



In what sense and to what extent can
organised school education be an aims-
based enterprise?

Atli Harðarson

Submitted in partial fulfilment of requirements
for the degree of PhD in Education



UNIVERSITY OF ICELAND
SCHOOL OF EDUCATION

In what sense and to what extent can
organised school education be an
aims-based enterprise?

Atli Harðarson

June 2013

Supervisors

Dr. Kristján Kristjánsson

Dr. Ingólfur Ásgeir Jóhannesson

Ph.D. Committee

Dr. David Carr, University of Birmingham

Dr. Ingólfur Ásgeir Jóhannesson, University of Iceland

Dr. Kristján Kristjánsson, University of Iceland

Submitted in partial fulfilment of requirements
for the degree of PhD in Education

180 ECTS

In what sense and to what extent can organised school education be an aims-based enterprise?

Supervisors

Dr. Kristján Kristjánsson
Dr. Ingólfur Ásgeir Jóhannesson

Ph.D. Committee

Dr. David Carr, University of Birmingham
Dr. Ingólfur Ásgeir Jóhannesson, University of Iceland
Dr. Kristján Kristjánsson, University of Iceland

University of Iceland: School of Education

Reykjavík 2013

ISBN 978-9935-9025-5-9

© Atli Harðarson

Háskólaprent ehf.

This is why we need diaphaneity. In order to discern knots along the thread which, stretched through the centuries, helps us stand upright on this earth. (Elytis, 2004, p. 694)

Contents

Abstract	ix
Ágrip (Abstract in Icelandic)	xi
Acknowledgements	xiii
Publications	xv
Monograph: In what sense and to what extent can organised school education be an aims-based enterprise	1
Paper 1: Hvaða áhrif hafði Aðalnámskráin frá 1999 á bóknámsbrautir framhaldsskóla?	123
Paper 2: Skilningur framhaldsskólakennara á almennum námsmarkmiðum	153
Paper 3: Húmanisminn, upplýsingin og íslenska stúdentsprófið ...	181
Paper 4: Why the aims of education cannot be settled	209
Paper 5: Equality and academic subjects.	229
Paper 6: Are educational aims principles of design, reform, justification or rationalisation?	251
Index of names	271

Abstract

The aim of this monograph is to criticise widely held assumptions about the role of educational aims as organising principles of school curricula. My research question, posed in Chapter 1, is: *In what sense and to what extent can organised school education be an aims-based enterprise?*

In Chapter 2, I outline a technocratic and rationalistic model of education as aims-based. This model, often called the *objectives model*, has been dominant for more than half a century. In order to criticise this model, I clarify the concept of *aims* in Chapter 3, and make five distinctions between different types of aims. These distinctions are between:

1. Things, events, or states of affairs that are created or causally brought about by the means and aims that are constituted by the means.
2. Aims that are contingently related to the means and aims that follow logically from the means.
3. Aims that are independent of any specific context and aims that are dependent on, or only comprehensible within, a specific context.
4. Objectives that can be reached and ideals that people can work towards, although the task cannot be completed.
5. Aims as principles of design and aims as principles of reform.

In Chapter 4, I use the first four of these five distinctions to argue against the objectives model and offer in its place an outlook more in accord with the tradition of liberal education. The main conclusions of this chapter are that:

- a) The possibilities of organising school practice to reach learner-centred objectives is limited both by the nature of the subjects and by the autonomy of the students.
- b) The benefits of education cannot all be pre-specified in detail.

In Chapter 5, I use the fifth and last distinction to argue that it is not realistic to think of general educational aims as principles of design that can be used to engineer entire school curricula.

My arguments in Chapters 4 and 5 show that education cannot, without important qualifications, be described as an aims-based enterprise. They also show that it is unrealistic to think of curriculum design in terms of top-down engineering where details of implementation are derived from statements of aims or purposes. In Chapter 6, I conclude that school education can only be completely aims-based provided we allow all the sorts of aims listed in Chapter 3 to play a role. Some of these aims can neither be stated precisely, nor used to determine exactly, what effects a course of education will have on students.

Ágrip (Abstract in Icelandic)

Þessi ritgerð er gagnrýni á viðtekna hugmyndir um að námskrár skóla skuli skipulagðar út frá markmiðum. Rannsóknarspurningin sem ég set fram í fyrsta kafla er *Að hve miklu leyti og í hvaða skilningi geta námsmarkmið verið grundvöllur skipulegrar menntunar sem skólar veita?*

Í 2. kafla lýsi ég viðteknum hugmyndum um námsmarkmið og hlutverk þeirra. Þessar hugmyndir draga dóm af rökhbyggju og tæknibyggju og hafa verið ríkjandi í meira en hálfa öld. Til að gagnrýna þær greini ég hugtakið *markmið* í 3. kafla og geri þar fimmfaldan greinarmun á ólíkum tegundum markmiða. Þessi greinarmunur er milli:

1. Markmiða þar sem athafnir okkar eru orsakir og það sem ná skal fram afleiðing þeirra og markmiða sem eru innifalin í athöfnum.
2. Markmiða sem eru röklega óháð því sem við gerum til að ná þeim og markmiða sem eru röklegar afleiðingar af viðleitni okkar.
3. Markmiða sem eru óháð tilteknu samhengi og markmiða sem byggjast á, eða eru aðeins skiljanleg í, tilteknu samhengi.
4. Markmiða sem hægt er að ná eða klára og markmiða eða hugsjóna sem fólk vinnur að þótt ekki sé hægt að ljúka því verki.
5. Markmiða sem eru notuð til að stýra ofansækinni hönnun þar sem eitthvað er byggt frá grunni og markmiða sem notuð eru til umbóta á einhverju sem er þegar orðið til.

Í 4. kafla nota ég greinarmun númer 1 til 4 til að færa rök gegn líkaninu sem ég lýsi í öðrum kafla og renna stoðum undir viðhorf sem eru meira í anda húmanisma en tæknibyggju. Meginniðurstöður þessa kafla eru að:

- a) Möguleikar okkar á að skipuleggja skólastarf út frá nemendamiðuðum markmiðum eru takmarkaðir bæði af eðli námsgreinanna og af sjálfstæði nemendanna.
- b) Það er engin leið að ákvarða nákvæmlega fyrirfram hvað gott hlýst af menntun.

Í 5. kafla nota ég síðasttalda greinarmuninn til að rökstyðja að það sé óraunhæft að líta á almenn markmið sem forsendur til að leiða út eða hanna námskrá skóla.

Rök mín í 4. og 5. kafla sýna að það þarf að hafa mikla fyrirvara á fullyrðingum um að menntun sé byggð á markmiðum. Ef þau standast er þess enginn kostur að hanna námskrá með ofansæknum aðferðum þar sem einstakir þættir í skólasterfi eru leiddir af almennum markmiðum. Í 6. og síðasta kafla dreg ég niðurstöður mínar saman á þá leið að eigi að lýsa menntun svo að hún byggist á markmiðum þá þurfi að gera ráð fyrir öllum þeim tegundum markmiða sem lýst var í 3. kafla og sum þeirra sé hvorki hægt að setja fram af nákvæmni né nota til að ákvarða hvaða áhrif námið hefur á nemendur.

Acknowledgements

I would like to thank those who helped me with this work. First, I would like to thank my supervisors, Dr. Kristján Kristjánsson who opened my eyes to how interesting philosophy of education is, and Dr. Ingólfur Ásgeir Jóhannesson who guided me through the intellectual landscapes of curriculum theory. Their critical comments on my work have been enormously helpful. So also was the critique of Dr. David Carr.

The personnel at the library of the University of Iceland's School of Education deserve special thanks. Without their help, this work would have taken more time to complete. I would also like to thank Barbara Belle Nelson for correcting my English.

Finally, yet importantly, I would like to thank Harpa Hreinsdóttir who, besides being my wife and best friend, is an experienced and successful teacher and a very critical reader.

Publications

My PhD thesis consists of six papers in addition to the following monograph. These papers are:

1. Hvaða áhrif hafði Aðalnámskráin frá 1999 á bóknámsbrautir framhaldsskóla? [What effects did the National Curriculum Guide from 1999 have on academic study lines in Icelandic secondary schools?] Published 2010 in *Netla*.
2. Skilningur framhaldsskólakennara á almennum námsmarkmiðum. [How teachers in secondary schools understand the aims of education.] Published 2010 in *Tímarit um menntarannsóknir*, 7, 93–107.
3. Húmanisminn, upplýsingin og íslenska stúdentsprófið. [Humanism, Enlightenment, and University Preparatory Education in Iceland.] Published 2011 in *Skírnir*, 185(1), 123–144.
4. Why the aims of education cannot be settled. Published 2011 in the *Journal of Philosophy of Education*, 46(2), 223–235.
5. Equality and academic subjects. Published 2013 in the *Journal of Curriculum Studies*, 45(2), 119–131.
6. Are educational aims principles of design, reform, justification, or rationalisation? Unpublished, to be submitted shortly for publication.

Papers number 1, 2, and 3 are in Icelandic. English translations of their titles are given in square brackets. An abstract in English is printed before each paper. The most important results of papers number 1 and 2 are repeated in paper number 6.

Papers number 1, 2, and 6 are based on interviews with eighteen secondary school teachers. In paper number 6, I also use written data collected from 20 teachers. This empirical research was reported to the Icelandic Data Protection Authority (Persónuvernd) in accordance with article number 31 of act 77/2000 on *The Protection of Privacy as Regards the Processing of Personal Data*.

My main argument is presented in the monograph. Two of the six papers, numbers 4 and 5, support parts of my argument in the fourth

chapter of the monograph. The remaining four papers support my argument in the fifth chapter of the monograph. The monograph can be read and understood without the papers however. They are appendices rather than prologues to it.

Monograph

Table of contents

Introduction	7
1 Aims-based curricula and philosophical perplexities	11
1.1 The question	11
1.2 Why the question is deep and interesting	14
Antinomy 1	16
Antinomy 2	17
Antinomy 3	19
Antinomy 4	21
1.3 Philosophical method and presuppositions	23
Critical conceptual revision	23
The concept of education	24
The concept of curriculum	29
The concept of aims	31
2 The dominant view	33
2.1 Bobbitt, Tyler, Bloom, and Taba	33
Bobbitt	33
Tyler	35
Bloom and Taba	39
Still going strong	42
The core tenets of the dominant view	44
2.2 Criticisms of the dominant view	46
3 The concept of <i>aims</i> analysed	51
3.1 Five distinctions.....	51
Distinction 1: Causation versus subsumption	53

Distinction 2: Extrinsic versus intrinsic	55
Distinction 3: Independent of context versus dependent on context	57
Distinction 4: Objectives versus ideals	59
Distinction 5: Principles of design versus principles of reform	61
The antinomies again	62
3.2 The dominant view and the five distinctions	64
4 Reactive learners and liberal education	71
4.1 Stenhouse's critique	71
4.2 Autonomous students and the holy ground	76
4.3 Education as search for values and the process model .	82
5 Recalcitrant realities and visions of control	87
5.1 Top-down design	87
5.2 Schwab's writings on the practical	94
5.3 Airborne abstractions and earthbound practice	99
6 Conclusion	105
References	109

List of tables

Table 1: Four different approaches to curriculum studies.....	47
Table 2: Five distinctions between different types of aims	65

Introduction

I graduated with a BA degree in philosophy from the University of Iceland in 1982, and with an MA degree in philosophy from Brown University in 1984. Soon after I finished my MA degree, I was hired as a teacher at the Comprehensive Secondary School of West-Iceland in Akranes (Fjölbrautaskóli Vesturlands). Since then I have worked there, except for two years when I taught at the Grammar School in Laugarvatn (Menntaskólinn að Laugarvatni). In 2001, I became vice-principal at the Comprehensive Secondary School of West-Iceland, and since the summer of 2011, I have been principal there.

All these years, since the mid 1980s, I have been interested in both philosophy and education, though I did not combine these two interests of mine. I published papers and newspaper articles on education but they were not philosophical. I also published a number of papers and three books on philosophy in Icelandic before enrolling as a PhD student in education at the University of Iceland. These philosophical writings are about epistemology, metaphysics, and political philosophy and, in them, education is rarely mentioned. I was however aware of interesting philosophical problems that were relevant to education and educational policy both through the work of Dr. Kristján Kristjánsson who was a friend from our student years at the University of Iceland, and through the work of one of our teachers there, Dr. Páll Skúlason.

One of my responsibilities as vice-principal from 2001 until 2011 was to edit the school curriculum guide, and to update it every year to meet demands made by the educational authorities. Most of these demands were published by the Ministry of Education, Science, and Culture (1999, 2004) in booklets called the *National Curriculum Guide for Upper Secondary School*. Curriculum guides issued by the schools were supposed to implement the demands made by this national curriculum guide.

I found some of the requirements made by the national curriculum guide not only hard to understand but also hard to implement and

work towards in any honest way. I had, for instance, problems with the general and overarching aims listed in the national curriculum guide (Ministry of Education, Science and Culture, 2004, p. 6): It was not clear to me how teachers of various subjects were supposed to work towards such aims as those that had to do with democratic citizenship and intellectual and moral virtues. I had also problems with subject-specific aims, not really understanding what role they were supposed to play.

In May 2011, the Icelandic Ministry of Education, Science, and Culture issued a new national curriculum guide for secondary schools in accordance with the act on secondary schools issued by the Icelandic legislature in 2008. According to this guide, secondary schools were required to organise each course or module for the attainment of specific types of aims, namely the knowledge, skills, and competences that students are supposed to acquire (Ministry of Education, Science and Culture, 2011, p. 37).

When I heard about these requirements in the spring of 2009, more than two years before the actual publication of the 2011 national curriculum guide, my first thought was that they were not realistic. And when I began trying to explain why important parts of school education could not be organized to achieve aims of these three types, I also began to connect my interests in philosophy and education.

At that time, I knew that I would have a study-leave the following academic year, in 2009–2010. I decided I would use that time to study educational aims and ideas about education as an aims-based enterprise. In June 2009, I was accepted as a PhD student in the School of Education at the University of Iceland. I had already begun to read some of the literature relevant to this study, and I used the study-leave not only to complete all the required courses but also to write the first draft of my research plan that was formally accepted by the University in March 2011.

The work I present here is my reaction to the demands made by the national curriculum guide for secondary schools published in spring 2011. In it, I show how a philosophical clarification of the

concept of aims can be used to criticise overly simplistic notions of education as aims-based.

1 Aims-based curricula and philosophical perplexities

The aim of this monograph is to criticise widely held assumptions about the role of educational aims as organising principles of school curricula.

In this chapter, in section 1.1, I pose my research question, which is: *In what sense and to what extent can organised school education be an aims-based enterprise?* In what follows, in section 1.2, I explain why this question is a deep and interesting question of educational philosophy and why thinking of school education as an aims-based enterprise is problematic. In section 1.3. I give an account of my methodology and philosophical presuppositions.

In Chapter 2, I outline a view of curriculum design which has been dominant for more than half a century and is often called the objectives model. In Chapter 3, I clarify the concept of aims and distinguish among various types of aims. In Chapters 4 and 5, I use my clarification of the concept of aims to argue against the objectives model and offer in its place an outlook more in accord with the tradition of liberal education.

My arguments in the two final chapters show that education cannot, without important qualifications, be described as an aims-based enterprise and it is unrealistic to think of curriculum design in terms of top-down engineering where details of implementation are derived from statements of aims or purposes.

1.1 The question

Educational authorities and texts on curriculum theory commonly assume that school curricula can be derived from educational aims or engineered to reach goals that are spelled out in advance. This assumption is reflected in a recent national curriculum guide for secondary schools published by the Icelandic Ministry of Education, Science and Culture (2011).¹ This publication requires secondary

¹ An English translation of the general section of this national curriculum guide for Icelandic secondary schools (Ministry of Education, Science and Culture, n.d.) is available on the

schools to describe each course or module in terms of learning outcomes, i.e., knowledge, skills, and competences students are supposed to acquire. It also requires schools to work towards six general aims or key competencies (which are literacy, sustainable development, democracy and human rights, equality, health and welfare, and creativity).

The emphasis on educational aims as organising principles of school curricula places this publication within the mainstream of curriculum theory that originated in the works of John Franklin Bobbitt (1918/1972) and Ralph W. Tyler (1949), and was developed by Benjamin S. Bloom (1956) and Hilda Taba (1962). These authors, who all worked in the USA, defined and defended the objectives-model of school curricula that was dominant in academic discourse on curriculum theory for most of the 20th century (Elliott, 2007; Kliebard, 1987, p. 121; Pinar, Reynolds, Slattery & Taubman, 1995, pp. 140–148). Although it was most prominent among advocates of social efficiency as the primary aim of school education (Schiro, 2008, pp. 51–54), it was embraced by educationists with different views on education and the purposes of schooling (Pinar et al., 1995, p. 155). The core tenets of this model (outlined in section 2.1) are common to a number of influential aims-based accounts of education.

It is hard to resist the allure of the objectives model. It has deep roots in our culture with connections to rationalism, modernism, and ideals of rational planning and scientific management. It is closely related to a methodological view that influenced social sciences in the twentieth century and is commonly called *instrumentalism* (not to be conflated with John Dewey's particular version of pragmatism, which he denoted by the term *instrumentalism*). This view assumes that a sharp distinction can be drawn between ends and means (Fowers, 2010).

Is it not obvious that education is a purposive activity, which must aim at something? Is it not also beyond doubt, that rational organisation of schooling must begin with a clear statement of aims, and then proceed to find the most efficient ways to reach them?

Those who, without hesitation, answer both questions in the affirmative are likely to accept the dominant model of curriculum design. Nevertheless, however commonsensical this model may seem, a number of renowned scholars in the field of education have found it deeply problematic. In his text on curriculum theory, which has been updated and republished five times since it was first printed in England in 1977, A. V. Kelly (2009, p. 129) pointed out, for instance, gaps between aims of central planning and the realities of its implementation. Likewise, the Dutch curriculum theorist Jan van den Akker (2003a) described the relationship between the general aims of education on the one hand, and what teachers actually do on the other hand, as deeply problematic. Seven years prior to that, Chris Winch (1996) claimed that British education at all levels is affected by a radical uncertainty about aims; and in 1982, John White, an English philosopher of education, maintained that no one would deny that our present thinking about the aims of education is in a mess (White, 1982, p. 168). Twenty years earlier Taba had pointed out, in her textbook on curriculum theory, that there is often 'little consistency between the school-wide objectives, usually stated in broad strokes, and the objectives of specific courses in specific subjects' (Taba, 1962, p. 228). She also pointed out that there is no agreement about what the main aims of school education should be.

Our society today has by no means agreed about what the central function of the school should be. One could even say that 'the great debate about schools and their function' is in effect a debate about many of the issues our society faces: the balance between freedom and control and between change and tradition, whether the elite should be of power or of intellect, who should participate in shaping the public policy, and many others. (Taba, 1962, p. 16)

Although Taba worked within the mainstream of curriculum theory that conceived of school education as an aims-based enterprise, she also conceded that it is difficult to apply scientific methods to curriculum planning (Taba, 1962, p. 290), and that confusion is the main characteristic of curriculum theory (Taba, 1962, p. 200). This mess and confusion is at least as old as Aristotle, who wrote in his

Politics that it is not 'clear whether education is more concerned with intellectual or with moral virtue. The existing practice is perplexing; no one knows on what principle we should proceed – should the useful in life, or should virtue, or should the higher knowledge, be the aim of our training' (Aristotle, 1941, pp. 1305–1306 [1337^a]).

The mess, confusion, and lack of clarity Taba and White complained about was primarily uncertainty and disagreement about what the aims of education should be. The question they were interested in was the normative question of what an educator should try to accomplish. In addition to this normative question, there are questions about how to understand talk about educational aims: In what sense can education be a means to reach previously stated aims? Can we describe some specific outcome or state of affairs that is to be realised through education? Can we derive or deduce from such a description how best to educate people? These questions are conceptual in the sense that they cannot be answered without clarification or analysis of one of the key concepts we use to understand and account for any human activity, namely, the concept of aims. The problem I focus on in this monograph is thus primarily conceptual and the research question I will try to answer is: *In what sense and to what extent can organised school education be an aims-based enterprise?*

1.2 Why the question is deep and interesting

Some of the deepest and most interesting problems of philosophy arise because we have good reasons to believe something, call it A, and we also have good reasons to believe something else, call it B, and we cannot see how A and B are compatible. In other words, philosophy is largely about quandaries, perplexities, antinomies, and contradictions engendered by our concepts or rather by a lack of clarity about how to define, explicate, sharpen, and refine them.

Zeno's paradox is a good example. A familiar version of it is the story of Achilles and the tortoise. They run a race and, because the tortoise is rather slow, Achilles allows it a head start of half the distance, confident that it will only take him a few minutes to overtake such a slow animal. Along comes the philosopher and points out that when Achilles has completed half the total distance and reached the tortoise's starting

point, the animal will still be ahead of him, having covered, say, 100 units of length. Achilles runs these 100 units and, in the meantime, the tortoise has crawled 10 units more, and so on. Whenever Achilles reaches the point where the tortoise has been, he still has farther to go. Therefore, Achilles has to cover an unlimited number of finite distances before he gets ahead of the tortoise.

Now we have two propositions that we have good reasons to believe are true:

- A. Achilles can overtake the tortoise.
- B. To overtake the tortoise, Achilles has to cover an unlimited number of finite distances.

For Zeno and his contemporaries in the 5th century B.C., it was hard to comprehend how these two truths were compatible. To them, these propositions seemed to contradict each other and some took this story to show that motion, time, and space are somehow unreal. Consequently, they came up with various strange ideas about the difference between appearance and reality. (Some of these ideas are still with us, through various forms of idealism.)

This particular problem has been solved. Therefore, it is not a deep and interesting philosophical problem anymore, although it once was. There is no real contradiction here because the sum of an unlimited number of finite quantities can be finite. This is, however, still a good example of the quandaries or perplexities with which philosophers deal. We have good (in this case, even conclusive) reasons to believe both A and B, and we need clarification, critical revision of concepts, and careful sorting out of logical implications to explain how they are compatible.

The deepest problems of modern philosophy have to do with concepts such as knowledge, rationality, meaning, justice, equality and freedom. I hope that the following two examples suffice to explain what I mean when I say these problems have the same form as Zeno's paradox.

Example 1: A. The laws of nature apply to the human body.
B. A human being is responsible for (at least some of) her actions.

Example 2: A. We cannot have a good society without political power.
B. In a good society, all are free and equal.

In the history of philosophy, we have examples of great thinkers who saw proposition pairs like these as contradictions and argued that one was false and the other true. Other philosophers have pointed out that we are not really dealing here with contradictions in the strict sense, but with quandaries and perplexities. It was not easy to show that Achilles did not need infinite time to cover an unlimited number of distances. That task required advances in mathematics that occupied great minds for centuries. Maybe the other problems I have mentioned can also be solved by showing A and B to be compatible after all. I am not saying that all the interesting questions about these propositions are just semantic. There are also substantive issues at hand. Questions about their compatibility are, however, primarily, semantic. To answer them, we need to clarify what the propositions mean and what they logically imply.

Thinking about curriculum as aims-based is fraught with perplexities and caught up in antinomies like common beliefs about responsibility or freedom and equality. Here I will give a succinct account of four antinomies or perplexities in current thinking about education. Some analogous quandaries have been elaborated by Jerome Bruner (1996, pp. 68–69).

The first antinomy can be stated as follows:

Antinomy 1

- A₁ Education should aim at changing students in predetermined ways.
- B₁ Education should make students autonomous.

The view expressed in A_1 lies behind the dominant tradition of curriculum theory in the last century (briefly described in section 1.1 and further elaborated upon in section 2.1). The view expressed in B_1 is no less deeply entrenched in our culture. As G. H. Bantock has pointed out in his work on the history of educational thought, it is a central tendency of modern education, famously promulgated by John Locke towards the end of the 17th century (Bantock, 1980, pp. 31, 43). It has since been supported by Locke's intellectual heirs, such as John Stuart Mill (2009), who have been concerned with equality and liberal values. White, for instance, has argued in recent years, that education should, primarily, make pupils autonomous persons who form an integrated life-plan worked out from a moral point of view (White, 1982).

If autonomy of students involves abilities to realize new values, see things from a new point of view, or understand matters otherwise than their teachers do, can they then both exhibit autonomy and develop in ways that are predetermined by others? A negative answer is tempting because, although not strictly contradictory, A_1 and B_1 pull in different directions. Both seem to contain some elements of truth and it is not obvious how they can be reconciled.

The second antinomy is related to this first one but focuses on society rather than on the individual.

Antinomy 2

A_2 Education should serve aims that are known and can be clearly stated.

B_2 Education is a vehicle of progress through which society learns to appreciate new values.

Here A_2 is, like A_1 above, integral to the dominant view and surely has at least some presumption in its favour. We must be able to say what school education is good for. How else can we justify spending so much on it and letting the fortunes of individuals depend to such an extent on what they do, and how they fare, in school?

The history of school education over the last 300 years reveals how some basic aims have become widely accepted. Barbara Benham Tye, an educational scholar in the USA, lists for instance four groups of aims she describes as stable in the sense of persisting in spite of changes in society. These aims are, according to her, academic, vocational, civic, and personal (Tye, 2000, p. 27). Larry Cuban, who has written extensively on the history of schooling, has a view similar to Tye's. He describes aims the public expects schools to work towards, such as a mastering of basic skills, the ability to think rationally and independently, the accumulation of general knowledge in various subjects, sufficient skills to get a job, participation in the civic culture of the community, and a knowledge of what values are prized in the community and the ability to live them (Cuban, 1992, p. 233). He has also argued that innovations that challenge the accepted aims, 'particularly those that challenge the socializing functions, may get token attention from practitioners but, over time, seldom alter fundamentally what is offered' (Cuban, 1992, p. 233). The arguments presented by Cuban and Tye invite us to think of school education as serving aims that are not only known, but also widely accepted.

No matter how plausible A_2 may be, it has an uneasy coexistence with B_2 that is also hard to reject. If B_2 holds true, however, any list of general aims that can be used to determine what to teach, and how, is subject to revision. Suppose we had listed the aims of school-education: $Aim_1, Aim_2, \dots Aim_n$. Would the following aim be on the list?

Aim_k : Education should enable the next generation to propose a list that is better than $Aim_1, Aim_2, \dots Aim_n$.

If Aim_k is on the list, then the list is not final, only tentative. Therefore, if we think of $Aim_1 \dots Aim_n$ as the last word about what the aims of education should be, Aim_k cannot be on the list. Nevertheless, we can hardly think of education as a vehicle of progress without including something like Aim_k . As I have argued elsewhere (Harðarson, 2012a), this one aim makes the list tentative and subject to revision. As far as education is reflexive, that is, as far as it enables students to criticise its own value and progress to a better understanding of what is worth learning, its aims cannot be settled.

The two antinomies listed so far are conceptual in the sense that it is difficult to imagine how the two propositions can be compatible. The third one is perhaps of a different kind because the two propositions seem to be compatible. Nevertheless, historical experience finds them repeatedly at odds.

Antinomy 3

A₃ Education ought to be planned by starting with clearly stated general aims and deriving from them (and relevant knowledge within fields such as educational psychology) what to teach and how.

B₃ Functional school-education is based on subject-centred traditions that have not been derived from general aims.

These propositions are compatible because subject-centred traditions can, and do, serve educational aims. These traditions do, however, persist by and large in spite of new policies and new statements of general aims for schools. Even though they may originally have been justified by appeal to educational aims, their present manifestations are, thus, definitely not derived from aims stated in modern educational policy documents or curriculum guides.

In a recent paper (Harðarson, 2011), I traced the history of university preparatory education in Iceland and Denmark from the middle of the 19th century and explained how the subject-based curriculum is connected to both humanistic and enlightenment ideals of human excellence. Curricula based on subjects such as foreign languages, literature, history, mathematics, natural- and social sciences, and creative arts have persisted through all the radical social changes of the last 150 years. A number of US scholars in the field of education such as Barbara Benham Tye (2000), David Tyack and Larry Cuban (1995), and Herbert Kliebard (1987) have come to similar conclusions about schools in the USA. In *The Struggle for the American Curriculum 1893–1958*, Kliebard (1987) described debates about school curricula as a struggle between four camps: three different groups of reformers and the humanists who guarded the old school tradition. Although the humanists were on the defensive against the

reform movements that were often hostile to traditional subject-based curricula, Kliebard concluded:

The one fortress that proved virtually impregnable was the school subject. [...] If the success of the 65-year effort to reform the American curriculum is to be judged by the extent to which English, mathematics, science, history, geography and the like simply survived the assault against them, then the effort must be counted a failure. (Kliebard, 1987, pp. 269–270)

The history of attempts to replace traditional subjects-based curricula with something designed to reach general aims is, in this view, a history of repeated failures. Tyack and Cuban have attempted to explain the persistence of subject-centred curricula with theoretical accounts of what they call *the grammar of schooling* (Tyack & Cuban, 1995, pp. 85–109). They concluded their review of attempts at large scale aims-based school reform with a rather pessimistic remark:

Policy talk about the schools has moved in cycles of gloomy assessments of education and overconfident solutions, producing incoherent guidance in actual reform practice. Hyperbole has often produced public cynicism and skepticism among teachers. (Tyack & Cuban, 1995, p. 134)

In an earlier work, Cuban commented on how the technocratic view expressed by A₃ is at odds with the results of historical research on the development of curricula and educational institutions. He concluded that a 'large body of literature has shown that this rational perspective has definite limitations in explaining the behaviour of most public and private organizations' (Cuban, 1992, p. 239).

Tye (2000) reached a similar conclusion, but instead of talking about the *grammar of schooling*, she explained the persistence of school traditions, including subject-centred curricula, with a theoretical notion of *the deep structure of schooling* that is composed of widely shared values and assumptions about education. On her account, this deep structure sets practical limits to what reformers can do (Tye, 2000, pp. 3–4). A number of other scholars, e.g. Seymour

B. Sarason (1971), Michael S. Katz, and Louis G. Denti (1996), David Hamilton (1989) and Akker (2003b), have described the persistence of school traditions and how surprisingly hard it is to change the system of education. My own research (about which I will say more in section 5.3) indicates that Icelandic secondary schools are no exception (Harðarson, 2010a, 2010b, 2013b).

Although this third antinomy is perhaps not due to antagonistic ideas in the same way that antinomies number 1 and 2 are, the persistence of subject-centred curricula is deeply problematic for curriculum theorists working within the mainstream of curriculum theory and for all those who, like White (1997, 2010), conceive of top-level aims as principles of curriculum design. They must concede that attempts to design curricula by starting from aims, as envisaged by A_3 , have not been successful, and, as Taba (1962, p. 384) admitted, the old subject organization persists in spite of such attempts, especially in secondary schools. Thus, attempts at aims-based rational reconstruction of schooling have not been successful, however superior they appear in the light of dominant curriculum theories (Taba, 1962, p. 392).

The fourth, and last, antinomy I describe also has to do with the tension between subject-centred school traditions and requirements to the effect that schooling be rationally planned to reach educational aims.

Antinomy 4

- A_4 If there is a good reason to teach subjects such as literature, history, natural sciences, and mathematics, then these subjects serve worthwhile aims.
- B_4 Our understanding of aims, having to do with, say, equality, democracy, and critical thinking, has been gained by learning subjects such as literature, history, natural sciences, and mathematics.

A_4 requires us to justify each school subject in terms of aims, or else jettison it as useless. This requirement sometimes goes hand in hand with doubts about the defensibility of traditional subject-centred curricula. In a recent paper, White, for instance, writes about subject-

centred approaches to the development of school curricula and asks: 'Why start with academic disciplines and seek justifications of them? Logically, curriculum planning has to start with aims, not with vehicles whereby aims may be realised' (White, 2010, p. 125). He traces the history of modern subjects-based school curricula back to the 16th century and complains that, through all the reforms of British schools since 1988, governments have allowed the existing structure of academic subjects to stay intact and have clung to a centuries-old pattern rather than 'seizing the opportunity to rethink school education as a genuinely aims-based enterprise' (White, 2010, p. 139). The underlying assumption seems to be that the building blocks of a genuinely aims-based curriculum are something other than academic subjects.

White's point that curriculum planning has to start with aims rings true. The aims of a course of education are, in some sense, logically prior to its content because one expects an educator to have some idea of what he wants to accomplish before he decides to teach *this* rather than *that*. Prior to the aims, however, there must be some educational content or knowledge that enabled the designers of school curricula to acquire the understanding they have of what aims are worth seeking. The concepts needed to apprehend educational aims, having to do with say democratic citizenship or critical thinking, have been forged and refined through a critical discourse that has taken a long time, and our understanding of these aims depends on large bodies of knowledge. Secondary school curricula are made up of subjects such as history, natural sciences and mathematics. It is partially through these subjects that our culture has learned to appreciate the values (of e.g. democracy and critical thinking) that figure in the aims-sections of curriculum guides. One needs to be educated to say something sensible about the aims of education – and what aims one is able to comprehend depends on what education one has acquired, and therefore B_4 is about as hard to refute as A_4 .

In Harðarson (2013a), I argued that if we view overarching educational aims as dynamic, and grant that we, as a community, are still learning how to understand them, then we cannot take the content of education to be simply subservient to a fixed set of aims. Once we face the fact that our understanding of educational aims is

limited and evolving, we are bound to assume a dialectical relationship between educational aims and educational content. If my argument is valid, it invites us to think of A_4 and B_4 in dialectical terms as two aspects of a larger truth.

The four antinomies I have briefly described indicate that conceiving of education as an aims-based enterprise or as something that has been, or can be, designed to meet previously-specified aims is problematic. Thinking of education as aimless is no less perplexing. School education must be good for something, and this something must be an aim of some sort. This is the quintessence of a deep and interesting philosophical problem: Something seems to be both necessary and impossible.

1.3 Philosophical method and presuppositions

Critical conceptual revision

In my view, most of the interesting problems of philosophy arise – as already noted – because two or more beliefs that seem compelling, or even necessarily true, are either contradictory or give rise to antinomies, quandaries, and perplexities. The methods I use to solve such problems have been elaborated and defended by, for example, the Icelandic philosopher of education Kristján Kristjánsson (1996, 2006, 2010) and by Robin Barrow (2010) who is an English philosopher of education working in Canada. Kristjánsson (1996) calls this methodology *critical conceptual revision* and says that it typically begins with a description of puzzles, or of contradictions in usage and beliefs, and then goes on to modify concepts and beliefs ‘trying to retain the truth of the greatest number and, in particular, the most authoritative of these’ (Kristjánsson 2006, p. 11). In many cases, the philosopher needs empirical evidence from various fields of science and scholarship to adjudicate which beliefs are the most authoritative. It follows from this that the philosopher should be ready to cross disciplinary boundaries (Kristjánsson, 2006, p 118; 2010, pp. 16–18), and I do that in Chapter 5 where I use results of historical and empirical research to support a philosophical conclusion. Philosophy is a logical discipline and more concerned with the meaning of words than with matters of fact. Nevertheless, the

philosopher has to consider empirical results because what words actually mean, and what is the best way to analyse concepts, depends on all sorts of knowledge.

This methodology does not belong exclusively to the philosophy of education. It can be applied as well to conceptual perplexities within other fields such as, say, politics, ethics, or theory of knowledge. In my view, philosophy of education is not a special type of philosophy with its own methodology. Philosophers of education apply philosophical methods to concepts such as *learning*, *teaching*, *curriculum*, *education*, or *educational aims* and the very same methods can also be applied within other fields.

The methodology described by Kristjánsson is close to the methodology of Richard S. Peters' pioneering work on the analysis of the concept of education and related concepts that redefined the field of philosophy of education in the 1960s. Peters' methods of conceptual analysis have been articulated and explained by Barrow (2010, pp. 14–15). I go along with Barrow's argument, believing that deep philosophical understanding, cogent argumentation, fruitful criticism, and improved exposition of viewpoints requires conceptual analysis that aims at clarity, consistency, and compatibility with other knowledge. I also accept his view that once a concept or a belief has been clarified, 'it needs to be checked against one's other knowledge including one's wider conceptual repertoire, but also including non-conceptual matters such as matters of fact or value — and of course against relevant publicly warranted knowledge' (Barrow 2010, p. 14).

The concept of education

In addition to the methodological presuppositions outlined above, I build upon a concept of aims that I describe briefly at the end of this chapter and analyse in section 3.1, and on a concept of curriculum that draws upon works by Israel Scheffler (1960) and Philip W. Jackson (1992). I also assume an understanding of what *education* is that I have outlined and defended in a paper published in 2012 (Harðarson, 2012a), where I draw upon work by Charles H. Bailey (2010), David Carr (2003, 2010), Philip W. Jackson (2012), Michael Oakeshott (1989), Richard S. Peters (1966), Mary Warnock (1977), and John White (1982). In this paper, entitled 'Why the Aims of Education

Cannot Be Settled', I argue that a complete descriptive definition of education is not available. We cannot put down exactly the necessary and sufficient conditions someone has to meet in order to count as being educated. A partial definition that is largely true to ordinary usage is, however, possible. On my proposed definition, education involves human excellences (especially understanding and intellectual virtues) that are fostered, developed, or increased by learning, training, or teaching.

In literature, in movies, and in daily speech we come across many and various conceptions of what an educated person is like. Some stereotypes depict the professional, the scientist, or the philosopher as paradigms of education. If we go back to the middle of the 19th century, we come across writings where it is assumed, without question, that being educated means having learned Latin and Greek, and going still further back, we have the Enlightenment ideal of an unprejudiced and encyclopaedic mind. Different people have different stereotypes or paradigms in mind when they talk about education and these relate to different ideals from past philosophies. Learned accounts given by modern authorities also differ.

Oakeshott, the philosophical idealist and devout critic of rationalism, described education as initiation into a world of understandings, imaginings, meanings, and beliefs (Oakeshott, 1989). A similar account was given by Bailey in his 1984 monograph on liberal education, where he elaborated on its capacity to liberate students from the restrictions of the present and the particular, and involve them instead in what is most fundamental and general, worthwhile and rational (Bailey, 1984/2010). One of the most sophisticated attempts to analyse the concept of education is that of Peters (1966) in the first part of his *Ethics and Education*, where he argued that being educated entails having a broad range of worthwhile knowledge. Peters' conception of education excluded any narrow specialisation and required initiation into a wide variety of different subjects such as natural science, literature and history. Other distinguished scholars have raised doubts about this, however, including the British philosophers of education Warnock (1977) and Carr, who pointed out that 'we may regard people as educated on grounds other than broad initiation. Thus, it seems reasonable to

regard someone who has an in-depth knowledge of poetry and literature (say), but little else as better educated than the “know-all”, who is a mine of shallow information’ (Carr, 2003, p. 210).

Sceptical responses to Peters have also come from scholars who think that education is not primarily about knowledge but rather about moral virtue, freedom, or autonomy. As I mentioned in my description of Antinomy 1, White (1982) argued, for instance, that education should, first and foremost, make pupils morally autonomous.

It may be tempting to conclude from this diversity of views that different authors are working with different concepts of *education* rather than conflicting conceptions of the same concept. In his later works, Peters expressed reservations about his own analysis and said that although education must, by definition, entail some sort of improvement, all attempts to specify exactly what the concept involves are essentially contestable (Peters, 1981). Since then, many theorists have entertained similar doubts. Some of them are quoted by Carr (2010) who describes the current situation as follows:

In the contemporary literature of educational philosophy and theory, it is almost routinely assumed or claimed that ‘education’ is a ‘contested’ concept: that is, it is held that education is invested – as it were, ‘all the way down’ – with socially-constructed interests and values that are liable to diverge in different contexts to the point of mutual opposition. (Carr, 2010, p. 89)

Carr subsequently argues that the case for contestability of education rests on confusion and points out that, in spite of different viewpoints, most theorists agree that education promotes critical (rational) open-mindedness (Carr, 2010, p. 100). Likewise, Jackson, who is recognised as one of the foremost curriculum theorists of the present, has argued that rationality has primacy in educational affairs (Jackson, 2012, p. 28).

As Carr and Jackson both point out, most serious accounts of *what education is* overlap. The different views listed above seem compatible although they draw attention to different aspects of education. White’s autonomy has, for instance, something in common

with Bailey's liberation from the present and the particular, and such liberation may perhaps be achieved through Oakeshott's initiation into a world of understandings that, in turn, may include what Peters called a broad range of worthwhile knowledge. Although people may have different stereotypes of what an educated person is like, there seems to be wide agreement that it involves human excellences, especially understanding and intellectual virtues that are fostered by learning. Serious accounts of the concept of education also make it clear that education is not the same as schooling, since people can be educated without going to school, and it is, alas, possible to go through years of schooling without getting much education.

