stimulators and inhibitors resulting from the use of ICT as a **source of relaxation and entertainment at work** - (listening to the radio, music, viewing photos from trips, school events and private family celebrations),

VI - the group of stimulators and inhibitors characterized by **immobilization** in relation to information and communication technologies.

The importance of stimulators and inhibitors of ICT implementation and use in situations when they occur in many areas of school functioning, including management, become a significant focus of attention of pedagogical supervision and school headmaster. The efficiency of the use of ICT by school employees holding managerial positions has an impact both on the implementation of the innovation, as well as on the quality of school operation.

References

Barney, J. Griffin R. W. (1992) The Management of organizations: Strategy, Structure and Behavior. Houghton Mifflin Co. New York, NY.

Carnall. C. (2007) Managing change in organizations, Warwick business school The University of Warwick, FT Pearson education, England.

Cooper, S. (2003) Techno culture and Critical Theory. In the service of the machine? Taylor & Francis e-Library, London and Now York, Taylor & Francis Group.

Deming, W.E. (2000). The New Economics for Industry, Government, Education (2nd ed.). MIT Press.

Feenberg, A,. (2010) Ten paradoxes of Technology. TechNet 14:1. Winter

Feenberg, A. (1991) Critical Theory of Technology. Oxford University Press, New York, NY.

Juran, J. (1967) The QC Circle Phenomenon", Industrial Quality Control. Buffalo, New York: Society of Quality Control Engineers.

Osborne. Ch. (2008) Balancing priorities, [in:] Osborne Ch., Leadership. Essential managers, DK, London, New York, Munich, Melbourne, Delhi.

Peters, T.J., Waterman, R.H. (1984) In Search of Excellence. Lessons from America's Best-Run Companies. New-York, Harper and Row.

Schütze, F. (1983) Biographieforschung und narratives interview, Verlag, neue praxis 3.

Szkudlarek, T. (2010) Krytyka oświaty a pedagogika krytyczna. [in:] Wyzwania pedagogiki krytycznej i antypedagogiki (ed.) T. Szkudlarek, B. Śliwerski, Impuls, Kraków.

Polish Act on the Education System, Art. 36 paragraphs 1 and 2 of 7th September 1991 about the education system (Journal of Laws of 2004. No. 256, item 2572, as amended).

Oversikt utgivelser Fredrikke

Hefter kan bestilles hos Høgskolen i Nesna, 8700 Nesna, telefon 75 05 78 00

Nr.	Tittel/forfatter/utgitt	Pris
2015/1	Rapport fra pilotprosjektet «Magedans for store damer» : - en kvalitativ studie om kropp og bevegelse / Trude Jægtvik	
2014/4	Vår vei til bachelor i sykepleie - danning og utdanning av sykepleiere på Ytre Helgeland : rapport om prosjektet / Tone A. Lund	
2014/3	Fredrikke Tønder Olsen - en foregangskvinne fra øya Løkta på Helgeland / Dagrunn Grønbech	25,-
2014/2	Undervisningsopplegg med oppmerksomhet mot egen og andres kropper. Magedans ved Videreutdanning rettet inn mot seksualitet, seksuelle overgrep og misbruk. Rapport om prosjektet / Trude Jægtvik	45,-
2014/1	Leik og språkleik i klasserommet : rapport Prosjekt Språkjungelen / Anne-Lise Wie	80,-
2013/2	Lese og skrive og regne er gøy- / Anne-Lise Wie (red.). - 2. utg	160,-
2013/1	"Den som steller vogga, styrer landet." Klar tale med uklart innhold : analyse av debatten i Stortingets familie- og kulturkomité om St.meld. nr. 41(2008-2009) "Kvalitet i barnehagen" / Hilde Gabrielsen	45,-
2012/1	Estetiske aktiviteter og matematikkundervisning / Bente Solbakken og Bente Solbakken og	100,-
2011/3	Evaluering av overtakelsespraksis i førskolelærerutdanningen / Signe Agnete Hansen og Solveig Methi	130,-
2011/2	Om styrking av samisk språk og identitet med vekt på Helgeland og Västerbotten : rapport fra seminar i Hattfjelldal 26.-27.januar 2011 / Snorre M. Sivertsen (red.)	80,-
2011/1	Education across borders : Towards e-Didactics of International Module in Socio-cultural Aspects of ICT / Beata Godejord, Elzbieta Perzycka	120,-
2010/1	Om styrking av samisk språk og identitet med vekt på Helgeland og Västerbotten : rapport fra seminar i Hattfjelldal 27.-28.januar 2010 / Hanne M. Reistad (red.)	145,-
2009/8	IT-studier, tilstrømming og våre studenter : hovedrapport for FoU-prosjektet IT-studiene og utdanningsmarkedet / Geir Borkvik, Laila J. Matberg	110,-
2009/7	Læringsstøttende bruk av Moodle / Elsa Løfsnæs og Beata Godejord (red.)	80,-
2009/6	Friluftsliv blant barn og unge på Helgeland : en kvantitativ undersøkelse ; rapport 1	110,-
2009/5	Deltids allmennlærerutdanning : opplæringsboka som verktøy i praksisfeltet (5. utg.) / Patrick Murphy, Morten Mediå (rev.)	65,-
2009/4	International view on: Teacher Education, Educational Technology, Motivation//Divergent Thinking//Readiness, Special Educational needs / Anna Watola & Harald Nilsen (red.)	140,-
2009/3	Utvikling av en praksisrettet lærerutdanning / Per Karl Amundsen	60,-
2009/2	Å være nyutdannet lærer, behovet for veiledning og organisering av veiledning i skolen / Per Karl Amundsen	45,-
2009/1	Morsmålslærere for minoritetsspråklige elever har ordet / Øyvind Jenssen (red.)	150,-
2008/9	Medienes makt og rolle : hva kan vi lære av miljødebatten i Norge? : foredrag ved forskningsdagene 26. september 2008 / Erik Bratland	40,-
2008/8	Sosialt utviklende og lærende prosesser i små og større læringsmiljøer / Jan Birger Johansen	70,-

