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Multidisciplinary and teacher competence

Curriculum traditions and curriculum development in general teacher education in Norway

A national and local background

The rise of a double set of standards for regulation of curriculum content represent a new dimension in national curriculum administration policy in Norway. The established regulative genre has been a combination of general aims and a collection of guidelines for each school subject and timetable standards. In recent reforms this type of regulations are supplemented for example with regulations of percentages of total time used to interdisciplinary learning areas in the national syllabus for the unified basic school from 1997, or with formulation of objectives for cross-curricular competences as in the two last national syllabuses for teacher education from 1998 and 2003. In a recent policy proposal for compulsory basic schooling as well as post-compulsory upper secondary schooling and training a third variety of cross-disciplinary curriculum regulations is introduced: In each school subject learning objectives related to basic competence areas are to be formulated as a supplement to objectives related to the specific subject and its content knowledge (NOU 2003:16).

"Fleirfagleg" - a local curriculum development project

From 1999 and onwards a large part of the staff at the teacher education program for basic school teachers at "Høgskolen i Oslo" have been engaged in the curriculum program named "Fleirfagleg". Increased multi-disciplinary cooperation, focus on professional competences and integrated use of Information and Communication Technology, have been main areas in focus. From the start the program had the first of the four years of general teacher education as its basis, but during the last years the scope of the development work have been extended to include all compulsory subjects and the first two years. The intention is to extend the cooperation also to include the post-compulsory part and the last two years of the four year general teacher education program.

In the development of the project the term “flerfaglighet” - *multi-disciplinarity* - has become widely accepted in the teaching staff as catchword for extended cooperation across epistemic territories. The general concern in the project for extended cooperation beyond the separate fields of knowledge characteristic of a strong encyclopedic curriculum tradition, however, have parallels in recent curriculum related discussions and reforms in basic as well as in post-compulsory education. Therefore, the paper will present the development work in its relation to national traditions and preconditions as well as to cross-national perspectives on the challenges that new patterns in the growth of knowledge represent to our understanding of schooling, curriculum and pedagogy.

The strive for unified schooling in Norway and the strong encyclopedic curriculum code

The years around 1850 signal the beginning modernization of Norwegian education both on primary and secondary levels. In the systematization of general education from the 1850s and onwards, structural and institutional changes and shifts in curriculum codes are closely related. The breakdown and removal of *the latin wall* is a main theme in the interlinking of secondary general education with a gradually modernized primary education. It seems that no other western country have made a political break with the classical curriculum code as early and with the same scope as was done in Norway in the period from the 1860ies to the 1890ies.

Against the traditional classical curriculum of elite secondary schools and the pietist curriculum that dominated primary schools before the second part of 19 century, a modern encyclopedic civic curriculum code¹ in somewhat varying tempo have come to dominate in primary as in lower and upper secondary schooling and in the education of form teachers for basic schooling. The reform of primary schooling in 1860, followed by the first modern primary school reader - the state approved "Læsebog for Folkeskolen og Folkehjemmet" published in 1863, signal a move away from a curriculum wholly concerned with religious education and reading to an early form of encyclopedism, but still with religious education as a main subject as well as the main purpose of compulsory schooling. Two major reforms in secondary schooling in 1869 and -96 were more than anything else curriculum related

¹ The concept of curriculum codes developed by Ulf Lundgren (1979) and Tomas Englund (1986) can be used to characterize how the systematization of general education and modernization of curricula at different levels of education are interrelated. In the norwegian context pietism is used as a more accurate reference to the moral content of the limited schooling of the popular masses.

reforms. In 1869 instruction in classical languages was postponed to the three last years of lower secondary (middelskole) which also was divided in a classical track (latinlinje) and a modern track (engelsklinje) without latin. At the same time university preparatory studies were organised in two tracks, a classical and a modern science based curriculum without latin. The 1896 decision in The Storting established a gymnasium mainly with two modern tracks, a science based and another based on modern foreign languages, and with national and modern civic subjects - Norwegian language and literature, history, and two modern foreign languages - as a common core. This pattern lasted from the introduction of the modern science track around 1870 to the introduction of a more module based curriculum with standardized individual choices from the 1970ies.