In a paper from 1975 entitled 'The meaning of "meaning"', the US philosopher Hilary Putnam (1975, pp. 215–271) criticised some of the then-prevailing philosophical accounts of meaning according to which the intension of a term (that is, a psychological state existing in the mind of each speaker who knows what it means) determines its extension.

Putnam's arguments are well known among philosophers working within the fields of epistemology and philosophy of language. His conclusions have become part of the mainstream in analytical philosophy:

We have now seen that the extension of a term is not fixed by a concept that the individual speaker has in his head, and this is true both because extension is, in general, determined *socially* – there is division of linguistic labor as much as of 'real' labor – and because extension is, in part, determined *indexically*. The extension of our terms depends upon the actual nature of the particular things that serve as paradigms, and this actual nature is not, in general fully known to the speaker. Traditional semantic theory leaves out only two contributions to the determination of extension – the contribution of society and the contribution of the real world! (Putnam, 1975, p. 245)

To qualify as having understood a word, one does not have to be able to produce an exact definition. In most cases, it suffices to be able to point to stereotypes, i.e. pick out some typical examples. Towards the

end of the paper, Putnam proposed a normal form for the description of meaning and said it should at least include the following:

- (1) the syntactic markers that apply to the word, e.g. 'noun';
- (2) the semantic markers that apply to the word, e.g. 'animal', 'period of time';
- (3) a description of the additional features of the stereotype, if any;
- (4) a description of the extension. (Putnam, 1975, p. 269)

If Putnam is right about the meaning of 'meaning', we cannot jump from the premises that people associate different stereotypes with the word 'education' and that experts give somewhat different accounts of its extension, to the conclusion that the word is used to express more than one concept.

As far as I can see, there is general agreement on some semantic markers and the minimum knowledge required to count as understanding the word 'education': that education involves, for instance, some desirable or commendable qualities people acquire through learning and that it involves rationality, open mindedness, and critical thought.

Putnam's theory of meaning invites us to think that 'education' denotes whatever known or unknown characteristics the semantic markers and stereotypes point to. Because the 'extension is, in part, determined *indexically*' (Putnam, 1975, p. 245), the meaning of the term is not completely settled by what speakers have in mind. It depends on objective truths and these truths may be partially unknown, more or less dimly understood, and waiting to be discovered, explained, or illuminated. On this account, disagreement about how to describe the extension of 'education' is to be expected as long as people disagree about what human excellences to cultivate and which of them are enhanced by learning. The thinkers I have mentioned (Oakeshott, Bailey, Peters, White, and Carr) listed understanding a world of culture, liberation from the present and the particular, a wide range of worthwhile knowledge, moral autonomy, and critical open-mindedness. We cannot conclude from this, however, that there are many concepts of education. If we see these accounts as pointing out extensions that, by and large, overlap, then

we have, on the contrary, reason to think they are so many attempts to explain the same concept.

If the meaning of 'education' were constituted by what people have in mind when they use the word, then we would have many concepts of education. Granted that some of the aims of education follow logically from an analysis of the concept, different concepts of education would support divergent, equally valid, accounts of what aims schools must serve to count as educational institutions. If, on the other hand, what Putnam said about the meaning of 'meaning' applies to the meaning of 'education', the problem is to determine what is truly educative. On the presumption that this theory of meaning is on the right track, the most plausible explanation of why people disagree about what education involves is that they have less than perfect knowledge of what human characteristics are most worthy of being fostered. Our understanding of the purpose of education is under construction because we are still searching for answers to the questions about human excellence and the good life posed by the ancient philosophers. An end to that search is not in sight, because, as Jackson has argued, the whole truth with respect to those things that matter most to us 'doesn't exist save as a cognitive fantasy, a mere possibility' (Jackson, 2012, p. 45).

The above account of the concept of education is in accordance with Kristjánsson's model of *critical conceptual revision* since it fits common intuitions reflected and refined by such authorities as Bailey, Carr, Jackson, Oakeshott, Peters, Warnock, and White. Such a fit is important in the case of the concept of education because a merely stipulative definition might leave out those very characteristics of education that consolidate educational, moral, and cultural ideals and make education something to be desired and admired. I do not think, however, that we have as weighty reasons to honour ordinary usage when we attempt to define the concept of *curriculum*. It is more of a technical notion.

The concept of curriculum

In his introduction to a handbook of research on curriculum published in 1992, Jackson pointed out that curriculum has traditionally been defined as a course of study at a school or university (Jackson, 1992,

p. 5). In this introduction, he reviewed several attempts to set forth and defend notions of curricula encompassing more than what schools or teachers intend to teach or require students to learn. One of the best known of these attempts was made by Jackson himself when he introduced the notion of a *hidden curriculum* (Jackson, 1968). In his publication from 1992 he concluded, however, that most educators use the word 'curriculum' in the standard dictionary sense to refer to the course of study of a school or university and 'none of the redefinitions has clearly won the day in the sense of having replaced the old definition' (Jackson, 1992, p. 9). Towards the end of his discussions about how to define curriculum, Jackson asked:

Finally we need to ask whether any of the redefinitions we have considered are necessary *as definitions*. Could their authors have done without them and still have gotten by? Can we in turn do the same? What is to stop us, for example, from talking about the possibility of our schools contributing to the development of harmful attitudes and habits without introducing the notion of a hidden curriculum? Or to take another example, can we not acknowledge that the curriculum is rarely delivered as planned without speaking of there being two separate curricula, one planned the other enacted? What would be lost, in short, if we restricted the use of the word to its dictionary definition? (Jackson, 1992, p. 12)

During the 20th century, various other definitions were attempted to make school curricula include more than what schools expected or required their students to learn. Some writers, for example, have defined curriculum in terms of students' educational experiences, including the unwanted or unintended effects of schooling (Jackson, 1992, pp. 6 –12). Scheffler, the US philosopher of science and education, reflected on this and pointed out that these wider notions of what is included in school curricula are programmatic. By this he meant that they apply the term 'curriculum' in new ways in order to 'extend the school's responsibility, hitherto limited to its so-called formal course of study, in such a way as to embrace the individual social and psychological development of its pupils' (Scheffler, 1960, p. 24).

There may be good reasons for emphasising the extensive responsibilities of educational institutions. This can be done though without having the concept of curriculum include all the effects a school has on its pupils. A school where pupils pick up bad habits, such as, say, cigarette smoking, can be justly blamed for that without counterintuitive claims to the effect that learning to smoke is a part of the school curriculum. Using the word 'curriculum' to refer to the totality of experiences of each learner also has, as Scheffler pointed out, the strange consequence that 'no two pupils ever have the same curriculum and, further, that no two schools ever have the same curriculum, each school having as many curricula as it has pupils' (Scheffler, 1960, p. 23).

In light of these considerations, I choose to use the word 'curriculum' in the original sense recommended by Scheffler (1960) and Jackson (1992). In this sense, 'curriculum' refers to what teachers or schools intend or attempt to teach their students or require them to learn. I leave it open whether or not more complex and wider curriculum concepts are useful in other contexts. This simple and narrow one serves my purposes.

The concept of aims

The third key concept in this monograph is the concept of aims. I analyse it in section 3.1. Here I let it suffice to mention that it covers all sorts of purposes, goals, and objectives. An aim is simply anything people try or endeavour to bring about, approach, reach, or realise. If I need to distinguish wide or general purposes from specific objectives, I use phrases like 'overarching aim' or 'general aim'.

2 The dominant view

In the 20th century, educational theorists in the USA attempted to make curriculum theory a scientific discipline. In this chapter, I sketch the main features of a school of thought that originated early in the century and became dominant in academic discourse on school curricula the in 1950s and 1960s. Since then, it has also had considerable influence on educational policy and administration.

2.1 Bobbitt, Tyler, Bloom, and Taba

Bobbitt

The view that curriculum design and development should use rigorous scientific methodology to derive the content and the methods of instruction from clearly stated educational aims was advanced by Bobbitt in a book published in 1918. The core of Bobbitt's methodology was elaborated in the sixth chapter of this book where the opening paragraph presented the view that was to dominate curriculum theory throughout the 20th century:

The technique of curriculum-making along scientific lines has been but little developed. The controlling purposes of education have not been sufficiently particularized. We have aimed at a vague culture, an ill-defined discipline, a nebulous harmonious development of the individual, an indefinite moral character building, an unparticularized social efficiency, or, often enough nothing more than escape from a life of work. Often there are no controlling purposes; the momentum of the educational machine keeps it running. So long as objectives are but vague guesses, or not even that, there can be no demand for anything but vague guesses as to means and procedure. But the era of contentment with large, undefined purposes is rapidly passing. An age of science is demanding exactness and particularity. (Bobbitt, 1918/1972, p. 41)

In what followed, Bobbitt proposed a scientific method of finding out what purposes schools should seek to attain:

The central theory is simple. Human life, however varied, consists in the performance of specific activities. Education that prepares for life is one that prepares definitely and adequately for these specific activities. However numerous and diverse they may be for any social class, they can be discovered. This requires only that one go out into the world of affairs and discover the particulars of which these affairs consist. These will show the abilities, attitudes, habits, appreciations, and forms of knowledge that men need. These will be the objectives of the curriculum. They will be numerous, definite, and particularized. The curriculum will then be that series of experiences which children and youth must have by way of attaining those objectives. (Bobbitt, 1918/1972, p. 42)

Bobbitt did not think though that all the specific activities people need to perform should be taught in schools. He made a distinction between what people pick up or learn through undirected experience and what has to be taught systematically, and proposed that schools should aim at 'those objectives that are not sufficiently attained as a result of the general undirected experience' (Bobbitt, 1918/1972, p. 44).

Bobbitt thought that needs for education could be found through empirical investigation of social shortcomings and deficiencies. This general principle was, he said, 'quite obvious and entirely familiar to teachers' (Bobbitt, 1918/1972, p. 50). He conceded, however, that it was hard to apply it to complex subjects such as history, literature, and geography:

What are the social shortcomings that are to be eliminated through a study of these social subjects? Our ideas are yet so vague, in most cases, that we can scarcely be said to have objectives. The first task of the scientific curriculum-maker is the discovery of those social deficiencies that result from lack of historical, literary, and geographical experiences. Each deficiency found is a call for directed training; it points

to an objective that is to be set up for the conscious training.
(Bobbitt, 1918/1972, p. 50)

The three core tenets of Bobbitt's methodology, apparent from these quotations, are:

- B1: What schools should teach ought to be stated clearly and exactly as a list of educational objectives.
- B2: School curricula should be designed as experiences that make students attain educational objectives.
- B3: What schools should teach can be discovered empirically by investigating what specific activities people need to perform and which of them are not learned through general undirected experience.

In Bobbitt's view, curriculum science is not only about how to plan educational experiences, i.e. the content and methods of instruction, by deriving them from educational objectives. It is also about finding the right objectives. The tradition Bobbitt initiated has retained the former emphases (B1 and B2) but has been more ambivalent concerning the last one (B3). The most influential advocate of this tradition in the middle of last century, Tyler, declared for instance that 'in the final analysis objectives are matters of choice, and they must therefore be the considered value judgements of those responsible for the school' (Tyler, 1949, p. 4). Apart from reservations about the third tenet of Bobbitt's methodology (B3), Tyler's work from 1949 is essentially a reiteration of, and addition to, what Bobbitt wrote in 1918.

Tyler

In their work on the history of curriculum theory, published in 1995, Pinar et al. said that Tyler crystallized a half-century of curriculum-development thought in one thin book and was 'perhaps the most influential figure the field has known' (Pinar et al., 1995, p. 149). His work 'adapted well to changing curriculum rhetoric' and was 'embraced by both life adjustment advocates and subject-centered critics (i.e. those espousing the academic disciplines as curriculum

content) who ascended to power after the Sputnik satellite launching' (Pinar et al., 1995, p. 155).

This little book 'which sold over 85,000 copies during 36 printings and was translated into 7 foreign languages' (Pinar et al., 1995, p. 149) made Bobbitt's scientific approach to curriculum design dominant for decades to come. It begins with a statement of a principle of curriculum development that Tyler calls a rationale, and which is commonly denominated the *Tyler rationale*:

The rationale developed here begins with identifying four fundamental questions which must be answered in developing any curriculum and plan of instruction. These are:

1. What educational purposes should the school seek to attain?
2. What educational experiences can be provided that are likely to attain these purposes?
3. How can these educational experiences be effectively organized?
4. How can we determine whether these purposes are being attained? (Tyler, 1949, p. 1)

The first question involves Bobbitt's first tenet (B1) and the second and third questions introduce the tenet listed above as B2. The fourth question is about evaluation rather than curriculum design and will not be discussed here (although requiring that the success of an educational programme be measured could put constraints on curriculum development). So, Tyler subscribed to the first two tenets of Bobbitt's methodology. Concerning the third one, he had reservations that are elaborated in the far longest chapter of his book (Tyler, 1949, pp. 3–62), i.e., the first chapter after a short introduction in which the four questions are posed. This chapter deals with the first question and is entitled 'What educational purposes should the school seek to attain?'

Tyler emphasised the importance of beginning with clearly defined goals or purposes and pointed out that they can be obtained through various areas of study, including philosophy, psychology, and studies

of contemporary life outside the school (Tyler, 1949, pp. 3–62). Although he told his readers where to look for educational objectives, Tyler took a neutral stance towards questions of value and said very little about what the purposes of school education should be. The closest he came to advocating one sort of purposes rather than another was where he said that ‘commonly, educational philosophies in a democratic society are likely to emphasise strongly democratic values’ (Tyler, 1949, p. 34).

Tyler’s work focused on methods of curriculum development and he tried to justify neither specific content nor definite aims. He probably wanted his curriculum science to be value neutral, the way good scientific work was supposed to be in the middle of last century. At that time, philosophers as diverse as Ayer (1936/1971) and Sartre (1943/1956) taught that values were ultimately matters of choice, rather than of discovery or rational deliberation, and hence outside the field of scientific study. A number of other influential curriculum theorists have also tended to fight shy of questions of value. In 1984, Barrow saw this tendency as predominant within the curriculum field. He maintained that ‘North American curriculum writing, which forms the bulk of curriculum writing, has deliberately eschewed the problem of values, and built up a body of curriculum theory on the pattern of engineering, a subject the ends or objectives of which are relatively uncontentious’ (Barrow, 1984, p. 17).

In addition to being less sanguine than Bobbitt was about the scientific discovery of the best or most apposite educational aims, Tyler had a notion of objectives that was different from Bobbitt’s in that Tyler thought that the main objectives should be few. He did not state this very explicitly but said, for example, that a curriculum maker will select ‘a small list of important objectives’ (Tyler, 1949, p. 43). Some other remarks Tyler made hark back to Bobbitt. He said, for instance, that objectives should be specific and that very general aims, such as to develop critical thinking, were unlikely to be fruitful (Tyler, 1949, p. 46). Discussing evaluations of schools, he assumed that objectives should be specific enough so that one could measure or test if students had acquired the behaviour aimed at (Tyler, 1949, pp. 104–120). One of the sources of educational objectives Tyler described is also reminiscent of Bobbitt’s focus on preparation for specific activities that are important in

adult life. Tyler described these as analyses of contemporary life (Tyler, 1949, p. 23). He did not think of this one source as sufficient however. Overall he proposed, instead of Bobbitt's third tenet, a more complex notion, namely that in order to find out what schools should teach, knowledge from various fields should be used, although some of the aims had to be fixed through political decisions rather than empirical investigation or scientific reasoning.

An important strand of Tyler's curriculum science, which I have not mentioned so far, is his emphasis on viewing education as a process of changing the behaviour patterns of learners. He urged that the purposes schools seek to attain should be defined as objectives that 'represent the kinds of changes in behaviour that an educational institution seeks to bring about in its students' (Tyler, 1949, p. 6). According to Tyler, objectives should not be teacher-centred but learner-centred:

Objectives are sometimes stated as things the instructor is to do; as for example, to present the theory of evolution, to demonstrate the nature of inductive proof, to present the Romantic poets, to introduce four-part harmony. These statements may indicate what the instructor plans to do; but they are not really statements of educational ends. Since the real purpose of education is not to have the instructor perform certain activities but to bring about significant changes in the students' patterns of behavior, it becomes important to recognize that any statement of the objectives of the school should be a statement of changes that take place in students. (Tyler, 1949, p. 44)

In the following summary of the main tenets of Tyler's methodology, this emphasis on objectives being learner-centred is listed number four:

- T1: What schools teach ought to be stated clearly and exactly as a list of educational objectives.
- T2: School curricula should be designed as experiences that make students attain educational objectives.

T3: To find out what schools should teach, knowledge from various fields should be used, but some of the aims must be fixed through political decisions rather than empirical investigation or scientific reasoning.

T4: Educational objectives should be learner-centred, i.e. statements of changes that take place in students.

Bloom and Taba

Among Tyler's most important successors in the 1950s and 1960s were Bloom who edited an influential work, *Taxonomy of Educational Objectives*, published in 1956, and Taba whose *Curriculum Development: Theory and Practice*, published in 1962, was a synoptic text, widely used in curriculum courses during the 1960s and into the early 1970s (Pinar et al., 1995, p. 175).

Bloom's work was a continuation of Tyler's and he posed the same four questions (Bloom, 1956, p. 25) as Tyler (1949, p. 1), taking them to be the fundamental questions of curriculum theory. Bloom also took over all of Tyler's four tenets, T1–T4 above, emphasising the fourth one since the taxonomy was designed as a 'classification of student behaviours which represent the intended outcomes of the educational process' (Bloom, 1956, p. 12). He furthermore followed Tyler in claiming that his classification scheme could be used to represent and classify all educational goals in a value-neutral way (Bloom, 1956, p. 14). Bloom admitted, however, that

In one sense, however, the taxonomy is not completely neutral. This stems from the already-noted fact that it is a classification of intended behaviours. It cannot be used to classify educational plans which are made in such a way that either the student behaviours cannot be specified or only a single (unanalyzed) term or phrase such as 'understanding,' or 'desirable citizen,' is used to describe the outcomes. Only those educational programs which can be specified in terms of intended student behaviours can be classified. (Bloom, 1956, p. 15)

It seems evident from the quotation that he wanted to exclude what Bobbitt called 'large, undefined purposes' (Bobbitt, 1918/1972, p. 41).

Taba also subscribed to Tyler's four tenets and assumed that formulation 'of clear and comprehensive objectives provides an essential platform for the curriculum' (Taba, 1962, p. 12) and an 'educational program, like any activity, is directed by the expectations of certain outcomes' (Taba, 1962, p. 194). Like Tyler, she thought that the basic aims should be few in number and she conceived of educational aims as forming a hierarchy where the most general ones, having to do with, e.g., transmission of culture, reconstruction of society, or the fullest development of the individual, 'provide an orientation to the main emphasis in educational programs' (Taba, 1962, p. 196).

Although Taba assented to the main tenets advanced by Tyler, she also realised some shortcomings of focusing exclusively on learning outcomes, or on objectives stated in terms of students' behaviour:

This idea of learning as a product rather than as process and experiencing has had a peculiarly distorting effect on the teaching of feelings and values. The chief educational means for altering values is to teach *about* values and to use content which on the surface seems related to the desired behaviour, but which does not touch on the psychological dynamics or reach the motivational springs which alone can translate the ideas contained in the content into beliefs, values, and conduct. (Taba, 1962, p. 154)

Taba also realised some of the problems later pointed out by Akker (2003a) and others, conceding that 'often there seems to be little consistency between the school-wide objectives, usually stated in broad strokes, and the objectives of specific courses in specific subjects, or the specific units' (Taba, 1962, p. 228). It seems to me that her careful and detailed statement of the model she took over from Tyler and Bloom makes its flaws visible. Her attempts to repair the model are aptly summarised by Pinar et al.:

A critical aspect of her proposal involved a modification of the Tyler Rationale, regarded largely as a linear process moving from statements of purpose through learning experiences to evaluation. Taba conceived of the process as more nearly circular with the emergence of new purposes

and goals during the process. This modification was more in accordance with Dewey's conception of purpose as arising out of transactions between teachers and students. (Pinar et al., 1995, p. 175)

The model Taba took over from Tyler and Bloom was presented, by them, as a method of design, a way to create school curricula starting with the slate wiped clean. Taba saw this engineering approach as problematic and said that if 'one views curriculum planning as a kind of educational engineering, one begins to realize how difficult it is to apply scientific method to this rather crucial task' (Taba, 1962, p. 290). In the beginning of her book from 1962, she pointed out that design of a whole course of school education *ab initio* was hardly realistic, and she recommended small-scale experimentation with parts of the curriculum:

Perhaps before new ideas can emerge about the design of scope and sequence sufficient experimentation with smaller units of curriculum is needed to settle the many problems connected with curriculum building. There is reasonable ground for believing that if the sequence in the curriculum development were reversed – that is, first, teachers were invited to experiment with specific aspects of curriculum and then, on the basis of these experiments, a framework were to be developed – curriculum development would acquire new dynamic. (Taba, 1962, p. 9)

The most important differences between Taba and her predecessors were that she was perhaps more sceptical about the potential of a scientific or engineering approach to curriculum design and development. Although she recommended clear statements of objectives as principles of organization, she realised that the knowledge needed to derive what to teach, and how, from statements of educational objectives was not available as such:

The more 'scientific' behaviouristic observations in experimentally confined situations cannot be used to understand or guide learning of a more complex nature, such as the

development of cognitive processes or the formation of attitudes. On the other hand, field theories of learning present too great a complexity of variable factors, with the result that it is difficult to examine adequately their regularities to translate them into appropriate principles and laws. (Taba, 1962, p. 85)

She seems at times to conceive of educational aims as principles of reform, i.e., as guiding piecemeal improvements, rather than as principles of design that can be used to build schooling from square one. (I explain the distinction between principles of reform and principles of design in sections 3.1 and 5.1.) Ever since, the tradition that originated in the works of Bobbitt and Tyler has vacillated on this issue; and while there are scholars advocating wholesale reform of the entire system of education (e.g., Katz & Denti, 1996; White, 2004a), there are others who question the feasibility of rebuilding schools from the ground up (Tyack & Cuban, 1995; Tye, 2000).

Still going strong

The heyday of Tyler's model in academic discourse on curriculum in the USA was in the 1950s and 1960s. This academic discourse changed around 1970 and became more concerned with understanding curriculum (what is taught or learned in schools) than with methods of curriculum design. Subsequently, different theorists have advocated different understandings of schooling, e.g., as a manifestation of political ideology, male dominion, or theological world views. Pinar et al. (1995, p. 17) refer to the changes that took place in the 1970s as *reconceptualisation* and argue that, since 1980, the field has become increasingly fragmented (Pinar et al., 1995, p. 238). Nevertheless, recent textbooks on curriculum design and secondary school teaching (e.g. Kellough & Kellough, 2007; Marzano & Kendall, 2008) advocate a model similar to Tyler's.

Although no single model is dominant among curriculum theorists nowadays, the model outlined above still holds sway among policy makers and top-level school administration in England and the USA as I argue below. This is also the situation in Iceland. The national curriculum guide for Icelandic secondary schools, published in 2011

(Ministry of Education, Science and Culture, 2011), is a part of the tradition initiated by Bobbitt and Tyler, requesting secondary schools to use precise formulation of learner-centred aims as organising principles for all modules. This publication from 2011 was a continuation of a trend that was also manifest in the previous national curriculum guide for Icelandic secondary schools issued in 1999 (Ministry of Education, Science and Culture, 1999).¹ A similar trend has been visible for more than half a century in government directives and curriculum guides for primary education in Iceland where emphasis on educational aims as organising principles of school curricula has been on the increase at least since 1948 (Jóhannesson, 2008; Sigþórsson & Eggertsdóttir, 2008). Research by Ingólfur Ásgeir Jóhannesson (2006), an Icelandic educationist and historian, indicates that in the eyes of Icelandic primary school teachers, educational aims were more important and more demanding as organising principles of school practice at the turn of the 21st century than in previous years.

According to Jackson (1992, p. 35), Tyler's model was still dominant among school administrators in the USA in 1980. It reached new heights of influence and ambition, in England and in the USA, when its advocates 'allied themselves with the neoconservative movements of the 1980s' (Reid, 2006, p. 67). Quite recently, it was still seen as dominant in school administration in these countries by several prominent scholars in the field (Au, 2011; Elliott, 2009; Holt, 2009; Klein, 2009; Short, 2009). The changes that took place in England and the USA in the 1980s had their analogues in other countries, e.g., in Finland, Iceland, and Sweden in the 1990s, where aims-based organisation, or goal steering, became an integral part of a managerialist educational policy that emphasised competition and economic efficiency (Jóhannesson, Lindblad & Simola, 2002).

This model has now been largely incorporated into the so-called Bologna Process in Europe (also known as the Process of Building the

¹ An English translation of the general section of the second edition of this national curriculum guide for Icelandic secondary schools (Ministry of Education, Science and Culture, 2004) is available on the website of the Icelandic Ministry of Education, Science and Culture (<http://www.menntamalaraduneyti.is/utgefing-efni/namskrar/ad-alnamskra-framhaldsskola/>).

European Higher Education Area), where one of the key concepts is *learning outcome* (Karseth, 2006, p. 270). In an article in the *Bologna Handbook*, Kennedy, Hyland, and Ryan (2006) advocate learner-centred specific outcomes in almost the same terms as Tyler used to do. They claim that among ‘the great advantages of learning outcomes is that they are clear statements of what the learner is expected to achieve and how he or she is expected to demonstrate that achievement’ (Kennedy et al., 2006).

The terminology used to describe the model has changed over time. In the 1980s, the main tenets of Tyler went by the denomination *outcomes-based education* (OBE). More recently ‘within the UK national curriculum framework, specifications of *outcomes for all students* are referred to as “standards”, *exit behaviours* as “targets” and *benchmarks* as “attainment levels”’ (Elliott, 2007).

Although the objectives model has been dominant within school administration, there are reasons to doubt that it has shaped school practice to the extent envisaged by educational authorities, and some advocates of aims-based curricula, e.g. White (2010), complain that school education is still not a genuinely aims-based enterprise.

The core tenets of the dominant view

The tradition outlined in this chapter is not uniform. Its vocabulary and some important doctrines have changed over the years. It has nevertheless been consistent in maintaining three of the core tenets of Tyler’s methodology (listed as T1, T2, and T4 above):

- Core tenet 1: What schools teach ought to be stated clearly and exactly as a list of educational objectives. (Same as T1 and B1)
- Core tenet 2: School curricula should be designed as experiences that make students attain educational objectives. (Same as T2 and B2)
- Core tenet 3: Educational objectives should be learner-centred, i.e. statements of changes that take place in students. (Same as T4)

On some other questions, advocates of this dominant tradition in curriculum theory have entertained divergent views. Some have emphasised particular aims that can be defined in terms of behaviour (Bobbitt), others have argued that some more general aims are needed to provide an orientation (Tyler, Taba). Opinions about how to find the best or most apposite educational aims differ, although the texts by Bobbitt, Tyler, and Taba discussed above all suggest empirical investigation of students' needs as an important source of educational aims. These three authors also tended to conceive of aims as something that can, in principle, be accomplished or completed by means that are only contingently related to them.

The English curriculum theorist John Elliott (2007) has criticised some recent advocates of aims-based curricula and argued that, in addition to the main tenets of Tyler's methodology (listed as T1 – T4 above), they commonly assume that 'means and ends are contingently related. What constitutes an appropriate means for bringing about the ends-in-view needs to be determined on the basis of empirical evidence' (Elliott, 2007, p. 71).

The core tenets (numbered 1, 2, and 3) can be read as an answer to the question posed in section 1.1: *In what sense and to what extent can organised school education be an aims-based enterprise?* On this view, the answer is that school education can be, and ought to be, completely aims-based in the sense that the whole of it should be organised to make students attain learner-centred educational objectives. As the antinomies described in section 1.2 show, this answer is, however, deeply problematic. It grabs one horn of each dilemma, namely A₁–A₄:

- A₁ Education should aim at changing students in predetermined ways.
- A₂ Education should serve aims that are known and can be clearly stated.
- A₃ Education ought to be planned by starting with clearly stated general aims and deriving from them (and relevant knowledge within fields such as educational psychology) what to teach and how.

A₄ If there is a good reason to teach subjects such as literature, history, natural sciences and mathematics, then these subjects serve worthwhile aims.

The first of these (A₁) is closely related to core tenet 3, the second one (A₂) is not much different from core tenet 1, and the remaining two (A₃ and A₄) seem to follow from core tenets 1 and 2. The last one may, however, require some extra premises about education being worthwhile. All of these (A₁–A₄) surely have some presumptions in their favour, but so have the other horns of the dilemmas posed by the antinomies, that is, statements B₁–B₄:

B₁ Education should make students autonomous.

B₂ Education is a vehicle of progress through which society learns to appreciate new values.

B₃ Functional school-education is based on subject-centred traditions that have not been derived from general aims.

B₄ Our understanding of aims, having to do with, say, equality, democracy, and critical thinking, has been gained by learning subjects such as literature, history, natural sciences, and mathematics.

The arguments on behalf of B₁–B₄ that I advanced in section 1.2 all speak against the core contentions of the dominant view, so although there is much to be said for those core contentions, there is also much to be held against them.

2.2 Criticisms of the dominant view

Since the 1970s, the dominant view, outlined above, has been criticised by scholars who have advocated different approaches to curriculum theory. In a book published in 2006, William A. Reid, an English curriculum theorist, classified different approaches to curriculum studies using two criteria or independent dimensions of evaluation. The first criterion is whether a theorist sees curriculum as legitimately and unproblematically institutionalized. Here, those who see public schools as beneficial for individual students and for society

stand opposite to those who, for instance, argue that schools reproduce social inequalities or patterns of oppression. The second criterion is whether curriculum is understood within the perspective of one dominating idea or theory (Reid, 2006, p. 11). Examples of such theories would include Marxism, Piaget's theory of cognitive development, and Tyler's methodology of scientific curriculum design. This twofold classification yields four different groups or categories that Reid calls *systematisers*, *deliberators*, *radicals*, and *existentialists*. In the following table, I mention a few leading theorists from each camp (the examples are mine, not Reid's).

Table 1: Four different approaches to curriculum studies

	Curriculum legitimately and unproblematically institutionalized	Curriculum not legitimately and unproblematically institutionalized
One leading idea	Systematisers: John Franklin Bobbitt, Ralph W. Tyler, Benjamin S. Bloom, Hilda Taba	Radicals: Samuel Bowles and Herbert Gintis, Michael W. Apple
Not one leading idea	Deliberators: Joseph Schwab, William A. Reid, Ian Westbury, Wesley Null, Lawrence Stenhouse, Robin Barrow, A. V. Kelly	Existentialists: Ivan Illich, Maxine Green

The first group, the *systematisers*, are advocates of the dominant view. Reid (2006, p. 12) describes them as the archetypal thinkers and workers in curriculum theory, and remarks that attitudes to curriculum are expressed in language that is essentially metaphoric. 'Here the metaphor is an engineering one' (Reid, 2006, p. 13).

Reid himself thinks this engineering metaphor is misleading. He is sceptical of simple theories and takes curriculum development to be a practice that needs deliberation, practical knowledge, and non-theoretical (non-generalised) understanding of local situations. He thus identifies with the second group, the *deliberators*, and lists the US educationist Joseph Schwab as the most important source of his views, and Wesley Null and Ian Westbury as his allies. He does not mention, however, Lawrence Stenhouse, or other English thinkers such as Robin Barrow and A. V. Kelly, who have advocated views somewhat similar to his own.

The group denominated *deliberators* by Reid might as well be called humanists, or advocates of liberal education, since all the proponents he mentions write on behalf of traditions emphasising the non-instrumental value of learning and the importance of teaching organised bodies of knowledge in a coherent way (Null, 2011, p. 85). In opposition to systematisers, deliberators have a non-technological view of curriculum development and want to build upon humanistic sources of knowledge like rhetoric, ethics, literature, and philosophy, rather than the physical and social sciences (Null, 2011, p. 172).

According to Reid the third group, the *radicals*, are opposed to *systematisers* on the dimension of attitude to institutions. 'They start from an assumption of fundamental malfunction. All institutions as currently constituted, including curriculum, are part of the apparatus that stabilizes the social order and oppresses the majority of the population' (Reid, 2006, p. 14). The radicals are, however, like the systematisers in that (a) they base their view on one leading idea, (b) they make a sharp distinction between theory and practice, and (c) they demote teachers to the role of implementing theoretical plans designed by others.

The best-known work by radicals in the field of curriculum is probably *Schooling in Capitalist America: Educational Reform and the Contradictions of Economic Life*, written by the two US economists and social theorists Samuel Bowles and Herbert Gintis (1976). In this work, they argued that schools replicate hierarchical divisions of labour and sustain the class structure of society. Since then, a number of other radicals, including the US curriculum theorist Michael W. Apple (1982), have studied how, and to what extent, schools confirm or reinforce relations of domination and reproduce an unequal society.

The last group, the *existentialists*, Reid describes as follows:

Existentialists share with radicals a hostility to curriculum as institution. What separates them is the question of where they stand on the dimension of a commitment to a leading idea. Whereas radicals center their critique on a specific theory, existentialists simply assume an antipathy between individuals and institutions, and are then more interested in

thinking about what this means for the individual than in elaborating macro explanations of the mechanisms through which institutions act oppressively. (Reid, 2006, p. 15)

The representative members of this group are individualists, mindful of how unjust it is to force everybody into the same mould and worried that overly systematic schooling can stifle creativity. Like the radicals, some thinkers in this camp have expressed doubts about the benefits of schooling. The most famous one is probably the Austrian-born philosopher and theologian Ivan Illich. In his book, *Deschooling Society*, published in 1973, he says that institutionalization leads to psychological impotence and schooling 'makes pupils confuse teaching with learning, grade advancement with education, a diploma with competence, and fluency with the ability to say something new' (Illich, 1973, p. 9). The US educationist Maxine Green is another well-known curriculum theorist influenced by existentialist philosophy. In her view, education is more about encouraging kids to have confidence in their own vision and enabling them to express themselves than an induction into systematic knowledge (Green, 1995).

In what follows, I assume the legitimacy of organised schooling and institutionalized curricula. My criticisms of the dominant view will thus be in the spirit of the tradition Reid calls *deliberative* (and the pre-modern traditions of humanism and liberal learning), rather than radicalism or existentialism. This is because the question I am concerned with is, in what sense, and to what extent, organised school education can be an aims-based enterprise. I would, possibly, build on the work of radicals or existentialists if my question were whether organised schooling is a legitimate enterprise.

In Chapters 4 and 5, I attempt to explain, from a deliberative (or humanistic) perspective, what is problematic with the dominant view and propose a more realistic answer to my question about to what extent and in what sense organised school education can be aims-based. Before I proceed to do that, however, I will analyse and critically revise the concept of aims: the topic of Chapter 3. This conceptual clarification is necessary because the shortcomings of the dominant view are, to a large

extent, due to insufficient attention to the multifarious meaning of terms like *objectives, aims, goals, and purposes*.

3 The concept of *aims* analysed

In this chapter, I analyse the concept of aims by making five distinctions between different types of aims. These distinctions are between:

1. Things, events, or states of affairs, created or causally brought about by the means and aims that are constituted by the means.
2. Aims that are contingently related to the means and aims that follow logically from the means.
3. Aims that are independent of any specific context and aims that are dependent on, or only comprehensible within, a specific context.
4. Objectives that can be reached and ideals that people can work towards, although the task cannot be completed.
5. Aims as principles of design and aims as principles of reform.

This fivefold classification is not meant to be exhaustive or to exclude other criteria for sorting or categorising aims. I only claim that my five distinctions are all relevant to understanding what is involved in talk about aims of education.

3.1 Five distinctions

Within some activities, it is easy to distinguish between aims (or ends or purposes) and means. Turning on the cooker is for instance a means to the end of boiling potatoes and boiling potatoes can be a means to the end of serving a meal, and serving a meal can be a means to ends like showing hospitality, alleviating hunger, or keeping a daily routine. Within a game of chess, each move is a means to the end of mating the opponent's king. Playing the game can also be a means to the end of winning a tournament or of increasing one's ELO rating. Sometimes, however, we are not sure if what we do is a means to something else. Is winning a tournament or showing hospitality, for example, a means to something? Maybe it is a way of gaining prestige or publicity. But is that also a means to something else?

In some areas of life that matter most to us, it is difficult to distinguish between ends and means. Do athletes run in order to stay healthy or do they take care of their health in order to be able to run? One who picks the former option without hesitation is probably not a great sportsman. Do people marry to lead a good life or do they live well in order to preserve and cultivate their marriage? Do people learn languages to be able to read literature or do they read literature to hone their language skills? When we cannot easily distinguish the means we choose from the aims, ends, or purposes we seek, we sometimes say that what we are doing is an end in itself.

There are arguments both for and against thinking of every rational action as having an aim, end, or purpose. Over 40 years ago, Carl G. Hempel, who began his philosophical career as one of the founders of logical positivism, gave a persuasive argument for a means-end view of rational action. He described his position as follows:

To say of an action that it is rational is to put forward an empirical hypothesis and a critical appraisal. The hypothesis is to the effect that the action was done for certain reasons, that it can be explained as having been motivated by them; these reasons will include certain ends the agent sought to attain, and his beliefs about available means of attaining them. And the critical appraisal implied by the attribution of rationality is to the effect that, judged in the light of the agent's beliefs, his action constituted a reasonable or appropriate choice of means for the attainment of his ends. (Hempel, 1961, p. 5)

Hempel's thesis seems plausible because every time I try to bring something about I have an aim, and if I am asked what I am trying to bring about, I normally answer the question by mentioning my aim. It can, however, also be argued that there is something fundamentally wrong with the means-end view of human action. The Scottish philosopher Alasdair C. MacIntyre, who is best known for his revival of Aristotelian moral philosophy in the 1980s, has for instance pointed out that if the means-end model is applied to work, we tend to conceive of work as a means for the end of leisure. This, said MacIntyre, is a paradoxical position because work is important and leisure comparatively

trivial, so 'that a sense is engendered that the important is being treated as a means to the trivial' (MacIntyre, 1964, p. 7). Although some people may see work as merely instrumental, e.g., as a means for raising a family, there seems to be an element of truth in what MacIntyre said about the paradoxical implications of instrumentalism. This is more evident in the case of education than in the case of work because when the means-end model is applied to education, then what is most valuable (such as understanding, culture, or virtue) is seen as means to something else like, for instance, economic gain, consumption, or leisure. On the subject of education, MacIntyre concluded that:

Our aim ought to be to help people to discover activities whose ends are not outside themselves; and it happens to be of the nature of all intellectual enquiry that in and for itself it provides just such activity. The critical ability which ought to be the fruit of education serves nothing directly except for itself, no one except those who exercise it. (MacIntyre, 1964, p. 19)

MacIntyre's argument shows that a view like the one Hempel advocated gives rise to a paradoxical attitude where what is important and valuable is justified as a means to something relatively trivial. This happens if we think of every rational action as having an aim (or end or purpose) that is distinct from the action and caused by it. It does not follow from this that we should conceive of education as aimless. As MacIntyre pointed out, we should rather think of it as serving aims that are not outside education. If we acknowledge such aims, then we can preserve the truth in Hempel's view without the paradoxical results MacIntyre described. In other words, we need to distinguish between two types of aims or ends, i.e. aims as states of affairs that are causally brought about by the means, and aims that are constituted by the means.

Distinction 1: Causation versus subsumption

The aim of an action can be:

1. An intended consequence expected (or believed, or believed to be likely) to be produced, caused, or causally contributed to, by the action.

2. A state of affairs constituted or partially constituted by the action, i.e., realised by the action by being identical to it, or involving parts or aspects that are identical to parts or aspects of it. Ends in this second sense are not (at least not entirely) distinct from the action.

Marriage, learning, friendship, and work are means to the end of living a good life in the second sense rather than the first. More simple examples from everyday life can also be used to explain this distinction. Suppose, for instance, that I carry someone's bag in order to help that person get home with a load of goods. Carrying the bag is then a means to the end of helping. Carrying the bag and helping are, however, not two events where the former causes the latter. Here, talking of means and talking of ends are two ways to describe the same action, where the second description justifies that action by subsuming it under a category of deeds that do not need further justification. When we state the aims, purposes, or ends of our actions, we sometimes list the intended consequences. But sometimes we only describe what we are doing in different terms and thereby subsume it under a category of actions that are valuable or worthwhile. Therefore, I call the distinction made here between two types of means-end relations the *distinction between causation and subsumption*.