2008/7	Evaluering av Lesefokus – leseopplæring ved Selfors barneskole / Anne-Lise Wie	115,-
2008/6	Grotting i skolen : tre grotter i "Ørnflåget" i Nesna – ferdsel, muligheter og faglig tilnærming / Pål Vinje	55,-
2008/5	Den mangelfulle konstruktivisme i studiet av miljøbevegelsen/ Erik Bratland	40,-
2008/4	Deltids allmennlærerutdanning : opplæringsboka som verktøy i praksisfeltet (4. utg.) / Patrick Murphy, Morten Mediå (rev.)	65,-
2008/3	The Teacher for the Knowledge Society : With contributors from Argentina, Norway, Poland and USA / Nilsen, Harald & Elzbieta Perzycka (red.)	145,-
2008/2	Evaluering av arbeidet mot mobbing i fådeltskolen : muligheter og hindringer i forbindelse med implementeringen av et nasjonalt program mot mobbing i fådelte skoler (kortversjon) / Oddbjørn Knutsen	60,-
2008/1	Sammen om formidling : Høgskolen i Bodø og Høgskolen i Nesna fellesarrangementer under Forskningsdagene 2007, Mo i Rana / Ander-Trøndsdal, Kerstin m.fl (red.)	75,-
2007/14	ICT in educational context : exchanging knowledge between Czech, Norway and Poland / Siemieniecka-Gogolin, Dorota og Harald Nilsen	85,-
2007/13	Kids and Internett/Barn og internett : A Polish-Norwegian look at the digital world of kids/et polsk-norsk blikk på barn og unges digitale hverdag / Beata Godejord og Per Arne Godejord (red.)	175,-
2007/12	Om styrking av samisk språk og identitet med vekt på Helgeland og Västerbotten : rapport fra seminar i Hattfjelldal 25.-26.januar 2007 / Marius Meisfjord Jøsevold (red.)	75,-
2007/11	Når språk møter språk : om forholdet mellom morsmål og målspråk / Øyvind Jenssen	120,-
2007/10	Samspill med fokus på barneperspektivet : studentoppgaver fra studiet Småbarnspedagogikk 2006-2007 / Bjørg Andås Ohnstad (red.)	125,-
2007/9	Matematikk på ungdomstrinnet : med IKT og Cabri som verktøy / Harald Nilsen og Henning Bueie	45,-
2007/8	Hva viser småbarnsforskningen om barns sosiale utvikling i tidlige leveår? : en kritisk gjennomgang av psykoanalytiske, læringspsykologiske og tilknytningsteoretiske forklaringer / Oddbjørn Knutsen	55,-
2007/7	Lese og skrive og regne er gøy... : arbeid med begynneropplæring i lærerutdanningene ved Høgskolen i Nesna 2003-2007 / Anne-Lise Wie (red.)	160,-
2007/6	Dannelsesperspektivet i lese- og skriveopplæringen og ansvarsfordeling som grunnlag for videre utviklingsperspektiver / Elsa Løfsnæs	220,-
2007/5	Language learning - additional learning - learning environment - teachers's role : classroom studies in Czech Republic and Poland / Harald Nilsen	70,-
2007/4	På den åttende dag : en reise i en lærers erfaringer / Harald Nilsen	35,-
2007/3	The School Reform – 2006: Knowledge Promotion : a critical view Den norske skolereformen – 2006: Kunnskapsløftet : et kritisk blikk / Harald Nilsen	30,-
2007/2	Holocaust : rapport fra et dramaforløp med utgangspunkt i Joshua Sobols' skuespill "Ghetto" / Tor Helge Allern	200,-
2007/1	Curriculumtenkning innen TIMSS : metodeutvikling	120,-