A consequence of these reforms was that from the 1870ies it was possible in Norway to start ordinary university studies without having studied any classical language in secondary school. Another consequence of the common modern and national cultural orientation of primary and secondary levels, the 1896 reform provided an organized transfer from primary schools (folkeskole) to lower secondary (middelskole) and further to upper secondary (gymnas). At the end of same time co-education was made a criteria for state support to secondary schools. The partial abolition of a stratified school system before the end of 19th century was furthered in the inter-war period. The Storting in 1920 decided that secondary schools would have to base itself on the fullfilled seven year 'folkeskole' in order to qualify for state support. In the 30ies the decision from 1920 was consolidated through new legislation and curriculum reforms for primary schooling as well as for secondary general schooling – 'realskole' (years 15-16) and 'gymnas' (years 17-19).

From the mid 50ies to the mid 70ies the first form of a unified mass schooling was established. Through reforms in the 60s and 70s the Norwegian 9 year unified basic schooling was established with an encyclopedic core curriculum without tracking or other forms of organized differentiation. Reforms of the 1990ies extended the basic schooling to 10 years and the individual right to three years post-compulsory secondary education for all was established.

Carriers of encyclopedism: "*Allmenndannelse, allmennfag, allmennlærereren*"

Despite phases of attack, the encyclopedic knowledge organization have survived as key characteristic of modern schooling in Norway from the middle of the 19C and onward. A strong encyclopedic orientation is a common feature of primary education, secondary general education and teacher education in Norway. The modern encyclopedic orientation with its focus on a broad subject based organization of curriculum knowledge, have been modified by protestant and populist curriculum interest groups. This is expressed not least in the tradition for the inclusion of christian religious education and practical home- and artistbased fields of knowledge among the school subjects, and to a relatively weak classification between expert knowledge and lay knowledge in the selection and organization of curriculum knowledge (Jarning 1997). In these respects the Norwegian populist mode of encyclopedism differ from the strongly secular and science based encyclopedism in the French system of education (Holmes and McLean 1988).

'Allmenndannelse' and 'allmenndanning' are the keywords in Norwegian similar to "allgemeine bildung" in German and liberal and general education in English. Perhaps the foremost representative of this broad encyclopedic knowledge orientation is the model of the generalist classteacher - '*allmennlærereren*'. In this respect teacher education for basic schooling, historically as well as today, are among the core elements of the encyclopedic orientation in Norwegian education.

General teacher education in primary and lower secondary school

The historical division between academic and non-academic fields of knowledge have had and still have a strong influence on teacher education in Norway. General teachers for basic schooling were from the beginning of the 19th Century educated at teacher seminars, forerunners for the departments of education in the university college sector offering general teacher education today. The university sector on the other hand, had a monopoly on the education of subject teachers for secondary general education. During the last three decades the borders between the two sectors gradually have been less rigid, but the binary pattern still dominate. At the primary level, practically all teachers are general teachers. At the intermediate level general teachers might be somewhat less dominant, and at the lower secondary level, it is common to meet a teaching staff with a mixed educational background.

National curriculum guidelines have traditionally given fairly detailed instructions reflecting the strong encyclopedic curriculum code. Instructions have included syllabuses for compulsory and electable subjects and overall regulations concerning the organisation of the programme as a whole. From 1992 general teacher education has been a four-year programme. Since that time new national curriculum guidelines for general teacher education were introduced in 1998 and again in 2003.

“Fleirfagleg” - a development project

"Fleirfagleg" is a development project that started in 1999 at the Department of Education at the University College of Oslo. The project has included all first year students and staff in the four year general teacher education track. Increased multi-disciplinary cooperation, focus on professional competences and integrated use of Information and Communication Technology, have been main areas in focus. In addition the project also has included the necessary development of organizational and material framework needed to support the ambitions of change within the three areas in focus.