From the premise that every rational action has an aim, it does not follow that it brings about or contributes causally to some end or purpose that is distinct from the action. If my analysis is right, it is also possible that a rational action serves an end that is not separate from it. Brian Crittenden, an Australian educationist, has made a similar distinction between types of aims. In one of his writings, he had an apt expression of it: 'one may have a purpose in acting without having a purpose beyond the action' (Crittenden, 2007, p. 47). MacIntyre's argument shows that if we exclude means-end relations of the subsumption type, then the requirement that all rational actions have some end or aim leads to unfortunate conclusions. This distinction between causation and subsumption is needed to account for the aims of education because learning can both cause what is sought, and, as the English philosopher of education Richard Pring (1999) for instance has argued, be constitutive of worthwhile aims since endeavouring to, say, appreciate a poem is both a means to becoming

better educated and constitutive of being an educated person. The core tenets of the dominant view, listed in section 2.1, invite us to see educational aims as changes in students that are caused by educational experiences. What I have said so far about this first distinction indicates that this is not true of all educational aims.

Although causation and subsumption are two different ways in which means and ends can be related, they are not exclusive. Sometimes the same action simultaneously exemplifies the end sought and contributes to it causally. In the beginning of the second book of his *Nicomachean Ethics*, Aristotle argued that people learn to be virtuous by acting in accordance with virtue (Aristotle 1941, pp. 952–953, [1103a–b]). On this account, a good act performed by someone who is not yet (completely) virtuous is both worthwhile in itself and good because it causes the doer to become (more) virtuous. In this case, both of the types of means-ends relations that I have outlined apply to the same action: The end is both partially constituted and partially caused by it. Something similar seems to apply to some purposes that have to do with social organisation rather than with individual virtues. If, say, equality as a value or norm is built into school practice and this causes pupils to appreciate the value of equality, then the practice simultaneously exemplifies the end and contributes to it causally.

Distinction 2: Extrinsic versus intrinsic

Once an action has been described or conceptualised, its aims can be:

1. Extrinsic, i.e., contingently related to the description or conceptualisation.
2. Intrinsic, i.e., logical consequences of the description or conceptualisation.

Some concepts involve aims as logical consequences. The aim of removing dirt is, for instance, implied by the concept of washing. Washing can, however, also have aims that do not follow from an analysis of the concept, like preventing the spread of a disease, showing courtesy, or making a statement as Pilate did. This second distinction may seem related to the one between causation and subsumption. The example I used to explain what subsumption involves shows, however,

that this is a different distinction. In this example, the end of helping is constituted by the action, i.e., by carrying the bag. Since helping does not follow from an analysis of the concept of carrying, however, subsumption is different from logical implication.

Education may have intrinsic aims like acquiring intellectual virtues such as critical thinking, or counteracting the all-too-human tendencies for prejudice and narrow-mindedness. It may also be instrumental to purposes that are not logically related to the concept of education, such as a stable political order or economic growth.

From the truth that some worthwhile aim is intrinsic – that is, that it follows from the right definition of an activity – we cannot, at least not generally, conclude that the activity is, or is to be, undertaken for the sake of that aim. Likewise, from the truth that some aim is extrinsic, that it is contingently related to a concept used to describe an activity, nothing follows about its importance or its lack of importance. I can have all sorts of reasons for washing my hands without caring much about cleanliness. We can also have reasons to seek education without caring much about the aims that are internal to education.

Since the US philosopher Willard van Orman Quine (1951) dealt his famous and crippling blows to logical positivism in his paper, ‘Two Dogmas of Empiricism’, attempts to draw a sharp distinction between conceptual and empirical truths have been seen as suspect. Following Quine, we can think of the scale from extrinsic to intrinsic as continuous, with the relation between washing and removing dirt being, e.g., more logical, and less empirical, than the relation between washing and preventing the spread of contagious diseases. The truth that hand-washing removes bacteria, as well as mud, soot, and grime, is half-empirical and half-conceptual. The concept of washing has links to the concept of disinfection that depends on empirical knowledge, but is also logical because all sorts of knowledge can figure in definitions or analyses of concepts. Bearing this in mind, we should be wary of thinking of the distinction between extrinsic and intrinsic as sharp or absolute.

In his *Notes Towards the Definition of Culture*, T. S. Eliot wrote about the purposes of education:

But when writers attempt to state the *purpose* of education, they are doing one of two things: they are eliciting what they believe to have been the unconscious purpose always, and thereby giving their own meaning to the history of the subject; or they are formulating what may not have been, or may have been only fitfully, the real purpose in the past, but should in their opinion be the purpose directing development in the future. (Eliot, 1948, pp. 95–96)

Sometimes at least, definitions purport to explain or illuminate the value or main point of what is being defined. A definition of education may, for example, involve an understanding of why education is important and thus elicit (in Eliot's sense) what its purpose has always been and give meaning to its history. If such definition is warranted, or supported by rational argument, it gives us reason to think that any school that claims to educate its students must seek to attain the aims implied by it.

In the section on the concept of education, section 1.3, I mentioned Carr's (2010) argument to the effect that the concept of education involves promotion of rationality and critical open-mindedness. If his conclusion is warranted, as I think it is, it is not a matter of choice whether education should aim at open-mindedness, and a school that chooses not to seek this aim opts for something other than education. Some educational aims may therefore exist that are discovered neither through empirical investigation, in the way Bobbitt envisaged, nor through the alternative proposed by Tyler, namely, free choice or political decision. Crittenden has reached a similar conclusion through his analytical discussion of educational aims and argued that, if we focus exclusively on external aims of schooling, 'it could turn out that the school would perform its function most efficiently by miseducating or by devoting itself to non-educational activities' (Crittenden, 2007, p. 51).

Distinction 3: Independent of context versus dependent on context

The aim of an action can be:

1. Independent of any specific context.

2. Dependent on a specific context.

A chess player may know why he moves a pawn from B3 to B4 without knowing why he is playing the game. Each move can have an aim within the context of the game, regardless of what aims (if any) the game has. Similarly, if I am preparing a meal, turning the cooker on has an aim within that context whether or not the meal serves any purpose. (If someone is hungry, it probably does.) Likewise, if I am teaching someone a subject like, say, Euclidean geometry, each lesson, each exercise, each assignment may have an aim that can be justified granted that my pupil is to learn geometry, regardless of what aim (if any) the whole enterprise of teaching and learning geometry has. It is thus possible to have well-defined aims for each assignment, each exercise, and each lesson in a course or module without being able to specify any aims for the whole course. Likewise, a game of, say, chess can be aimless even though each move has an aim within the context of the game.

Aims within contexts such as sports, academic disciplines, categories of art, or hobbies, such as, say, gardening, often have a life of their own. Attempts to fit them into a hierarchy with more overarching aims at the top are, in some cases at least, bound to be strained and stilted. Thinking of sports as subservient to aims having to do with health and welfare, for instance, does not capture what is so important about football. Likewise, conceiving of music and mathematics, or other comparably rich traditions, as merely subservient to something described in general terms as, say, human happiness or flourishing does no justice to what people working within these fields really care for. To account for what is important about gardening, football, music, or mathematics, one needs to understand these activities from within.

It is tempting to think of educational aims as forming a hierarchy, where aims within subjects or modules serve larger aims that are then valid or justifiable as parts of some overarching good such as happiness, welfare, or human excellence. The existence of context-dependent aims makes it doubtful that all educational aims fit into such hierarchical models. Some of them may be valid within a context

(or subject) without providing any justification for the context (or subject) or serving any aims existing independently of it.

Distinction 4: Objectives versus ideals

The aim of an action can be:

1. An objective (or closed aim) that can be reached.
2. An ideal (or open aim) that people can work towards, although the task cannot be completed.

The fourth distinction I draw between different types of aims is between objectives that can be reached and ideals that people can work towards although the task cannot be completed. Going for a swim this afternoon, painting the kitchen, and taking a walk together next Sunday are aims of the first type. Staying healthy, keeping a beautiful home, and having a happy marriage are lifelong tasks of the second type.

Educational aims defined in terms of behaviour typically belong to the first category. Learning to use Newton's inverse square law to calculate the gravitational force between two masses may be understood as an objective in this sense, but understanding gravity is better seen as an open aim that cannot be conclusively reached. When has a student understood gravity: When she has learned to do simple calculations based on Newton's formula? Is able to explain how massive objects affect space-time? Has mastered the concepts used to describe black holes? Knows what the long search for the Higgs boson was all about? Can participate in debates about the differences between gravity and the other fundamental forces of nature? Understanding gravity is an endeavour which, arguably, cannot be completed. Likewise, memorising who is married to whom in Njál's saga, or facts about the constitutional assembly at Eidsvoll in 1814 can be seen as objectives. Understanding sexual relations in Njál's saga, or what effect the French revolution had on politics in Scandinavia, and how democracy evolved in the Nordic countries, is, however, not something one does once and for all. In all these cases, our understanding depends on other knowledge that is evolving and under review and can, therefore, not be complete and final.

Open-ended aspirations or ideals form what the Canadian philosopher Charles Taylor (1999), known for his contributions to political philosophy and intellectual history, has called our horizon of significance. In his most famous work, *Sources of the Self: The Making of Modern Identity*, Taylor (1989) called such ideals frameworks. If Taylor (1989, p. 507) is right, such horizons or frameworks are a necessary precondition of meaningful existence. In light of the examples I have given, it seems plausible that, without ideals, objectives are pointless. Memorising formulae like the inverse square law, or facts about the French revolution, is worth something, provided we are trying to understand nature or society. Going for a swim, painting the kitchen, or taking a walk together is desirable if we want to stay healthy, keep a beautiful home, or have a happy marriage. In all these examples the ideals are important, something we are, rightly, reluctant to abandon or revise. Relative to them, the objectives are less important. If it rains, a couple should be happy to give up an aim like going for a walk together and go, say, to the movies instead. Abandoning an ideal or open aim, like a happy marriage or staying healthy, is something much more serious. Likewise, the endeavour to understand nature or society is more important educationally than specific learning objectives such as memorising this fact rather than that.

Educational ideals, like the examples from physics, history, and Icelandic literature mentioned above, are not only impossible to complete, but, in some cases, it is also impossible to tell how far one has advanced towards them. One proposal about how to understand, say, sexual relations in *Njál's saga* may be based on a theory that looks promising but later turns out to be ill-founded. Another suggestion may look less promising but later turn out to be deep and interesting. The same applies, *mutatis mutandis*, to what our students may come to think about gravity or the assembly at Eidsvoll.

Some aims that involve understanding within academic fields can be reached. A beginner in geometry can, for instance, reach an understanding of why the angles of a triangle add up to 180 degrees. Nevertheless, attempting to understand something is often a lifelong and open-ended endeavour. Understanding why the above-mentioned rule about the angular sum of triangles only applies in

Euclidean spaces, and what the relation is between physical space and mathematical spaces, is an ideal rather than an objective. Ideals (or open aims) can thus, no less than objectives, be dependent on specific contexts or subjects, such as, say, geometry.

Distinction 5: Principles of design versus principles of reform

Curriculum design, like any other activity, can relate to aims in different ways. It is aims-based in the strongest sense if it is derived from previously specified aims or designed to meet them. It is aims-based in a weaker sense if it evolved more or less independently of the aims though each part of it can, however, be justified by appeal to them. The relation is still weaker if the aims are to some extent adjusted to the curriculum, or if aims that are not feasible within existing school traditions are excluded or cast aside. On one end of the scale, we have educational aims as principles of design, aims that are specified before any decisions are made about what subjects to teach or how schooling is to be organised and then used to determine each detail of the curriculum. On the other end, we have aims as principles of reform, i.e., aims that guide piecemeal reform of previously existing traditions. In between these two extremes, there are various intermediate possibilities.

In some cases, reform may amount to little more than preservation of existing practices. If a practice is seen as adequately serving whatever aims it has, stating the aims may be a way of justifying what is already going on; so if we extend the spectrum from principles of design to principles of reform, and beyond to principles of preservation, we end up with statements of aims that serve as justifications of practice. Towards the end of the scale, we have what certain radical critics of school reform in the US, Thomas S. Popkewitz, B. Robert Tabachnick, and Gary Welage (1982, pp. 168–173), have called ‘mechanisms of occupational legitimation’, where aims or reform agendas that appear progressive only give new credibility to old conditions. If, however, we focus exclusively on aims that are to guide improvement, development, or progress, we can leave out those that guide neither design nor reform.

As I pointed out, when discussing Bloom and Taba in section 2.1, the dominant model was originally proposed as a method to design school

curricula starting with the slate wiped clean. This idea has deep roots in European rationalism and was elegantly expressed by Descartes, who said, in his *Discourse on Method*, originally published in 1637, that

there is very often less perfection in works composed of several portions, and carried out by the hands of various masters, than in those on which one individual alone has worked. Thus we see that buildings planned and carried out by one architect alone are usually more beautiful and better proportioned than those which many have tried to put in order and improve, making use of old walls which were built with other ends in view. In the same way also, those ancient cities which, originally mere villages, have become in the process of time great towns, are usually badly constructed in comparison with those which are regularly laid out on a plain by a surveyor who is free to follow his own ideas. (Descartes, 1979, pp. 87–88)

Despite the rationalistic roots of the tradition, Taba (1962) saw the engineering approach as problematic and proposed using educational aims as principles of reform rather than as principles of design. Using Descartes' metaphor, we can say that from her point of view, doing entirely without 'old walls which were built with other ends in view' was not feasible or realistic.

The antinomies again

I do not claim that my analysis of the concept of aims suffices to eliminate the antinomies outlined in section 1.2. I think, however, that it helps us to see them as less paradoxical. The antinomies seem to arise because of a one-sided view that focuses exclusively on some types of aims, and they are less perplexing if we keep in mind how multifarious aims can be.

One horn of antinomy number 1, namely A_1 (Education should aim at changing students in predetermined ways) probably seems convincing to some because people tend to think of aims as learner-centred objectives rather than as ideals. But if we keep distinction number 4 in mind, and realise that some of the purposes of education

are open-ended ideals, we do not have to take A_1 quite literally. There is an element of truth in it because education aims at changing students. It can, nevertheless, be a purposive and rational endeavour even though no one can pre-specify the changes in detail. If I am right about this, the element of truth in A_1 does not contradict B_1 (Education should make students autonomous). Distinction number 4 is thus helpful for sorting out what is wrong with believing that A_1 and B_1 are both true and incompatible. Likewise, distinction number 2 is helpful for clarifying the quandaries involved in antinomy number 2. If some of the aims of education are intrinsic to the concept of education (as I argued in section 1.3) and a complete analysis or descriptive definition of the concept is not available, then some of the aims actually served by education may be less than fully understood. The truth behind A_2 (Education should serve aims that are known and can be clearly stated) is probably that it serves aims that we should do our best to know and state clearly, but not that it should exclusively serve aims that are already known and have been clearly stated. There is a difference between:

A_{2-1} There are aims that we know and can state clearly and these are the aims that education should serve.

and

A_{2-2} There are aims that education serves and we should endeavour to know these aims and state them clearly.

I am suggesting that A_{2-2} is true and compatible with B_2 (Education is a vehicle of progress through which society learns to appreciate new values).

Similar considerations also throw light on antinomy number 3, where one horn of the dilemma, namely B_3 (Functional school-education is based on subject-centred traditions that have not been derived from general aims), reminds us that the cultural traditions have values that are not fully understood. The other horn, A_3 (Education ought to be planned by starting with clearly stated general aims and deriving from them what to teach and how), demands full understanding and is perhaps reasonable if understood as a claim to

the effect that such understanding is desirable. It seems, however, overly optimistic if interpreted as a claim to the effect that such understanding is already at hand. Distinctions numbered 3 and 5 are also relevant to antinomy number 3 because some of the aims of education are only comprehensible from within intellectual traditions such as academic school subjects, and it is hardly realistic to suppose that the most general or top-level educational aims can be used as principles of design to create something that complex.

The fourth and last antinomy is less perplexing if we keep distinction number 1 in mind. (Here A_4 is the claim that if there is a good reason to teach subjects like literature, history, natural sciences, and mathematics, then these subjects serve worthwhile aims. B_4 says that our understanding of aims, having to do with, say, equality, democracy, and critical thinking, has been gained by learning subjects such as literature, history, natural sciences, and mathematics.) Once we distinguish between aims that are caused by the means and aims that are exemplified or realised by the means, we see it as a possibility at least that some worthwhile aims required by A_4 are not causally brought about by studying subjects like literature, history, natural sciences, and mathematics. Some of them may be constituted by thinking and working within such subject areas, and therefore the subjects are not necessarily justified by the aims that exist independently of them.

3.2 The dominant view and the five distinctions

Discussing the means-end model of education, Peters (1973a) described it as misleading. He conceded, however, that it is hard to resist its allure:

Given that 'education' implies, first some commendable state of mind and, secondly, some experience that is thought to lead up to or to contribute to it, and given also that people are usually deliberately put in the way of such experiences, it is only too easy to think of the whole business in terms of models like that of building a bridge or going on a journey. The commendable state of mind is thought of as an end to be aimed at, and the experiences

which lead up to it are regarded as means to its attainment. For this model of adopting means to premeditated ends is one that haunts all our thinking about the promotion of what is valuable. In the educational sphere we therefore tend to look round for the equivalent of bridges to be built or ports to be steered to. (Peters, 1973a, p. 123)

This model, that Peters says haunts our thinking, invites us to conceive of educational aims as tied to the left column in the following, Table 2, where I enumerate the five distinctions I have made. In other words, it invites us to conceive of the aims of education as states of affairs that: are specified antecedent to and independently of the choice of means to reach them (distinction 5), can be fully realised (distinction 4), are part of a hierarchy with overarching aims at the top (distinction 3), and are causally brought about (distinction 1) by extrinsic (or logically independent) means (distinction 2). This conception of aims, which focuses exclusively on the types in the left column, I call *technocratic rationalism*. Sometimes the terms ‘instrumentalism’ and ‘instrumental rationality’ are used to refer to this and similar conceptions. The US psychologist Blaine J. Fowers (2010), for instance, describes instrumentalism as a one-sided emphasis on means that are independent of the end.

Table 2: Five distinctions between different types of aims

	Left column		Right column
Distinction 1:	Causation	versus	Subsumption
Distinction 2:	Extrinsic	versus	Intrinsic
Distinction 3:	Independent of context	versus	Dependent on context
Distinction 4:	Objectives	versus	Ideals
Distinction 5:	Principles of design	versus	Principles of reform

Part of the reason why the dominant view, described in section 2.1, is simultaneously hard to evaluate and hard to resist is that it is sometimes presented as *technocratic rationalism* and sometimes as accommodating aims of the types listed in the right column. If we

allow aims from both columns of Table 2, then all worthwhile activities, school education included, serve aims, because any reason for action can be stated as an aim of some type. It is therefore trivially true that a course of education that is good or worthwhile in some way serves aims, namely, whatever goodness or worth it either has or leads to. Advocates of technocratic rationalism, who do not state their views very precisely, can therefore sometimes defend their stance by retreating from specific types of aims to more general statements that are vacuously true.

The core tenets of the dominant view (listed in section 2.1) leave it open, for instance, whether the aims are conceived of in terms of causation or of subsumption (distinction 1). If a valuable activity does not cause or bring about anything of value, it can be constitutive of its own end, even some nebulous end like, say, self-realization or human flourishing under which almost any worthwhile endeavour can be subsumed. Even if, as Kliebard (2009, p. 140) has suggested, the only aim of education is to become educated, education has an aim. It is no less a platitude that aims inside the context of school subjects (distinction 3) shape the practice of teaching. As a teacher of mathematics, I may, for instance, teach students how to inscribe a circle in a triangle and explain to them some of the properties of such circles to make them able to understand a proof of Heron's theorem. Listing aims valid within the context of geometry, however, is not a way to answer questions about the aims of teaching and learning geometry. If a student, who is expected to learn how to inscribe a circle in a triangle, asks why he is to learn this, I may answer that it has to be learned in order to understand how Heron proved his theorem. I might also answer that it is because practising mathematics is a good preparation for the study of engineering. The first answer presupposes that the student is not questioning the value of learning geometry and is therefore satisfied with an aim inside the context of that subject. The second one attempts to justify the subject.

These two examples of how we can go between the different options in distinctions 1 and 3 make it plausible that we can describe almost any sensible curriculum as aims-based in some sense. Therefore, the core tenets of the dominant view, listed in section 2.1, may perhaps be interpreted as trivially true. There are, however, weighty reasons to interpret the tradition originated by Bobbitt and

Tyler as leaning towards the left column of the table above, i.e. towards technocratic rationalism. Among these reasons are:

- a) Tyler (1949, p. 43) and Taba (1962, p. 196) both insisted that the basic aims of education should be few in number. They therefore excluded large numbers of aims within individual subjects that do not serve more overarching aims, and that involves thinking of aims as forming hierarchies, and, hence, as independent of specific contexts (distinction 3).
- b) Bobbitt (1918/1972, p. 42), Tyler (1949, pp. 3–62), and Taba (1962, pp. 194–201) all wrote as if educational aims were either freely chosen or discovered through empirical research, so they seem to have leaned towards extrinsic, rather than intrinsic, aims (distinction 2).
- c) They also conceived of aims in terms of students' behaviour (Bobbitt, 1918/1972, pp. 41–42; Tyler, 1949, p. 6; Taba, 1962, p. 20) as did Bloom (1956, p. 12), and, thus, they all four seem to have been more concerned with objectives that can be reached, than with ideals that guide practice without being attained (distinction 4). Taba was, however, ambivalent on this as she also wrote about developmental aims 'representing roads to travel rather than terminal points' (Taba, 1962, p. 203).
- d) Bobbitt thought school curricula should be designed anew (Bobbitt, 1918/1972, p. iii), and Tyler likewise sometimes wrote as if it were feasible to begin with the slate wiped clean, although he also wrote at times as if aims were principles of reform (Tyler, 1949, p. 3). Taba (1962, pp. 9, 290) seems to have thought of educational aims as principles of reform rather than of design (distinction 5).

The representatives of the dominant view thus seem to accommodate both sides of distinction 5, but lean towards the left side of distinctions 2, 3, and 4. It is hard to tell what stance they took to distinction number 1. The tradition that has its roots in their work seems, however, to conceive of aims in terms of causation rather than subsumption, although this is not always very explicit. In a recent paper, authors, J. Felix Lozano, Alejandra Boni, Jordi Peris, and Andrés

Hueso (2012) analyse the notion of competence, which is the key element of the so-called Bologna Process. They argue that, in this most recent manifestation of the dominant view on curriculum design, the emphasis is on schooling as instrumental to ends that are external to the process of education (Lozano et al., 2012, pp. 138–139). In their view, this emphasis is opposed to the humanistic, Aristotelian, tradition advocated by Martha Nussbaum (1997), where the emphasis is on intrinsic values enshrined in the very process of education (Lozano et al., 2012, pp. 139–140). Another recent manifestation of the dominant view, namely the national curriculum guide for secondary schools published by the Icelandic Ministry of Education, Science, and Culture in 2011, also emphasises general aims that are causally brought about by schooling, although it also accommodates aims that are partially constituted by school practice (Harðarson, 2012b).

From what I have said so far about these five distinctions, there are reasons to believe that if we allow all combinations of the possibilities listed in Table 2, it is trivially true that organised school education can be described as serving aims of some sort. I have also argued that the dominant view, held by the curriculum theorists who Reid (2006) calls *systematisers*, focuses mainly on the types of aims listed in the left column of Table 2 and thus leans towards technocratic rationalism. There are, however, reasons to doubt that technocratic rationalism is the right way to think about educational aims. Some educational aims clearly belong to types listed in the right column, that is, some of them are:

1. Not changes in students, which we can specify in advance and then causally bring about by administering educational experiences.
2. Neither discovered empirically nor freely chosen.
3. Valid within a context (or subject) without providing any justification for the context (or subject) or serving any aims that exist independently of it.
4. Ideals that cannot be attained, reached, or completed.

5. Selected to be, in large part at least, compatible with the existing curriculum. When this is the case, the curriculum is not derived from the aims but vice versa.

I tried to make the analysis of the concept of aims in section 3.1 true to ordinary usage, and I have not proposed to change the way the term is used. It may therefore be doubted whether my analysis amounts to a critical conceptual revision in the full sense (explained in section 1.3). I do think, however, that realising quite how multifarious aims can be will change the way we think about the aims of education. Being mindful of all these possibilities is one way to resist the allure of the bridge-building model criticised by Peters (1973a, p. 123) in the quotation above. In the following chapters, I hope to show that my analysis amounts to a partial definition that is both pragmatically well chosen and of good use in elucidating important aspects of the concept of *aims* in curriculum discourse.

4 Reactive learners and liberal education

In this chapter, I use the first four of the five distinctions I made in section 3.1 to criticise the dominant view outlined in section 2.1. I draw upon the work of Lawrence Stenhouse, the English educationist. Section 4.1 is a review his work. In section 4.2, I explain one of the reasons why education needs academic subjects, or similarly rich intellectual traditions, and argue that if the teachers instruct or school their students in such disciplines, the possibilities of organising school practice to reach learner-centred objectives is limited both by the nature of the subjects and by the autonomy of the students. In the last part, section 4.3, I pose the question whether education can be made completely aims-based by understanding 'aims-based' as accommodating all sorts of aims, i.e. aims from both columns of Table 2.1. My answer to this question and the arguments for it provide reasons to doubt that the benefits of education can all be pre-specified in detail.

4.1 Stenhouse's critique

When organised school education is described as aims-based, it is commonly assumed that the aims can be reached by letting teachers influence their students in some way. It is, however, obvious that the aims students work towards may differ from the aims set by those who run the schools. A totalitarian government may, for instance, decide to let schools teach English as a second language in order to enable students to read scientific and technical literature. An individual student may, however, decide to master the English language in order to read books banned by that very same government. Likewise, a religious school may emphasise sacred texts in order to promote orthodoxy. Close reading of such texts, however, may make believers out of some and sceptics out of others. When teachers try to brainwash them, rather than educate them, students' resistance to control is easy to justify. Sidestepping learner-centred objectives set by school authorities can also be justified, even though they and the teachers are doing honest work and offering

intellectually respectable instruction. My arguments in support of this draw upon writings by several English thinkers, especially Stenhouse (1967, 1970, 1975, 1983), but also Oakeshott (1989), Peters (1966, 1973a, 1973b, 1974, 1981), Barrow (1984, 2010), and Kelly (2009). Of these thinkers, Stenhouse is the most important one for my purposes and therefore a brief review of his work follows.

A large part of Stenhouse's writings on curriculum theory can be read as an attack on the dominant view, which he called *the objectives model*. In a paper, originally printed in 1964 and reprinted in a posthumously published collection of essays, Stenhouse (1983, pp. 47–54) proposed using standards, instead of objectives, as guides to disciplined educational practice. In this paper, he supported Peters' (1973a, pp. 122–131) view that the model of means to ends is not generally applicable to education, and argued that Peters' philosophical objections to conceptions of education as aims-based were confirmed by practical experience. One of the points he mentioned in support of this was that detailed objectives 'tend to bind the future and to set limits to the possibilities of the developing situation' (Stenhouse, 1983, p. 48).

In his book, *Culture and Education*, published in 1967, Stenhouse continued his work on the concept of standards. He described education as essentially open-ended, and argued that education should serve the individual by increasing his freedom to create and develop ideas. In this work, Stenhouse was critical of attempts to define the aims of education in terms of behaviour. He advocated a progressive model of teaching where the teacher does not profess to know what children's work ought to be like, any more than the good critic can say what a picture ought to be like before the artist has painted it. 'But he responds to the work with a feeling for quality and this is the source of his standards' (Stenhouse, 1967, p. 76).

In a paper, published three years later, Stenhouse (1970) formulated new and, in my view, more powerful arguments for conceiving of education as essentially open-ended and against the prevailing objectives model. The examples he focused on were from the humanities. Discussing the teaching of a literary work, taking Hamlet as an example, he said:

To use the play as a vehicle for teaching skills is to imply – and students rather readily pick up the implication – that the skills and vocabulary and so forth are the important matter rather than the play. We know from bitter experience how easy it is to reduce Shakespeare to the status of an exercise. All too often, unless the specification of objectives is more detailed and sophisticated than anyone seems able to make it, the result of Hirst's recipe, 'the planning of content and methods to achieve the objectives', is the use of methods to distort content in order to meet objectives. (Stenhouse, 1970, p. 76)

In this paper he contrasted his own model, based on the concept of standards, to the objectives model and argued both against Tyler's contention that education should be organised to mould students' behaviour and his conception of objectives-based curricula:

Let us accept that education is concerned with disciplined activity in some broad sense. Then we may distinguish two forms of disciplined action, action disciplined by preconceived goals and action disciplined by form or by principles of procedure. Thus, to set out to learn eight guitar chords is to embark on a course of action disciplined by the consciousness of a specific goal. On the other hand, to write a sonnet is to hammer out a part-formed intention in the framework of a form. And to embark on a philosophical argument is to work in the light of principles of procedure rather than of a preconceived goal. [...]

This is really to say that if you define the content of a philosophy course, define what constitutes a philosophically acceptable teaching procedure and articulate standards by which students' work is to be judged, you may be planning rationally without using objectives. [...]

I am arguing then that one of the main functional advantages of the disciplines of knowledge and of the arts is to allow us to specify content, rather than objectives, in curriculum, [...] Disciplines allow us to specify input rather than output in the educational process. This is fairer to the

needs of the individual students because, relative to objectives, disciplined content is liberating to the individual. (Stenhouse, 1970, pp. 76–77)

In the works mentioned so far, Stenhouse explained how the objectives model distorted the practice of teaching and learning, and put forth an alternative account of how school education could be a disciplined and rational enterprise. He presented his sharpest arguments against the objectives model, however, in his last major work, *An Introduction to Curriculum Research and Development*, published in 1975. In this work, he criticised the objectives model as a speculative large-scale theory (Stenhouse, 1975, p. 71) that was used by academics in education as a stick to beat teachers rather than to help them improve their teaching:

‘What are your objectives?’ is more often asked in a tone of challenge than one of interested and helpful inquiry. The demand for objectives is a demand for justification rather than simply description of ends. As such it is part of a political dialogue rather than an educational one. It is not about curriculum design, but rather an expression of irritation in the face of the problem of accountability in education. I believe that politicians will have to face the fact that there is no easy way to accountability via objectives. (Stenhouse, 1975, p. 77)

Having argued that the objectives model was punitive rather than hortatory, Stenhouse went on to show that there were aspects of education that this model could not accommodate. The gist of his argument (Stenhouse, 1975, pp. 80–83) was as follows: Education comprises at least four different processes: training, instruction, initiation, and induction. The objectives model gives a reasonably good fit in the cases of training and instruction. He did not say much about initiation (or the socialization that goes on in schools and is largely a part of what Jackson (1968) called *the hidden curriculum*) and did not exclude that it might be covered by the objectives model. The great problem in applying the objectives model, according to

Stenhouse (1975, p. 81), lies in the area of induction into knowledge. He explained this problem as follows:

Education enhances the freedom of man by inducting him into the knowledge of his culture as a thinking system. The most important characteristic of the knowledge mode is that one can think with it. This is the nature of knowledge – as distinct from information – that it is a structure to sustain creative thought and provide frameworks for judgement.

Education as induction into knowledge is successful to the extent that it makes the behavioural outcomes of the students unpredictable.

Consider the marking of history essays. The examination marker has a large number which he must monitor.

As he reads them he often becomes aware that there is a depressing similarity about them. [...] From the pile of essays a few leap out at the marker as original, surprising, showing evidence of individual thinking. These, the unpredictable, are the successes. (Stenhouse, 1975, p. 82)

In what follows these remarks, Stenhouse (1975, pp. 84–97) elaborates the standards-based model of the disciplined practice of education outlined in a previous work (Stenhouse, 1970). Now he calls it 'a process model' and his arguments in support of it are largely based on philosophical foundations laid by Peters (1966). He describes the main idea behind the process model by referring to Peters' contention that worthwhile activities have their built-in standards and 'can be appraised because of the standards immanent in them rather than because of what they lead on to' (Stenhouse, 1975, p. 84).

In one of his last writings, Stenhouse commented on his own reactions to the objectives model:

The idea of aims had been translated by American psychometricians and curriculum developers into the behavioural objectives model. This conjoined the propositions that education is an intentional activity and that intentionality

involves having a specific goal, with the behaviourist definition of learning as change in behaviour. It thus demanded that the aims of education be analysed into intended learning outcomes which should be conceived as student behaviours capable of being tested. It was not just the crudity of this formulation that repelled me: it was its powerful support of the sort of social determinism through education I had tried to fight first in practice in the classroom and subsequently in my theoretical work. In my own thinking, 'standards', located in the culture as social norms of quality and quantity of school work, took the place of objectives as underpinning the assessment of the outcomes and the process of education. (Stenhouse, 1983, p. 5)

As is apparent from the above review, Stenhouse argued against all the core tenets of the dominant view listed in section 2.1.

4.2 Autonomous students and the holy ground

Stenhouse pointed out that teaching bears fruit when students surprise their teachers, and that 'induction into knowledge is successful to the extent that it makes the behavioural outcomes of the students unpredictable' (Stenhouse, 1975, p. 82). Obviously, we cannot both want students to surprise their teachers and want the teachers to specify in detail how the students are to behave. Stenhouse may have got this insight from Peters' remark that 'the final reward of a teacher, the emergence of a pupil who has developed enough skill and judgement to correct him, is not something that can be consciously contrived' (Peters, 1966, p. 60).

One implication of Stenhouse's and Peters' insight is that the aims of education cannot all be defined as behavioural objectives. This can be read as an argument to the effect that at least some educational aims are open-ended, i.e. ideals rather than objectives (in the sense defined in the discussion about distinction number 4 in section 3.1). A corollary of this insight is that subjects have a life of their own that is only partially understood by the teacher. Peters made some deep and interesting remarks about the autonomy of the inter-subjective content of education in the second chapter of his *Ethics and Education*, entitled

‘Education as initiation’ (Peters, 1966, pp. 46–62). There Peters described subject areas as forms or modes of thought, and said that ‘for all who get on the inside of such a form of thought and who make it, to a certain extent their own, the contours of the public world are to that extent transformed’ (Peters, 1966, p. 51). — This conception of education as initiation into a mode of thought, and the understandings that go with it, was later defended at length by Oakeshott in his paper, ‘A place of learning’, originally published in 1975 (Oakeshott, 1989, pp. 17–42). — Peters subsequently (1966, pp. 51–52) described two inadequate models of education that he called the *moulding model* and the *child-centred model*. The former assumes that content is implanted in the child’s mind, and the latter that the child should be encouraged to grow according to its own laws of development. These two models share a common defect according to Peters:

What these models both lack is a sense of what D. H. Lawrence called ‘the holy ground’ that stands between teacher and taught. To conceive of ‘education’ as imposing a pattern on another person or as fixing the environment so that an individual ‘grows’ fails to do justice to the shared impersonality both of the content that is handed on and of the criteria by reference to which it is criticized and developed. (Peters, 1966, p. 52)

The reference is to D. H. Lawrence’s novel *The Rainbow*, published in 1915, where Ursula, later to become a school teacher, enters college and finds herself on ‘holy ground’ in spite of the harshness and vulgarity of the physical surroundings (Lawrence, 2011).

In a thorough analysis of Peters’ account of education as initiation into modes of thought, Kelvin Stewart Beckett (2011), an educationist and philosopher of education working in the USA, pointed out that, granted that the modes of thought exist independently of individual teachers, we must think of teachers and students as fellow travellers where the students are active participants, rather than passive recipients. ‘Finally, Peters made clear that as part of their initiation students should be encouraged to challenge the knowledge they receive from their teachers’ (Beckett, 2011, p. 245). Andrea English, a

philosopher of education working in Canada, has reached a similar conclusion. She has pointed out that the transformation of the learner cannot be predicted by the teacher because the world the student is led into is only partially known to the teacher, and the learner learns to engage with this world 'in ways different than that of the teacher' (English, 2010, p. 85). What effects teaching has on the learner can therefore not be predicted with certainty, and moreover, if the teacher uses some of the unforeseen opportunities that arise because of how students understand (and misunderstand) in their idiosyncratic ways, what the teacher tries to accomplish cannot be precisely stated in advance:

Within this interaction the learner is guiding the process insofar as it is the learner's perplexities, confusion, frustration that bring the teacher to question whether his plan for teaching still makes sense to follow, or whether he must change, modify or enhance his idea to meet the demand of the other. (English, 2010, p. 91)

This does not exclude ideals (in the sense given by distinction 4 in section 3.1) as guides, but it excludes complete organisation based on objectives stated precisely and in detail.

Stenhouse's conclusion that successful education enables students to surprise their teachers is based on the premise that when a teacher has guided a student into a subject, a mode of thought, or an intellectual tradition, the student can discover something or come up with something of value that is unknown to the teacher. Stenhouse was concerned about the values inherent in school subjects, values that are there, although they are but dimly realised and faintly understood. In accordance with this, he warned against reducing content in education to an instrumental role. He saw such reduction as a serious weakness of the objectives model (Stenhouse, 1970). Stenhouse's favourite examples came from the humanities, and as the quotations in section 4.1 make clear, he warned against teaching a literary work, like Hamlet, merely to reach objectives. He seems to have thought that if we teach Hamlet, we should allow the work to speak to the students even though it tells them something we, the

teachers, may never have thought of. We need humility before the subject. There is more to it than we realise, and a good pedagogue leads his or her pupils into territories where only some of the paths and some of the places are known to him or her.

Ὁ βίος βραχύς, ἡ δὲ τέχνη μακρὴ is a saying attributed to Hippocrates who taught medicine on the island of Kos around 400 B.C. The Romans translated this as *vita brevis, ars longa*. Literally, this means that life is short but art is long, and it reminds us that in the world of a discipline, a subject, or a mode of understanding, one human individual is small. This awareness has accompanied the tradition of humanistic or liberal education since ancient times. Stenhouse identified with this tradition and was mindful that the subjects he taught might hide more treasures than he knew.

On the conception of education advocated by Oakeshott, Peters, and Stenhouse, the benefits of education cannot be described in advance by listing learner-centred objectives. If teachers initiate students – lead them into the world of academic disciplines or modes of understanding – students and teachers become fellow travellers through a territory that is only partially known to the teachers. Both are autonomous searchers for truth. The outcome of such searching cannot be specified in advance because the subjects offer ample room for creativity, discovery, and new ways to understand that no teacher can foresee in detail. Therefore, education that leads students into rich intellectual traditions cannot be all about reaching learner-centred objectives. Hence, insisting that teaching be organised to reach such objectives is like asking students to traverse uncharted territories and still insisting that they only go to places teachers have pointed out on a map. From the point of view of those who insist on aims that are stated as objectives rather than as ideals, this same argument shows that if we do not want schools to do anything but reach learner-centred objectives, we should focus on something other than rich intellectual traditions like those supported by academic school subjects. This may be one of the deep reasons why so-called school reform was, throughout the last century as Kliebard (1987, pp. 27–29, 269) observed, often sceptical of, or even hostile to, academic subjects.

Among those who have perceived ‘school reform’ influenced by the dominant model of curriculum design as a threat to liberal

education, we can count thinkers as diverse as the Italian communist Antonio Gramsci (1971), who wrote about education in his prison notebooks between 1929 and 1935, and C. S. Lewis (1946), who was a novelist and Christian apologist (known for his *Chronicles of Narnia*). Oakeshott (1989), who wrote about political and educational philosophy from an Hegelian perspective, shared their apprehensions.

Gramsci opposed educational theory that belittles the importance of school subjects or objective knowledge, 'thus making the learner the prisoner of the present and, if the political present is a tyranny, leaving him without cognitive resources to question the propaganda that what exists is the best of all possible worlds' (Entwistle, 1979, p. 83). Lewis also saw learner-centred objectives as tyrannical and opposed to older ideals that conceived of education as liberating for the students:

Where the old initiated, the new merely 'conditions'. The old dealt with its pupils as grown birds deal with young birds when they teach them to fly: the new deals with them more as the poultry-keeper deals with young birds – making them thus or thus for purposes of which the birds know nothing. In a word, the old was a kind of propagation – men transmitting manhood to men: the new is merely propaganda. (Lewis, 1946, pp. 19–20)

In the same vein, Oakeshott wrote about the design to substitute socialization for education and said that it had 'gone far enough to be recognized as the most momentous occurrence of this century, the greatest of the adversities to have overtaken our culture, the beginning of a dark age devoted to barbaric affluence' (Oakeshott, 1989, p. 90). Similar worries are still around. The Irish educationist Pádraig Hogan (2003), argues, for example, that teaching as a human practice is receding or being nudged aside. Commenting on the development of school education in Europe, he sees the absence of a cultural emphasis as particularly striking in the official literature on 'the learning society', such as the white paper of the European Commission (1996) entitled 'Teaching and learning: Towards the learning society'.