2006/11 Forskjellighet og likeverdighet : en dekonstruktiv lesning av kunnskap og utdanning i den fådelte skolen / Anita Berg-Olsen   50,-

2006/10 Små skoler i små samfunn : å studere utdanning og læring i kontekst / Anita Berg-Olsen   50,-

2006/9 Bruk av Moodle som læringssystem og et sosialt samspill mellom studenter / Tom Erik Nordfonn Holteng og Laila Matberg   40,-

2006/8 Veiledning av nyutdannede lærere på Helgeland : nyutdannede lærere – halvfabrikata eller ferdigvare? / Knut Knutsen   100,-

2006/7 Om styrking av samisk språk og identitet med vekt på Helgeland og Västerbotten : rapport fra seminar i Hattfjelldal 26.-27.januar 2006 / Knut Berntsen (red.)   60,-

2006/6 Psykologisk subdeprivasjon hos barn i tidlige leveår og konsekvenser for den semantiske og fonologiske språkutviklingen / Oddbjørn Knutsen   50,-

2006/5 Phonetics : A Practical Course (cd-rom) / Patrick Murphy   100,-

2006/4 Barn og unges digitale hverdag : lærere og lærerstudenter diskuterer overgrepsproblematikk i digitale medier / Per Arne Godejord (red.)   250,-

2006/3 News og BitTorrent som verktøy for formidling av overgrepsmateriale : studentrapporter fra Prosjekt Gå inn i din tid, 1.år bachelor informatikk, HiNe / Per Arne Godejord (red.)   40,-

2006/2 Learning Management System og foreleserens opplevelse av jobbytelse / Laila Johansen Matberg og Tom Erik Nordfonn Holteng   50,-

2006/1 Samspillets betydning for den semantiske og fonologiske språkutviklingen i tidlige leveår / Oddbjørn Knutsen   70,-

2005/11 IKT-basert norskundervisning i utlandet / Ove Bergersen (red.)   85,-

2005/10 Drama Nettverk : rapport fra samling på Nesna 20. – 23. oktober 2004 / Anne Meek m.fl. (red.)   95,-

2005/9 Slik vi ser det : hva synes studenter om sin egen IKT-kompetanse etter avsluttet allmennlærerutdanning? / Laila J. Matberg og Per Arne Godejord (red.)   35,-

2005/8 Praksiskvalitet i allmennlærerutdanningen : en studie av adopsjonspraksis ved Høgskolen i Nesna / Kåre Johnsen   90,-

2005/7 Argumenter for og erfaringer med fysisk aktivitet i skolen hver dag : en analyse av et utvalg relevant litteratur og prosjekter i og utenfor Nordland / Vidar Hammer Brattli og Kolbjørn Hansen   55,-

2005/6 Praksisorienter lærerutdanning : presentasjon og evaluering av Dalu 2003 (rapport 1 og 2) / Hallstein Hegerholm   145,-

2005/5 Kjønnsrelatert mobbing i skolen : utfordringar for lærarprofesjonen / Arna Meisfjord   30,-

2005/4 Deltids allmennlærerutdanning : opplæringsboka som verktøy i praksisfeltet (2.utg) / Patrick Murphy   45,-

2005/3 Om styrking av samisk språk og identitet med vekt på Helgeland og Västerbotten : rapport fra seminar i Hattfjelldal 27.-28.januar 2005 / Knut Berntsen (red.)   60,-

2005/2 Norsk som minoritetsspråk – i historisk- og læringsperspektiv / Harald Nilsen (red.)   75,-

2005/1 Mobbing i skolen : årsaker, forekomst og tiltak / Oddbjørn Knutsen   55,-

2004/13 IKT skaper både variasjon og læring / Per Arne Godejord   30,-

2004/12 Deltids allmennlærerutdanning : opplæringsboka som verktøy i praksisfeltet / Patrick Murphy   45,-

2004/11 www.fruktkurven.no : systemering och utveckling av ett webbaserat abbonemang system / Peter Ôstbergh   90,-

2004/10 Utvikling av studentenes reflekterte og praksisrelaterte læring / Elsa Løfsnæs   90,-

2004/9 Utvärdering av IT och lärkulturer : ett samarbetsprojekt mellan Umeå Universitet och Høgskolen 85,- i Nesna / Peter Östbergh, Laila Johansen og Peter Bergström

2004/8 Med sparsomme midler og uklare odds : oppfølgingstilbud for nyutdanna lærere / Harald Nilsen 100,- og Knut Knutsen

2004/7 Prosessen bak det å ta i bruk mappe som pedagogikk og vurderingsform / Tom Erik N. Holteng 60,- og Hallstein Hegerholm

2004/6 Utdanning og forskning innenfor samiske miljø på Helgeland og Västerbotten : rapport fra 70,- seminar i Hattfjelldal 22. – 23.januar 2004 / Knut Berntsen (red.)