This part will give a short account over the target areas in the project and the form of knowledge organization developed to support the possibilities for students and staff to combine subject based curricula and mutual responsibility for cross-disciplinary themes. The main experiences and results from the project have been presented in a report in Norwegian (Michelet, Skjong, Waldermo 2002) and a second report is under publication (Michelet mfl. 2003). These reports are the main sources for the short overview and examples presented in this paper.

Multi-disciplinarity have meant a focus on cooperation across borders between subjects. A common interest in developing a curriculum program with less of the negative interference typical of encyclopedic parallel teaching of separate subjects, has been a major motivation behind the development work. For many participants “multi-disciplinary” have been a focus for gradual development of thematic cooperation in more modest forms than the earlier cooperation strategies which focused primarily on the introduction of inter-disciplinarity and weeks where project work would dominate.

- ***Multi-disciplinary cooperation*** in the project has included:

- 1.
2. Thematic co-ordination
3. Temporal organization and coordination
4. Joint teaching on selected themes
5. Coordination of themes in professional training
6. Sharing of examination tasks
7. Supplementary cross-disciplinary course literature

- Focus on *professional competences* has included:
 1. Case-work with video examples as well as with examples from the students own reports from in-school practice
 2. Extended exchange of tasks between subject teaching and periods with in-school practice
- Selective support from *Information and Communication Technology* have included
 1. Introduction of a Learning Management System (LMS)
 2. Use of digital video
 3. Use of databases with access from internet
 4. More systematically use of WWW as a information source

Three examples

The first shared theme: Starting at school

When a new cohort starts their first year of study the project have chosen the children starting their primary schooling and the first year teaching in mathematics and Norwegian as shared thematic framework for the teaching in mathematics, Norwegian and education. The theme work cover the period from the start of the first term at the end of August to the start of the first school practice period in the beginning of October. The necessary first introduction to course literature in the different subjects and to ICT and the LMS-system LUVIT are among the more general tasks that are integrated in the program for the period.

From the reports from the project it is evident that there is a broad support among the students for this thematic coordination in the introduction of the teacher program (73% in 2001).

Challenges are seen not least in relation to variations on the side of the staff in the ability to relate to themes and tasks in other subjects than their own. The case-work in this period has been introduced through video recordings from a class at stage two of primary school supplemented with interviews with the form teacher. The students have also had access to the video from the web-page of the project, to give possibility for a more systematic use of this teaching material.

With the video examples as a background the students have been presented cases and the students are in groups asked to produce small reports, publish them in the LMS-system,

comment individually on reports of some of the other groups, and finally to use the response they have got to reconsider and improve their own report. In their evaluation many of the students (56% in 2001) would prefer an integrated report to Norwegian and education rather than separate reports. In the open comments quite a few are also reluctant in regard to the substantive learning value of the case-work because they have yet had too little time to be familiar with theoretical fields relevant to the deliberations they are asked to do on basis of the examples in the video.

Sharing of examination tasks: Norsk & Pedagogikk

At the end of the first term the teachers in Norwegian and education have experimented with a shared examination. The students have a first day for preparation and then work the second day at an examination where they write a paper. The paper is graded separately and given the grade pass or fail by the teacher in each of the two subjects involved. Students who do not pass in both subjects will have to improve their paper at the beginning of the next term.

A recurrent challenge with this examination format is to find thematic areas of central common interest and to find examination genres that can handle the knowledge interests of the two subjects involved without creating it too obvious unbalanced. Among staff as well as among students the reports show that to develop realistic and legitimate forms of multi-disciplinarity in relation to examinations is a relatively complicated and long lasting learning process.

Cross-disciplinary course literature

A shared reading list have been developed to make it easier to give priority to course literature in thematic areas that are of interest to many subjects, but at the same time are difficult to give priority in the subject based syllabuses. The reading list of 1000 pages have been developed by moving pages of the syllabus framework from each of the main subjects. The content is decided by a cooperative curriculum group. But it is for each subject to decide how much of the common course literature that will be used in the teaching program and as part of the knowledge used in connection with written tasks or controlled in examinations.