Gramsci, Lewis, and Oakeshott all expressed apprehensions or worries that schools are increasingly focusing on something other than education. According to these thinkers, schooling that does not initiate students into rich intellectual traditions, where they think for themselves and come to their own conclusions, is not real education. Peters probably had a similar view. In *Reason and Compassion* he asked how to develop a concern for truth, a concern which lies behind both authenticity and any kind of reasoning (Peters, 1973b, p. 52). The answer he gave was:

It is only when curiosity is supported by and encased in a social tradition, such as that of science, which insists that truth matters, that a form of motivation emerges that is capable of supporting the ideal of autonomy. [...] In a similar way the generalized desire for mastery passes into more precise forms of getting things right. In brief, although there may be some kind of 'natural' spark for the passions which lies at the heart of reason, they are fanned into a steady flame by the various disciplines into which reason has become differentiated. And these disciplines are social traditions into which children have laboriously to be initiated. (Peters, 1973b, p. 53)

Focusing exclusively on learner-centred objectives is antithetical to liberal education emphasising academic subjects. Does this force all defenders of technocratic rationalism or the dominant view on curriculum design, to change their minds? Can they not argue that, given the needs of modern societies, it is more important to socialize people or train them in specific skills than to foster autonomy or familiarity with intellectual traditions? An argument to the effect that some particular theory of schooling cannot accommodate education does not refute the theory, at least not if its defenders can plausibly argue that the good it promotes is no less valuable than education.

Gramsci, Lewis, Oakeshott, Peters, and Stenhouse all argued that education is good because it is liberating. They saw it as making people free and autonomous. Elsewhere (Harðarson 2013a), I have argued that education is not only a precondition of autonomy but also

of equality. If my argument is conclusive, and what the above-mentioned theorists said about education as conducive to freedom is true, then those who want to redesign schooling to meet learner-centred objectives have to show that what they want to accomplish is not only of more worth than academic learning, but also more precious than freedom and equality.

This concludes my argument for including rich intellectual traditions, such as academic subjects – subjects that do not fit into the objectives model that I have described as the dominant view on curriculum design – into school curricula.

So far, I have argued that education cannot be exclusively about attaining aims of the types listed in the left column in lines 1, 2, 3, and 4 of Table 2 in section 3.2. I have shown that it follows from the concept of education that education involves initiation into rich intellectual traditions. Once we begin to teach and learn within such traditions, we serve aims that are only valid and only comprehensible within them, and some of these aims will be ideals rather than objectives. I have not said as much about the first distinction as the next three. It seems obvious to me, however, that learning not only contributes causally to a good life but is partially constitutive of worthwhile human existence. One aspect of this has been illuminated by Carr (1999, 2000). He has argued that teachers' professionalism consists mainly in their commitment to the promotion of an ethical ideal, and their personal touch is 'not just instrumental to achieving certain ends, but more or less *constitutive* of them' (Carr, 2000, p. 229). Therefore, school education will not fit into a model where means are exclusively seen as causally related to ends or purposes.

This leaves out the fifth and last distinction, which I will discuss in Chapter 5. In what remains of this fourth chapter, I question whether any list of aims can exhaust the purposes of education. Can we make education completely aims-based by understanding 'aims-based' as accommodating all sorts of aims?

4.3 Education as search for values and the process model

In moral philosophy, various types of consequentialism assume that morality is about producing the best overall consequences. Moral

consequentialism is problematic for various reasons, but here I will only mention one of them. This problem is that we have to adopt rules of conduct in spite of limited knowledge and lack of agreement about what is truly good, what consequences are best, and how to order and evaluate different goods when they conflict. The goods we care about, such as freedom and equality, economic prosperity, and unspoiled environment, are not always compatible and some of us care about ways of life, such as, say, participation in organised religion, national solidarity, or cultural traditions, which others see as worthless or even harmful. If we do not always know how to rank the consequences of our actions, then we must, sometimes at least, guide our actions by some other principle than evaluation of the consequences.

Perhaps a consequentialist, who admits that the good to be sought is only partially known, ought to accept rules of conduct that facilitate the discovery of what is good, in addition to rules that promote what is already known to be good. Perhaps she should also accept moral rules that minimise conflicts and enable people to live peacefully together in spite of different opinions about what values are most important. Such rules would be like the precepts of deontological ethics in that they would not be justified by appeal to a conception of happiness, felicity, eudaimonia, or a condition we want to attain. The justification would be, rather, that they allow people to experiment with different systems of values and thus progress towards a better understanding of what is truly good. Perhaps such rules could also be justified as the only known way to lead a tolerable existence and thus, from a consequentialist point of view, the best option open to us, given our lack of knowledge about what would maximise happiness. I leave it open whether a solution along these lines should be classified as deontological or as a version of rule-consequentialism. What matters here is that if we are moderately sceptical, and admit that our axiological knowledge is limited, then we should be content either with mitigated consequentialism or with some form of deontology.

Conceptions of education as aims-based, in the sense that it should primarily bring about or contribute causally to some goods that have been specified as educational aims, are analogous to moral consequentialism and problematic for similar reasons. These views rest on the premise that we know what outcomes are most desirable.

Education has a special relation to its own aims because one needs education in order to apprehend the value of education, and those who understand what a course of education is good for are likely to transcend it, that is, to find better aims than those that their educators set for them in advance. Education is thus a reflexive enterprise in search of its own value, as I have argued in more detail elsewhere (Harðarson, 2012a).

A society does not only transmit its values through a curriculum. It also searches for values through a curriculum. If we focus on the transmission, we can think of education as aims-based. If we focus on the search, we must think of it as open-ended. This was realised by Peters and Stenhouse in the 1960s and 1970s, and they both queried how to discipline and organise education by something other than preconceived goals (Stenhouse, 1970, 1975, pp. 84–85; Peters, 1973, pp. 122–131). Their answer is known as the process model and has since been defended and refined by, e.g., Kelly (2009). In this model, principles of procedure play a role analogous to those of deontological rules of conduct in moral theory. (Although I use the word ‘deontological’, I still leave it open whether such rules can be justified by appeal to some sophisticated form of consequentialism.)

Peters proposed that some so-called general aims of education are really principles of procedure rather than ends to be reached. He used equality as an example and argued that, even though some educators would use schooling as a causal agent to iron out differences between people, a cautious liberal might serve equality without any concrete result or outcome in mind. ‘He might insist, merely, that whatever social changes were introduced, no one should be treated differently from anyone else unless a good reason could be produced to justify such unequal treatment’ (Peters, 1973a, p. 127). According to Peters, the former, who wants to use schooling to iron out differences, would be pursuing equality as a general aim, whereas the more cautious liberal ‘would merely insist that whatever schemes were put forward must not be introduced in a way which would infringe his procedural principle’ (Peters, 1973a, p. 127). Now, this proposal may be interpreted as advocacy of aims from the right hand column in the first line of Table 2, that is, aims that are (at least partially) constituted by the means. This seems to be White’s (1982) interpretation.

Criticising the process model, he readily granted that respect for rationality, benevolence, and tolerance are among the most important things that teachers teach. He also granted that these values might be said to be enshrined in the very manner in which they conduct their classes, pointing out, however, that emphasising principles of procedure ‘takes it for granted that the teacher wants to instil in his pupils a respect for rationality, benevolence, or whatever. In so far as he does, this is what he is aiming at’ (White 1982, p. 7).

White’s criticism of the process model does not belittle the importance of procedural principles; what his conclusion amounts to is, rather, that emphasising such principles should, in some cases at least, be seen as a way of promoting worthy aims and not as an alternative to the means-ends model. This conclusion is hard to refute because, as I argued in section 3.2, if we allow all the types of aims in both columns, any reason for action can be stated as an aim of some sort. Imagine the most stringent type of deontological ethics, requiring obedience to rules of justice no matter what the consequences are. In a sense, these rules have an aim, namely justice, that is constituted, rather than caused, by observing them.

When Stenhouse (1975, p. 84) argued that teaching and school education can be disciplined by standards of excellence that are built into school subjects, he had no quarrel with these obvious truths, that is to say, he did not deny that they could be described as serving some sort of purpose. His target was instead the dominant view that insisted on pre-specified outcomes, and he wanted to leave space for students’ individuality, creativity, and imagination, enabling them to find out themselves what ends were worthwhile, rather than pushing them towards pre-specified objectives. In this, Stenhouse was true to the spirit of liberal learning, to learning that is, as one prominent thinker who identifies with the outlook Reid calls deliberative put it: ‘the opposite of indoctrination’ (Null, 2011, p. 15). It seeks to develop the pupil’s own judgement ‘rather than impose or preach an Establishment view’, to quote another educationist similarly oriented (Stephen, 2009, p. 1). This gives us reason to doubt that all the benefits of education can be pre-specified in detail. If, nevertheless, we insist that some aims be specified, we must be content with what Bobbitt called ‘large, undefined purposes’ (Bobbitt, 1918/1972, p. 41).

The answer to the question whether education can be completely aims-based, provided we accommodate all types of aims (from both columns of Table 2), is therefore: Maybe it can, if some of the aims are tentative and outlined in broad strokes rather than minute details. I said 'maybe' rather than 'yes' because once we face the fact that our understanding of educational aims is limited and evolving, we are bound to assume a dialectical relationship between educational aims and educational content. If some subjects, such as the humanities that Stenhouse was concerned with, are especially apt to help students find out for themselves what is worth learning, emphasising them should, perhaps, not be viewed simply as means to previously defined ends.

5 Recalcitrant realities and visions of control

In this final chapter, I apply the fifth distinction from section 3.1, i.e. the distinctions between aims as principles of design and aims as principles of reform, and argue that it is not realistic to think of general educational aims as principles of design that can be used to engineer entire school curricula.

In section 5.1, I clarify the distinction and connect it to a distinction between top-down and bottom-up methodologies that is familiar from engineering and computer science. In what follows, in section 5.2, I draw upon Joseph Schwab's criticisms of the dominant model and argue that it is not possible to derive a whole curriculum from statements about what we want schools to accomplish. Finally, in section 5.3, I show that this conclusion is supported by historical and empirical research.

5.1 Top-down design

The fifth distinction I made in section 3.1 was between aims as principles of design and aims as principles of reform. Thinking of aims as plans or guidelines for recreating schools, or designing a whole curriculum *ab initio*, is rooted in rationalism and has its parallels in modern conceptions of top-down design or top-down engineering. The basic idea behind this methodology is that design should begin with a clear statement of what is to be accomplished and progress downwards to details of implementation. Suppose, for instance, that our aim is to make a chocolate cake. We can break that down into two sub-tasks, or subordinate aims, such as baking the cake and making the topping. On the next level below, we break the former sub-aim down into mixing the dough and heating the oven. Down at the bottom of this hierarchy we have details like breaking the eggs.

One of the strengths of this methodology is that those who work on the topmost levels do not need to know how to accomplish all the sub-tasks. If a procedure or a sub-task, can be specified in terms of what it should accomplish, those who set the top-level aims can treat it as a *black box*, i.e. they do not have to worry about what is inside it

or how it is composed. We can, for instance, progress downwards from the aims of making a cake to sub-tasks such as mixing the dough and making the topping without knowing exactly how to mix the dough. We can leave that to others and treat the dough-making and topping-making departments as *black boxes*.

In a book published in 1997, White described curriculum design in terms reminiscent of top-down engineering. School improvement schemes should, said he, start with ensuring that the aims which 'are to power everything else' are soundly based. Then the next stage is 'to see what follows from these aims about sub-aims which are their necessary conditions.' After the sub-aims have been identified, experts in various fields are called on to figure out the details of implementation (White, 1997, pp. 52–54). White has a long row of predecessors who have advocated radical reorganization of schools with varying degrees of revolutionary zeal. Since the early decades of the 20th century, innumerable attempts have been made at thoroughgoing redesign of school education – most of them driven by high hopes and confidence in technical solutions.

If a methodology along these lines is realistic, then policy makers and administrators at the top of the hierarchy can specify or describe the outcomes of schooling, its effects, without worrying about the details of implementation. They leave that to experts in various fields who then tell school heads and teachers what to do. But is this feasible? Can we derive a curriculum from aims in this way? Some things cannot be engineered or designed top-down. Suppose, for instance, we had no language. Our inability to communicate would be a problem, a huge one. Could we plan a solution by stating our aim and then its sub-tasks and finally the details of implementation? The topmost aim would be *to communicate all possible thoughts*. Among the sub-tasks would be the invention of *grammar rules and words for everything there is*. This is impossible, and obviously so. We cannot even conceive of grammar rules without knowing a language. Some things can, however, be done this way. We can, for instance, bridge a river by first figuring out what we need to do and then procuring planks and other building materials that fit our design. Is a curriculum (or an education) like a language, something we must already have in

the fullest sense before we can even begin to describe it, or is it more like a bridge that we can design before we set out to build it?

The opposite of top-down design is bottom-up design, which begins with what we have. I used chocolate cake as an example to explain what top-down design is like. A similar example can also explain bottom-up design. Suppose all shops are closed and I want to make something to eat. I find three eggs and some soft cheese and yogurt in the refrigerator, one banana, some honey, vegetable oil, and flour in the larder, and I ask myself what I can do with what I have. In this case, I do not begin with a detailed specification of the outcome, but with ingredients that would be mentioned close to the bottom of the hierarchy in a top-down model of cooking or baking. When using a bottom-up strategy, specification of the outcome comes last.

Top-down design *begins with a clear and detailed statement of what we want* and proceeds to specify what we need in order to get what we want. Bottom-up design *begins with realizing what we have* and proceeds to figuring out how to use it, in order to satisfy some of the desires we have. In short, those who work from top down ask how to get what they want, but those who work from bottom up ask how to make use of what they have. Using bottom-up methods does not exclude working towards aims or having a purpose. In the example above, the purpose is clearly to make something to eat. Nevertheless, a bottom-up approach excludes beginning with an exact description of the outcome, so the aims that can be specified in advance are rather what Bobbitt called 'large, undefined purposes' (Bobbitt, 1918/1972, p. 41).

In real life, we often mix these two approaches. Suppose, for instance, I believe that, to make a decent cake, I need baking soda in addition to the ingredients listed above. If I call my neighbor and ask him to lend me some, I am using top-down thinking along with the bottom-up approach, because the need for a raising agent is derived from an idea of what I want to end up with, namely something with the texture and grain of a cake. Likewise, the design of the chocolate cake that was supposed to be an example of top-down engineering relies on a whole world of agriculture and culinary traditions that were not designed as aims subordinate to the aim of making a cake.

Top-down methodologies have some of their roots in Cartesian rationalism and the epistemological optimism of the Enlightenment. They tend to assume what the US philosopher Thomas Nagel (1986) called *the view from nowhere*, i.e. assumptions to the effect that we have access to some completely objective perspective where we can view our own life and social reality, so to say, from the outside. They also tend to support radical reform and centralised, systematic planning. A number of scholars who have argued against such methodologies have been mindful of what the German philosopher Hans-Georg Gadamer (1960) described as *Endlichkeit* (finitude). One example is the Irish philosopher of education, Joseph Dunne. In his book, *Back to the Rough Ground*, he argued that the extent to which reason can construct theories to which practice must accommodate itself is limited, because reason can only operate within a world of practice (Dunne, 1993). Similar points have been made by Hubert L. Dreyfus and Stuart E. Dreyfus (1990) who, in the context of philosophical speculations about artificial intelligence, have argued that top-down methodologies require a common sense background that cannot be explicated in terms of rules and therefore cannot be engineered top-down. Another argument for the same conclusion, but based on entirely different premises, has been elaborated by the anthropologist-cum-political scientist James C. Scott in a book about grand scale political planning of society. Like Dunne, and Dreyfus and Dreyfus, Scott maintains that the knowledge and top-down methodologies acknowledged by what he calls *high modernism* are always to some considerable degree parasitic on informal processes, without which no formal order could exist, and which it alone cannot create or maintain (Scott, 1998, p. 310):

This homely insight has long been of great tactical value to generations of trade unionists who have used it as the basis of the work-to-rule strike. In a work-to-rule action (the French call it *grève du zèle*), employees begin doing their jobs by meticulously observing every one of the rules and regulations and performing only the duties stated in their job descriptions. The result, fully intended in this case, is that the work grinds to a halt, or at least to a snail's pace. (Scott, 1998, p. 310)

Similar thoughts about the need to build on what we have, and the limits of top-down methods, have been expressed in many ways. One of the most memorable ones is by the Austrian philosopher of science, sociologist, and political economist, Otto Neurath. Discussing reformulations of the scientific worldview, he said that we are like sailors who must rebuild the ship on the open sea. We cannot take it into dry-dock to reconstruct it there out of the best materials. In the German original this reads: 'Wie Schiffer sind wir, die ihr Schiff auf offener See umbauen müssen, ohne es jemals in einem Dock zerlegen und aus besten Bestandteilen neu errichten zu können' (Neurath, 1932, p. 206).

If some people really think school curricula can be designed anew or reorganised completely by deriving the details from general aims, then they must assume that the system of education can, so to speak, be taken into dry-dock. Moreover, they must assume that the aims or desired outcomes can be specified beforehand or, in other words, that we can know what we want before we have it. These assumptions, and several other aspects of technocratic rationalism in education, were examined in depth by Schwab in his writings on the practical. Before I review Schwab's arguments (in section 5.2), I will briefly mention some conclusions specialists in the history of education, such as Cuban (1992), Tyack and Cuban (1995), and Hamilton (1989, 1990), have drawn from their research. These authors have all reached similar conclusions, namely that school curricula have evolved slowly, over a long time, and attempts at recreation or large-scale reorganisation have met with great difficulties.

In a book published in 1995, *Tinkering toward Utopia - A Century of Public School Reform*, Tyack and Cuban reviewed research on school reform in the 20th century. One of the questions they posed was: 'Could the state mandate educational excellence by top-down regulations?' (Tyack & Cuban, 1995, p. 80) Their answer was that the history of school reform in the 20th century made it doubtful that technocratic and top-down approaches to school improvement could ever work as intended:

Innovations never enter educational institutions with the previous slate wiped clean [...] Rational planners may have plans for schools, and may blame practitioners if the plans

are not properly implemented, but schools are not wax to be imprinted. (Tyack & Cuban, 1995, p. 83)

In an earlier publication, Cuban (1992) distinguished between the intended curriculum and what teachers actually teach, i.e. the taught curriculum. There he argued that while 'planned changes have occurred in the intended curriculum in districts and schools, there has been a remarkable durability in the taught curriculum' (Cuban, 1992, p. 216). He tried to explain why schools are hard to change by likening the historical curriculum to a coral: 'a mass of skeletons from millions of animals built up over time, that accumulates into reefs above and below the sea line, and gets battered and reshaped by that sea as it forms into islands. It is a presence that cannot be ignored either by ships or inhabitants' (Cuban, 1992, p. 223). This metaphor is a way of saying that in curriculum work we have to build on what we have, work from bottom-up. According to Cuban, numerous attempts at large scale school reform, engineered in a top-down fashion, follow a pattern that is so familiar as to almost qualify as a ritual (Cuban, 1992, p. 217) – a cycle of condemnation of traditional schooling, grandiose plans and great expectations, stories of astounding results, disappointing reassessments, 'experts pronounce the innovation a failure. Villains are sought' (Cuban, 1992, p. 220).

Other scholars working in the USA have come to similar conclusions as Tyack and Cuban, e.g. Sarason (1971) and Tye (2000). The same is true in Northern Europe where Hamilton (1989, pp. 153–154) has described ideals of planned education as unrealisable technocratic dreams and argued that:

At root, technocratic thinking is driven by a vision of control and standardization. It succeeds, therefore, to the degree that it is able to create teacher-proof and learner-proof curricula, and to the degree that it can ignore the differences among schools and schoolrooms. But, in its denial of the goal-setting capacities of teachers and learners, and in its denial of variations among school settings, technocratic thinking is ultimately self-defeating. (Hamilton, 1989, pp. 153–154)

In a book published in 1990, Hamilton continued in the same vein and concluded that 'education and schooling are necessarily unstable and unpredictable' (Hamilton, 1990, p. xvi) and subject to influences beyond technocratic control.

Scholars more sympathetic to top-down engineering of school curricula, like Tyler (1949), typically admit that actual curricula have not been derived from aims or accurate descriptions of what schools are supposed to accomplish. White (1997, 2004a, 2004b, 2004c), for example, describes curriculum design as top-down engineering. Commenting on papers in a publication he edited, he concedes, however, that custom is tenacious and that the papers bear out that the present curriculum of English schools was essentially created in the 19th century (White, 2004c). The foundations for modern curricula were also laid a long time ago in other countries, e.g., in Denmark (Haue 2003, 2004) and in Iceland (Harðarson, 2011).

University preparatory curricula in Iceland is a typical example of the persistence of school traditions. It evolved as a compromise between two different schools of thought. One was an offspring of the enlightenment. The other had its roots in humanism and romanticism. For most of the 19th century, humanists-cum-romantics had the upper hand. But in the early 20th century, when the Latin school was replaced by the modern grammar school, the humanists gave in and the curriculum that was adopted was strikingly similar to the course of study recommended by Locke (1693/1989), who was the chief initiator of enlightenment thought. For more than a century, the Icelandic mother tongue, foreign languages, history, social studies, mathematics, natural sciences, and physical education have taken up over three-fourths of teaching time in those Icelandic secondary schools offering university preparatory education. The content taught remained relatively stable through the turmoil of the 20th century although the overarching aims listed in parliamentary acts and government regulations changed (Harðarson, 2011).

The above-mentioned historical research gives reasons to suspect that top-down engineering of school curricula is not feasible. Scholars with different perspectives on educational studies have reached similar conclusion, e.g., Popkewitz, Tabachnick, and Wehlage (1982)

who have argued that schemes for educational reform are transformed when they enter the domain of practice. Another example is Jackson, who describes the curriculum reform of the 1960s and 1970s, when experts from research universities and elsewhere were given the task of refashioning the curriculum of elementary and secondary schools, as being in the main disappointing, if not disastrous (Jackson, 2012, p. 43).

5.2 Schwab's writings on the practical

The question whether educational aims are principles of design or principles of reform is a question about the extent to which curricula can be engineered in a top-down fashion. Can we derive a whole curriculum from a clear and detailed statement of what we want schools to accomplish? In a series of papers, published in 1970, 1971, and 1973, Schwab argued for a negative answer. These papers are entitled 'The Practical: A Language for Curriculum', 'The Practical: Arts of Eclectic', and 'The Practical: Translation into Curriculum'. They are all reprinted (the second in a slightly different form) in Schwab (1978).

The first paper opened with a statement to the effect that the field of curriculum had become moribund because of unexamined reliance on direct application of theories, especially from the social sciences. In what followed, Schwab criticised the theoretical and abstract bent of curriculum theory and argued that curriculum work is inevitably practical rather than theoretical. In this first paper out of the three, Schwab explained at length the differences between theoretic and practical pursuits. The end of the theoretic is durable knowledge applicable to a large class of occurrences. On his account, the end of the practical is decision, which can be good or bad but neither true nor false. The subject matter of theory is something universal, but the practical deals with the concrete and particular and is susceptible to circumstance (Schwab, 1978, pp. 288–289). The method of the practical is neither deduction nor induction but rather deliberation (Schwab, 1978, pp. 291, 318).

The weaknesses of theories, Schwab said, arise from two sources: 'the inevitable incompleteness of the subject matters of theories and the partiality of the view each takes of its already incomplete subject'

(Schwab, 1978, p. 296). Because of these weaknesses, the purposes served by schools cannot all be captured by abstract formulations and no theory can account for everything that matters. Therefore, no theoretical framework is adequate to the task of designing or engineering entire school curricula (Schwab, 1978, p. 313). The stuff of theory is, Schwab said, abstract or idealized representations of real things:

But curriculum in action treats real things: real acts, real teachers, real children, things richer than and different from their theoretical representations. Curriculum will deal badly with its real things if it treats them merely as replicas of their theoretic representations. (Schwab, 1978, p. 310)

Schwab did not think of sociological and psychological theories, however, as useless for practical work on curriculum. He recommended what he called *polyfocal conspectus* (Schwab, 1978, p. 342 ff) i.e. the ability to use different theories to reveal different aspects of reality, rather than taking one of them to be the definitive truth or the last word (Schwab, 1978, p. 299).

Schwab's criticisms of theoretical approaches to curriculum design were aimed against the dominant view I outlined in section 2.1, and he cast doubts on all attempts to use top-down engineering to design and implement school curricula. Such methods require clear statements of what purposes the schools should serve, and enough knowledge to break those purposes down into sub-tasks and to implement each detail or furnish the black boxes with effective procedures to yield whatever outcome has been specified for them. The top-down model requires that we be able to say both what we want and how to get it. If Schwab was right, there is no theoretical framework available which enables us to do justice to all the purposes schools must serve. We have to find our way without a map of the territory as a whole.

Somewhat similar arguments against overemphasis on theories from the social sciences have been presented more recently by Carr (2000) in his work on teachers' professionalism. Carr defends an account of deliberation reminiscent of Schwab's and warns against simplistic reliance on grand theoretical schemes. Like Schwab, he

does, however, point out that theoretical knowledge plays a role in practical deliberation. It is precisely because 'the professional is liable to encounter novel problems and dilemmas to which there are not established or cut-and-dried technical answers that he or she requires thorough acquaintance with the best which has been thought and said on such potential difficulties' (Carr, 2000, p. 24). In this work, Carr criticised the engineering approach to curriculum design as unethical, arguing that there are moral constraints on what means are acceptable and that curriculum work can therefore not be all about finding the most efficient means to achieve the aims. Now, moral constraints do not exclude an engineering approach. Methods of top-down design can be used although some procedures or means of implementation are excluded. If, however, the moral considerations are paramount, as Carr argued, then focusing mostly, or even exclusively, on aims and effective means to reach them gives a skewed view of school practice.

Schwab's arguments against basing curriculum work on sociological and psychological theories went hand in hand with his criticisms of educational aims as organising principles of school curricula. If each theory is an abstraction of one aspect of a multifarious reality, then those who attempt to reshape the whole to meet aims justified in terms of any one theory may be justly accused of 'monomania'. One group 'seeks to ground its objectives in social need and finds its social needs in just those facts about its culture which are sought and found under the aegis of a single conception of culture' (Schwab, 1978, p. 305). Another group focuses on theories of personality and still others on what is needed to live in the modern world or 'the skills required for success in a trade or vocation' (Schwab, 1978, p. 306). Having listed several groups of curriculum theorists, each with its tunnel vision of what schools are for, Schwab concluded:

Three features of these typical efforts at curriculum making are significant here, each of which has its own lesson to teach us. First, each is grounded in a theory as such. [...] Second, each is grounded in a theory from the social or behavioral sciences: psychology, psychiatry, politics,

sociology, or history. [...] Third, each theory concerns a *different* subject matter. [...]

The significance of this third feature is patent to the point of embarrassment: No curriculum, grounded in but one of these subjects, can possibly be adequate or defensible. [...]

It is clear, I submit, that a defensible curriculum or plan of curriculum must be one which somehow takes account of all these sub-subjects which pertain to man. It cannot take only one and ignore the others; it cannot even take account of many of them and ignore one. Each of them is not only one of the constituents and one of the conditions of decent human existence but each also interpenetrates some or all of the others. (Schwab, 1978, pp. 305–307)

Those who develop school curricula should, according to Schwab, take a number of theories into account, but avoid attempts to revolutionise schools by using any one theory or one grand scheme. Neither is there any ‘foreseeable hope of a unified theory in the immediate or middle future, nor of a metatheory which will tell us how to put them together or order them in a fixed hierarchy of importance to the problems of curriculum’ (Schwab, 1978, p. 308). The only viable alternative is, therefore, unsystematic and pragmatic deliberation.

Although theories may illuminate important aspects of social reality, Schwab doubted that any verbal formulations would ever capture everything that practical deliberation must be sensitive to. He explained his doubts in the last of the three papers, ‘The Practical: Translation into Curriculum’, where he described curriculum as a thick reality, and his account has much in common with Michael Walzer’s (1994) description of morality as *thick* and embedded in social practices rather than as *thin* abstractions that can be captured by sharp and succinct verbal formulae. There is, according to Schwab, a whole world of culture behind school curricula and the values at stake cannot be captured by verbal or theoretical formulations. They are embedded in a social reality that gives meaning to statements about educational purposes, but only equivocally and imperfectly (Schwab, 1978, p. 370).

Schwab calls the thick realities that curriculum development must take into account commonplaces. He mentions four: subject matter, learners, milieus and teachers (Schwab, 1978, pp. 366–367) and says that they must be coordinated and that none of them should be subordinate to another (Schwab, 1978, p. 373). It follows from this that choice of subject matter cannot be subordinate to considerations having to do with children or society, and it is ‘difficult to *select* from a subject matter those parts which are defensible in the curriculum because they serve the child, the teaching function, or the polity’ (Schwab, 1978, p. 373). ‘Amid the concerns of child-centered planning, we note the vital role of organised subject matter. Amid concerns for subject matter, we note the vital role of the child’s present and future’ (Schwab, 1978, pp. 373–374).

Some of Schwab’s warnings against making subject matter subordinate to aims or external objectives are reminiscent of Stenhouse’s:

The use of scholarly material as a resource for curriculum can be perverted, and its perversion is as pernicious educationally as deprivation of it is. Perversion consists of warping the scholarly materials out of their character in order to force them to serve a curricular purpose which fascinates the planners. [...] The perversion consists in degrading subject matter to the role of servant. (Schwab, 1978, p. 377)

Schwab’s criticism of the dominant view is, basically, an argument against using aims as principles of design, i.e., against top-down design of school curricula. The deliberative tradition Schwab originated emphasises that schools serve many purposes, some of which are only dimly understood and no single theory can account for them all. In the spirit of this tradition, Reid, whom I introduced in section 2.2, recommends a bottom-up approach that begins with a realisation of what we have.

Most of the time, reform proposals are put forward on the assumption that someone, somewhere, knows what to do, that the question of how to make a curriculum does not need to be addressed, and that discussion can be confined to the definition of desired states of affairs. A deliberative perspective

takes a contrary position: the key to an effective curriculum for schooling is the question of *how* all the experience represented by teachers, students, subject matter, and the milieus can be brought together to yield a workable plan that solves problems faced by curriculum in both its institutional and its practical aspects. (Reid, 2006, p. 134)

A top-down model begins with a statement of purposes and makes everything else subservient to a precise definition of what is to be accomplished. Such a model is hard to apply if Schwab is right and the commonplaces need to interact on equal terms, each of them being a complex world, with no theoretical framework available that they all fit into.

5.3 Airborne abstractions and earthbound practice

From 1996 until 2008, the legislature in Iceland and the Ministry of Education attempted to standardise and regulate secondary education to a much greater extent than before. The Ministry published a national curriculum guide for upper secondary schools in 1999 (Ministry of Education, Science and Culture, 1999) that was based on the Act on Upper Secondary Schools of 1996. This curriculum guide had both a section on general, overarching aims, and detailed lists of aims for most school subjects. A new act on secondary schools was passed by the Icelandic legislature in 2008, and the curriculum guide issued in 2011 in accordance with this act (Ministry of Education, Science and Culture, 2011) makes different requirements.

Nominally, all teachers were requested to work towards the overarching general aims listed in the curriculum guide from 1999. Some of these were intellectual or moral virtues, and some had to do with democratic values. Earlier acts by the legislature and publications by the Ministry of Education had mentioned general educational aims but without listing them in such detail.

From September 2009 until March 2010, I interviewed eighteen teachers of academic subjects in Icelandic secondary schools to find out how the aims listed in the 1999 curriculum guide had influenced their teaching. Of my interviewees, six taught natural sciences, six

mathematics, and six were teachers of history. I chose these subject areas because the 1999 *National Curriculum Guide* required teaching within them to deviate more than other branches from formerly prevailing traditions. The teachers I interviewed worked in eight different schools, four gymnasia and four comprehensive schools. I tried to cover the spectrum of Icelandic secondary schools by choosing institutions with different traditions.

The results of my research (Harðarson, 2010a, 2010b, 2013b) indicate that the general overarching aims had little effect on how my interviewees taught their subjects. In so far as these aims played any role at all, they were interpreted as principles of reform rather than as principles of design. When I asked the teachers how they worked towards overarching aims related to democratic citizenship and moral and intellectual virtues, most of them said that the subjects they taught were especially well fitted to make students able to understand news, current issues, and their own society, enhance critical or scientific thinking, or make students aware of moral or social values. Both the general answers the teachers gave and the specifics and details they mentioned were internal to their subjects. They said these aims were served by teaching natural sciences, mathematics or history in the way required by the inner logic of these disciplines. Only two, out of the eighteen teachers, said that they had actually organised their teaching with some of these aims in mind and no one had adjusted his or her teaching to meet all the general aims listed in the curriculum guide from 1999. They all claimed, however, to work towards aims that were similar to some of those listed, and more general than the subject-specific aims. The following categories of aims were most often mentioned: To increase students' abilities to understand news, current issues and social discourse; to enhance critical, scholarly, or scientific thinking; to prepare students for further study in college or university; to make them aware of the merit, value, or moral worth of something.

The general aims mentioned by the teachers were, with few exceptions, related to subject-specific aims. For instance, four of the science teachers talked about raising environmental awareness or appreciation of the importance of environmental issues. Two mentioned the relevance of scientific knowledge to health. Perhaps

understanding news and current issues (mentioned by four science teachers) and the ability to participate in social discourse (mentioned by two of them) appear to have only loose ties to the natural sciences. In the conversations, however, the connections were quite close because the teachers brought this up after the discussion had touched on genetically modified grain, mutations of a flu virus, or the exploitation of natural resources. The same applies to the other teachers. The mathematicians mentioned, for instance, enhancing critical thought, logical acumen, and the ability to present information in an organised way. The history teachers talked about students' abilities to understand their own society and culture and develop a critical stance towards information. Some of them also mentioned broad-mindedness, the ability to place oneself in the situation of others, and an understanding of a culture different from one's own. Some also discussed the relation between historical knowledge on the one hand, and self-knowledge and self-awareness on the other.

Although teachers of natural sciences, mathematics, and history work under time pressure, and the subject-specific sections of the curriculum guide from 1999 listed more topics than can easily be covered, only one of my interviewees mentioned lack of time as a relevant factor in connection with general aims. The other seventeen did not seem to think of these aims as competing for time with subject-specific aims. Part of the reason for this seems to be that the overarching aims were so general that anything that good teachers were likely to do could count as progress towards them. One of my interviewees, a mathematics teacher, expressed this succinctly when asked about general educational aims having to do with democracy and critical thinking: 'Any normal school practice will serve these aims' (Harðarson, 2010b, p. 98). Part of the reason may also be that from the point of view of my interviewees, learning their subjects is an exercise in intellectual virtues such as open-mindedness and critical thinking. They saw their subjects as constitutive of the general educational aims, and they did not think of these aims as requiring much change in school practice.

Not one of the teachers I interviewed had any objections to the general overarching aims listed in the curriculum guide. They talked as if they were willing to modify their practice if needed, but it so

happened that by continuing to work as most of them had done since long before 1999, they served these and other similar worthwhile aims. Stenhouse once said that 'at high levels of generality, aims give little guidance in planning' and 'they readily become rationalizations of practice rather than bases for critique' (Stenhouse, 1983, p. 48). Possibly some of the things my interviewees said about aims related to democracy and virtues were rationalisations. I, at least, found it hard to tell to what extent they used them to reform their practice, rather than to justify it. Such justifications can range from rationalisations or bad excuses for a discreditable practice, to honest explanations of why the school tradition they identify with is valuable. Sometimes it is hard to draw the line between preserving a cultural heritage and defending bad manners.

I also asked the eighteen teachers about the subject-specific aims and other requirements made in the curriculum guide from 1999, and I learned that teaching in the eight schools I investigated did not become standardised anywhere near the extent aimed at. The older four schools (the grammar schools) changed less than the four more recent ones (the comprehensive schools). Moreover, those of my subjects who worked in schools that adjusted in large part to the 1999 requirements, expressed willingness to return to the old ways now that schools can again decide their curricula. Some had already reverted to the older curriculum to some extent. The attempt to change Icelandic schools by top-down management seems to have fared similarly to the grand schemes discussed by the scholars mentioned in section 5.1. One of those scholars concluded that when innovations are implemented, it seems that adaptations are always made in the direction of the traditional. 'They are negotiated agreements to modify the original vision in the direction of the tried-and-true, or to abandon the vision altogether and "go back" to business as usual' (Tye, 2000, p. 30).

In this chapter, I have used empirical results to support the thesis that a curriculum cannot be designed top-down, or, in other words, that overarching educational aims cannot be used as principles of design to create a curriculum *ab initio*. The empirical results I have mentioned are historical and sociological (in section 5.1) and my own qualitative research described above. I have also used Schwab's half-

empirical and half-philosophical critique of theoretical approaches and the fact that the practice of school education does not fit into any one single theoretical framework (in section 5.2). These empirical and semi-empirical results make my thesis plausible, although they do not suffice to eliminate all doubts. An objector could argue that what has not succeeded so far may possibly be accomplished later with new theories and administrative techniques. I think, however, that in addition to the empirically established results listed above, my thesis can be supported by more philosophical considerations. There are conceptual reasons to doubt that a curriculum can in, principle, be engineered top-down.

Granted that the top level administrators, those who define the most general overarching aims, have limited knowledge and are normally not specialists in but few of the subjects they require schools to teach, they must, necessarily, treat most of the subjects as black boxes: They must be able to specify *what* comes out of teaching them and leave the details of *how* to do it to specialists. Top-down methodology thus requires the top-level aims to be independent of the lower levels and comprehensible without mastery of the details of implementation. In other words, the technocratic approach to curriculum work requires that the top level administrators are able to know what good comes out of learning, say, music or mathematics without being on intimate terms with those subjects. There are, though, reasons to doubt that this is possible.

Aims that only make sense within a given context can hardly be chosen in advance of entering that very context. I do not first choose to mate the opponent's king and then choose playing chess as a means to that end. Choosing to mate the opponent's king simply does not make sense unless one has already chosen to play chess. Likewise, an aim like understanding a proof of Heron's theorem is not comprehensible unless one has already entered the world of geometry. In section 4.2, I argued that education involves initiation into rich intellectual traditions that have their own context-dependent aims and purposes. It can also be argued that if some of the aims of education are only comprehensible inside the context of school subjects, they do not just happen to be principles of reform based on bottom-up methodologies rather than top-down design.

6 Conclusion

In his book, *The Stone Trumpet*, published in 1994, the US teacher and educationist Richard A. Gibboney analysed attempts to reform schools in the USA from 1960 until 1990. He distinguished between school reform based on democratic and intellectual values, on the one hand, and technocratic approaches, on the other, and argued that, in the latter half of the 20th century, most so called school reform failed because it was dominated by a technocratic mindset. According to Gibboney, this technological belief system was largely unchallenged because it used vocabulary that invoked some of the images of an intellectual and humane education, or what I would call simply liberal education.

One source of the appeal of these technological curriculums is that, like a professed nonbeliever who still attends church occasionally, they have it both ways. Technologists offer the promise of efficiency and measurement but, without guile, they cannot help but echo some of the values in the progressive tradition. (Gibboney, 1994, p. 122)

My arguments support Gibboney's thesis because they show that advocates of technocratic rationalism and top-down engineering of school curricula do not seem to have a plausible case unless they allow themselves recourse to items from the right column of Table 2 in section 3.2. These items include ideals and context-dependent aims that are, however, not available to them if they are to remain fully self-consistent.

The fourth chapter of this monograph was about how subjects and learners make the outcome of teaching unpredictable and, hence, apt to yield benefits that differ from any pre-specified aims. In the fifth chapter, I argued that how school practice is embedded in complex cultural and historical reality also limits our abilities to design curricula by deriving what to teach and how from a statement of aims to be reached. The arguments of the fourth chapter are influenced by Stenhouse's work, but the arguments in the fifth chapter draw upon Schwab's writings on

curriculum as a practical task, rather than a theoretical one. These two chapters show that educational aims cannot be confined to the left column in Table 2. Some of them are constituted, rather than caused, by the means. Some are intrinsic to the means, dependent on subject-specific contexts, ideals that can never be completed, principles of piecemeal reform rather than grand design.