2004/5 Behov for kompetanseheving innenfor reiselivsnæringa på Helgeland / Knut Berntsen og Ole 35,- Johan Ulriksen

2004/4 Evaluering av databasert undervisning av 3Bi ved Sandnessjøen videregående skole / Johannes 20,- Tveita

2004/3 Skolens verdigrunnlag i et rawlsiansk perspektiv / Ole Henrik Borchgrevink Hansen   25,-

2004/2 Multiplikasjon i småskole og på mellomtrinnet / Bente Solbakken (red.)   45,-

2004/1 Humanistisk eklektisme i spesialpedagogisk rådgivning / Oddbjørn Knutsen   45,-

2003/9 RedBull NonStop 2002 : utveckling av et web-baserat resultatrapporteringssystem för en 24 50,- timmars mountainbike tävling / Peter Östbergh

2003/8 ”Kan du tenke deg å jobbe for Høgskolen i Bodø” : om Høgskolen i Nesnas etablering av 25,- informatikkutdanning i Mo i Rana / Geir Borkvik

2003/7 Lærerutdannere i praksisfeltet : hospitering i barnehage og grunnskole / Oddbjørn Knutsen 55,- (red.)

2003/6 Teori og praksis i lærerutdanning / Hallstein Hegerholm   50,-

2003/5 Nye perspektiver på undervisning og læring : nødvendige forskende aksjoner med mål om 30,- bidrag av utvidet innhold i lærerutdanningen / Jan Birger Johansen

2003/4 ”Se tennene!” : barnetegning – en skatt og et slags spor / Nina Scott Frisch   35,-

2003/3 Responsgrupper : en studie av elevrespons og gruppekultur - norsk i 10.klasse våren 2003 Korgen 80,- sentralskole / Harald Nilsen

2003/2 Informasjonskompetanse i dokumentasjonsvitenskapelig perspektiv / Ingvill Dahl   40,-

2003/1 "Det handler om å lykkes i å omgås andre" : evalueringsrapport fra et utviklingsprosjekt om 80,- atferdsvansker, pedagogisk ledelse og sosial kompetanse i barnehager og skoler i Rana, Hemnes og Nesna kommuner i perioden 1999-2002 / Per Amundsen

2002/1 Augustins rolle i Albert Camus' Pesten / Ole Henrik Hansen   35,-

2001/6 Etniske minoritetsrettigheter og det liberale nøytralitetidealet / Ole Henrik Hansen   35,-

2001/4 Evaluering av prosjekt "Skolen som grendesentrum" / Anita Berg-Olsen og Oddbjørn Knutsen   70,-

2001/3 Fra Akropolis til Epidaurus / Tor-Helge Allern   40,-

2001/2 Hvordan organisere læreprosessen i høyere utdanning? / Erik Bratland   45,-

2001/1 Mjøs-utvalget og Høgskolen i Nesna : perspektiver og strategiske veivalg / Erik Bratland   30,-

2000/11 Implementering av LU98 / Knut Knutsen   120,-

2000/9 Moralsk ansvar, usikkerhet og fremtidige generasjoner / Kristian Skagen Ekeli   40,-

2000/8 Er dagens utdanningsforskning basert på behavioristisk tenkning? : drøfting av TIMSS' 90,- læreplanmodell fra et matematikkdidaktisk synspunkt / Eli Haug

2000/7 Sosiale bevegelser og modernisering : den kommunikative utfordring / Erik Bratland   50,-

2000/6 Fådeltskolen - "Mål og Mé" / Erling Gården og Gude Mathisen   60,-

2000/4 Bidrar media til en ironisk pseudo-offentlighet eller til en revitalisering av offentligheten? / Erik   40,-
Bratland

2000/3 FoU-virksomheten ved Høgskolen i Nesna : årsmelding 1998 / Hanne Davidsen, Tor Dybo og Tom   35,-
Klepaker

2000/2 Maleren Hans Johan Fredrik Berg / Ann Falahat og Svein Laumann   150,-

2000/1 TIMSS-undersøkelsen i et likestillingsperspektiv : refleksjoner rundt dagens utdanningssektor og   30,-
visjoner om fremtiden / Eli Haug.

1999/2 Kjønn og interesse for IT i videregående skole / Geir Borkvik og Bjørn Holstad   20,-

1999/1 Fortellingens mange muligheter : fortellingsdidaktikk med analyseeksempel / Inga Marie Haddal   70,-
Holten og Helge Ridderstrøm