Curriculum development and more open systems of knowledge production

The changes in the research system in post-industrial societies leading to the development of more open systems of knowledge production, is a guiding idea behind the Mode 2 thesis presented in "The New Production of Knowledge" (Gibbons et al. 1994). The core of the analysis is that a parallel expansion of potential knowledge producers due to the massification of higher education and of demand for specialist knowledge, have created the habitat for more open and distributed forms of knowledge production that have broken the monopoly of the research system. The perspective is extended to an analysis of the co-evolution of knowledge production and society in "Re-Thinking Science" (Nowotny et al. 2001). The relations between schooling and these deep changes in the knowledge situation in societies today are not a direct theme in the analyses of the Mode 2 thesis. Our idea is that it might be helpful for further work - with curriculum development as well as the more theoretical considerations - to make more direct use of work on the knowledge situation outside the classroom and the everyday world of schooling.

These changes affect simultaneously, the outer as well as the inner differentiation of organized knowledge.

"Mode 1 is discipline-based and carries a distinction between what is fundamental and what is applied; this implies an operational distinction between a theoretical core and other areas of knowledge such as the engineering sciences, where the theoretical insights are translated into applications.

By contrast, Mode 2 knowledge production is transdisciplinary. It is characterised by a constant flow back and forth between the fundamental and the applied, between the theoretical and the practical."

Gibbons et al, 1994, p. 19

In the terms of Basil Bernstein the Mode 2 thesis analyze the weakening classification of systems of knowledge production, in particular of science and other research institutions. In the last work of the research group these weakening of classifications are extended to cover also changes in the more general relations between science and society. The thesis is that "it has become increasingly difficult to establish a clear demarcation and differentiation between science and society" (Nowotny et al., 2001, p. 47).

In relation to education and in particular higher education, the Norwegian Knut Holtan Sørensen, who have his background in technology studies, have used the Mode 2 thesis as a framework for a distinction between old and new models of inter-disciplinarity (1995). The

old model of inter-disciplinarity represent a *generalist* approach. The polytechnical engineer and 'allmennlæreren', the general form teacher are two professional models Sørensen uses to exemplify this generalist model of inter-disciplinarity, or in a way models of inter-disciplinarity that presupposes and supplements a Mode 1 discipline-based organization of knowledge production as normal science. The *poly-valent specialist* are among the names Sørensen come up with to characterize new Mode 2 models of inter-disciplinarity. An important difference here between the old and the new models is that the old inter-disciplinarity represent an ideal of a self-sufficient generalist competence, while the new inter-disciplinarity represent an ideal of somewhat more modest and cooperation oriented specialists curious to learn from other fields and try to transcend some of the limitations of their respective specializations.

The encyclopaedic curriculum code have been under attack in Norway in at least three different phases- from grundvigeian populists in the late 19C, from reform pedagogy in the 1920s and 30s, and from interdisciplinary project pedagogy inspired not least by radical social movements in the 1970s. In the programs for curriculum reform in these phases at least the mainstream alternativists articulate the generalist model for inter-disciplinarity and a valuation of the knowledge situation of their time where the generalist competence is seen as a substantial alternative to the encyclopedic model with its combination of specialization, fragmentation and superficiality

Literature

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APPENDIX 1

Copy in norwegian of a presentation of project "Fleirfagleg".

From "HiO-Forskning 1/2003"

Flerfaglig samarbeid om felles mål

Norsk, matematikk og pedagogikk er vidt forskjellige studiefag i allmennlærerutdanninga. Likevel er det flere temaer som går igjen i to eller flere av fagene. Allmennlærerutdanninga ved Avdeling for lærerutdanning tok konsekvensen av dette. De åpnet vannrette skott mellom fagene gjennom utvikling av *Fleirfagleg* – et prosjekt som krevde utstrakt samarbeid mellom studiefagene.