If we are not mindful of how multifarious educational aims and purposes are, it may be hard to resist the allure of a technocratic and rationalistic model. As Peters argued (see quotation at the beginning of section 3.2), such models haunt all our thinking about the promotion of what is valuable: ‘In the educational sphere we therefore tend to look round for the equivalent of bridges to be built or ports to be steered to’ (Peters, 1973a, p. 123). It is trivially true that any worthwhile activity serves an aim of some sort because whatever is worthwhile about it can be described as an aim. It seems also beyond doubt that those who organise schools should be mindful of something that is truly good, desirable, and beneficial and worth learning – that is of good and worthy aims. If what I have said about the first distinction (introduced in section 3.1) is right, it is, however, a mistake to think of these aims as states of affairs or as results that are caused by means, such as educational arrangements, assignments, experiences, or school subjects. It is also wrong to believe that all educational aims are logically independent of the means, or comprehensible outside the context of subjects or intellectual traditions, as I argued in connection with distinctions numbered 2 and 3. Furthermore, it is a mistake to assume that educational aims can generally be completed or reached. Some of the most important of them are not learner-centred objectives but ideals in the sense outlined in distinction number 4. Last, but not least, I have argued that educational aims do not normally function as principles of design in the sense given by distinction number 5.

School education can only be completely aims-based provided we allow all the sorts of aims I have listed to play a role – that is to say, only in a trivial sense. Some of the aims can neither be stated precisely nor used to determine exactly what to do. Because we have to work, at least partially, from bottom-up, they must be what Bobbitt called, in a derogatory tone of voice, ‘large, undefined purposes’

(Bobbitt, 1918/1972, p. 41). Such aims either describe what teaching and learning are good for, or guide piecemeal reform of school practice. If the curriculum is said to be based on such aims, it is only in the weak sense of being compatible with them or being modified to approach them. The short answer to my question about *in what sense and to what extent organised school education can be an aims-based enterprise* is therefore: *In a trivial sense and to a limited extent.*

References

- Akker, J. van den (2003a). Curriculum perspectives: An introduction. In J. van den Akker, W. Kuiper, & U. Hameyer (Eds.), *Curriculum landscape and trends* (pp. 1–10). Dordrecht: Kluwer Academic Publishers.
- Akker, J. van den (2003b). Dutch secondary curriculum reform between ideals and implementation. In J. van den Akker, W. Kuiper, & U. Hameyer (Eds.), *Curriculum landscape and trends* (pp. 61–71). Dordrecht: Kluwer Academic Publishers.
- Apple, M. W. (1982). *Education and power*. Boston: Routledge & Kegan Paul.
- Aristotle. (1941). *The basic works of Aristotle*. New York: Random House.
- Ayer, A. J. (1971). *Language, truth and logic*. Harmondsworth: Penguin Books. (Original work published 1936.)
- Au, W. (2011). Teaching under the new Taylorism: High stakes testing and the standardization of the 21st century curriculum. *Curriculum studies*, 43(1), 25–45.
- Bantock, G. H. (1980). *Dilemmas of the curriculum*. Oxford: Martin Robertson & Co.
- Barrow, R. (1984). *Giving teaching back to teachers: A critical introduction to curriculum theory*. Brighton, Sussex: Wheatsheaf Books Limited.
- Barrow, R. (2010). Was Peters nearly right about education? *Journal of Philosophy of Education*, 43(s1), 9–25.
- Bailey, C. (2010). *Beyond the present and the particular: A theory of liberal education*. London: Routledge. (Original work published 1984.)
- Beckett, K. S. (2011). R. S. Peters and the concept of education. *Educational Theory*, 61(3), 239–255.

- Bloom, B. S. (Ed.). (1956). *Taxonomy of educational objectives, The classificaton of educational goals – Handbook I: Cognitive domain*. New York: David McKay Company, Inc.
- Bobbitt, F. J. (1972). *The curriculum*. New York: Arno Press. (Original work published 1918.)
- Bowles, S., & Gintis, H. (1976). *Schooling in capitalist America: Educational reform and the contradictions of economic life*. London: Routledge & Kegan Paul.
- Bruner, J. (1996). *The culture of education*. Cambridge, MA: Harvard University Press.
- Carr, D. (1999). Rational curriculum planning: In pursuit of an illusion. In R. Marples (Ed.), *Aims of education: Routledge international studies in the philosophy of education*, 7 (pp. 173–184). London: Routledge.
- Carr, D. (2000). *Professionalism and ethics in teaching*. London; New York: Routledge.
- Carr, D. (2003). Philosophy and the meaning of ‘education’. *Theory and Research in Education*, 1(2), 195–212.
- Carr, D. (2010). Education, contestation and confusions of sense and concept. *British Journal of Educational Studies*, 58(1), 89–104.
- Crittenden, B. (2007). Aims, intentions and purposes in teaching and educating. *Educational Theory*, 24(1), 46–51.
- Cuban, L. (1992). Curriculum stability and change. In P.W. Jackson (Ed.), *Handbook of research on curriculum: A project of the American Educational Research Association* (pp. 216–247). New York: Macmillan Publishing Company.
- Descartes, R. (1979). *The philosophical works of Descartes, volume 1* (E. S. Haldane, & G. R. T. Ross, trans.). Cambridge: Cambridge University Press.

- Dreyfus, H. L., & Dreyfus, S. E. (1990). Making a mind versus modelling the brain. In M. A. Boden (Ed.), *The philosophy of artificial intelligence* (pp. 309–333). New York: Oxford University Press.
- Dunne, J. (1993). *Back to the rough ground: Practical judgement and the lure of technique*. Notre Dame, IN: University of Notre Dame Press.
- Eliot, T. S. (1948). *Notes towards the definition of culture*. London: Faber and Faber.
- Elliott, J. (2007). Making evidence-based practice educational. In M. Hammersley (Ed.), *Educational research and evidence-based practice* (pp. 66–87). Los Angeles; London; New Delhi; Singapore: Sage Publications.
- Elliott, J. (2009). Connecting action with research. In E. C. Short, & L. J. Waks (Eds.), *Leaders in curriculum studies: Intellectual self-portraits* (pp. 77–90). Rotterdam; Boston; Taipei: Sense publishers.
- Elytis, O. (2004). *The collected poems of Odysseus Elytis: Revised and expanded edition*. (J. Carson, & N. Sarris, trans.). Baltimore; London: The John Hopkins University Press.
- English, A. (2010). Transformation and education: The voice of the learner in Peters' concept of teaching. *Journal of Philosophy of Education*, 43(s1), 75–95.
- Entwistle, H. (1979). *Antonio Gramsci: Conservative schooling for radical politics*. London: Routledge & Kegan Paul.
- European Commission. (1996). *Teaching and learning: Towards the learning society / European Commission Directorate-General XXII – Education, training and youth*. Luxembourg: Office for Official Publications of the European Communities.
- Fowers, B. J. (2010). Instrumentalism and psychology: Beyond using and being used. *Theory & Psychology*, 20(1), 102–124.
- Gadamer, H. G. (1960). *Wahrheit und Methode: Grundzuge einer philosophischen Hermeneutik*. Tübingen: JCB Mohr Verlag.

- Gibboney, R. A. (1994). *The stone trumpet: A story of practical school reform 1960–1990*. Albany, NY: State University of New York Press.
- Gramsci, A. (1971). *Selections from the prison notebooks of Antonio Gramsci* (Q. Hoare, & G. N. Smith, trans.). New York: International Publishers.
- Greene, M. (1995). *Releasing the imagination: Essays on education, the arts, and social change*. San Fransisco: Jossey-Bass.
- Hamilton, D. (1989). *Towards a theory of schooling*. London; New York; Philadelphia: The Falmer Press.
- Hamilton, D. (1990). *Learning about education*. Milton Keynes; Philadelphia: Open Universiy Press.
- Harðarson, A. (2010a, December 31st). Hvaða áhrif hafði Aðalnámskráin frá 1999 á bóknámsbrautir framhaldsskóla? *Netla*. Retrieved from <http://netla.hi.is/greinar/2010/014/index.htm>.
- Harðarson, A. (2010b). Skilningur framhaldsskólakennara á almennum námsmarkmiðum. *Tímarit um menntarannsóknir*, 7, 93–107.
- Harðarson, A. (2011). Húmanisminn, upplýsingin og íslenska stúdentsprófið, *Skírnir*, 185(1), 123–144.
- Harðarson, A. (2012a). Why the aims of education cannot be settled. *Journal of Philosophy of Education*, 46(2), 223–235.
- Harðarson, A. (2012b). Ný aðalnámskrá framhaldsskóla og gömul námskrárfræði. *Uppeldi og menntun*, 21(2), 71–89.
- Harðarson, A. (2013a). Equality and academic subjects. *Journal of Curriculum Studies*, 45(2), 119–131.
- Harðarson, A. (2013b). Are educational aims principles of design, reform, justification or rationalisation? [Unpublished.]
- Hempel, C. G. (1961). Rational action. *Proceedings and Addresses of the American Philosophical Association*, 35, 5–23.
- Hogan, P. (2003). Teaching and learning as a way of life. *Journal of Philosophy of Education*, 37, 207–233.

- Haue, H. (2003). *Almendannelse som ledestjerna: En undersøgelse af almindannelsens funktion i dansk gymnasieundervisning 1775–2000*. Odense: Syddansk Universitetsforlag.
- Haue, H. (2004). *Almendannelse for tiden: En ledetråd i dansk gymnasieundervisning*. Odense: Syddansk Universitetsforlag.
- Holt, M. (2009). The scenic route. In E. C. Short, & L. J. Waks (Eds.), *Leaders in curriculum studies: Intellectual self-portraits* (pp. 105–116). Rotterdam; Boston; Taipei: Sense publishers.
- Illich, I. (1973). *Deschooling society*. Harmondsworth: Penguin Education.
- Jackson, P. W. (1968). *Life in classrooms*. New York: Holt, Rinehart & Winston.
- Jackson, P. W. (1992). Conceptions of curriculum and curriculum specialists. In P. W. Jackson (Ed.), *Handbook of research on curriculum: A project of the American Educational Research Association* (pp. 3–40). New York: Macmillan Publishing Company.
- Jackson, P. W. (2012). *What is education?* Chicago: University of Chicago Press.
- Jóhannesson, I. Á. (2006). 'Different children – a tougher job'. Icelandic teachers reflect on changes in their work. *European Educational Research Journal*, 5(2), 140–151.
- Jóhannesson, I. Á. (2008). Aðalnámskráin 1976–1977 og nútímaleg kennslufræði. In L. Guttormsson (Ed.), *Almenningsfræðsla á Íslandi 1880–2007: Síðara bindi, Skóli fyrir alla 1946–2007* (pp. 120–135). Reykjavík: Háskólaútgáfan.
- Jóhannesson, I. Á., Lindblad, S., & Simola, H. (2002). An inevitable progress? Educational restructuring in Finland, Iceland and Sweden at the turn of the millennium. *Scandinavian Journal of Educational Research* 46(3), 325–339.
- Karseth, B. (2006). Curriculum restructuring in higher education after the Bologna Process: A new pedagogic regime? *Revista Española de Educación Comparada*, 12, 255–284.

- Katz, M. S., & Denti, L. G. (1996). The road to nowhere begins with where we are: Rethinking the future of American education. *Interchange*, 27(3&4), 261–277.
- Kellough, R. D., & Kellough, N. G. (2007). *Secondary school teaching: A guide to methods and resources* (3rd ed.). Upper Saddle River, NJ: Pearson/Merrill Prentice Hall.
- Kelly, A. V. (2009). *The curriculum: Theory and practice* (6th ed.). London: Sage Publications.
- Kennedy, D., Hyland, Á., & Ryan, N. (2006). Writing and using learning outcomes: a practical guide. Article C 3.4-1 in E. Froment, J. Kohler, L. Purser, & L. Wilson (Eds.), *EUA Bologna Handbook – Making Bologna Work*. Berlin: Raabe Verlag.
- Klein, M. F. (2009). Pivotal events and people in my career. In E. C. Short, & L. J. Waks (Eds.), *Leaders in curriculum studies: Intellectual self-portraits* (pp. 117–128). Rotterdam; Boston; Taipei: Sense publishers.
- Kliebard, H. M. (1987). *The struggle for the American curriculum 1893–1958*. New York; London: Routledge & Kegan Paul.
- Kliebard, H. M. (2009). Chance encounters and consequential choices. In E. C. Short, & L. J. Waks (Eds.), *Leaders in curriculum studies: Intellectual self-portraits* (pp. 129–142). Rotterdam; Boston; Taipei: Sense publishers.
- Kristjánsson, K. (1996). *Social freedom: The responsibility view*. Cambridge: Cambridge University Press.
- Kristjánsson, K. (2006). *Justice and desert-based emotions*. Aldershot: Ashgate Publishing.
- Kristjánsson, K. (2010). *The self and its emotions*. New York: Cambridge University Press.
- Lawrence, D. H. (2011). *Complete works of D. H. Lawrence* [Kindle version]. (n.p.): Delphi Classics.
- Lewis, C. S. (1946). *The abolition of man*. London: Geoffrey Bles.

- Lozano, F. J., Boni, A., Peris, J., & Hueso, A. (2012). Competencies in higher education: A critical analysis from the capabilities approach. *Journal of Philosophy of Education, 46*(1), 132–147.
- Locke, J. (1989). *Some thoughts concerning education*. Oxford: Clarendon Press. (Original work published 1693.)
- MacIntyre, A. C. (1964). Against utilitarianism. In T. H. B. Hollins (Ed.), *Aims in education: The philosophic approach*, (pp. 1–23). Manchester: Manchester University Press.
- Marzano, R. J. (2008). *Designing & assessing educational objectives*. Thousand Oaks, CA: Corwin Press.
- Ministry of Education, Science and Culture. (1999). *Aðalnámskrá framhaldsskóla: Almennur hluti*. Reykjavík: Author.
- Ministry of Education, Science and Culture. (2004). *National curriculum guide for upper secondary school: General section*. Reykjavík: Author.
- Ministry of Education, Science and Culture. (2011). *Aðalnámskrá framhaldsskóla: Almennur hluti*. Reykjavík: Author.
- Ministry of Education, Science and Culture. (n.d.). *The Icelandic National Curriculum Guide for Upper Secondary Schools: General Section*. Reykjavík: Author.
- Mill, J. S. (2009). Inaugural address delivered to the University of St. Andrews. In A. O'Hear, & M. Sidwell (Eds.), *The school of freedom: A liberal education reader from Plato to the present day* (pp. 149–156). Exeter: Imprint Academic. (Original work published 1867.)
- Nagel, T. (1986). *The view from nowhere*. Oxford: Oxford University Press.
- Neurath, O. (1932). Protokollsätze. *Erkenntnis, 3*(1), 204–214.
- Null, W. J. (2011). *Curriculum: From theory to practice*. Plymouth, UK: Rowman & Littlefield Publishers, Inc.
- Nussbaum, M. (1997). *Cultivating humanity: A classical defense of reform in liberal education*. Cambridge, MA: Harvard University Press.

- Oakeshott, M. (1989). *The voice of liberal learning*. New Haven; London: Yale University Press.
- Page, R. N. (2009). Foreword. In E. C. Short, & L. J. Waks (Eds.), *Leaders in curriculum studies: Intellectual self-portraits* (pp. ix–xvi). Rotterdam; Boston; Taipei: Sense publishers.
- Peters, R. S. (1966). *Ethics and education*. London: Allen & Unwin.
- Peters, R. S. (1973a). *Authority, responsibility and education* (3rd ed.). London: George Allen & Unwin.
- Peters, R. S. (1973b). *Reason and compassion: The Lindsay memorial lectures delivered at the University of Keele, February-March 1971 and the Swarthmore lecture delivered to the Society of Friends, 1972*. London: Routledge & Kegan Paul.
- Peters, R. S. (1974). *Psychology and ethical development*. London: George Allen & Unwin.
- Peters, R. S. (1981). *Essays on educators*. London: Allen & Unwin.
- Pinar, W. F., Reynolds, W. M., Slattery, P., & Taubman, P. M. (1995). *Understanding curriculum: An introduction to the study of historical and contemporary curriculum discourses*. New York: Peter Lang Publishing.
- Popkewitz, T. S., Tabachnick, B. R., & Wehlage, G. (1982) *The myth of educational reform: A study of school responses to a program of change*. London: The University of Wisconsin Press.
- Pring, R. (1999). Neglected educational aims: Moral seriousness and social commitment. In R. Marples (Ed.) *Aims of education: Routledge international studies in the philosophy of education, 7* (pp. 157–172). London: Routledge.
- Putnam, H. (1975). *Mind, language and reality: Philosophical papers, volume 2*. Cambridge: Cambridge University Press.
- Quine, W. v. O. (1951). Two dogmas of empiricism. *The Philosophical Review*, 60, 20–43.

- Reid, W. A. (2006). *The pursuit of curriculum: Schooling and the public interest*. Greenwich, CT: Information Age Publishing.
- Sarason, S. B. (1971). *The culture of the school and the problem of change*. Boston: Allyn and Bacon.
- Sartre, J. P. (1956). *Being and nothingness* (H. E. Barnes, trans.). New York: Washington Square Press. (Original work published 1943).
- Scheffler, I. (1960). *The language of education*. Springfield, IL: Charles C. Thomas Publisher.
- Schiro, M. S. (2008). *Curriculum theory: Conflicting visions and enduring concerns*. Los Angeles, CA: Sage Publications.
- Schwab, J. J. (1978). *Science, curriculum, and liberal education: Selected essays*. Chicago; London: The University of Chicago Press.
- Scott, J. C. (1998). *Seeing like a state: How certain schemes to improve the human condition have failed*. New Haven; London: Yale University Press.
- Short, E. C. (2009). Introduction: In anticipation of these essays. In E. C. Short, & L. J. Waks (Eds.), *Leaders in curriculum studies: Intellectual self-portraits* (pp. xvii–xx). Rotterdam; Boston; Taipei: Sense publishers.
- Sigþórsson, R., & Eggertsdóttir, R. (2008). Skólapróun og skólamenning. In L. Guttormsson (Ed.), *Almenningsfræðsla á Íslandi 1880–2007: Síðara bindi, Skóli fyrir alla 1946–2007* (pp. 294–311). Reykjavík: Háskólaútgáfan.
- Stenhouse, L. (1967). *Culture and education*. London: Thomas Nelson and Sons Ltd.
- Stenhouse, L. (1970). Some limitations of the use of objectives in curriculum research and planning. *Padaagogica Europaea*, 6, 73–83.
- Stenhouse, L. (1975). *An introduction to curriculum research and development*. London: Heinemann.
- Stenhouse, L. (1983). *Authority, education and emancipation*. London: Heinemann.

- Stephen, M. (2009). Introduction. In A. O'Hear, & M. Sidwell (Eds.), *The school of freedom: A liberal education reader from Plato to the present day* (pp. 1–28). Exeter: Imprint Academic.
- Taba, H. (1962). *Curriculum development: Theory and practice*. New York: Harcourt, Brace & World.
- Taylor, C. (1989). *Sources of the self: The making of the modern identity*. Cambridge, MA: Harvard University Press.
- Taylor, C. (1999). *The ethics of authenticity*. Cambridge, MA: Harvard University Press.
- Tyack, D., & Cuban, L. (1995). *Tinkering toward utopia: A century of public school reform*. Cambridge, MA: Harvard University Press.
- Tye, B. B. (2000). *Hard truths: Uncovering the deep structure of schooling*. New York: Teachers College Press.
- Tyler, R. W. (1949). *Basic principles of curriculum and instruction*. Chicago; London: The University of Chicago Press.
- Walzer, M. (1994). *Thick and thin: Moral argument at home and abroad*. Notre Dame, IN; London: University of Notre Dame Press.
- Warnock, M. (1977). *Schools of thought*. London: Faber & Faber.
- White, J. (1982). *The aims of education restated*. New York: Routledge.
- White, J. (1997). Philosophical perspectives on school effectiveness and school improvement. In J. White, & M. Barber (Eds.), *Perspectives on school effectiveness and school improvement*. London: University of London, Institute of Education.
- White, J. (2004a). Introduction. In J. White (Ed.), *Rethinking the school curriculum: Values, aims and purposes* (pp. 1–19). London; New York: RoutledgeFalmer.
- White, J. (2004b). Shaping a curriculum. In J. White (Ed.), *Rethinking the school curriculum: Values, aims and purposes* (pp. 20–29). London; New York: RoutledgeFalmer.

- White, J. (2004c). Conclusion. In J. White (Ed.), *Rethinking the school curriculum: Values, aims and purposes* (pp. 179–190). London; New York: RoutledgeFalmer.
- White, J. (2006). Autonomy, human flourishing and the curriculum. *Journal of Philosophy of Education*, 40(3), 381–390.
- White, J. (2010). Why general education? Peters, Hirst and history. *Journal of Philosophy of Education*, 43(s1), 123–141.
- Winch, C. (1996). The aims of education revisited. *Journal of Philosophy of Education*, 30(1), 33–44.

Papers

Paper 1

Atli Harðarson

Hvaða áhrif hafði Aðalnámskráin frá 1999
á bóknámsbrautir framhaldsskóla?

Title in English

What effects did the National Curriculum Guide from 1999 have on academic study lines in Icelandic secondary schools?

Abstract in English

With the publication of the *National Curriculum Guide for Upper Secondary Schools* in 1999 the Icelandic ministry of education attempted to standardise university preparatory education to a much greater extent than before. A new act on secondary schools was passed by the Icelandic legislature in 2008. According to this new law schools are to regain the liberty they had before 1999 to decide their own curricula. The experiment with centralisation and standardisation that began in 1999 is over. It lasted for almost a decade.

From September 2009 till March 2010 I interviewed 18 teachers of mathematics, natural sciences and history. They teach in 8 different secondary schools: 4 comprehensive schools and 4 grammar schools.

In this paper I describe what changes in these three subject areas were required by the *National Curriculum Guide* from 1999 and to what extent they were implemented by the teachers I interviewed.

My main results are that teaching in the 8 schools I investigated did not become standardised to the extent aimed at by the *National Curriculum Guide*; The older 4 schools (the grammar schools) changed less than the 4 more recent ones (the comprehensive schools); Those of my subjects who work in schools that adjusted largely to the 1999 requirements expressed willingness to return to the old ways now that schools can again decide their curricula; Some had already reverted to the older curriculum to some extent.

Útdráttur á íslensku

Með útgáfu *Aðalnámskrár framhaldsskóla* árið 1999 var reynt að staðla og samræma kennslu til stúdentsprófs meir en áður. Ný lög um framhaldsskóla tóku gildi árið 2008. Samkvæmt þeim endurheimta skólar forræði yfir námskrármálum sem þeir höfðu fyrir 1999. Þeirri tilraun til stöðlunar og samræmingar sem hófst 1999 er því lokið. Hún stóð í tæpan áratug.

Frá september 2009 til mars 2010 tók ég viðtöl við 18 framhaldsskólakennara í stærðfræði, raungreinum og sögu. Þeir kenna við 8 ólíka framhaldsskóla, 4 menntaskóla og 4 fjölbrautaskóla.

Í þessari grein lýsi ég því hvaða breytingar áttu að verða á kennslu í þessum þrem greinaflokkum með *Aðalnámskránni* frá 1999 og að hve miklu leyti þær voru framkvæmdar af viðmælendum mínum.

Meginniðurstöður mínar eru að kennsla í þessum 8 skólum hafi ekki orðið samræmd í þeim mæli sem *Aðalnámskrá* krafðist; eldri skólarnir (menntaskólarnir) breyttust minna en þeir yngri (fjölbrautaskólarnir); kennarar við skóla sem löguðu sig að miklu leyti að *Aðalnámskránni* lýstu áhuga á að hverfa aftur til eldri háttu nú þegar skólar fá aftur forræði í námskrármálum og sumir höfðu þegar gert það að nokkru leyti.

Inngangur

Árið 1999 gaf menntamálaráðuneytið út *Aðalnámskrá framhaldsskóla* í samræmi við Lög um framhaldsskóla nr. 80 frá 1996 sem Alþingi hafði sett þremur árum fyrr.

Með *Aðalnámskránni* var reynt að samræma innihald náms við íslenska framhaldsskóla mun meira en tíðkast hafði áratugina á undan og var það í samræmi við ákvæði laganna frá 1996 þar sem sagði í 17. gr. „Námsbrautir framhaldsskóla skulu skipulagðar í samræmi við lokamarkmið námsins“ og í 21. gr. „*Aðalnámskrá*, er menntamálaráðherra setur, er meginviðmiðun skólastarfs. Í henni eru útfærð markmið framhaldsskóla og skilgreind markmið einstakra námsbrauta og námsgreina, svo og námslok.“ 24. gr. laganna tók af tvímæli um að nemandur ólíkra skóla skyldu læra sömu efnisatriði, a.m.k. í sumum fögum, því þar sagði „Lokapróf úr framhaldsskóla, svo sem stúdentspróf og

burtfararpróf af starfsmenntabrautum, er veitt geta rétt til frekara náms eða réttindi til starfa, skulu vera samræmd í tilteknum greinum sem nánar er kveðið á um í reglugerð.“ Lítið varð úr framkvæmd samræmdra prófa í framhaldsskólum. Samræmt stúdentspróf í íslensku var þó haldið árið 2004 og í íslensku, ensku og stærðfræði árið 2005.

Þessi tilraun löggjafans til að samræma starf framhaldsskóla hafði verið undirbúin í nokkur ár. Meginstefnan var mörkuð af nefnd sem Ólafur G. Einarsson þáverandi menntamálaráðherra skipaði árið 1992. Nefnd þessi, sem var kölluð Átján manna nefndin, skilaði skýrslu árið 1994 þar sem sagði meðal annars:

Aðalnámskrá framhaldsskóla er mikilvægt stjórnæki yfirvalda menntamála til þess m.a. að tryggja ákveðið samræmi í skólastarfi og sambærilega menntun fyrir alla nemendur á einstökum námsleiðum framhaldsskólans. Aðalnámskráin á að fela í sér skýra markmiðssetningu af hálfu yfirvalda menntamála, en hún á ekki að kveða á um hvernig einstakir skólar og starfsmenn þeirra ná þeim markmiðum (Menntamálaráðuneytið, 1994, bls. 57).

Þarna var kveðið skýrt að orði um hlutverk *Aðalnámskrár*. Hún átti að vera tæki til tryggja samræmi þannig að allir skólar sem byðu upp á sömu námsbrautir ynnu að sömu markmiðum þótt þeir færu e.t.v. ólíkar leiðir að þeim.

Af skýrslu Átján manna nefndarinnar má ráða að ætlun hennar hafi verið að breyta skólakerfinu talsvert mikið. Þetta birtist í ýmsu orðalagi eins og til dæmis þar sem segir: „Full ástæða er til að spyrja hvort ekki sé kominn tími til að breyta innihaldi náms til stúdentsprófs í samræmi við breytt þjóðfélag og breiðari nemendahóp“ (Menntamálaráðuneytið, 1994, bls. 65).

Fyrir útgáfu *Aðalnámskrárinnar* 1999 hafði menntamálaráðuneytið þrívægis gefið út *Námskrá handa framhaldsskólum*, 1986, 1987 og 1990. Þær útgáfur voru fremur skrásetning á skipan sem þróast hafði í áfangaskólunum heldur en tilraun til að miðstýra öllu framhaldsskólakerfinu.

Í grein eftir Jón F. Hjartarson (1990), sem heitir Framhaldsskólinn á tímabili lögleysunnar 1974–1990, segir frá því hvernig námskrá

áfangaskóla, sem varð til í þrem skólum, myndaði grunn að þeim námskrám sem ráðuneytið gaf út á níunda áratugnum. Jón þekkir þessa sögu því hann var áfangastjóri við Fjölbrautaskóla Suðurnesja á fyrstu árum hans og hefur verið skólameistari Fjölbrautaskóla Norðurlands vestra á Sauðárkróki frá því hann var stofnaður árið 1978. Jón segir: „Flensborgarskólinn og fjölbrautaskólarnir á Suðurnesjum og Akranesi stóðu að útgáfu sameiginlegrar námskrár (1977) og voru í raun þríeinn skóli um skeið. [...] Segja má að námskrá hins þríeina skóla hafi verið vísirinn að námskrá ráðuneytisins“ (Jón F. Hjartarson, 1990, bls. 34–5).

Jón F. Hjartarson talaði um tímabil lögleysu fram til 1990 og vísaði til þess að þá var tekið að vinna eftir lögum um framhaldsskóla, nr. 57 frá 1988, en fyrir setningu þeirra hafði ekki verið nein heildarlöggjöf um framhaldsskólastigið. Á þessum tíma voru námskrármál að mestu á forræði skóla.

Ég heimsótti Jón í mars 2010 og innti hann eftir því hvaða fyrirmyndir stjórnendur og kennarar „hins þríeina skóla“ hefðu stuðst við þegar þeir ákváðu innihald náms til stúdentsprófs. Hann nefndi hefðir innan einstakra námsgreina sem mótast hefðu við menntaskóla og kennslubækur sem til voru.

Einnig ræddi ég við fjóra kennara sem allir störfuðu við menntaskóla milli 1970 og 1980 og þeim bar saman um að á þessum tíma hefðu kennarar haft mjög frjálssar hendur við val viðfangsefna og námsmarkmiða en þó haft nokkuð samráð sín í millum. Einn þessara fjórmenna, maður um áttætt, sem ég heimsótti dagspart í október 2009, var um langt árabil í forystu í námsefnigerð og þróun kennsluhátta í náttúruvísindum. Hann sagði frá fyrstu tilraunum menntamálaráðuneytisins til að samræma áfangalýsingar í framhaldsskólum sem fram fóru í kringum 1980. Hann tók virkan þátt í þessum tilraunum og sagði að með þeim hefði ekki verið reynt að keyra í gegn ákvarðanir um innihald náms heldur aðeins að samræma nóg svo nemendur gætu skipt um skóla og fengið fyrra nám metið.

Annar maður um áttætt sem ég heimsótti í mars 2010 kenndi lengi stærðfræði við menntaskóla og var forystumaður í náms-efnisgerð. Hann sagði að við val á efnisatriðum hefðu kennarar að mestu fylgt hefð sem Ólafur Daníelsson mótaði við Menntaskólann í

Reykjavík eftir að stærðfræðideild var stofnuð þar 1919. Á sjöunda áratugnum hefði námsefni við menntaskólana tekið breytingum því þá hefðu þeir tekið að nota nýlegar danskar kennslubækur sem gerðar voru fyrir menntaskóla þar í landi. Hann gerði ennfremur grein fyrir því að stærðfræðikennarar hefðu haft óformlegt samráð en fullyrti að fyrir 1980 hefði enginn sagt þeim fyrir verkum um val á námsefni eða áherslur í kennslu.

Hinir tveir viðmælendur mínir voru karl og kona, komin nokkuð yfir sextugt, sem voru við kennslu í sögu og íslensku við menntaskóla á áttunda áratugnum og fram á þann níunda. Ég ræddi við þau bæði saman í október 2009 og þau sögðu mér að kennarar sem störfuðu í gömlu menntaskólunum hefðu ekki verið hrifnir af samræmingar-tilraunum ráðuneytisins um 1980 og að mestu látið þær sem vind um eyrun þjóta. Þau töldu kennara í reynd hafa haft óskorað forræði í námskrármálum, a.m.k. fram á níunda áratuginn.

Ég spurði alla þessa fjórmenniga hvort prófdómarar eða aðrir starfsmenn menntamálaráðuneytis hefðu reynt að hafa áhrif á hvað væri kennt til stúdentsprófs. Enginn þeirra kannaðist við það. Af máli þeirra var ljóst að þeir álitu forræði í námskrármálum hafa verið hjá kennurum og meðan menntamálaráðuneytið gaf ekki út samræmda námskrá handa framhaldsskólum hafi það heldur ekki reynt að stjórna innihaldi náms með öðrum aðferðum.

Sú tilraun til samræmingar og miðstýringar sem gerð var með útgáfu *Aðalnámskrár framhaldsskóla* 1999 var andstæð þeim venjum sem þessir fjórir viðmælendur mínir lýstu og fólu í sér að námskrár þróuðust í skólunum. Með nýjum framhaldsskólalögum (nr. 92 frá 2008) er nú horfið af þessari braut miðstýringar og samræmingar en þar segir í 23. gr.:

Framhaldsskólar setja sér námsbrautarlýsingar og leggja þær fyrir ráðherra til staðfestingar. Námsbrautarlýsingar framhaldsskóla sem hlotið hafa staðfestingu ráðherra eru þar með hluti af aðalnámskrá framhaldsskóla. Heimilt er að tveir eða fleiri framhaldsskólar standi sameiginlega að gerð námsbrautarlýsingar og leiti staðfestingar á henni.

Þeirri tilraun til samræmingar sem hófst 1999 er því lokið. Hún stóð í næstum áratug. Í rannsókn minni, sem hér segir frá, reyndi ég að komast að því hvaða áhrif þessi tilraun hafði á kennslu á bóknaðsbrautum framhaldsskóla. Rannsóknarspurning mín var: Tókst að samræma kennslu í bóklegum greinum til stúdentsprófs?

Áður en ég skýri frá niðurstöðunum geri ég stuttlega grein fyrir viðmælendum mínum og rannsóknaraðferðum.

Viðmælendur, rannsóknaraðferðir og gögn

Ég átti viðtöl við átján starfandi kennara og fjóra sem látið höfðu af störfum. Ég vísaði í samtölin við fjórmeningana sem eru hættir kennslu hér að framan og sagði þá deili á þeim en í því sem á eftir fer byggji ég aðeins á viðtölum mínum við starfandi kennara og á við þá eina þegar ég tala um viðmælendur mína.

Ég valdi að ræða við kennara úr þrem greinaflokkum, raungreinum (þ.e. eðlisfræði, efnafræði, jarðfræði og líffræði), stærðfræði og sögu. Ástæðan fyrir því að þessar greinar voru valdar var einkum sú að *Aðalnámskráin* frá 1999 kvað á um meiri breytingar í þeim en öðrum bóklegum greinum sem ætlað er sambærilegt rými í námskrá.

Úrtakið sem ég valdi var sú gerð af markvissu úrtaki sem stundum er kölluð fræðilegt úrtak (Ritchie, Lewis og Elam, 2003). Ég kaus viðmælendur þannig að ég byrjaði á að velja fimm skóla og hafði þá á sem ólíkustum aldri og með ólíka sögu. Ég skrifaði skólameisturum þeirra tölvupóst og bað þá að benda mér á viðmælendur úr hópi kennara í raungreinum, stærðfræði og sögu. Skólameistararnir brugðust vel við bréfum mínum og bentu mér á kennara sem ég hafði samband við í tölvupósti. Af þeim fimmtán kennurum sem skólameistararnir bentu mér á svöruðu fjórtán og voru fúsir til að ræða við mig. Sögukennararnir sem mér var vísað á voru allir karlar en raungreinakennararnir voru tvær konur og þrír karlar og stærðfræðikennararnir voru þrjár konur og tveir karlar. Til að rétta örlítið þessa karlaslagsíðu á sögunni hafði ég samband við stjórnanda í einum skóla til og þar var mér bent á konu sem kenndi sögu. Ég skrifaði henni og hún féllst á að ræða við mig. Einn viðmælenda hafði ég samband við eftir ábendingu frá formanni Félags raungreinakennara.

Viðmælendur mínir voru nú orðnir sextán að tölu úr sjö skólum. Þessir skólar voru allir nema einn á höfuðborgarsvæðinu og allir fremur stórir. Ég ákvað því að bæta við tveim viðtölum við kennara í minni skóla fjarri Reykjavík og hringdi í skólameistara við fjölbrautaskóla úti á landi. Hann benti mér á viðmælendur sem höfðu verið forystumenn í hópi sögu- og stærðfræðikennara við skólann um langt árabíl. Viðmælendur mínir voru sem sagt úr átta skólum og valdir með það í huga að fá fram sjónarmið kennara við sem flestar skólagerðir.

Við úrvinnslu viðtalanna kom í ljós nokkur munur á fjórum elstu skólunum og þeim fjórum yngri. Um árabíl hafa eldri skólarnir allir tekið við færri nemendum en sótt hafa um og valið inn eftir einkunnum. Þrír þeirra bjóða eingöngu bóknám til stúdentsprófs en einn hefur eina námsbraut til viðbótar við bóknámsbrautir. Yngri skólarnir fjórir taka við nær öllum umsækjendum og þeir bjóða upp á margs konar nám: Stúdentsnám, iðnnám og nám á ýmsum stafs-menntabrotum. Hér á eftir verða fyrrnefndu skólarnir kallaðir menntaskólar og þeir síðarnefndu fjölbrautaskólar þótt þessi orð komi ekki fyrir í raunverulegum nöfnum nema sumra þeirra.

Þegar ég ræði um aldur skólanna skipa ég þeim í röð eftir því hve langt er síðan þeir tóku að brautskrá stúdenta, en ekki eftir því hve langt er liðið frá stofnun þeirra. Á þessu er munur í tilviki framhaldsskóla sem eiga sér forsögu sem gagnfræða- eða iðnskólar.

Af menntaskólakennurunum níu starfa þrír við tvo skóla sem vinna algerlega eftir bekkjakerfi, þrír við skóla sem fylgir að mestu bekkjakerfi en hefur þó nokkur einkenni áfangaskóla og þrír við skóla sem starfar eftir hreinu áfangakerfi. Fjölbrautaskólakennararnir starfa allir í áfangakerfi.

Kennararnir sem ég talaði við hafa allir verið í forystu meðal kennara í sinni grein og haft áhrif á val á námsefni og áherslur í kennslu. Í töflu 1 er gerð grein fyrir þeim.

Auk gagna úr viðtölum studdist ég við *Aðalnámskrá framhaldsskóla* (Menntamálaráðuneytið 1999a, 1999b, 1999c, 1999d, 2004) og eldri *Námskrá handa framhaldsskólum* (Menntamálaráðuneytið, 1990) og auk þess skólanámskrár sem viðmælendur mínir unnu eftir og aðgengilegar voru á heimasíðum skólanna.

Vegna starfa minna þekki ég *Aðalnámskrá framhaldsskóla* nokkuð vel og er kunnugur því hvernig skólanámskrár eru unnar upp úr henni og hvaða venjur um túlkun hennar tíðkast í skólum og eru viðurkenndar eða samþykktar af menntamálaráðuneytinu. Þessa þekkingu notaði ég mér ásamt öðrum gögnum sem nefnd hafa verið.

Tafla 1: Viðmælendur

	Nr.	Kennslugreinar	Bekkjakerfi eða áfangakerfi	Lengd kennsluferils í framhaldsskóla (rúnnuð að 5 árum)
Menntaskólakennarar	1	Raungreinar	Bekkjakerfi	30 ár
	2	Raungreinar	Bekkjakerfi með nokkur einkenni áfangakerfis	20 ár
	3	Raungreinar	Áfangakerfi	20 ár
	4	Saga	Bekkjakerfi	20 ár
	5	Saga	Bekkjakerfi með nokkur einkenni áfangakerfis	20 ár
	6	Saga	Áfangakerfi	20 ár
	7	Stærðfræði	Bekkjakerfi	35 ár
	8	Stærðfræði	Bekkjakerfi með nokkur einkenni áfangakerfis	20 ár
	9	Stærðfræði	Áfangakerfi	35 ár
Fjölbautaskólakennarar	10	Raungreinar	Áfangakerfi	10 ár
	11	Raungreinar	Áfangakerfi	15 ár
	12	Raungreinar	Áfangakerfi	30 ár
	13	Saga	Áfangakerfi	25 ár
	14	Saga	Áfangakerfi	40 ár
	15	Saga	Áfangakerfi	25 ár
	16	Stærðfræði	Áfangakerfi	5 ár
	17	Stærðfræði	Áfangakerfi	15 ár
	18	Stærðfræði	Áfangakerfi	20 ár

Viðtalstæknin sem ég beitti byggðist einkum á leiðbeiningum í bók eftir Taylor og Bogdan (1998). Ég reyndi að nota sem opnastar spurningar og fá kennara til að spjalla vítt og breitt um starf sitt. Hér eru þrjú dæmi um hvernig ég opnaði umræðu um *Aðalnámskrána* frá 1999:

Getur þú sagt mér frá því hvaða áhrif námskráin [19]99 [til] 2000 hafði? (Úr viðtali við raungreinakennara.)