Fleirfagleg var ikke et toppstyrt prosjekt. Det vokste fram nedenfra, som et resultat av tilbakemeldinger fra studenter og lærere som tok de signalene på alvor. De første par årene hadde prosjektet ingen ekstra ressurser, men tilstrekkelig mye engasjement og glød til å få det på skinner. Etter hvert fikk opplegget anerkjennelse videre opp i organisasjonen, med forankring i ledelsen på utdannings- og avdelingsnivå. I perioden 2001 - 2003 ble prosjektet eksternt finansiert av Undervisnings- og forskningsdepartementet. Profesjonsretting, flerfaglig sammenheng og IKT utgjorde innholdet i prosjektet. Samtidig har organisasjonsutvikling vært en gjennomgående dimensjon innen alle de tre områdene. Dermed utgjør resultatene fra prosjektet nå en sentral del av studiet for de nye førsteårsstudentene, selv om *Fleirfagleg* som prosjekt ble avsluttet våren 2003.

Men hvorfor begynte det?

Det var en åpenbar mangel på samordning mellom fagene på førsteåret i allmennlærerutdanninga. Fagene kjempet om studentenes tid og oppmerksomhet. Studentene meldte om en svak sammenheng mellom fagene. De kunne risikere å få presentert den samme teorien i tre fag i løpet av ett år, uten at lærerne engang visste om at innholdet i fagene var overlappende. Videre hadde de ofte vanskelig for å se hvordan det de lærte på høyskolen kunne hjelpe dem til å gjøre en god jobb i grunnskolen. I tillegg hadde vi et klart behov for å jobbe med pedagogisk bruk av IKT, forteller førstelektor Simon Michelet.

Sammen med førstelektor Synnøve Skjong og høyskolelektor Gunnar Waldermo utgjorde han prosjektgruppa som ledet utviklingen av prosjekt *Fleirfagleg*. Til sammen var det 20 lærere ved førsteåret som jobbet med å realisere prosjektet. Det gjorde de så godt at Avdeling for lærerutdanning ble belønnet med 400 000 kroner da Undervisnings- og forskningsdepartementet hedret dem med Utdanningskvalitetsprisen i 2003.

Michelet, Skjong og Waldermo har også, sammen med de øvrige prosjektdeltakerne, skrevet HiO-rapporten *Ettfaglig, tverrfaglig og flerfaglig organisering – motsetning eller supplement?*. Her redegjør de for prosjektets faglige referanseramme og oppsummerer erfaringene fra de første årene.

Hvorfor er det så viktig å samarbeide om undervisningen, når fagene tross alt er så forskjellige?

En del trekk er felles for fagene, for eksempel at de alle skal bidra til elevenes oppdragelse. Likevel er det ikke nødvendigvis noe poeng å ha en felles begrepsbruk som mål. Fagenes egenart kan gi gode grunner for at begrepene oppfattes og brukes ulikt. Derimot er det et klart mål at vi som faglærere kjenner innhold og begrepsbruk i de andre fagene. Det gjør det mulig å bruke det som eksempler, klargjøre forskjeller i begrepsforståelse og begrunne hvorfor det er slik. Derfor har vi bl.a kjøpt inn en del pensumlitteratur for både norsk, matematikk og pedagogikk til alle lærerne og brukt tid og krefter på å presentere og drøfte dette. Konkret kommer flerfaglig sammenheng til uttrykk ved at vi arbeider med samme tema samtidig i flere fag, ved at vi kjenner hverandres studiefagsinnhold og henviser til det i undervisningen og ved at vi har felles prøve, studieevaluering, praksisoppgave og tverrfaglig tema. Studentenes besvarelser på en ettfaglig eksamensoppgave ved slutten av første studieår ga oss en indikasjon på at flerfaglig samordning betyr noe for studentene. Der opplevde vi at eksterne sensorer, noe overrasket, påpekte at HiOs studenter på egen hånd refererte til andre studiefag, selv om dette ikke var etterspurt i oppgaveteksten.

I tillegg til det flerfaglige har vi samarbeidet om profesjonsretting gjennom bruk av kasusbaserte arbeidformer, kombinert med bruk av intranett, digital video og database mot nett.

For Michelet er det et poeng at studentene tar med seg erfaringene med flerfaglig sammenheng og pedagogisk bruk av IKT ut i skolen når de er ferdig utdannet.

Det er viktig at studentene har med seg flerfagligheten ut i skolen når de blir lærere. Også i grunnskolen er fagene det grunnleggende prinsipp for innholdsorganisering, på godt og vondt. Flerfaglig samordning kan modifisere de problematiske sidene ved fagdelingen. Og det er ikke så lett å si at flerfaglighet ikke går an i skolen når man faktisk har greid det som student ved HiO. Det samme gjelder pedagogisk bruk av IKT, selv om rammene her kan variere en god del.

Selvsagt er ikke alle studentene like fornøyd med studiet. Blant 300 studenter vil det alltid være litt ulike vurderinger, og kritikkverdige forhold forekommer av ulike grunner fra tid til annen. Da er det viktig at det er rom for fagkritikk og utvikling. Men når det er sagt, så tror jeg nok for egen del at jeg aldri har hatt såpass mange såpass fornøyde studenter før. Studentenes studieevaluering, deres faglige besvarelser og våre kollegiale drøftinger tilsier at vi har grepet fatt i viktige forhold i prosjekt *Fleirfagleg*. Samtidig er det mye å jobbe videre med, men slik skal det jo være. Den dagen man ikke utfordres av og til å tenke tanker man ikke har tenkt før, er det vel noe som er alvorlig feil, mener Michelet.

APPENDIX 2

A short presentation of project "Fleirfaglig" (in norwegian)

Om prosjekt Fleirfagleg

Fleirfagleg er et utviklingsprosjekt som ble startet i 1999 ved Allmennlærerutdanninga, Avdeling for lærerutdanning, Høgskolen i Oslo. Prosjektet har hele tiden omfattet alle de 300 studenter og 20 lærerne på 1. årstrinn. Hensikten har vært å utvikle virksomheten mht flerfaglig samordning, profesjonsretting og pedagogisk bruk av IKT, i tillegg til organisasjonsutvikling innen disse tre områdene.

Det betyr at prosjektet har omfattet en rekke gjensidig avhengige prosesser på ulike områder og med ulike involverte. Et forsøk på en mangefasettert framstilling av tiltak, resultater og evaluering er gjort i HiO-rapport 2002 nr 33: *Ettfaglig, tverrfaglig og flerfaglig organisering - motsetning eller supplement*. Både rapporten og mer konkrete eksempler er presentert på prosjektets nettsted: <http://www.lu.hio.no/luhelhet/ff2002/>.

Prosjektet ble tildelt Utdannings- og Forskningsdepartementets Utdanningspris i 2003. I den anledning ble det gitt ut et særtrykk som inneholdt:

- en drøfting av **flerfaglig sammenheng, profesjonsretting og organisasjonsutvikling**.² Dette som en argumentasjon for noe vi ser som avgjørende premisser for realisering av Kvalitetsreformens intensjoner innen allmennlærerutdanninga
- utkast til **Plan for første avdeling**, dvs en samlet plan for de to første årene av allmennlærerutdanninga, ut fra Rammeplan av 2003. Dette som et mer konkret eksempel på hva vi mener er avgjørende dersom en ønsker endringer i det indre liv innen løst koblete kunnskapsorganisasjoner:
 - en kombinasjon av Bottom-Up og Top-Down
 - parallelle endringsprosesser i den formelle og den uformelle siden av organisasjonenDenne samlede *Plan for første avdeling* er sidestilt med fagplanene. Den er ikke etterspurt av våre utdanningsmyndigheter. Den har vokst fram ved ALU-HiO, som organisasjonens formelle uttrykk for en ny felles forståelse blant involverte parter: Nødvendigheten av forpliktende flerfaglig samordning i en utdanning hvor kunnskapsinnholdet hviler i en encyklopedisk tradisjon
- Informasjon om **Sifra, et integrert system for studieevaluering på nett**. Dette er en av flere gratisressurser som er utviklet innen prosjektet. Vi nevner Sifra i denne sammenheng fordi studentmedvirkning generelt og studieevaluering spesielt står sentralt i Kvalitetsreformen.