Pú manst þessar breytingar sem urðu með námskránni 1999. Geturðu sagt mér hvernig þær komu þér fyrir sjónir? (Úr viðtali við stærðfræðikennara.)

Geturðu sagt frá því hverju námskráin frá 1999 breytti í sögukennslunni hér? (Úr viðtali við sögukennara.)

Við frumúrvinnslu viðtalanna fylgdi ég aðferðafræði grundaðrar kenningar eins og henni er lýst af Creswell (2007), Charmaz (2006) og Bogdan & Biklen (2003). Aðferðafræðin sem ég beitti var spunnin úr fleiri þáttum því þegar ég hafði mótað fyrstu tilgátur um einstök atriði í viðtölunum beitti ég aðferðum hefðbundinnar túlkunarfræði, eins og þeim er lýst af Dagfinn Føllesdal (1994), þar sem ég las viðtölin aftur, mátaði tilgáturnar við textann í heild og breytti þeim eftir því sem ég sá ástæður til. Þessa greiningarvinnu vann ég jafnóðum og ég tók viðtölin, þannig að þegar ég ræddi við kennara byggði ég spurningar mínar á greiningu fyrri viðtala og prófaði um leið tilgátur sem ég hafði mótað.

Í stuttu máli má lýsa vinnubrögðum mínum svo að í byrjun hafi ég einkum haldið mig við aðferðir grundaðrar kenningar en eftir því sem á leið beitti ég túlkunarfræði meir og meir og notaði hana til að fínpússa tilgátur mínar og prófa þær og meta hverjar væru þess virði að halda í þær og hverjum væri rétt að hafna.

Þegar texti þessarar greinar var næstum fullunninn sendi ég viðmælendum mínum hann til skoðunar. Einn þeirra gerði athugasemdir við túlkun á orðum sínum og tók ég tillit til þeirra.

Hvaða breytingar boðaði Aðalnámskrá 1999?

Helstu breytingarnar á bóknámi til stúdentsprófs sem boðaðar voru í framhaldsskólalögum frá 1986 og *Aðalnámskrá* framhaldsskóla frá 1999 voru eftirtaldar:

- a. **Bóknámsbrautum var fækkað:** Í samræmi við ákvæði 16. gr. Framhaldsskólalaga nr. 80 frá 1996 skyldu bóknámsbrautir aðeins vera þrjár: Félagsfræðibraut, málabraut og náttúrufræðibraut.¹

¹ Á 9. áratugnum voru skilgreindar námsbrautir til stúdentsprófs milli 10 og 20. Í bæklingnum *Nám að loknum grunnskóla* sem Menntamálaráðuneytið gaf út árið 1998 eru til dæmis talðar upp 17 stúdentsbrautir: Alþjóðleg námsbraut, International

Þessi fækkun brauta fól í sér að ein náttúrufræðibraut tók við af náttúrufræðibrautum og eðlisfræðibrautum sem skilgreindar voru í eldri námskrá; ein málabraut tók við af þrenns konar málabrautum og ein félagsfræðibraut af ferns konar félagsfræðibrautum. Hagfræðibraut var lögð niður og sömuleiðis nokkrar aðrar brautir eins og t.d. tónlistarbraut og íþróttabraut til stúdentsprófs. Hagfræðibrautin var svo endurreist með breytingu á framhaldsskólalögum árið 2006 og fékk þá nafnið viðskipta- og hagfræðibraut.

Þegar talað var um nokkrar brautir á svipuðu fræðasviði í tíð eldri námskrár voru þær oft kallaðar línur (sbr. félagsfræðibraut, félagsfræðilína og félagsfræðibraut, sálfræðilína) og ég held mig við það orðalag.

- b. **Kjörsvið kom í staðinn fyrir línur:** 140 eininga námi til stúdentsprófs af bóknámsbrautum var skipt í 98 eininga kjarna (þ.e. skylduáfangar á braut), 30 eininga kjörsvið og 12 eininga frjálst val. Kjörsvið átti að koma í staðinn fyrir ólíkar línur (eins t.d. félagsfræðilínu og sálfræðilínu innan félagsfræðibrautar).

Sett var það skilyrði að allir áfangar á kjörsviði væru í námsgreinum sem nemandi tæki í 9 einingar eða meira og að af 30 einingum væru 18 úr kjörsviðsgreinum þeirrar námsbrautar sem hann hygðist ljúka, en 12 einingar máttu vera úr kjörsviðsgreinum annarra brauta. Á félagsfræðibraut voru kjörsviðsgreinar íslenska, stærðfræði og ýmsar greinar mannvísinda; á náttúrufræðibraut raungreinar, tölvufræði og stærðfræði; á málabraut íslenska, stærðfræði og erlend tungumál.

Kjörsviðsfyrirkomulagið heimilaði hverjum nemanda að ákveða sjálfur hvernig hann sérhæfði sig með því að raða saman

Baccalaureate; Eðlisfræðibraut; Félagsfræðibraut, félagsfræðilína; Félagsfræðibraut, sálfræðilína; Félagsfræðibraut, fjölmiðlalína; Félagsfræðibraut, upplýsingatækni- og tölvuval; Hagfræðibraut; Íþróttabraut; Listdansbraut; Myndmennta- og handíðabraut; Málabraut, fornámalína; Málabraut, nýmámalína; Málabraut, ferðamámalína; Náttúrufræðibraut; Náttúrufræðibraut, skógræktarlína; Tónlistarbraut; Tæknibraut (Menntamálaráðuneytið, 1998, bls. 27–30).

áföngum í 30 eininga kjörsvið. Þótt brautum væri fækkað átti þeim kostum sem nemendur gátu valið að fjölga.²

Auk þessara breytinga á uppbyggingu bóknámsbrauta voru ýmsar breytingar gerðar á námskrám í einstökum greinum. Í öllum greinum voru áfangalýsingar gerðar mun ítarlegri en í eldri námskrám. Þær bóklegu greinar sem breyttust hvað mest voru raungreinar, stærðfræði og saga. Breytingar á þeim voru þessar helstar:

- c. **Breytingar á námskrá í raungreinum:** Allir nemendur á bóknámsbrautum skyldu taka sömu þrjá byrjunaráfanga í raungreinum: NÁT103 (líffræði); NÁT113 (jarðfræði); NÁT123 (eðlis- og efnafræði). Fyrir 1999 var nokkuð um að skólar byðu nemendum á öðrum brautum (t.d. mála- og félagsfræðabrautum) annars konar raungreinakennslu en fyrstu áfanga fyrir náttúrufræði- og eðlisfræðibrautir.

Á náttúrufræðibraut skyldu aðeins vera fjórir skylduáfangar í raungreinum til viðbótar við NÁT-áfangana þrjá, einn í hverri eftirtalinn námsgreina: Eðlisfræði, efnafræði, jarðfræði og líffræði. Í eldri námskrám voru fleiri skylduáfangar í raungreinum á náttúrufræðibrautum og eðlisfræðibrautum. Í þeirra stað kom 30 eininga kjörsvið.

- d. **Breytingar á námskrá í stærðfræði:** Stærðfræði í kjarna skyldi vera 15 einingar á náttúrufræðibraut (og frá 2006 líka á viðskipta- og hagfræðibraut) en á félagsfræða- og málabrautum voru 6 einingar af stærðfræði í kjarna. Á öllum brautum gátu nemendur bætt við sig stærðfræði með því að taka viðbótaráfanga sem hluta af kjörsviði.

² Fækkun bóknámsbrauta og skipting þeirra í kjarna, kjörsvið og frjálst val var byggð á tillögum í skýrslu nefndar um mótun menntastefnu (Átján manna nefndarinnar) sem út kom árið 1994. Þar var lagt til að á bóknámsbrautir yrðu þrjár: Tungumálabraut, náttúrufræðabraut og félagsfræðabraut. Á þeim yrði kjarni um 60% námsins, þ.e. 84 einingar af 140; kjörsvið um 30%, þ.e. 42 einingar af 140; og frjálst val um 10%, þ.e. 14 einingar af 140 (Menntamálaráðuneytið, 1994, bls. 64–5). Niðurstaðan varð þó sú að hafa brautarkjarna heldur stærri en nefndin lagði til.

Í eldri námskrá hafði stærðfræði í kjarna verið 12 einingar á mála- brautum, 15 einingar á félagsfræðabrautum, 21 eining á náttúrufræðibrautum og 27 á eðlisfræðibrautum. Skyldunám í stærðfræði til stúdentsprófs var því minnkað verulega. Efnisatriðum á náttúrufræðibraut fækkaði þó hlutfallslega minna en einingum, því áfangalýsingar gerðu ráð fyrir talsvert meiri yfirferð en tíðkast hafði í flestum stærðfræðiáföngum.

- e. **Breytingar á námskrá í sögu:** Saga í kjarna skyldi vera 6 einingar á mála- og náttúrufræðibrautum og 9 á félagsfræðabraut. Þær 6 einingar sem voru sameiginlegar öllum brautum voru yfirlit yfir Íslands- og mannkynssögu frá fornöld til nútímans, þ.e. áfangarnir SAG103 og SAG203. Íslandssögu átti ekki að kenna sér heldur skyldi hún samþætt mannkynssögunni. Þær þrjár einingar sem félagsfræðabraut hafði umfram hinar voru menningarsaga, þ.e. áfanginn SAG303.

Eldri námskrá hafði bundið 5 einingar af Íslandssögu á öllum bóknámsbrautum. Á félagsfræðabrautum voru svo 7 einingar til viðbótar í sögu (eða alls 12 einingar í kjarna). Einnig heimilaði eldri námskrá skólum að binda nokkrar einingar af samfélagsgreinum á námsbrautum og nýttu sumir skólar það til að auka sögukennslu. Þessar einingar voru mismargar, 5 á flestum brautum en upp í 13 á félagsfræðabrautum.

Með Aðalnámskrá 1999 minnkaði því skyldunám í sögu á félagsfræðabraut og í sumum skólum líka á öðrum bóknámsbrautum.

„Við höfum reynt að halda í horfinu“

Fimm af átta skólum sem viðmælendur mínir starfa við tóku upp breytingarnar sem taldar eru í liðum a og b, þ.e. fækkuðu brautum og létu kjörsvið koma í staðinn fyrir línur. Tveir elstu menntaskólarnir og næstelsti fjölbrautaskólinn skáru sig úr. Þessir þrír skólar héldu í reynd áfram að bjóða mismunandi línur (t.d. tvær eða fleiri mismundandi náttúrufræðibrautir) með því einfaldlega að velja sömu kjörsviðsgreinar eða áfanga á alla nemendur sem kusu sömu línu. Við fjölbrautaskólann geta nemendur þó fengið undanþágur og valið sér kjörsviðsgreinar að einhverju leyti. Kennari við annan þessara tveggja menntaskóla talaði t.d. um að „búa til kjörsvið [...] svipað gömlu málabrautinni hjá okkur“ og við

hinn menntaskólann lýsti kennari viðbrögðum við *Aðalnámskránni* sem viðnámi gegn breytingum og sagði „við höfum reynt að halda í horfinu.“

Enn einn menntaskólinn byrjaði á að leyfa hverjum nemanda að velja sér kjörsviðáfanga en hvarf að nokkru frá því og skipti brautum í línur þar sem 18 af 30 kjörsviðseiningum voru bundnar.

Þegar ég spurði kennara við annan af elstu menntaskólunum hvort skólinn hefði getað haldið í eldri skipan stúdentsbrauta þrátt fyrir ákvæði *Aðalnámskrár* 1999 fékk ég svarið: „Sem betur fer þá hefur ráðuneytið ekkert verið með nefið ofan í okkar koppum.“

Hvað varðar breytingar á námskrá í raungreinum var ákvæðum *Aðalnámskrár* um sameiginlega byrjunaráfanga í náttúrufræði (NÁT-áfanga) fyrir allar bóknámsbrautir aðeins fylgt að fullu og öllu við þrjá yngstu skólana. Við elsta menntaskólann voru þessir áfangar aldrei teknir upp. Við þrjá skóla var tekið að kenna sama byrjunaráfanga í eðlis- og efnafræði (NÁT123) á öllum bóknámsbrautum eftir 1999 en horfið frá því og tekið að hafa öðru vísi upphaf í þessum greinum á náttúrufræðibraut en á öðrum brautum. Kennarar við þessa skóla tóku fram að þetta hefði verið gert með leyfi menntamálaráðuneytisins.

Ég ræddi við raungreinakennara við sex skóla um áfanga sem þeir kenndu og við tvo elstu skólana fylgdu þeir að miklu leyti hefð sem mótast hafði fyrir 1999 og höfðu hvorki breytt efnisatriðum né endurraðað þeim í áfanga eða á námsár til samræmis við áfangalýsingar *Aðalnámskrár*.

Svipaða sögu er að segja um stærðfræði og raungreinar. Bekkjaskólarnir og næstelsti áfangaskólinn bundu stærðfræði inn á brautir umfram kjarnann í námskránni svo stærðfræðikennslan hjá þeim minnkaði ekki eins mikið og í hinum þrem áfangaskólunum. Við elsta bekkjaskólann var stærðfræðikennslu lítið breytt þótt áfangalýsingar breyttust 1999.

Líkt og í stærðfræðinni bættu bekkjarskólarnir að nokkru minnkun á sögu í kjarna bóknámsbrauta með því að binda einhverja viðbót á einstakar brautir. Elsti bekkjaskólinn gerði þetta á öllum brautum, sá næstelsti á félagsfræða- og málbraut en ekki á náttúrufræðibraut og sá þriðji bara á félagsfræðibraut. Við áfangaskólana minnkaði skyldunám í sögu talsvert eftir 1999. Einn þeirra, sá sem býður upp á línur og bindur kjörsvið, batt þó 3 einingar í sögu til viðbótar við kjarnann á málbraut.

Tafla 2: Hversu nákvæmlega er farið eftir Aðalnámsskrá frá 1999

	Nr.	Kennslu- greinar	Leyfir skólinn nemendum að velja kjörsviðseiningar eins og Aðalnámsskrá gerir ráð fyrir.	Býður skólinn upp á línur eins og lýst var í námsskrám fyrir 1999	Fylgir kennari áfangalýsingum Aðalnámsskrár.
Menntaskólakennarar	1	Raungreinar	Nei	Já	Nei
	2	Raungreinar	Aðeins 12 einingar af 30	Já	Að mestu
	3	Raungreinar	Já	Nei	Nei
	4	Saga	Nei	Já	Nei
	5	Saga	Aðeins 12 einingar af 30	Já	Að mestu
	6	Saga	Já	Nei	Já
	7	Stærðfræði	Nei	Já	Nei
	8	Stærðfræði	Aðeins 12 einingar af 30	Já	Já
	9	Stærðfræði	Já	Nei	Já
Fjölbautaskólakennarar	10	Raungreinar	Já	Nei	Já
	11	Raungreinar	Já	Nei	Að mestu
	12	Raungreinar	Já	Nei	Já
	13	Saga	Já	Nei	Já
	14	Saga	Já	Nei	Já
	15	Saga	Nei, en nemendur geta þó fengið undanþágur.	Já	Já
	16	Stærðfræði	Já	Nei	Já
	17	Stærðfræði	Nei, en nemendur geta þó fengið undanþágur.	Já	Já
	18	Stærðfræði	Já	Nei	Já

Allir skólarnir hafa fylgt fyrirmælum *Aðalnámsskrár* í því að hætta með sérstaka Íslandssögu og samþætta hana mannkynssögunni. Fyrirmælum *Aðalnámsskrár* um uppröðun efnis er fylgt í áfangaskólunum en við annan af elstu menntaskólunum er menningarsögunni (sem á að fjalla um í SAG303) blandað saman við almenna yfirferð í tímaröð (þ.e. efni áfanganna SAG103 og SAG203).

Af viðmælendum mínum breyttu þeir sem kenndu við eldri skóla starfsháttum sínum mun síður til samræmis við *Aðalnámsskrá* heldur en þeir sem kenndu við yngri skóla og munaði yfirleitt því meiru því eldri sem skólinn var. Í töflu 2 er yfirlit yfir nokkur atriði sem varða framkvæmd á *Aðalnámsskrá* og er greinilegur munur á mennta-

„Það mundi duga mér ágætlega að taka upp aftur námsvísinn sem var fyrir aldamót“

skólunum, þ.e. fjórum elstu skólunum, annars vegar og fjölbrautaskólunum hins vegar. Samræming á kennslu í þessum átta ólíku framhaldsskólum varð því talsvert minni en að var stefnt.

„Það mundi duga mér ágætlega að taka upp aftur námsvísinn sem var fyrir aldamót“

Þótt kennarar við fjölbrautaskóla hafi tileinkað sér breytingarnar sem fólust í *Aðalnámskrá framhaldsskóla 1999* fremur en kennarar við menntaskóla og kennarar við yngri menntaskóla, sem starfa að einhverju eða öllu leyti eftir áfangakerfi, fari meira eftir henni en kennarar við eldri menntaskóla, sem hafa hreinræktað bekkjakerfi, virtust flestir hafa svipað álit á henni. Kennarar áfangaskóla sem tóku afstöðu til kjörsviðsfyrirkomulagsins voru t.d. flestir ósáttir við það. Í töflu 3 er viðhorfum kennara til kjörsviðsfyrirkomulagsins lýst í stuttu máli.

Þegar talið barst að mögulegum breytingum nú þegar *Aðalnámskráin* frá 1999 fellur úr gildi og skólar fá aftur forræði í námskrármálum í samræmi við ákvæði framhaldsskólalaganna frá 2008 sagði raungreinakennari við einn fjölbrautaskólann „Þetta hefur verið rætt á meðal kennara í raungreinum og [...] ég hef nú oft sagt að það mundi duga mér ágætlega að taka upp aftur námsvísinn sem var fyrir aldamót.“ Um kjörsviðsfyrirkomulagið sagði þessi sami kennari: „Mér þótti þetta vera ákveðin eyðilegging á náttúrufræðibrautinni þegar það voru tekin upp þessi kjörsvið.“ Hann skýrði mál sitt svo nánar og sagði að það væri „viss tilhneiging hjá nemendum, þegar þeir hafa svona mikið frelsi, að velja ódýrustu og einföldustu leiðina, það sem þeir halda að sé léttast.“

Annar fjölbrautaskólakennari í raungreinum tók ekki síður sterkt til orða og kallaði kjörsviðin „rothögg fyrir náttúrufræðibrautina“ og sagði „það er í rauninni eini raunhæfi möguleikinn fyrir náttúrufræðibrautina hérna til þess að lifa af að það verði bara farið til baka með það að það verði tveir áfangar settir inn á brautina í, sem sé, skyldu.“ Með tveim áföngum átti hann við tvo áfanga í eðlisfræði, tvö í efnafræði, tvo í jarðfræði og tvo í líffræði. Þriðji raungreinakennarinn úr fjölbrautaskóla tók í sama streng og sagði að heppilegra væri að skipta náttúrufræðibrautinni í tvær til þrjár línur heldur en að láta hvern nemandu um að velja sitt eigið kjörsvið.

Tafla 3: Hvað finnst kennurum um kjörsviðsfyrirkomulagið í Aðalnámskrá framhaldsskóla frá 1999

	Nr.	Kennslu greinar	
Mentaskóla kennarar	1	Raun-greinar	Skólinn bindur kjörsviðseiningar þannig að nemendur taka álika mikið í raungreinum og fyrir 1999. Var sáttur við það fyrirkomulag.
	2	Raun-greinar	Vildi frekar línur en kjörsvið.
	3	Raun-greinar	Taldi einn skylduáfangi á náttúrufræðibraut í kennslugrein sinni of lítið en hafnaði ekki kjörsviðsfyrirkomulaginu og taldi að hægt væri að laga ágalla þess án þess að leggja það alveg niður.
	4	Saga	Skólinn bindur hluta af kjörsviðseiningum þannig að á félagsfræða- og málabrautum er meiri saga en er í kjarna samkvæmt <i>Aðalnámskrá</i> . Var sáttur við það fyrirkomulag.
	5	Saga	Skólinn bindur hluta af kjörsviðseiningum þannig að á félagsfræðibraut er meiri saga en er í kjarna samkvæmt <i>Aðalnámskrá</i> . Var sáttur við það en taldi sögu of litla á öðrum brautum.
	6	Saga	Áleit kjörsviðsfyrirkomulagið gallað og vildi „minnka þessa flatneskju sem getur myndast með kjörsviðakerfi, að fólk tekur svo ótrúlega lítið í hverju.“
	7	Stærð-fræði	Skólinn bindur kjörsviðseiningar þannig að nemendur taka álika mikla stærðfræði og fyrir 1999. Tjáði sig lítið um kjörsvið.
	8	Stærð-fræði	Skólinn bindur hluta af kjörsviðseiningum þannig að flestum nemendum er gert að taka 3 til 6 einingum meira af stærðfræði en er í kjarna samkvæmt <i>Aðalnámskrá</i> . Var sáttur við það fyrirkomulag.
	9	Stærð-fræði	Vildi frekar línur en kjörsvið. Taldi að 15 einingar í stærðfræði væri of lítið fyrir náttúrufræðibraut og tölfræði ætti að vera skylda á félagsfræðibraut. Var ósáttur við kjörsviðsfyrirkomulagið.
Fjölbrautaskóla kennarar	10	Raun-greinar	Taldi kjörsviðin afleitt fyrirkomulag því nemendur dreifðust of mikið.
	11	Raun-greinar	Taldi kjörsviðin afleitt fyrirkomulag því nemendur dreifðust of mikið.
	12	Raun-greinar	Taldi kjörsviðin afleitt fyrirkomulag því of margir nemendur veldu „ódyrustu“ leiðina. Sagði að kjörsviðsfyrirkomulagið hefði verið eyðilegging á náttúrufræðibrautinni.
	13	Saga	Tjáði sig ekki um kjörsvið.
	14	Saga	Tjáði sig ekki um kjörsvið.
	15	Saga	Skólinn bindur allar kjörsviðseiningar og sú binding felur ekki í sér sögu umfram kjarna nema 3 einingar á málabraut. Vildi að nemendur hefðu meira val.
	16	Stærð-fræði	Vildi frekar línur en kjörsvið. Taldi kjörsvið slæmt fyrirkomulag því nemendur dreifðust of mikið.
	17	Stærð-fræði	Skólinn bindur allar kjörsviðseiningar og hefur álika mikla stærðfræði á bóknaðsbrautum og fyrir 1999. Lagði ekki beinlínis mat á þetta fyrirkomulag en sagði þó að of margir nemendur fengu undanþágu frá því.
	18	Stærð-fræði	Taldi stærðfræðikennslu hafa minnkað eftir 1999 og að 15 einingar væri of lítið fyrir náttúrufræðibraut og tölfræði ætti að vera skylda á félagsfræðibraut. Tjáði sig að öðru leyti ekki um kjörsvið.

„Það mundi duga mér ágætlega að taka upp aftur námsvísinn sem var fyrir aldamót“

Stærðfræðikennarar voru álíka andsnúnir kjörsviðsfyrirkomulaginu og raungreinakennararnir. Sögukennarar tjáðu sig síður um þetta efni og því hæpið að alhæfa neitt um viðhorf þeirra.

Andstaða kennara við kjörsviðsfyrirkomulagið virtist einkum styðjast við tvenns konar rök: Annars vegar nefndu þeir uppeldislegar ástæður og bentu á að námsefnið þyrfti að mynda heild og vera skynsamlega upp byggt og nemendur hefðu ekki forsendur til að velja kjörsvið sem uppfyllti þessi skilyrði. Kennarar í stærðfræði og raungreinum töluðu í þessu sambandi um að nemendur á náttúrufræðibraut þyrftu að fá yfirlit yfir þau atriði sem eru nauðsynlegur undirbúningur fyrir háskólanám í raungreinum. Hins vegar bentu nokkrir á að nemendur dreifðust of mikið með þeim afleiðingum að áfangar, þar sem byggður er upp dýpri skilningur á fræðunum, féllu niður. Þetta gerist þannig að ef nemendur geta til dæmis valið tvo raungreinaáfanga með há númer, t.d. EÐL403 og EFN303 þá kys kannski fjórðungur hvorn þeirra en helmingur áfanga með lægri númer, t.d. áfanga sem eru skylda á öðrum brautum. Sumir nemendur á náttúrufræðibraut velja til dæmis FÉL203, sem er skylda á félagsfræðabraut, sem hluta af sínu kjörsviði enda mega 12 af 30 kjörsviðseiningum vera í námsgreinum annarra brauta. Þetta getur leitt til þess að hvorki áfanginn EÐL403 né áfanginn EFN303 fái nægilega marga nemendur til að vera kenndur. Sá helmingur nemenda sem kys dýpkun í sérgreinum brautarinnar fær ekki það sem hann vill við þessar aðstæður. Ef annað hvort EÐL403 eða EFN303 væri skylda þá fengju hins vegar allir dýpkun á einhverju sviði.

Stærðfræðikennari við fjölbrautaskóla lýsti þessum vanda og sagði að áfangakerfið væri „að éta sig innan frá“ því kjörsviðsfyrirkomulagið leiddi í reynd til þess að nemendur dreifðust þannig að allir „endaáfangar“ féllu niður.

Ég spurði flesta kennarana um afstöðu þeirra til þess að nemendur hefðu frjálst val um hvað þeir lærðu. Svörin voru mjög mismunandi. Nokkrir vildu að valfrelsi nemenda á bóknámsbrautum væri töluvert en flestir töldu að það væri helst til mikið að 30 einingar af 140 væru kjörsvið og 12 einingar algerlega frjálst val. Sumir álitu að nemendur sæktust ekki eftir svo miklu valfrelsi. Raungreinakennari í menntaskóla, sem hafði tekið upp kjörsviðsfyrirkomulagið eins og því var lýst í

Aðalnámsránni 1999 en síðan horfið frá því að hluta og bundið 18 einingar af 30, lýsti viðhorfi sem var um margt dæmigert. Hann sagði:

Þarna 2000 eða í kringum það þá prófuðum við að hafa bara kjarnann bundinn og hafa hitt sem frjálst val, sem ég hugsa að sé nú kannski eins og fjölbrautaskólarnir gera, margir alla vega. Við prófuðum þetta fyrst og það varð almenn óánægja með það frá okkar nemendum sem voru komnir í þetta bekkjarkerfi og þeir töldu sig ekki vera með það stúdentspróf sem að þeir vildu þegar þeir höfðu kannski ekki forsendur til þess að meta hvernig undirbúningurinn ætti að vera.

Ef viðmælendur mínir fá ráðið hvernig bóknámsbrautir verða skilgreindar í nýjum skólanámskrám, sem nú er unnið að og taka við þegar *Aðalnámskráin* frá 1999 fellur úr gildi, munu nokkrir skólar sem nú búa við kjörsviðsfyrirkomulag að öllum líkindum taka aftur upp línur svipaðar þeim sem voru í eldri námskrám.

Hér hefur einkum verið gerð grein fyrir viðhorfum kennara til breytinga á uppsetningu bóknámsbrauta. Næst er að segja meira frá viðhorfum þeirra til breytinga á greinabundnum námskrám.

„Ég er nú [...] að sverma fyrir því [...] að við getum svolítið farið til baka“

Almennt má segja að stærðfræðikennarar hafi verið ósáttir við hvað mörgum efnisatriðum var troðið í áfangalýsingar í *Aðalnámskrá*. Tveir þeirra sögðu að vegna tímaleysis væri ekki hægt að leggja áherslu á sannanir og einn talaði um að í sumum áföngum yrði alltaf eitthvað afgangs og engin leið væri að láta nemendur vinna stærri verkefni eða hópvinnu, því það þyrfti að þeytast yfir svo mikið efni. Þrír af stærðfræðikennurunum reyndu að bæta upp hundavaðsháttinn með því að fara dýpra í sum atriði í valáföngum. Á þeim mátti skilja að fengju þeir að ráða myndu þeir hægja aftur á ferðinni, fjölga skylduáföngum og hafa efnisyfirferð í hverjum heldur nær því sem var fyrir 1999.

Náttúrufræðikennarar voru sammála um hvaða vandamál fylgdu NÁT-áföngunum eins og þeir voru skilgreindir 1999. Einn þeirra, sem kennir við fjölbrautaskóla, sagði að þessir áfangar þyrftu að leggja

„Ég er nú [...] að sverma fyrir því [...] að við getum svolítið farið til baka“

grunn að áframhaldandi raungreinanámi á náttúrufræðibraut, en vék svo að dæmigerðum nemanda á hinum bóknámsbrautunum og sagði: „Þú ert að dúlla þér við að smíða grunn sem kemur ekki til með að nýtast þessum nemanda neitt í staðinn fyrir að gefa honum yfirsýnina.“ Hann bætti því svo við að þegar námskrá skólans yrði breytt á næstu misserum mundi hann beita sér fyrir því að nemendur á mála- og félagsfræðabrautum tækju öðru vísi áfanga í eðlis- og efnafræði en byrjunina á námsefni náttúrufræðibrautar. Eins og vikið hefur verið að hafa sumir skólar þegar tekið upp þessa skipan, að hafa ólíka byrjunaráfanga í raungreinum á náttúrufræðibraut annars vegar og félagsfræða- og málabraut hins vegar.

Ein stærsta breytingin sem varð á sögukennslu með *Aðalnámsskránni* 1999 var að hætt var að hafa sérstaka áfanga um Íslandssögu heldur skyldi hún samþætt almennri mannkynssögu. Sögukennarar sem ég ræddi við voru almennt fylgjandi þessu. Einn talaði þó um að sér hefði gengið illa að samþætta þetta og úr hefði orðið að hann hefði að mestu sleppt Íslandssögu, enda væri hún talsvert kennd í grunnskólum. Hann sagði „mér finnst ég ekki hafa náð þessari hugsun og ekki hafa getað kennt vel [...] og náð þessum, hvað á ég að segja, Íslands-mannkynssögu bræðingi.“ Annar sagði að hann kenndi litla Íslandssögu en að hún kæmi inn í gegnum verkefnavinnu. Sá þriðji talaði um að í nýrri skólanámskrá yrði Íslandssögu líklega sleppt og lét þess líka getið að þótt Íslandssaga hefði verið samþætt mannkynssögu í áratug þá hefði ekki verið um „virkilega“ samþættingu að ræða. Jafnvel þótt kennarar hafi jákvætt viðhorf til samþættingar Íslandssögu og mannkynssögu virðist líklegt að hún gangi að einhverju leyti til baka og við suma skóla verði einkum kennd mannkynssaga en Íslandssaga víki eða verði a.m.k. lítill hluti af námsefninu.

Kennarar ræddu ýmis fleiri atriði í greinabundnum námskrám en hér hafa verið tíunduð og komu þar fram sundurleitari skoðanir en svo að hægt sé að draga neinar ályktanir um dæmigerð eða almenn viðhorf. En þar sem samhljómur var í máli kennara var hann talsvert mikið á þeim nótum að hverfa frá ýmissi nýbreytni sem tekin var upp 1999.

Hefðir sem mótuðust í skólunum fyrir daga núgildandi *Aðalnámsskrár* áttu sterk ítök í viðmælendum mínum. Af orðum þeirra mátti ráða að þeir hefðu hug á að taka að ýmsu leyti aftur upp eldri skipan

nú þegar skólarnir fá á ný forræði yfir námskrármálum. Einn raun-
greinakennarinn orðaði þetta svona: „Ég er nú svolítið að sverma fyrir
því núna í þessu nýja kerfi að við getum svolítið farið til baka aftur.“

„Menn verða að fá að fljúga eins og þeir eru fiðraðir“

Sumir kennararnir lýstu sjálfum sér sem íhaldssömum, gamaldags eða
hefðbundnum. Einn þeirra, stærðfræðikennari í fjölbrautaskóla, sagði:
„Ég er ekkert að reyna að poppa upp og reyna að gera fullt af
einhverjum skemmtilegum verkefnum. Við erum bara að vinna okkur í
gegnum bókina. Ég er eiginlega voðalega gamaldags.“ Sá sem þetta
sagði var vinsæll kennari, a.m.k. voru valáfangar í stærðfræði sem
hann bauð upp á merkilega fjölsóttir miðað við nemendafjölda í
bóknámi við skólann.

Aðrir töluðu um að skólakerfið hefði innbyggt viðnám gegn
breytingum. Stærðfræðikennari við menntaskóla sagði til dæmis um
námsefnið í sinni grein og mögulega endurskoðun á því með nýrri
skólanámskrá: „Það sem er sett inn á náttúrufræðibrautina, það eru
nú bara gamlar hefðir sem ráða því. Auðvitað fer ekki hjá því að menn
kenna það sem hefur verið kennt og efnislega verður engin bylting við
þessa endurskoðun.“ Þegar hann var inntur nánar eftir þessum
hefðum og hvort þær þýddu að innihaldið í stærðfræðikennslu á
náttúrufræðibraut hefði lítið breyst í langan tíma svaraði hann: „Mjög
langan tíma mundi ég halda.“ Svo bætti hann við að það væri þó
svolítið breytilegt hverju væri sleppt: „Hefðbundinn pakki á
náttúrufræðibraut, hann er kannski heldur stærri heldur en nokkur
skóli getur klárað, þannig að á hverjum tíma er alltaf eitthvað sem ekki
er kennt.“ Hann talaði nánast eins og heildarnámsefnið væri
óbreytanlegt, en menn gætu ekki klárað það allt og því væri svolítið
breytilegt hverju væri sleppt. Hann kvaðst sjálfur ekki mótfallinn því
að breyta stærðfræðikennslunni en benti á að einn framhaldsskóli
gæti ekki breytt námsefni mikið því skólinn sem tæki við nemendum
miðaði við tiltekinn undirbúning. Hann bætti svo við „mönnum er
alltaf svona háfilla við byltingar“, og vilja hafa „minnsta kosti annan
fótinn á fastri jörð, eitthvað sem þeir vita hvernig reynist.“

Þær ástæður sem þessi kennari tilgreindi fara langt með að skýra
hvers vegna námsefni í stærðfræði til stúdentsprófs af náttúru-

fræðibraut er svo stöðugt sem raun ber vitni. Enginn einn skóli getur breytt því. En hví skyldi það ekki geta breyst með miðstýrðri ákvörðun fyrir heilt menntakerfi þar sem háskólar laga sig að breytingu á undirbúningi allra stúdenta? Hvers vegna er svo erfitt sem raun ber vitni að breyta námskrám skóla?

Vel má vera að sá vandi sem hér er um að ræða sé að nokkru sá sami og vandi allrar miðstýringar á stórum og flóknum veruleika: Þeir sem starfa á hverjum stað laga sig að aðstæðum þar og þörfum sem á knýja. Heildarsamræming nær aldrei að taka tillit til þeirra í sama mæli svo hvarvetna verða til góðar ástæður til að víkja frá allsherjar-skipulaginu. Barbara Benham Tye orðar svipaða hugsun þar sem hún segir að nám og kennsla séu viðleitni sem sé óregluleg í eðli sínu („an essentially nonroutine endeavour“) og rúmist því ekki innan skrif-ræðislegra kerfa (Tye, 2000, bls. 76). Sumt sem viðmælendur mínir nefndu sem gildar ástæður til að víkja frá *Aðalnámskrá* í sínum skóla, til dæmis með því að hafa ólíka byrjunaráfanga í raungreinum eða með því að samþætta menningarsögu (SAG303) og yfirlit yfir almenna mannkynssögu (SAG103 og SAG203) var á þessa leið. En nokkrir þeirra orðuðu líka mun almennari rök gegn því að samræma kennslu í öllum framhaldsskólum eða skipuleggja hana ofan frá. Þessi rök snerust um mikilvægi þess að kennarar hefðu sjálfstæði til að móta eigin áherslur.

Þegar ég fór yfir ummæli kennara um þetta efni skaut því upp í hug mér að alþjóðlegt heiti uppeldis- og kennslufræða, pedagogik, er samsett úr grísku nafnorði („παιδί“) sem merkir barn eða ungmenni og sögn („άγω“) sem þýðir að leiða. Orðið felur í sér þá hugsun að leiða ungmenni eða barn. Ætli kennari sem leiðir nemendur eigin hendi sé ekki nær því að vera sannur pedagog heldur en hinn sem vísar þeim á að rata eftir sama korti og allir aðrir?

Viðmælendur mínir höfðu ýmis orð um þetta efni. Til dæmis sagði sögukennari við menntaskóla:

Þó að við vildum kannski búa til nýja áfanga, svona sögulega útópíu í áföngum, þá náttúrliga erum við líka með ákveðinn hóp af kennurum með ákveðna reynslu, menntun og þjálfun. Ég held að það sé ekkert endilega gott að þvinga í gegn

eitthvað annað system og efni og innihald heldur en viðkomandi kennari vill sem er að kenna áfangann.

Ef þú ert með kennara sem hefur áhuga á ákveðnum málum, eiginlega sérfræðingur – það skilar sér eiginlega alltaf. Áhuginn skilar sér til nemenda.

Annar menntaskólakennari í sögu ræddi um blómlegt starf í sínum skóla, þar sem saga er vinsælt fag og margir valáfangar í boði, og sagði: „Það þykir sjálfsagt að hver og einn sem er með einhverja sérfræðileikingu smíði einhvern valáfanga sem tengist því.“ Aðrir sögukennarar tóku í sama streng. Einn sagði til dæmis:

Þú átt að fara vel í það sem að þú hefur áhuga á og blómstrar í. Nemendur finna það alveg eins og skot, sko [...] það er hægt að taka þau með sér [...]. Þú átt ekki alltaf að vera að fara yfir allt, heldur reyna að koma með þín hugðarefni.

Þessar áherslur voru sterkastar í máli sögukennara. Ögn minna bar á þeim hjá raungreinakennurum og enn minna hjá stærðfræðikennurum, þótt ljóst væri að sumir þeirra mótuðu og kenndu valáfanga um efni sem þeim sjálfum var hugleikið. Dæmi sem einn þeirra nefndi var „þessi gamla góða klassíska rúmfræði [...] sem hefur verið kennd í tvöþúsund ár.“

Einn raungreinakennari við fjölbrautaskóla skar sig nokkuð úr að því leyti að hann vildi miðstýringu til að koma í veg fyrir að hagsmunabarátta kennara og námsgreina réði of miklu á kostnað faglegra sjónarmiða við námsskrárgerð. „Ég vil ekkert sjá eitthvert skólakerfi þar sem hver er að gera sína vitleysu úti í sínu horni, ég vil hafa eitthvert samræmi í þessu“ sagði hann. En jafnvel þessi kennari, sem af öllum viðmælendum mínum var jákvæðastur í garð samræmingar og skipulags, lagði áherslu á að miðstýringin mætti ekki verða of mikil því kennarar gætu ekki unnið gott starf nema þeir væru sjálfstæðir og leiddu nemendur sínar eigin leiðir. Hann orðaði þetta raunar mjög skemmtilega: „Kennsla er bara þess eðlis að menn verða að fá að fljúga eins og þeir eru fiðraðir.“

Samantekt og umræða

Niðurstöðurnar sem ég hef gert grein fyrir eru líkar niðurstöðum fjölmargra annarra rannsókna á tilraunum til að skipuleggja, samræma eða breyta skólakerfum með stjórnvaldsákvörðunum. Slíkar breytingar mistakast æði oft og algengt er að þær gangi til baka (Sarason 1971; Tyack & Cuban, 1995; Tye, 2000; Akker, 2003). Um þetta segir Barbara Benham Tye:

Mér virðist sem „aðlögun“ að nýbreytni sem komið er á sé ævinlega í átt að því hefðbundna og kunnuglega og svo gott sem *aldrei* í átt að nýjungum og tilraunastarfi. Það er samið um að sveigja þá stefnu sem mörkuð var til móts við það gamla og góða, eða hafna henni alveg og hverfa aftur til venjulegra starfa.³ (Tye, 2000, p. 30)

Í nýlegri rannsókn sem Hafdís Ingvarsdóttir vann með viðtölum við 22 tungumálakennara við 10 íslenska framhaldsskóla kom meðal annars fram að kennararnir könnuðust við breytingar á kennsluháttum sem boðaðir voru í námskrám en enginn þeirra hafði „tileinkað sér þær nema að hluta og þá helst í efstu áföngum og /eða valáföngum þar sem nemendur eru þroskaðir og áhuginn á tungumálinu meiri“ (Hafdís Ingvarsdóttir, 2007, bls. 377). Í greinargerð Hafdísar fyrir rannsókn sinni kemur fram að kennararnir sem hún talaði við voru allir farsælir í starfi, með töluverða starfsreynslu, sáttir við starf sitt og töldu sig í góðu sambandi við nemendur sína. Hún fór varlega í að draga ályktanir af niðurstöðum sínum en benti á kenningar um að „því berskjaldaðri sem kennarar telja sig gagnvart nemendum, yfirvöldum, foreldrum, einhliða mælikvörðum á starf þeirra o.s.frv. þeim mun íhaldssamari verði þeir og ófúsari að taka að sér breytingastarf“ (Hafdís Ingvarsdóttir, 2007, bls. 378).