² Artikkelen er hentet fra Ongstad, S. (red): *Koordinert lærerutdanningsdidaktikk. Idéer og erfaringer*. HiO-rapport 2003, nr. 14

APPENDIX 3: THE 'SCORE' FOR THE FIRST TERM

Årsplan for kull A03. Fra Plan for første avdeling

- ❖ Felt som er merket "1" betyr ettfaglig undervisning i dette faget denne uka. "1+1" markerer dobbelt undervisningsomfang pga periodeundervisning.
- ❖ Felt som er merket "FT" betyr flerfaglig tema i dette faget denne perioden.
- ❖ Antall avlagte studiepoeng er anført på det enkelte fag og summert i kolonnen *Annet* til høyre.
- ❖ Liste over Flerfaglig fellespensum er angitt til slutt under det enkelte kull.
- ❖ Flerfaglig fellesarena: En økt pr. uke er avsatt til fellesundervisning for hele kullet, hele 1. avd.

Kull A03 - 1. semester (høst 2003)									
Mnd	Uke	Norsk	Ma	Krl	Ped	Flerfaglig	Fagover-gripende	Praksis	Annet
Aug	34	-	-	-	-	Studiestart (tom ons i uke 35)	Kurs - bibliotek		
	35	-	-	-	-	Tema <i>Skolestart</i> i 3-4 av disse ukene, med ettfaglig arbeid før og/eller etter. Inkl. KRØ - læringsmiljø for 6-åringer.	Kurs i studie-teknikk og studie-strategier		
Sept	36	FT Kasus-oppg. 3 stp	1	FT forelesn	1	Billedbok, tema no, KH og IKT, gjennom hele studieåret	IKT: Luvit og epost		
	37	Oppg intervju /obs. 3 stp	FT	-	1			1 dag obs	
	38		Oppg intervju /obs. 3 stp	-	FT Kasus-oppg. 3 stp				
	39	1		-					
Okt	40	1	1	-		Forberedelse til observasjonsoppg. <i>Språk og læring</i> i praksis			Akk: 9 stp
	41	-	-	-	-			Praksis Obs.	
	42	-	-	-	-			<i>Språk - læring</i>	
	43	1	1	-	1	Studieeva no, ma og ped Refleksjonsnotat <i>Språk og læring</i> - no, ma, ped	IKT: enkel tekst-behandling		
	44	1	1	-	1				
Nov	45	1	1	-	1				
	46	1	1	-	1				
	47	1	1	-	1				
	48	1	1	-	1				
Des	49	-	1	-	-	Leseuke			
	50	FT Felles prøve no og ped, 5 stp	1 Ind oppg tallære ons ->	-	FT Felles prøve no og ped, 5 stp	Felles prøve no og ped, man-tird. Gradert karakter. 5 + 5 st.p	IKT: Tekst-behandling med mer, i samarb. med matte		Akk: 25 st.p
	51	FT opp summ.	Man/tir 5 stp	-	FT opp summ.	Oppsummering etter felles prøve no og ped			Jule-ferie

APPENDIX 4

Extract from L97 - The norwegian national curriculum for basic school: Required subjects and lessons

Subjects and lessons

	<i>1.-4. grade</i>	<i>5.-7. grade</i>	<i>8.-10. grade</i>	<i>Sum</i>
Christian knowledge and religious and moral education	266	266	247	779
Norwegian	912	589	532	2,033
Mathematics	532	437	418	1,387
Social studies	190	285	380	855
Art and crafts	228	380	228	836
Science and environment	152	247	342	741
English	95	266	342	703
Music	152	228	114	494
Home economics	38	114	114	266
Physical education	228	266	304	798
Compulsory additional subjects			304	304
Pupil and class council work			95	95
Free activities	247			247
Lessons per year	3,040	3,078	3,420	9,538
School and pupil options	152	114	152	418
Finnish/Saami as second language				1,111