Mér virðist að kenningar sem Hafdís og Tye orða komi heim við það sem lesa má úr viðtölum mínum við kennara í raungreinum, stærðfræði og sögu. Ég tel þó hæpið að túlka íhaldssemi kennara svo

³ It seems to me that “adaptations” of an innovation being implemented are always made in the direction of the traditional and familiar, and virtually never in the direction of the new and experimental. They are negotiated agreements to modify the original vision in the direction of the tried-and-true, or to abandon the vision altogether and “go back” to business as usual. (Tye, 2000, p. 30)

að hún sé einungis varnarviðbrögð vegna ótta við breytingar og óvissu sem þeim fylgir. Vissulega komu fyrir ummæli sem bentu til að viðmælandi spilaði vörn sem byggðist ekki alfarið á faglegum rökum. Einn sögukennarinn sagði til dæmis „því auðvitað viljum við hafa vinnu, og auðvitað viljum við halda okkar grein á lofti“ þegar rætt var um hve mikil saga ætti að vera í kjarna bóknámsbrauta. En í flestum tilvikum virtist mér íhaldssemin fremur vera yfirveguð andstaða gegn breytingum sem kennarar höfnuðu af ástæðum sem taka ber alvarlega.

*

Með *Aðalnámskrá framhaldsskóla* sem út kom 1999 var reynt að samræma kennslu til stúdentsprófs við íslenska framhaldsskóla mun meira en tíðkast hafði. Í viðtölum mínum við átján kennara í bóklegum greinum við átta framhaldsskóla kom fram að samræmingin varð í reynd minni en að var stefnt. Áberandi var að þeir sem kenndu við eldri skóla breyttu starfsháttum sínum síður til samræmis við ákvæði *Aðalnámskrár* heldur en þeir sem voru við yngri skóla og munaði yfirleitt því meiru því eldri sem skólinn var.

Hefðir sem mótuðust í skólunum fyrir 1999 áttu sterk ítök í viðmælendum mínum og í máli þeirra sem starfa við skóla þar sem nýmælin í *Aðalnámskránni* voru á annað borð tekin upp kom fram áhugi á að hverfa að nokkru aftur til eldri háttanna nú þegar skólarnir fá að nýju forræði yfir námskrármálum í samræmi við lög um framhaldsskóla nr. 92 frá 2008.

Viðmælendur mínir nefndu málefnalegar ástæður fyrir andstöðu sinni við ýmsar einstakar breytingar sem fylgdu *Aðalnámskránni* 1999. Sumir þeirra orðuðu líka almenn rök gegn samræmingu og miðstýringu í námskrármálum og byggðu þar gjarna á eigin reynslu. Samanlögð starfsreynsla þeirra var um það bil fjórar aldir og þeir virtust flestir hafa numið þau sömu sannindi að kennari þyrfti að hafa frelsi til að leiða nemendur eigin vegu.

Heimildir

- Akker, Jan van den. (2003). Dutch secondary curriculum reform between ideals and implementation. Í J. van den Akker, W. Kuiper og U. Hameyer (ritstjórar), *Curriculum landscape and trends* (bls. 61–71). Dordrecht: Kluwer Academic Publishers.
- Bogdan, Robert C. & Biklen, Sari Knopp. (2003). *Qualitative research for education: An introduction to theory and methods*. Boston: Allyn and Bacon.
- Charmaz, Kathy. (2006). *Constructing grounded theory: A practical guide through qualitative analysis*. London: Sage.
- Creswell, John W. (2007). *Qualitative inquiry & research design: Choosing among five approaches*. Thousand Oaks, Kaliforníu: Sage.
- Føllesdal, Dagfinn. (1994). Hermeneutics and the hypothetico-deductive method. Í Michael Martin og Lee C. McIntyre (ritstjórar), *Readings in the philosophy of social science* (bls. 233–45). Cambridge, Massachusetts: MIT Press.
- Hafdís Ingvarsdóttir. (2007). Samskipti kennara og nemenda: Hindrun og/eða hvati í breytingastarfi. Í Gunnar Þór Jóhannesson (ritstjóri), *Rannsóknir í félagsvísindum VIII: félagsvísindadeild: erindi flutt á ráðstefnu í desember 2007*, (bls. 371–380). Reykjavík: Félagsvísindastofnun Háskóla Íslands.
- Jón F. Hjartarson. (1990). Framhaldsskólinn á tímabili lögleysunnar 1974–1990. Í Jón F. Hjartarson og Ólafur S. Ásgeirsson (ritstjórar), *Jarteinabók Jóns Böðvarssonar: Afmælisrit helgað Jóni Böðvarssyni sextugum, 2. maí 1990*, (bls. 25–44). Reykjavík: Iðnskólaútgáfan – IÐNÚ.
- Lög um framhaldsskóla nr. 80/1996.
- Lög um framhaldsskóla nr. 92/2008.
- Menntamálaráðuneytið. (1990). *Námskrá handa framhaldsskólum: Námsbrautir og áfangalýsingar* (3. útgáfa). Reykjavík: Höfundur.
- Menntamálaráðuneytið. (1994). *Nefnd um mótun menntastefnu: Skýrsla*. Reykjavík: Höfundur.
- Menntamálaráðuneytið. (1998). *Nám að loknum grunnskóla*. Reykjavík: Höfundur.

- Menntamálaráðuneytið. (1999a). *Aðalnámskrá framhaldsskóla: Almennur hluti*. Reykjavík: Höfundur.
- Menntamálaráðuneytið. (1999b). *Aðalnámskrá framhaldsskóla: Náttúrufræði*. Reykjavík: Höfundur.
- Menntamálaráðuneytið. (1999c). *Aðalnámskrá framhaldsskóla: Samfélagsgreinar*. Reykjavík: Höfundur.
- Menntamálaráðuneytið. (1999d). *Aðalnámskrá framhaldsskóla: Stærðfræði*. Reykjavík: Höfundur.
- Menntamálaráðuneytið. (2004). *Aðalnámskrá framhaldsskóla: Almennur hluti*. Reykjavík: Höfundur.
- Ritchie, J., Lewis, J. & Elam, G. (2003). Designing and Selecting Samples. Í J. Ritchie & J. Lewis (ritstjórar), *Qualitative Research Practice: A Guide for Social Science Students and Researchers*. London; Thousand Oaks, Kaliforníu: Sage.
- Sarason, Seymour B. (1971). *The culture of the school and the problem of change*. Boston: Allyn and Bacon.
- Taylor, Steven J. & Bogdan, Robert. (1998). *Introduction to qualitative research methods: A guidebook and resource*. New York: John Wiley & Sons.
- Tyack, David & Cuban, Larry. (1995). *Tinkering toward utopia - A century of public school reform*. Cambridge, Massachusetts: Harvard University Press.
- Tye, Barbara Benham. (2000). *Hard truths: Uncovering the deep structure of schooling*. New York: Teachers College Press.

Paper 2

Atli Harðarson
Skilningur framhaldsskólakennara á almennum
námsmarkmiðum

Title in English

How teachers in secondary schools understand the aims of education

Abstract in English

The Icelandic *National Curriculum Guide for Upper Secondary Schools*, published in 1999, has a section on general aims based on article 2 of the Act on Upper Secondary Schools of 1996. This paper is about how secondary school teachers think about these general aims and relate them to the subjects they teach.

From September 2009 till March 2010 I interviewed 18 teachers of academic subjects in Icelandic secondary schools. Of my interviewees 6 taught natural sciences, 6 mathematics and 6 history. I chose these subject areas because the 1999 *National Curriculum Guide* required teaching within them to deviate more than other branches from formerly prevailing traditions.

The teachers I interviewed work in eight schools, four gymnasias and four comprehensive schools. They were recommended by their principals as experienced and successful and leaders within their peer groups (except for one who was recommended by the chairman of the Icelandic Society of Science Teachers). I tried to cover the spectrum of Icelandic secondary schools by choosing institutions with different traditions and of different ages.

Almost all the teachers I interviewed considered themselves to be working towards aims related to democratic citizenship and moral and intellectual virtues. When I inquired how they worked towards these general aims most of them said that the subjects they teach are especially well fitted to serve or achieve one or more of the following aims:

- Make students able to understand news, current issues and their own society.

- Enhance critical or scientific thinking.
- Make students aware of moral or social values.

Both the general answers the teachers gave and the specifics and details they named were internal to their subjects in the sense that from the point of view of someone who only wants to focus on traditional school subjects, they waste no time on general aims: These aims are served by teaching natural sciences, mathematics or history in the way required by the inner logic of these disciplines.

Most of the 18 teachers I interviewed expressed ideals or allegiance to educational policies in accord with the tradition of liberal education, where learning academic subjects is seen as:

- a. A way to realise one's best potentialities and acquire intellectual or moral virtues;
- b. An end in itself, rewarding regardless of practical use.

Most of the teachers I interviewed explicitly endorsed a. They also revealed a predilection for b. This came to light in various ways, most clearly when I asked them how they motivate their students.

Most of them claimed that the best way to motivate students is to emphasise topics that are theoretically interesting rather than by, for example, relating the subjects they teach to the daily life of students or to something that is of practical concern for them.

Útdráttur á íslensku

Meðal nýmæla í *Aðalnámskrá framhaldsskóla* sem út kom árið 1999 var upptalning á almennum markmiðum framhaldsskóla. Í annarri útgáfu, frá árinu 2004, var þessi markmiðskafli nokkuð breyttur og tekið sérstaklega fram að markmiðin snertu allar námsgreinar. Með útgáfu þessarar námskrár settu yfirvöld skólunum ítarlegri markmið en áður hafði verið gert. Ég kannaði hvaða áhrif þessi markmiðssetning hafði á kennslu bóklegra greina til stúdentsprófs með viðtölum við sex raungreinakennara, sex stærðfræðikennara og sex sögukennara, þ.e. alls átján kennara í átta framhaldsskólum.

Af orðum viðmælenda minna var ljóst að markmiðin, sem unnið skal að í öllum greinum samkvæmt því sem segir í almennum hluta

Aðalnámskrár, hafa ekki mótað kennsluhætti þeirra þótt þeir álitu að hefðbundin kennsla í raungreinum, stærðfræði og sögu þjónaði að ýmsu leyti svipuðum markmiðum.

Viðmælendur mínir töldu flestir að almennum markmiðum yrði náð með því að leggja rækt við námsgreinarnar: Nám á forsendum þeirra færði nemendum upplýsingu, menntun eða þroska sem þokaði þeim áleiðis að markmiðum á borð við að tileinka sér gagnrýna hugsun, skilning á samfélaginu eða siðferðileg gildi. Menntastefnan sem þeir orðuðu sór sig um margt í ætt við menntahefð sem kennd er við frjálssar listir þar sem hún fól bæði í sér að almenn markmið næðust með kennslu á forsendum námsgreinanna og að skilningur á þessum greinum væri eftirsóknarverður í sjálfum sér.

Inngangur

Meðal nýmæla í *Aðalnámskrá framhaldsskóla* sem út kom árið 1999 var upptalning á almennum markmiðum framhaldsskóla. Í annarri útgáfu, frá árinu 2004, var þessi markmiðskafli nokkuð breyttur og tekið sérstaklega fram að markmiðin snertu allar námsgreinar.

Bæði í upphaflegu útgáfunni frá 1999 og í útgáfunni frá 2004 eru tilgreind markmið eins og að hvetja nemendur til stöðugrar þekkingar-leitar, efla með þeim gagnrýna hugsun, dómgreind og umburðarlyndi, veita þeim þekkingu á samfélagi sínu og búa þá sem best undir virka þátttöku í lýðræðisþjóðfélagi. (Markmiðskaflinn frá 2004 fylgir hér í viðauka.)

Auk þessara almennu markmiða tilgreindi *Aðalnámskrá* markmið einstakra námsbrauta en það var ekki nýmæli því hliðstæð markmiðssetning fyrir brautir hafði verið í eldri námskrám. Almennu markmiðin voru ekki heldur alger nýlunda því í lögum og reglugerðum frá fyrri tíð höfðu framhaldsskólum verið sett almenn markmið. Í reglugerð fyrir Lærða skólann sem gefin var út 1850 sagði t.d. í 4. grein að skólinn ætti „að sjá um að piltar verði guðræknir og sið-prúðir“ (Kristinn Ármannsson, Einar Magnússon, Guðni Guðmundsson og Heimir Þorleifsson, 1975, bls. 19) og í reglugerð fyrir Hinn almenna menntaskóla í Reykjavík frá árinu 1904 sagði að markmið skólans væri að „efla sálar- og líkamsþroska nemendanna“ (Kristinn Ármannsson o. fl., 1975, bls. 70).

Heildstæð löggjöf um framhaldsskóla varð ekki til fyrr en með lögum nr. 57 frá 1988. Markmiðssetningin í þeim er stuttur. Hún er í 2. gr. þar sem segir:

Hlutverk framhaldsskóla er eftirfarandi:

- að búa nemendur undir líf og starf í lýðræðissamfélagi með því að skapa skilyrði til náms og þroska við allra hæfi,
- að búa nemendur undir störf í atvinnulífinu með sérnámi er veiti starfsréttindi,
- að búa nemendur undir nám í sérskólum og á háskólastigi með því að veita þeim þekkingu og þjálfun í vinnubrögðum.

Lögin frá 1988 giltu í átta ár þar til sett voru ný framhaldsskólalög, nr. 80 frá 1996, þar sem tilgreind voru eftirtalin markmið í 2. gr.

Hlutverk framhaldsskóla er að stuðla að alhliða þroska allra nemenda svo að þeir verði sem best búnir undir að taka virkan þátt í lýðræðisþjóðfélagi. Framhaldsskólinn býr nemendur undir störf í atvinnulífinu og frekara nám.

Framhaldsskólinn skal leitast við að efla ábyrgðarkennd, víðsýni, frumkvæði, sjálfstraust og umburðarlyndi nemenda, þjálfna þá í öguðum og sjálfstæðum vinnubrögðum og gagnrýninni hugsun, kenna þeim að njóta menningarlegra verðmæta og hvetja til stöðugar þekkingarleitar.

Markmiðskaflinn í almennum hluta *Aðalnámskrárinnar* frá 1999 (Menntamálaráðuneytið, 1999) byggist á þessari lagagrein en bætir töluvert miklu við hana og er mun ítarlegri en fyrri tilraunir yfirvalda til að skilgreina markmið náms á framhaldsskólastigi.

Tvenns konar kenningar um almenn markmið

Hollenski námskrárfræðingurinn Jan van den Akker (2003) hefur skipt lýsingum á námskrám skóla í þrjár hæðir eða stig þar sem hver skiptist í tvö millistig svo þrepin eru alls sex. Á efstu hæðinni eru mennta-hugsjónir og almenn markmið sem skólum eru sett af yfirvöldum. Á

miðhæðinni er námskráin eins og kennarar túlka hana og framkvæma. Á neðstu hæð er svo reynsla nemenda og það sem þeir ná að læra.

Samkvæmt því sem Akker (2003) segir er æði vandasamt að skýra hvernig þessar hæðir tengjast og hann segir að oft sé mikið bil milli almennra yfirlýsinga á efstu hæðinni og þess sem kennarar gera í raun.

Fleiri sérfræðingar hafa efast um að skólar vinni í raun að almennum markmiðum sem þeim eru sett. Enski menntaheimspekingurinn John White (2005) hefur t.d. sagt frá könnun sem hann gerði á ensku námskránni frá árinu 2000, þar sem hann skoðaði hvernig markmið kennslu í einstökum greinum tengdust almennum markmiðum. Niðurstaða hans var að í flestum hefðbundnum námsgreinum væru tengslin afar lausleg.

Af menntaheimspekingum sem mér er kunnugt um að hafi fjallað um tengsl almennra markmiða við kennslu og skólustarf er White (1982, 1997, 2009) skeleggasti og skýrmæltasti talsmaður þeirrar skoðunar að skólustarf skuli endurskipulagt út frá almennum markmiðum. White (1997) hefur lýst umbótum á skólum svo að þær hljóti að hefjast á að skilgreina svo góð markmið sem vera má og leiða svo af þeim undirmarkmið og þannig koll af kalli þar til komið er að einstökum þáttum skólustarfsins. Hann gerir ráð fyrir að út úr þessu komi skólar mjög frábrugðnir þeim sem nú tíðkast, enda hefur hann lýst efasemdum um að nógildandi námskrár verði réttlættar með rökum (White, 2006).

Aðrir menntaheimspekingar hafa efast um að rétt sé að hugsa um almenn markmið á þann veg að hægt sé að leiða af þeim hvað skuli kennt eða hvaða greinabundnu markmiðum skuli stefnt að. Einn fremsti menntaheimspekingur Englendinga á síðustu öld, Richard S. Peters (1973), gerði afar skarplega grein fyrir slíkum efasemdum og sagði að sum svokölluð almenn markmið væru ekki markmið í þeim skilningi að skólaganga væri leið að þeim á sama hátt og það að fara um borð í strætisvagn er leið til að komast í vinnuna heldur væru þau háfleyg aðferð til að lýsa verklagsreglum. Ég skil tal hans um verklagsreglur svo að greinabundnu markmiðin sem kennarar vinna að séu ekki leidd af almennum markmiðunum, eins og White (1997) kallar eftir, heldur sé unnið að þeim með samskiptaháttum og verklagi sem samræmist almennum markmiðunum.

Peters (1966, 1973) leit á hefðbundnar námsgreinar sem kjarna skólstarfsins og taldi að helsta markmið skóla væri að glæða skilning nemenda á þeim – sá skilningur væri eftirsóknarverður í sjálfum sér og því þyrfti ekki að réttlæta kennslu námsgreinanna með tilvísun til annarra markmiða. White (1982, 1997, 2009) telur hins vegar að skólstarf eigi einkum að snúast um almennu markmiðin og það skuli ráðast af þeim hvað sé kennt, enda séu námsgreinarnar tæki til að ná þeim. Þau almennu markmið sem White leggur megináherslu á varða siðferði nemenda, einkum hæfni til að taka sjálfstæða afstöðu til verðmæta og gilda, og hæfni til þátttöku í lýðræðissamfélagi (White, 1982, 2003, 2005).

Ef til vill er ein ástæða þess að Akker (2003) og fleirum þykir vandasamt að skýra vensl almennra markmiða og þess sem kennarar gera sú að ekki er samkomulag um neinn skilning á því hvað almennu markmiðin þýða. Sumir hugsa um þau eins og Peters (1973), sumir eins og White (1982, 1997, 2009) og sumir ef til vill á einhvern enn annan veg. Umræða um tengsl námsgreina og almennra markmiða hefur fremur lítil verið. Nokkrir menntaheimspekingar sem fjölluðu um þetta efni undir lok síðustu aldar, eins og John White (1982), Ronald Barnett (1988) og Christopher Winch (1996), töldu rökræðu um það á byrjunarstigi. Mér vitanlega hefur hún lítið þróast síðan. Enn þann dag í dag eru mikilvægustu kenningarnar um þetta efni þær sem ég hef hér eignað þeim Richard Peters og John White. Viðhorf þessara tveggja ensku heimspekinga mynda eins og andstæða póla í umhugsun um almenn markmið og tengsl þeirra við námsgreinar og skólstarf. Rannsóknir á því hvort til sé heppilegur millivegur og hvar hann geti legið virðast skammt komnar.

Í grein sinni, Fjölmennning og sjálfbær þróun – Lykilatriði skólstarfs eða óþægilegir aðskotahlutir, fjallar Ingólfur Ásgeir Jóhannesson (2007) um almenn markmið sem hann kallar samfagleg viðfangsefni. Strax í fyrirsögn greinarinnar stillir Ingólfur Ásgeir upp tvenns konar kostum sem líkjast nokkuð þeim andstæðu pólum sem ég hef lýst. Í greininni spyr hann hvort almenn markmið eigi ekki að vera þungamiðja skólakerfisins. Þeir sem svara þessari spurningu játandi taka væntanlega undir sjónarmið af því tagi sem White heldur fram. Þeir sem líta á námsgreinarnar sem þungamiðju hugsa hins vegar á svipuðum nótum og Peters.

Við framhaldsskóla er sterk hefð fyrir faggreinamiðuðum námskrám þar sem bóklegar námsgreinar mynda þungamiðju skóla-starfsins (Carr, 2007; Tye, 2000). Rannsókn Hafdísar Ingvarsdóttur (2004) á enskukennurum og raungreinakennurum við íslenska framhaldsskóla bendir til þess að skilningur þeirra á eigin starfi ráðist að talsverðu leyti af námsgreininni sem þeir kenna, þeim þyki vænt um hana og sú væntumþykja móti starf þeirra. Vísbendingar eru einnig um að faggreinasjónarmið hafi veruleg áhrif á starf grunnskólakennara. Í grein sinni, *Sýn fimm grunnskólakennara á nám og kennslu í náttúruvísindum*, segja Meyvant Þórólfsson, Allyson Macdonald og Eggert Lárusson (2007) t.d. frá rannsókn á kennslu í náttúrufræði hjá fimm grunnskólakennurum sem leiddi í ljós að þeir unnu í anda faggreinastefnu. Þessar tvær íslensku rannsóknir varpa ljósi á hugmyndir kennara um eigið starf og markmið þess þótt þær fjalli ekki beinlínis um hugmyndir þeirra um almenn markmið af því tagi sem lýst er í *Aðalnámskrá framhaldsskóla* frá 1999 og 2004 (Menntamálaráðuneytið, 1999, 2004).

Hvað ætli kennarar sem kenna bókleg fög til stúdentsprófs við íslenska framhaldsskóla hugsi um þessi almennu markmið? Hvernig álíta þeir að þau tengist kennslu einstakra greina? Ég leitaði svara við þessu með viðtölum við átján framhaldsskólakennara.

Viðmælendur og rannsóknaraðferðir

Ég kaus að ræða við kennara úr þrem greinaflokkum, raungreinum, stærðfræði og sögu. Ástæðan fyrir því að þessar greinar voru valdar var einkum sú að *Aðalnámskráin* frá 1999 kvað á um meiri breytingar í þeim en öðrum bóklegum greinum sem ætlað er sambærilegt rými í námskrá svo ætla mátti að kennarar í þeim hefðu öðrum fremur endurskoðað áherslur og val á viðfangsefnum.

Úrtakið sem ég valdi var sú gerð af markvissu úrtaki sem stundum er kölluð fræðilegt úrtak (Ritchie, Lewis og Elam, 2003). Ég kaus viðmælendur þannig að ég byrjaði á að velja fimm skóla, þrjá menntaskóla og tvo fjölbrautaskóla, og hafði þá á sem ólíkustum aldri og með ólíka sögu. Ég skrifaði skólameisturum þeirra tölvupóst og bað þá að benda mér á viðmælendur úr hópi kennara í raungreinum, stærðfræði og sögu. Í öllum tilvikum lét ég þess getið að ég leitaði eftir

viðmælendum sem hefðu um árabíl verið í forystu meðal kennara í sinni grein og haft áhrif á val á námsefni og áherslur í kennslu.

Skólameistararnir brugðust vel við bréfum mínum og bentu mér á viðmælendur sem ég hafði samband við í tölvupósti. Af þeim fimmtán kennurum sem skólameistararnir bentu mér á svöruðu fjórtán og voru fúsir til að ræða við mig.

Sögukennararnir sem mér var vísað á voru allir karlar en raungreinakennararnir voru tvær konur og þrjár karlar og stærðfræðikennararnir voru þrjár konur og tveir karlar. Til að rétta örlítið þessa karlaslagsíðu á sögunni hafði ég samband við stjórnanda í einum skóla til og þar var mér bent á konu sem kenndi sögu. Ég skrifaði henni og hún féllst á að ræða við mig. Einn viðmælenda hafði ég samband við eftir ábendingu frá formanni Félags raungreinakennara.

Viðmælendur mínir voru nú orðnir sextán að tölu úr sjö skólum. Í lok febrúar 2010 hafði ég talað við þá alla og var langt kominn með úrvinnslu og greiningu á viðtölunum. Í öllum þrem greinaflokkunum reyndust upplýsingar, hugmyndir og meiningar í síðustu viðtölunum að miklu leyti endurtekning á því sem fyrri viðmælendur höfðu sagt. Ég hafði því ástæðu til að ætla að frekari viðtöl væru óþörf, eða með öðrum orðum að ég væri að nálgast það sem kallað er mettun (e. saturation) í ritum um eigindlegar rannsóknaraðferðir (Creswell, 2007). Mér fannst ég þó ekki geta verið viss um þetta því þessir sjö skólar voru allir nema einn á höfuðborgarsvæðinu og þeir voru allir fremur stórir. Ég ákvað því að bæta við tveim viðtölum við kennara í minni skóla fjarri Reykjavík og hringdi í skólameistara við fjölbrautaskóla úti á landi. Hann benti mér á viðmælendur sem höfðu verið forystumenn í hópi sögu- og stærðfræðikennara við skólann um langt árabíl. Þessir síðustu tveir viðmælendur bættu litlu við þau sjónarmið sem birst höfðu í viðtölum mínum við hina sextán. Í 1. töflu er gerð grein fyrir viðmælendum.

Ég þekkti aðeins einn af þessum kennurum fyrir og þau kynni voru ekki nán. Ég hitti hvern þeirra einu sinni. Í upphafi hvers viðtals sagði ég í stuttu máli hvers konar rannsókn ég væri að vinna, gerði grein fyrir því að nöfn viðmælenda mundu hvergi birtast né heldur nöfn skólanna og að hljóðritunum yrði eytt að rannsókn lokinni. Flest

viðtölin, eða fimmtán, fóru fram á vinnustað kennara en þrjú viðmælendur buðu mér heim til sín.

Auk gagna úr viðtölum studdist ég við texta *Aðalnámskrár framhaldsskóla* (Menntamálaráðuneytið 1999, 2004) og eldri *Námskrá handa framhaldsskólum* (Menntamálaráðuneytið, 1990).

1. Tafla : Viðmælendur

Nr.	Kennslu greinar	Bekkjakerfi eða áfangakerfi	Lengd kennsluferils í framhaldsskóla (rúnuð að 5 árum)
1	Raungreinar	Bekkjakerfi	30 ár
2	Raungreinar	Bekkjakerfi með nokkur einkenni áfangakerfis	20 ár
3	Raungreinar	Áfangakerfi	20 ár
4	Raungreinar	Áfangakerfi	10 ár
5	Raungreinar	Áfangakerfi	15 ár
6	Raungreinar	Áfangakerfi	30 ár
7	Saga	Bekkjakerfi	20 ár
8	Saga	Bekkjakerfi með nokkur einkenni áfangakerfis	20 ár
9	Saga	Áfangakerfi	20 ár
10	Saga	Áfangakerfi	25 ár
11	Saga	Áfangakerfi	40 ár
12	Saga	Áfangakerfi	25 ár
13	Stærðfræði	Bekkjakerfi	35 ár
14	Stærðfræði	Bekkjakerfi með nokkur einkenni áfangakerfis	20 ár
15	Stærðfræði	Áfangakerfi	35 ár
16	Stærðfræði	Áfangakerfi	5 ár
17	Stærðfræði	Áfangakerfi	15 ár
18	Stærðfræði	Áfangakerfi	20 ár

Viðtalstæknin sem ég beitti byggðist einkum á leiðbeiningum í bók eftir Taylor og Bogdan (1998) og sú ákvörðun að nota opin viðtöl til að grundvalla almenna kenningu studdist við aðferðafræðilegar kenningar úr þeirri sömu bók. Ég hafði einnig hliðsjón af bók eftir Kvale og Brinkmann (2009). Ég reyndi að nota sem opnastar spurningar og fá kennarana til að spjalla vítt og breitt um starf sitt. Hér er dæmi um hvernig ég opnaði umræðu um almenn markmið í *Aðalnámskránni* frá 1999:

Ég: Ein breytingin sem varð með námskránni 1999 var að menntamálaráðuneytið skilgreindi almenn markmið og segir í *Aðalnámskrá* að þau snerti allar námsgreinar framhaldsskóla og starfsemi þeirra og þessi almennu markmið eru til dæmis að nemendur hafi tamið sér sjálfstæði í hugsun, gagnrýna hugsun, dómgreind, umburðarlyndi, verði færir um að tjá skoðanir sínar, kunni skil á réttindum og skyldum einstaklings í lýðræðisþjóðfélagi. Geturðu sagt hvort og þá hvernig þessi listi hefur áhrif á hvernig þið kennið.

Kennari: Þetta er góð spurning ... (Úr viðtali við sögukennara.)

Við frumúrvinnslu viðtalanna fylgdi ég að verulegu leyti aðferðafræði grundaðrar kenningar eins og henni er lýst af Creswell (2007), Charmaz (2006) og Bogdan og Biklen (2003). Þessi aðferðafræði snýst um að nota aðleiðslu til að leiða almennar niðurstöður af gögnum sem aflað er með opnum viðtölum.

Aðferðafræðin sem ég beitti var spunnin úr fleiri þáttum en þeim sem kenndir eru við grundaða kenningu því þegar ég hafði mótað tilgátur um einstök atriði í viðtölunum beitti ég aðferðum hefðbundinnar túlkunarfræði þar sem ég las viðtölin aftur og mátaði tilgáturnar við textann í heild. Þessari gerð túlkunarfræði hefur verið skilmerkilega lýst af norska heimspekingnum Dagfinn Føllesdal (1994) og ég notaði mér greinargerð hans þótt ég stýddist einnig við skrif Hans-Georgs Gadamer (1981a, 1981b) sem var fremstur í flokki þeirra sem fjölluðu um túlkunarfræði með heimspekilegum hætti á síðustu öld.

Í stuttu máli má lýsa vinnubrögðum mínum svo að í byrjun hafi ég einkum haldið mig við aðferðir grundaðrar kenningar og notað þær til að fá hugmyndir um tilgátur. Eftir því sem á leið beitti ég

túlkunarfræði meir og meir og notaði hana til að fínþússa tilgátur mínar og prófa þær og meta hverjar væru þess virði að halda í þær og hverjum væri rétt að hafna.

Þegar texti þessarar greinar var næstum fullunninn sendi ég viðmælendum hann til skoðunar. Tveir þeirra gerðu athugasemdir við tilvitnanir í eigin orð eða útlekkingar á þeim og tók ég tillit til þeirra athugasemda.

Niðurstöður

„Stór hluti þeirra er og hefur verið partur af góðri sögukennslu“

Ég spurði alla kennarana sem ég talaði við hvort og þá hvernig þeir ynnu að markmiðum sem tilgreind eru í almennum hluta *Aðalnámsskrár framhaldsskóla*. Ég fitjaði ekki upp á þessu umræðuefni fyrr en talsvert var liðið á viðtal og yfirleitt í framhaldi af umræðu um kennslu í einstökum áföngum. Ég reyndi að forðast að láta spurningar um þetta efni hljóma eins og þær væru aðalatriði í viðtalinu því ég áleit mögulegt að kennarar fengju þá á tilfinninguna að ég væri að hanka þá á að fara ekki eftir námskránni.

Í 2. töflu er samantekt um það hvernig kennararnir svöruðu. Sumir höfðu um þetta nokkuð langt mál en í töflunni er reynt að draga saman kjarna þess sem hver og einn sagði, ýmist með endursögn eða beinni tilvitnun. Svo virtist sem markmiðin í almennum hluta *Aðalnámsskrár* væru viðmælendum mínum almennt ekki ofarlega í huga og hefðu lítil áhrif á kennsluna hjá þeim. Aðeins tveir töldu kennslu í sinni grein beinlínis skipulagða með hliðsjón af þessum markmiðum. Allir nema þrír töldu sig þó vinna að þeim með einhverjum hætti og þeir þrír sem skáru sig úr töldu sig vinna að hliðstæðum markmiðum sem hefðu almennara gildi en greinabundin námsmarkmið.

Sá eini sem bar því við að ekki væri tími til að sinna þessum markmiðum var stærðfræðikennari sem sagði að kröfur um mikla yfirferð efnisatriða stæðu gegn því að keppt væri að almennum markmiðum. Aðrir nefndu ekki að þau tækju tíma frá yfirferð námsefnis, enda töldu flestir sig vinna að þeim með því að kenna námsgreinar sínar fremur en með því að gera eitthvað til viðbótar við það. Ef til vill má þó skoða ummæli eins sögukennara sem undantekningu frá þessu en í viðtali við hann komu þessi orðaskipti fyrir:

Ég: Þegar þið skipuleggið kennslu í kjarnaáföngum eða búið til valáfanga, horfið þið þá á þennan lista?

Kennari: Nei.

Ég: Nei?

Kennari: Hann er bara að malla hérna sko (bendir á höfuð sér) og síðan bara grípur maður tækifærið þegar eitthvað kemur upp og vinnur svo með: Einhver er með fordóma út í Pólverja og einhver er útblásinn af Ísland-best-í-heimi og svona, sko, og þá kannski tekur maður það fyrir. En þetta er ekki skipulegt efni með einhverjum kúrs, sko, sjálfstæði í vinnubrögðum fimm mínútur, dómgreind korter (hlær). Það þýðir ekkert að vera að hugsa um það.

Orðalagið „síðan bara grípur maður tækifærið þegar eitthvað kemur upp“ virtist fela í sér að siðferðilegt uppeldi væri hluti af starfinu en þennan hluta yrði að leika af fingrum fram því ekki væri hægt að sjá fyrir hvenær tækifærin til að hafa góð áhrif á nemendur kæmu upp. Kennslan var sem sagt skipulögð á forsendum greinarinnar en innan þess skipulags gáfust tækifæri til að þjóna almennum markmiðum og það gat tekið tíma frá áætlaðri yfirferð.

Einn stærðfræðikennari tæpti á þeim möguleika að almenn markmið krefðust þess að kennari gerði eitthvað annað en að kenna á forsendum fagsins. Þetta kom upp þegar rætt var um gagnrýna hugsun, sem er eitt af markmiðunum sem tilgreind eru í almennum hluta *Aðalnámskrár*. Þessi kennari sagðist leggja áherslu á að nemendur skildu að stærðfræðileg líkön sem kæmu heim við veruleikann að einhverju marki gerðu það ekki endilega að öllu leyti og tók dæmi: „Þú getur búið til módel yfir fólksfjölgun í heiminum og hvað ætlar þú að láta það duga lengi? Ætlar þú að láta það duga um aldur og ævi þangað til menn eru farnir að standa á herðunum hver á öðrum?“ Hann bætti því svo við að e.t.v. væri meiningin í almennum hluta *Aðalnámskrár* að öll fög ættu að kenna gagnrýna hugsun um samfélagið, en kvaðst sinna því lítt heldur leggja áherslu á gagnrýna hugsun að svo miklu leyti sem hún yrði kennd með því að kenna stærðfræði. Það var eins og þessi viðmælandi minn teldi a.m.k. mögulegt að almennu markmiðin í námskránni fælu í sér kröfu um að stærðfræðikennarar gerðu eitthvað annað en að einbeita sér að stærðfræðinni sem slíkri.

2. Tafla: Hvað sögðu kennarar um markmiðin í almennum hluta Aðalnámskrár?

Nr.	Kennslu greinar	
1	Raun- greinar	„Nei, ég mundi nú ekki segja það að við höfum það til hliðsjónar. En náttúrulega reynum við að kenna nemendum svona mannleg samskipti og vinna sjálfstætt og svo framvegis.“
2	Raun- greinar	„Ég veit nú ekki hversu svona markvisst við kannski notum þau“ – Kvaðst þó reyna að nálgast þau með áherslu á að nemendur ynnu sjálfstætt.
3	Raun- greinar	Sagðist lítið horfa til þeirra en samt nálgast sum þeirra með kröfum um sjálfstæði í vinnubrögðum.
4	Raun- greinar	Taldi þau mikilvæg og áleit sig vinna að þeim m.a. með því að miðla nemendum þekkingu á umhverfi sínu og efla umhverfisvitund.
5	Raun- greinar	„Ég held að þau sitji dálítið á hakanum, ég viðurkenni það.“
6	Raun- greinar	Taldi þau mikilvæg og áleit sig vinna að þeim m.a. með tengingu við samfélagið og kennslu um stofnanir þess og með því að gera nemendur meðvitaða um umhverfismál.
7	Saga	Sagðist lítið horfa til þeirra en samt vinna að þeim því sagan væri „ofsalega góð grein til að kenna fólki einmitt umburðarlyndi, gagnrýni og fleira.“
8	Saga	„Stór hluti þeirra er bara og hefur verið partur af góðri sögukennslu.“
9	Saga	Taldi hluta þeirra innbyggðan í fagið en hafði efasemdir um að kennari ætti að „ala nemendur upp í einhverjum svona behaviorískum stíl.“
10	Saga	Sagði áfanga ekki skipulagða út frá almennum markmiðum en að þeim væri sinnt þegar tækifæri gæfust.
11	Saga	Taldi markmið af þessu tagi beinlínis innbyggð í það að kenna sögu.
12	Saga	„Öll þessi fallegu markmið falla náttúrulega undir sögu.“ Sagði að unnið væri með þessi markmið í félagsgreinum þótt enginn svona listi væri, enda hefði það verið gert áður en námskráin kom út.
13	Stærð- fræði	Sagðist nálgast þau með áherslu á nákvæma framsetningu og að efla málkennd og gagnrýna hugsun, m.a. um hvernig stærðfræði er notuð. Nefndi sem möguleika að ákvæði Aðalnámskrár þýddu að allir kennarar ættu að kenna gagnrýna hugsun um samfélagið en sagðist ekki gera það.
14	Stærð- fræði	Sagðist vita af þeim en vinna lítið með þau því ekki væri tími til þess, „konkret“ efnisatriði sem ætti að fara yfir samkvæmt námskrá væru það mörg að kennari gerði ekki annað en fara yfir þau.
15	Stærð- fræði	Sagðist ekki lesa þau mjög nákvæmlega en taldi sig nálgast sum þeirra með áherslu á sjálfstæð vinnubrögð og gagnrýna hugsun.
16	Stærð- fræði	Sagðist nálgast þau með þjálfun í skipulegri framsetningu og rökfestu.
17	Stærð- fræði	„Ég veit ekki hversu vel þetta skilar sér inn í áfanga, sko.“ Vildi leggja meiri áherslu á gagnrýna hugsun en kvaðst annars lítið vinna með þessi markmið.
18	Stærð- fræði	Kvaðst ekki hafa þau í huga í hverri kennslustund, kallaði þau „snakk“ og sagði að þau næðust „bara með svona eðlilegu skólafarfi, hvort sem það er í stærðfræði eða öðru.“

Viðmælendur mínir virtust hallir undir hugmyndir af svipuðu tagi og ég eigna Richard S. Peters fremur en kenningar af því tagi sem ég hef eftir John White. Með þeim fáu undantekningum sem nefndar hafa verið töluðu kennararnir eins og þeir þjónuðu almennum markmiðum með því einu að vinna að greinabundnum markmiðum og án þess að neinn tími færi í það sérstaklega.

Það sjónarmið að námsgreinin væri í sjálfri sér til þess fallin að þjóna almennum markmiðum og kennari ynni að þeim með því einu að kenna á forsendum greinarinnar kom skýrast fram í máli sögukennaranna. Einn mælti fyrir munn þeirra allra þegar hann sagði „Stór hluti þeirra er bara og hefur verið partur af góðri sögukennslu.“ Hann virtist ekki telja ástæðu til að víkja frá hefðbundnum áherslum í kennslu vegna þessara almennu markmiða því þeim yrði best náð með því að kenna sögu eins og hún hefði verið kennd.

Þrír af stærðfræðikennurunum töldu líka að stærðfræðinám stuðlaði að því að nemendur næðu hluta þessara almennu markmiða því það efldi málkennd þeirra, gagnrýna hugsun, skipulega framsetningu eða rökfestu.

Flestir sögðu að sín námsgrein hentaði sérlega vel til að ná einhverjum af hinum almennu markmiðum. Einn stærðfræðikennari taldi þó allt venjulegt skólastarf til þess fallið að þjóna þeim og sín grein hefði þar enga sérstöðu. Hann sagði að þau næðust „bara með svona eðlilegu skólastarfi, hvort sem það er í stærðfræði eða öðru.“

Af þeim sem töldu að kenna þyrfti námsgreinarnar með sérstökum hætti til þess að þjóna almennu markmiðunum nefndu flestir áherslu á sjálfstæð vinnubrögð. Einnig nefndu sumir að til að ná almennum markmiðum þyrfti að leggja áherslu á tiltekin atriði innan námsgreina, til dæmis töluðu tveir raungreinakennarar um að kenna nemendum um eigið umhverfi og annar þeirra sagðist líka leggja áherslu á að tengja kennsluna stofnunum samfélagsins, en þegar þeir skýrðu mál sitt nánar var ljóst að þetta tók engan tíma frá faginu heldur var leið til að miðla náttúrufræðilegri þekkingu með árangursríkum og eftirminnilegum hætti.

Allir viðmælendur létu sér duga að ræða fá (eitt til þrjú) almenn markmið og enginn kvaðst hafa farið yfir allan listann í almennum hluta *Aðalnámskrár* og mátað við sína kennslu og sitt fag.

Þótt markmiðalistinn í almennum hluta *Aðalnámskrár* virtist ekki hafa mikil áhrif á starf viðmælenda minna leiddi frekari samræða um almenn námsmarkmið í ljós að flestir þeirra lögðu áherslu á almennt uppeldishlutverk framhaldsskóla þótt nokkur munur væri á hvað þeir álitu það viðtækt. Sumir töluðu eins og það væri sjálfsagt mál að skólinn kenndi holla lífshætti, góða siði og upplýst viðhorf. Einn sagði t.d. að hann ætti að „búa til víðsýna og réttsýna einstaklinga.“ Sumir voru fáorðir um slík hlutverk skóla en enginn hafnaði þeim beinlínis.

Þau almennu markmið sem flestir nefndu voru: Að auka hæfni nemenda til að skilja fréttir eða samfélag sitt og umræðu um það (13 af 18); temja nemendum gagnrýna, fræðilega eða vísindalega hugsun (13 af 18); búa þá undir háskólanám (11 af 18); opna augu þeirra fyrir verðmætum eða siðferðilegum gildum af einhverju tagi (10 af 18); kenna þeim að njóta fegurðar (5 af 18).

Af þeim sem tilgreindu þetta síðastnefnda, að njóta fegurðar, voru tveir stærðfræðikennarar sem ræddu um fegurð í stærðfræðinni. Einn sögukennari talaði um að kenna nemendum að njóta lista með kennslu í menningarsögu. Tveir náttúrufræðikennarar töluðu um að upplifa náttúruna eða skynja hvað hún er heillandi og ég túlka þau ummæli svo að þeir hafi átt við einhvers konar fagurfræðilegt uppeldi. Annar þeirra orðaði hugsun sína um þetta efni svona: „Það veitir okkur svona dýpt og mikla lífsfyllingu að skilja hvað heimurinn er stórkostlegur og hvað þetta er allt skrítið og við erum á fleygiferð í gegnum geiminn.“ Hann talaði líka um stjörnufræði sem góðan undirbúning fyrir lífið því í henni sæju nemendur hvað veröldin er stórkostleg. Hinn náttúrufræðikennarinn ræddi um þröngsýni þeirra sem einblína á „nytjagildi“ náms og spurði í því sambandi: „Er ekkert lífsleikni nema það sem við getum gert í Kringlunni?“ Hann svaraði spurningunni sjálfur með því að segja: „Mér finnst mikil lífsleikni að geta farið út og upplifað náttúruna.“

*

Almennu markmiðin sem kennararnir nefndu voru nær undantekningalaust nátengd greinabundnum markmiðum. Flest eða öll markmiðin sem raungreinakennararnir nefndu voru t.d. af því tagi að það lá beint við að tengja þau kennslu í raunvísindum. Sem dæmi

má taka að fjórir raungreinakennarar af sex töluðu um það sem markmið að bæta umhverfisvitund nemenda eða skilning á náttúruvernd eða umhverfissjónarmiðum. Tveir töluðu um það sem markmið að nemendur upplifðu náttúruna eða skynjuðu hvað hún er heillandi. Tveir nefndu skilning á efnunum sem tengjast heilsu eða heilsuvernd. Ef til vill virðast þau markmið að skilja fréttir, sem fjórir raungreinakennarar nefndu, og hæfni til þátttöku í umræðu um samfélagsmál, sem tveir þeirra nefndu, laustengdari við raungreinar. Í viðtölunum voru þessi tengsl þó býsna nánin, enda nefndu þeir þessi markmið þegar talið hafði borist að erfðabreyttu korni, fréttum af mögulegum stökkbreytingum á inflúensuveiru, umhverfismálum eða orkumálum.

Sögukennararnir töluðu um hæfni til að skilja eigið samfélag og menningu sem almennt markmið og þrír þeirra nefndu gagnrýna afstöðu til heimilda eða upplýsinga. Einnig nefndu sumir þeirra gagnrýna hugsun, víðsýni, umburðarlyndi og hæfni til að setja sig í spor annars fólks og skilja aðra menningu en sína eigin. Þrír af sex sögukennurum voru með athyglisverðar þælingar um samband söguþekkingar við sjálfsvitund og sjálfsþekkingu. Einn þeirra sagði til dæmis að það sem mönnum fundist vera sín eigin heilbrigða skynsemi væri gjarna eitthvað sem ætti sér sögulegt upphaf og þeir hefðu lært: „Margt af því sem við lítum á sem okkar eigin leið til þess að horfa á heiminn og þekkja okkur sjálf var í rauninni upphaflega séð gegnum gleraugu annarra, og við hefðum gott af að gera okkur grein fyrir því.“

Sömu sögu er að segja um stærðfræðikennarana. Almennu markmiðin sem þeir ræddu voru nátengd kennslugreininni. Þeir nefndu til dæmis hæfni til að setja mál skipulega fram og af rökfestu eða að læra að upplifa fegurð í stærðfræðinni.

Það sem hér hefur verið sagt um markmiðin í almennum hluta *Aðalnámskrár* og önnur almenn námsmarkmið má draga saman í stutt mál á þá leið að almennu markmiðin í námskránni hafi lítil áhrif á starf kennara og þeir álíti almennt að ekki þurfi að taka neinn tíma frá námsgreinunum til að þjóna þeim, þau náist með hefðbundinni kennslu sem leggur áherslu á fagið, hvort sem það er einhver grein raunvísinda, stærðfræði eða saga.

Þetta þýðir ekki að kennararnir sem ég talaði við leggi litla áherslu á alhliða þroska nemenda, bætt siðferði þeirra eða menntun sem

bætir samfélagið. Þeir virðast einfaldlega álíta að þessum markmiðum verði náð með því að leggja rækt við námsgreinarnar: Nám á forsendum þeirra færi nemendum upplýsingu, menntun eða þroska sem þokar þeim áleiðis að markmiðum á borð við það að tileinka sér gagnrýna hugsun eða skilning á samfélaginu.

„Þú sérð alveg glóð í augunum á þeim“

Sýn viðmælenda minna á markmið af því tagi sem tilgreind eru í almennum hluta *Aðalnámskrár* bendir til þess að faggreinasjónarmið séu þeim töm. Slík sjónarmið birtust víðar en í hugmyndum um námsmarkmið. Þegar rætt var um valáfanga og hvað veki áhuga nemenda orðuðu flestir kennararnir viðhorf af svipuðu tagi og lögðu áherslu á gildi fagsins og forsendur sem eru innbyggðar í það.

Kennararnir sem ég talaði við höfðu flestir mjög frjálssar hendur þegar kom að því að bjóða upp á valáfanga. En slíkir áfangar eru ekki kenndir nema nógu margir velji þá svo kennarar hafa ástæður til að bjóða upp á efni sem þeir álíta að nemendur hafi áhuga á. Viðfangs-efni kennara í valáföngum gefa því bæði vísbendingu um þeirra eigin menntastefnu og hugmyndir þeirra um hvað nemendum þykir áhuga-vert. Af átján viðmælendum lýstu þrettán valáföngum í sínu fagi sem ekki eru skilgreindir í *Aðalnámskrá* framhaldsskóla. Áberandi var að flestir þessir valáfangar voru fræðilegir og hugsaðir til þess að auka skilning á innri rökum námsgreinar.

Hjá þrem af sex stærðfræðikennurum voru kenndir valáfangar sem ekki er lýst í *Aðalnámskrá*. Þessir áfangar voru línuleg algebra við tvo skóla, evklíðsk rúmfræði við einn skóla og þrautalausnir við tvo skóla. Einn af þeim sagði um valáfanga í sínu fagi: „Við erum raunverulega að dýpka stærðfræðina og gerum meiri kröfur til nemendanna í þessum valáföngum.“

Í raungreinum voru fræðilegar áherslur í valáföngum áberandi eins og í stærðfræðinni. Einn af sex raungreinakennurum bauð þó upp á umhverfisfræði með siðferðilegum og pólitískum áherslum á að efla umhverfisvitund og einn raungreinakennari bauð upp á valáfanga með blönduðum áherslum, en þrír þeirra buðu eingöngu valáfanga þar sem markið var sett á fræðilegan skilning á viðfangsefnum sem eru heillandi á forsendum greinarinnar.

Sögukennararnir sex voru allir nema einn með valáfanga og yfirleitt virtust þeir hugsaðir til að dýpka skilning á sögunni eða sagnfræðilegum vinnubrögðum og þankagangi. Um þetta er þó erfitt að fullyrða jafnafráttarlaust og í tilviki stærðfræðinnar og raungreinanna því hjá sögukennurum blönduðust saman fleiri sjónarmið en þau sem tengjast beint faggreinastefnu eða áherslu á sjálfgildi námsgreinar.

*

Menntastefna viðmælenda minna birtist líklega með skýrustum hætti í ummælum þeirra um áhuga nemenda og hvað vekur hann. Líffræðikennari sagði t.d. frá valgrein þar sem nemendur kynnst líftækni og vinna með rafdrátt og skerðiensím og „einangra DNA og svona hitt og þetta. Þú sérð alveg glóð í augunum á þeim þegar þau eru að þessu.“

Eðlisfræðikennari tjáði svipaða hugsun og vildi sjá nemendur upplifa undur fræðanna en bætti við: „Það er rosa erfitt að kveikja þennan neista, en oft gengur það.“ Báðir þessir kennarar töluðu eins og það segði sig sjálft að glóðin eða neistinn kviknaði af því að fást við efni sem er fræðilega áhugavert.

Þriðji fulltrúi raunvísindanna orðaði svipað sjónarmið. Þegar ég spurði hvernig gengi að vekja áhuga nemenda á efnafræði sagði hann: „Áhuginn kviknar eftir því sem að þau geta meira og skilja meira.“ Ég túlka þessi ummæli svo að nemendur fái áhuga við það að öðlast skilning vegna þess að þá átti þeir sig á að fagið sé áhugavert og heillandi í sjálfu sér.

Enn einn raungreinakennari sagði frá áhuga nemenda á umræðu um „mini-svarthol“ og rifjaði í beinu framhaldi af því upp að hann kenndi eitt sinn stærðfræði þar sem útreikningar á sköttum voru hluti af námsefninu: „Ég man ekki eftir neinum nemanda í dagskóla sem hafði nokkurn áhuga á að vita hvernig tekjuskattar voru reiknaðir út.“ Skilaboðin í máli hans voru augljóslega þau að nemendum þættu undur eðlisfræðinnar áhugaverðari en „hagnýt“ viðfangsefni á borð við skatta.

Nokkrir stærðfræðikennarar tóku í sama streng. Einn þeirra áleit til dæmis að stærðfræðin sjálf væri áhugaverðari fyrir unglinga en

hagnýting hennar og sagði m.a. að hornaföllin og algebran í STÆ103 höfðuðu meira til þeirra en verslunarreikningur. Þegar rætt var um gildi námsins sagði þessi sami kennari að stærðfræði væri „grein í sjálfri sér sem að getur verið áhugaverð bara vegna þess að hún er svona lógísk og reynir á hugsunina.“ Hann ræddi líka um fegurð stærðfræðinnar:

Í rúmfræðinni þá er ég nú alltaf að tala um hvað hitt og þetta sé fallett. Ég veit ekki hvort þeim finnst það, en maður vonast til þess að þau öðlist svona smá fegurðarskyn á rúmfræðilegar sannanir, því að þær eru náttúrlega mjög glæsilegar.

Annar stærðfræðikennari kvaðst fyrir skömmu hafa reynt að vekja áhuga nemenda á mála- og félagsfræðabrautum með því að tengja kennsluna við hagnýt viðfangsefni og komist að því að þeir vildu frekar fást við algebru en vísitölur:

Ég hélt að þetta væri svona praktískt og hefði svona meiri tilhöfðun til nemenda að tala um kaupmátt og verðbólgu og eitthvað svona sem dynur á fólki en það virðist samt vera þannig að þeir eru voðalega fegnir núna því nú förum við aftur í venjulega algebru.

Stærðfræði- og raungreinakennararnir töluðu um áhuga nemenda á þeim nótum að hann tendraðist af skilningi á námsgreininni. Einn stærðfræðikennari skar sig þó úr. Hann vildi leggja áherslu á hagnýtan reikning sem tengdist daglegu lífi en draga úr fræðilegum áherslum, t.d. á algebru. Þessi kennari hafði sérstöðu að því leyti að stór hluti af kennslu hans var í hægferðaráföngum þar sem ætla mátti að margir nemendur ættu erfitt með að ná góðum tókum á efni eins og algebru. Bakgrunnur hans var líka annar en flestra hinna þar sem hann var upphaflega menntaður sem grunnskólakennari og hóf starfsferil sinn í gagnfræðaskóla en bætti síðar við sig stærðfræðinámi fyrir framhaldsskólakennara.

Skilningur sögukennara á námsáhuga virtist svipaður og hjá kennurum í raungreinum og stærðfræði þótt ummæli þeirra væru um sumt flóknari og því erfiðara að lýsa viðhorfum þeirra í stuttu máli. Ég

læt hér duga að lýsa einu dæmi um sjónarmið sögukennara. Það birtist í máli kennara í skóla þar sem var kennd nokkuð mikil menningarsaga á málabraut. Þessi kennari sagði frá námsferð til útlanda með nemendum á lokaári og lét þess getið að þegar ferðin var farin höfðu þeir verið búnir að læra talsvert mikið um efnið:

Við fórum þar á ýmis listasöfn og fleira og vorum að nota það sem þau höfðu verið að læra og fengum leiðsögn þarna. Og þau nutu þess svo vel og það var svo margt sem að þau gátu tengt saman að það var alveg ótrúlegt að upplifa þetta með nemendum, hvað þau höfðu virkilega fengið mikið út úr þessu og voru ánægð með þetta.

Áhuginn sem þessi kennari lýsti var áhugi sem kviknaði af lærdómi og skilningi, eftir að nemendur höfðu verið leiddir inn í heim námsgreinarinnar.

Almennt virtust viðmælendur mínir álíta að það sem einkum gerði námið áhugavert og heillandi í augum nemenda væri skilningur á fræðilegum rökum, hugtökum, kenningum eða viðfangsefnum. Í máli sumra kom fram vantrú á annars konar áherslum. Eðlisfræðikennari ræddi t.d. um náttúrufræðiáfangana, sem samkvæmt *Aðalnámskránni* frá 1999 áttu að vera sameiginlegir öllum bóknámsbrautum, og sagði:

Þegar þetta var gert með NÁT-ið á sínum tíma, þarna um aldamótin, þá var nú einhver áhersla á að þau þyrftu að skilja til dæmis vatnsaflvirkjanir og eins og þetta leit út fyrst þá fannst manni eins og þau ættu að skilja hvernig vatnsaflsvirkjun virkar án þess að þekkja hugtökin sem eru notuð til að skýra það. Maður var svolítið skeptískur á að þetta virkaði.

Af því sem viðmælendur mínir sögðu um það hvað gerir nám áhugavert og eftirsóknarvert er ljóst að þótt þeir hafni ekki almennum markmiðum telja þeir að greinabundin námsmarkmið hafi gildi í sjálfum sér. Í augum þeirra eru námsgreinarinnar ekki fyrst og fremst tæki til að ná almennum markmiðum og skólastarfið í heild ekki sett undir þau á þann hátt sem John White álitur æskilegt. Ef til vill er nær lagi að lýsa viðhorfi þeirra svo að einkum skuli keppt að greinabundum markmiðum en þó sé rétt að haga skólastarfinu svo að fleira gott hljótist af en

skilningur á greinunum og þessi viðbótargæði falli æði oft undir almennu markmiðin í *Aðalnámskránni* eða eitthvað sem líkist þeim.

Umræða um niðurstöður

„Einhvern veginn þarf að skila hefðinni áfram“

Menntastefnan sem birtist í umræðum kennara um almenn markmið og hvað kveiki áhuga á námi og gerði það eftirsóknarvert minnir um margt á menntahugsjón sem oft er kennd við frjálsar listir. Þessi hugsjón á sér langa sögu. Orðalagið sem notað er til að lýsa henni kemur fyrir í ritum rómverska stóuspekingsins Seneca sem uppi var fyrir tveim árþúsundum. Hann ræddi um „artes liberales“ í einu bréfa sinna og sagði að það væru menntir sem hæfðu frjálsum mönnum (Seneca, 2009).

Þessi stefna hefur átt sér málsvara á ýmsum tímum. Einn af merkustu talsmönnum hennar á síðustu öld var enski heimspekingurinn Michael Oakeshott. Í ritgerðasafni hans um menntaheimspeki (Oakeshott, 1989) er grein frá 1965 sem heitir Learning and Teaching. Þar ræðir hann um miðlun vitsmunalegra dygða og segir að til að kenna nemanda að hugsa þurfi að miðla þeim og spyr hvernig það sé hægt:

Hvernig lærir nemandi að hafa opinn hug og forvitinn, að vera þolinmóður og heiðarlegur í hugsun, nákvæmur og iðinn, einbeittur og efagjarn? Hvernig verður hann næmur á smávægilegan mismun og fær um að skynja vitsmunalegan glæsi-leika? Hvaðan fær hann gáfu til að taka því þegar mál hans er hrakið? Og með hverjum hætti lærir hann að elska sannleika og réttlæti þannig að hann sé samt laus við að vera einstrengislegur eða öfgafullur? (Oakeshott, 1989, bls. 60–61).

Oakeshott (1989) bætir svo við að það sé ekki hægt að kenna þetta sérstaklega heldur aðeins óbeint, með því að kenna eitthvað annað og alls konar fög, eins og t.d. smíði, efnafræði eða latína, dugi til þess séu þau kennd með réttum hætti.

Talsmenn frjálsra lista hafa alla tíð lagt áherslu á menntagildi bóklegra námsgreina og talið að nám í þeim væri eftirsóknarvert í sjálfu sér en líka mannþætandi og færði nemendum frelsi með því að efla skynsemi þeirra (Stephen, 2009; Miller, 2007; Hirst 1972). Richard

S. Peters var handgenginn þessari hefð en John White (2009) hefur andæft henni, enda stangast hún á við hugmynd hans um að skólinn skuli endurskipulagður út frá almennum markmiðum.

Ummæli kennara um það hvað geri nám áhugavert, sem frá var sagt í síðasta kafla, minna um margt á umræðu um sjálfgildi frjálsra lista og það sem þeir sögðu um almenn markmið fór býsna nærri því að lýsa námi í raungreinum, stærðfræði og sögu sem mannbætandi iðju.

Allvíða í máli kennaranna kom líka fram að þeir töldu sig miðla hefð. Einn stærðfræðikennarinn sagði hreint út: „Einhvern veginn þarf að skila hefðinni áfram.“ Aðrir töluðu um að verja námsgreinar sínar sem sjálfstæð fög. Aðspurður um viðleitni til að samþætta námsgreinar nú á síðustu tímum sagði einn sögukennarinn sem ég ræddi við til dæmis: „Það er alltaf verið að reyna að hræra þessu saman, sérstaklega stjórnendur, búa til einhvern bölvaðan graut.“

Nú er vafalaust hæpið að eigna viðmælendum mínum einhverja sameiginlega menntaheimspeki. Orð þeirra lýsa ekki með ótvíræðum hætti fylgi við kenningar eins og þær sem Seneca, Oakeshott og aðrir talsmenn frjálsra lista síðustu tvö árþúsund hafa fært í letur. En það er samt rétt að halda því til haga að til er þaulhugsuð heimspekileg réttlætning á menntastefnu sem samræmist a.m.k. flestu sem fram kom í þeim átján viðtölum sem hér um ræðir.

Viðauki

Markmiðskafli úr almennum hluta Aðalnámskrár frá 2004

Framhaldsskólum ber að sinna öllum nemendum hvernig svo sem undirbúningi þeirra úr grunnskóla er háttað.

Í lögum um framhaldsskóla segir í 2. grein.

Hlutverk framhaldsskóla er að

- stuðla að alhliða þroska nemenda svo að þeir verði sem best búnir undir að taka virkan þátt í lýðræðisþjóðfélagi
- búa nemendur undir störf í atvinnulífinu og frekara nám
- efla ábyrgðarkennd, víðsýni, frumkvæði, sjálfstraust og umburðarlyndi nemenda
- þjálfa nemendur í öguðum og sjálfstæðum vinnubrögðum og gagnrýninni hugsun
- kenna nemendum að njóta menningarlegra verðmæta
- hvetja nemendur til stöðugar þekkingarleitar.

Til þess að framhaldsskólar geti sinnt hlutverki sínu þarf starfsemi þeirra að byggja á ýmsum og ólíkum þáttum og þeir þurfa að geta mætt margvíslegum kröfum sem til þeirra eru gerðar. Starfsemi skóla þarf líka að vera sveigjanleg svo hægara sé að sinna nýjungum í skólastarfi.

Meginmarkmið framhaldsskóla eru skilgreind í námskrá en þau eru síðan útfærð nánar í skólanámskrám einstakra skóla.

Við lok náms í framhaldsskóla er stefnt að því að nemendur:

- hafi fengið alhliða menntun sem er við hæfi hvers og eins
- séu undir það búnir að fara í áframhaldandi nám og/eða starf í þjóðfélagi sem er í sífelldri þróun
- geri sér ljóst að námi lýkur ekki við lok skólagöngu heldur er nauðsynlegt að halda áfram að afla sér nýrrar þekkingar og reynslu
- hafi fengið góða þekkingu á íslensku samfélagi
- kunni skil á réttindum og skyldum einstaklings í lýðræðisþjóðfélagi
- hafi tamið sér sjálfstæði í hugsun og vinnubrögðum, ábyrgð á eigin námi, öðlast sjálfstraust og lært að bera virðingu fyrir sjálfum sér og öðrum

- hafi ræktað með sér gagnrýna hugsun, dómgreind og umburðarlyndi
- séu færir um að tjá skoðanir sínar, taka ákvarðanir og séu óhræddir við breytingar í námi og starfi.

Markmið þessi snerta allar námsgreinar framhaldsskóla og starfsemi þeirra. Námsgreininni lífsleikni er ætlað að vinna sérstaklega að ofangreindum markmiðum en ljóst er að þeim verða ekki gerð skil einungis í einni námsgrein (Menntamálaráðuneytið, 2004, bls. 8–9).

Heimildaskrá

- Akker, J. van den (2003). Curriculum perspectives: An introduction. Í J. van den Akker, W. Kuiper og U. Hameyer (ritstjórar), *Curriculum landscape and trends* (bls. 1–10). Dordrecht: Kluwer Academic Publishers.
- Barnett, R. (1988). Does higher education have aims? *Journal of Philosophy of Education*, 22(2), 239–250.
- Bogdan, R. C. & Biklen, S. K. (2003). *Qualitative research for education: An introduction to theory and methods*. Boston: Allyn and Bacon.
- Carr, D. (2007). Towards an educationally meaningful curriculum: Epistemic holism and knowledge integration revisited. *British Journal of Educational Studies*, 55(1), 3–20.
- Charmaz, K. (2006). *Constructing grounded theory: A practical guide through qualitative analysis*. London: Sage.
- Creswell, J. W. (2007). *Qualitative inquiry & research design: Choosing among five approaches*. Thousand Oaks, CA: Sage.
- Føllesdal, D. (1994). Hermeneutics and the hypothetico-deductive method. Í M. Martin og L. C. McIntyre (ritstjórar), *Readings in the philosophy of social science* (bls. 233–45). Cambridge, MA: MIT Press.
- Gadamer, H.G. (1981a). Hermeneutics as a theoretical and practical task. Í H.G. Gadamer, *Reason in the age of science* (ensk þýðing Frederick G. Lawrence), (bls. 113–138). Cambridge, MA: MIT Press.

- Gadamer, H.G.. (1981b). Philosophy or theory of science. Í H.G. Gadamer, *Reason in the age of science* (ensk þýðing Frederick G. Lawrence), (bls. 151–169). Cambridge, MA: MIT Press.
- Hafdís Ingvarsdóttir. (2004). Mótun starfskenninga íslenskra framhaldsskólakennara. *Tímarit um menntarannsóknir*, 1, 39–47.
- Hirst, P. H. (1972). Liberal education and the nature of knowledge. Í R. F. Daerden , P. H. Hirst & R. S. Peters, (ritstjórar), *Education and reason: Part 3 of education and the development of reason* (bls. 391–414). London: Routledge & Kegan Paul.
- Ingólfur Ásgeir Jóhannesson. (2007, 30. desember). Fjölmennning og sjálfbær þróun – Lykilatriði skólastarfs eða óþægilegir aðskotahlutir. *Netla – Veftímarit um uppeldi og menntun*. Sótt 6. apríl 2010 af <http://netla.khi.is/greinar/2007/018/index.htm>.
- Kristinn Ármannsson, Einar Magnússon, Guðni Guðmundsson og Heimir Þorleifsson. (1975). *Saga Reykjavíkurskóla 1: Nám og nemendur*. Reykjavík: Sögusjóður Menntaskólans í Reykjavík.
- Kvale, S. og Brinkmann, S. (2009). *Interviews: Learning the craft of qualitative research interviewing*. Los Angeles: Sage.
- Lög um framhaldsskóla nr. 57/1988.
- Lög um framhaldsskóla nr. 80/1996.
- Menntamálaráðuneytið. (1990). *Námskrá handa framhaldsskólum: Námsbrautir og áfangalýsingar* (3. útgáfa). Reykjavík: Höfundur.
- Menntamálaráðuneytið. (1999). *Aðalnámskrá framhaldsskóla: Almennur hluti*. Reykjavík: Höfundur.
- Menntamálaráðuneytið. (2004). *Aðalnámskrá framhaldsskóla: Almennur hluti* (2. útgáfa). Reykjavík: Höfundur.
- Meyvant Þórólfsson, Allyson Macdonald og Eggert Lárusson. (2007). Sýn fimm grunnskólakennara á nám og kennslu í náttúruvísindum. *Tímarit um menntarannsóknir*, 4, 83–99.
- Miller, A. (2007). Rhetoric, paideia and the old idea of a liberal education. *Journal of Philosophy of Education*, 41(2), 183–206.
- Oakeshott, M. (1989). *The voice of liberal learning*. New Haven: Yale University Press.

- Peters, R. S. (1966). *Ethics and Education*. London: Allen & Unwin.
- Peters, R. S. (1973). *Authority, responsibility and education* (3. útgáfa). London: George Allen & Unwin.
- Ritchie, J., Lewis, J. & Elam, G. (2003). Designing and selecting samples. Í J. Ritchie & J. Lewis (ritstjórar), *Qualitative research practice: A guide for social science students and researchers*. London; Thousand Oaks: Sage.
- Seneca, L. A. (2009). Ensk þýðing á hluta af Epistulæ Morales Ad Lucilium. Í Anthony O'Hear & Marc Sidwell (ritstjórar), *The school of freedom: A liberal education reader from Plato to the present day* (bls. 62–64). Exeter: Imprint Academic.
- Stephen, M. (2009). Introduction. Í A. O'Hear & M. Sidwell (ritstjórar), *The school of freedom: A liberal education reader from plato to the present day* (bls. 1–28). Exeter: Imprint Academic.
- Taylor, S. J. & Bogdan, R. (1998). *Introduction to qualitative research methods: A guidebook and resource*. New York: John Wiley & Sons.
- Tye, B. B. (2000). *Hard truths: Uncovering the deep structure of schooling*. New York: Teachers College Press.
- White, J. (1982). *The aims of education restated*. New York: Routledge.
- White, J. (1997). Philosophical perspectives on school effectiveness and school improvement. Í J. White og M. Barber (ritstjórar), *Perspectives on school effectiveness and school improvement*. London: Institute of Education University of London.
- White, J. (2003). Five critical stances towards liberal philosophy of education in Britain. *Journal of Philosophy of Education*, 37(1), 147–184.
- White, J. (2005). *The curriculum and the child – The selected works of John White*. London: Routledge.
- White, J. (2006). Autonomy, human flourishing and the curriculum. *Journal of Philosophy of Education*, 40(3), 381–390.
- White, J. (2009, 8. september). Why general education? Peters, Hirst and History [rafræn útgáfa]. *Journal of Philosophy of Education*.

Sótt 6. apríl 2010 af <http://www3.interscience.wiley.com/cgi-bin/fulltext/122591805/PDFSTART>.

Winch, C. (1996). The aims of education revisited. *Journal of Philosophy of Education*, 30(1), 33–44.

Paper 3

Atli Harðarson
Húmanisminn, upplýsingin og íslenska
stúdentsprófið

Title in English

Humanism, Enlightenment and University

Preparatory Education in Iceland.

Abstract in English

In this essay I trace the intellectual history of the curriculum for university preparatory education in Iceland.

Iceland, being a part of the Danish kingdom until 1918, adopted a Danish curriculum based on a conception of liberal education that evolved as a compromise between two different schools of thought. One was an offspring of the enlightenment. The other had its roots in humanism and romanticism. I trace these two schools of thought to the works of John Locke on the one hand and to the German revival of humanism at the end of the 18th century on the other. I also argue that we can interpret the sometimes heated debates about the content of university preparatory education in 19th century Denmark as strife between advocates of these two different philosophies. For most of the century, humanists-cum-romantics had the upper hand and their views prevailed when secondary education in Denmark was reformed with new legislation in 1850. In 1903, when the Latin school (in Danish 'den lærde skole') was replaced by the modern grammar school (in Danish 'gymnasium') the humanists gave in. Ancient Greek that had taken about 12% of the teaching time, was abolished and Latin, that had taken up about 27% of the teaching time, was cut down to 8% of the six year course (13% of the last four years before university).

The changes that took place in Denmark in 1903 were copied in Iceland the year after. Since then the curriculum has changed several times but these changes have not been as radical. The subjects that have

disappeared from the grammar school curriculum since 1904 took up about 22% of the teaching time the four last years before university. These are Latin (13%), Christian religion (2%), ancient culture with emphasis on Greek literature in translation (1%), drawing (1%), handwork/carpentry (4%), singing (1%). (The figures within parentheses give percentages of teaching time.) New subjects that have been added to the curriculum are mainly life skills (about 2% in most schools) and information technology or computer science in some schools.

The curriculum that was adopted in Denmark in 1903 and in Iceland the year after is strikingly similar to the course of study recommended by Locke (1989) in *Some Thoughts Concerning Education*. It also resembles proposals advocated by several Icelandic advocates of enlightenment values in the 19th century. Although the ancient languages were no longer the core of the curriculum some emphases of humanists-cum-romantics were retained, such as reading of works of literature that were canonised because of their cultural value.

At the end of this essay I point out that the subject-based curriculum has deep roots in our culture, especially in the two ‘philosophies’ mentioned in the title.

1 Stúdentsnám – stöðugleiki í umróti síðustu aldar

Þann 1. ágúst 2008 gengu í gildi ný lög um framhaldsskóla. Þessi lög gera ráð fyrir að skólarnir ákveði að mestu leyti hver fyrir sig hvað kennt skuli til stúdentsprófs og eru að því leyti ólík framhaldsskólalögum sem gilt höfðu frá 1996 og kváðu á um að námsskipan allra skólanna væri bundin af aðalnámskrá menntamálaráðuneytisins.¹

Kennarar og stjórnendur framhaldsskóla vinna nú nýjar skóla-námskrár þar sem þeir nýta sér frelsið sem löggin frá 2008 veita þeim. Við þessa vinnu vakna margar spurningar um nám til stúdentsprófs, tilgang þess og innihald. Vera má að menn glöggvi sig betur á sumum

¹Sjá §23 í lögum um framhaldsskóla nr. 92 frá 2008 og §21 í lögum um framhaldsskóla nr. 80 frá 1996. Aðalnámskrá í samræmi við framhaldsskólalöggin frá 1996 kom fyrst út 1999. Endurskoðuð gerð hennar var gefin út árið 2004.

þeirra ef þeir þekkja sögu stúdentsnámsins og vita í hvaða jarðvegi rætur þess liggja.

Í því sem hér fer á eftir verður sýnt fram á að námskrá fyrir stúdentspróf við íslenska skóla byggist á hefð sem við fengum frá Dönum og varð til sem málamiðlun milli tvenns konar menntaheimspeki: Húmanismans og upplýsingarstefnunnar.

Til að skýra mismuninn á þessum stefnum er ef til vill heppilegast að byrja á að einfalda flókinn veruleika og segja að húmanisminn hafi lagt áherslu á það háleita en upplýsingin á það hagnýta. Önnur einföldun sem gefur þokkalega vísbendingu er að húmanistar hafi talið að skólaganga ætti umfram allt að kynna nemendum það besta úr menningunni, einkum sígild rit Grikkja og Rómverja, en upplýsingarmenn hafi álitnið mikilvægast að nemendur öðluðust víðtæka þekkingu á mannlífinu og náttúrunni og skilning á sem flestum greinum vísinda og fræða.

Um þessar ólíku menntastefnur verður fjallað nánar í 4. og 5. hluta. Áður en að því kemur segi ég stuttlega frá þróun stúdentsnámsins frá því það varð til í Danmörku um miðja nítjándu öld. Ég mun einbeita mér að umræðu um námsefni þótt rökræður fylgismanna upplýsingarstefnu og húmanisma um skólamál hafi snúist um fleira, ekki síst siðferðilegt uppeldi í skólum.

*

Hér á landi hefur listinn yfir námsgreinar til stúdentsprófs haldist nokkuð stöðugur frá því í byrjun tuttugustu aldar, eða nánar tiltekið síðan Lærða skólanum var breytt í Hinn almenna menntaskóla í Reykjavík árið 1904.²

² Á málabraut Menntaskólans í Reykjavík, sem er eina námsbrautin sem starfrækt hefur verið samfleytt frá 1904, hefur hlutur móðurmáls til dæmis sveiflast milli 9% og 12% af kennslutíma, erlendra nútímamála milli 35% og 39%, sögu, félagsfræði og landafræði milli 9% og 16%, stærðfræði og raungreina milli 16% og 18% og íþróttakennsla hefur fengið á bilinu 5% til 9% af kennslutíma á þessu rúmlega einnar aldar tímabili.

Árið 1910 voru eftirtaldar námsgreinar kenndar á síðustu fjórum árum fyrir stúdentspróf við Menntaskólann í Reykjavík: Danska, enska, fornaldarfræði, franska, handavinna, íslenska, íþróttir, kristinfræði, landafræði, latína, náttúruvísindi, saga og

Til ársins 1904 var námskráin sniðin að danski fyrirmynd og raunar var hún afar svipuð á öllum Norðurlöndunum fram til þess tíma, en síðan hefur þróun stúdentsnáms verið með nokkuð ólíkum hætti í þessum löndum.³ Sú breyting sem hér varð 1904 gerðist einu ári fyrir, eða 1903, í Danmörku og þá var tekið að nota orðið „gymnasium“ um skólana en áður var talað um „den lærde skole“. Á íslensku var talað um menntaskóla eftir 1904 en fyrir þann tíma hét hann Lærði skólinn, þótt hann væri oftast kallaður Latínuskólinn.⁴

félagsfræði, stærðfræði, söngur, teikning, viðskiptafræði/bókfærsla og þýska. Hálfri öld síðar, árið 1960, höfðu sex námsgreinar, sem fengu samtals 10% kennslutímans árið 1910, fallið brott úr námskrá skólans. Þessar greinar eru: Fornaldarfræði, handavinna, kristinfræði, landafræði, teikning og viðskiptafræði/bókfærsla.

Sé enn farið hálfra öld fram í tíma til ársins í ár er námsgreinalistinn frá 1960 óbreyttur að öðru leyti en því að hætt hefur verið að kenna söng en tekin hefur verið upp kennsla í tveim nýjum greinum sem eru lífsleikni og tölvufræði. Þessar tvær nýju greinar fá samtals á móta rúm og söngurinn hafði eða um 3% af kennslutíma. Ennfremur hefur latína verið felld niður á raungreinabrautum, viðskiptafræði/ bókfærsla hefur aftur verið tekin upp á málabraut og nemendum gefst nú kostur á að velja spænsku í stað frönsku eða þýsku. (Heimildir: Kristinn Ármannsson o. fl., 1975, bls. 110 - 252 nema upplýsingar um samsetningu náms 2010 sem voru sóttar af vef Menntaskólans í Reykjavík, <http://www.mr.is>, 3. janúar 2010.)

Skipan náms við Menntaskólann í Reykjavík árið 2010 fylgir aðalnámskrá menntamálaráðuneytisins frá árinu 1999 og er því svipuð og í öðrum framhaldsskólum sem bjóða upp á sömu námsbrautir. Skólinn sker sig helst úr í því að hafa latínu sem skyldugrein á málabraut og binda nám nemenda þannig að þeir sem eru á sömu braut taka sama kjörsvið.*

*Athugasemd um kjörsvið: Samkvæmt *Aðalnámskrá framhaldsskóla* frá 1999 og 2004 er brautarkjarni á bóknámsbrautum 98 einingar af 140 og algerlega frjálst val 12 einingar. Þær 30 einingar sem á vantar kallast kjörsvið og um það hafa nemendur eða skólar val eftir reglum sem segja að af þessum 30 einingum verði a.m.k. 18 einingar að vera í kjörsviðsgreinum brautarinnar, en 12 einingar megi vera í kjörsviðsgreinum annarra bóknámsbrauta. Kjörsviðsgreinar á náttúrufræðibraut eru t.d. allar greinar náttúruvísinda, tölvufræði og stærðfræði og á málabraut erlend mál, íslenska og stærðfræði. (Heimildir: Menntamálaráðuneytið 1999, 2004.) Sumir framhaldsskólar leyfa hverjum nemanda að velja sér kjörsvið, sumir velja það sama á alla sem eru á sömu braut eða línu innan brautar og sumir fara milliveginn og leyfa einstaklingum að velja hluta af þessum 30 einingum en binda hluta.

³ Kristinn Ármannsson, Einar Magnússon, Guðni Guðmundsson og Heimir Þorleifsson, 1975: 11–12.

⁴ Bogi Th. Melsteð 1986: 129.

Mun meiri breytingar urðu á vægi námsgreina 1904 heldur en orðið hafa síðan. Þá var hætt að leggja aðaláherslu á forn-mál sem fengið höfðu nálægt 40% af kennslutímanum. Raunar var alveg hætt að kenna grísku og tíminn sem latína fékk fór niður í 13% af kennslustundum á síðustu fjórum árum fyrir stúdentspróf, en á þessum árum var skólinn enn skipulagður sem sex ára nám.

Veigamestu breytingarnar sem orðið hafa á námsskipan við Menntaskólann í Reykjavík síðan 1904 eru að skólanum var skipt í máladeild og stærðfræðideild árið 1919 en fram að þeim tíma var aðeins ein námsbraut í boði sem samsvaraði nokkurn vegin því sem nú kallast málabraut; Námsgreinarnar kristinfræði, fornaldarfræði, teikning, handavinna og söngur hafa horfið úr námskránni en tvær nýjar greinar, lífsleikni og tölvufræði, hafa bæst við. Ef til vill má líta svo á að lífsleikni hafi að einhverju leyti tekið við hlutverki kristinfræðinnar en ekkert hefur komið í staðinn fyrir hinar greinarnar sem fallið hafa brott.

Fornaldarfræðin var sett inn á sínum tíma, bæði hér á landi og í Danmörku, til að tryggja að nemendur hefðu einhver kynni af klassískum bókmenntun Grikkja þótt hætt væri að kenna grísku. Í dönskum menntaskólum er fornaldarfræðin enn skyldunámsgrein og kallast „oldtidskundskab.“⁵

Greinarnar sem kenndar voru fyrst eftir 1904 og féllu brott þegar leið á öldina höfðu fremur lítið vægi. Þeirra stærst var handavinnan. Alla tíð frá 1904 hafa að minnsta kosti þrjár fjórðu hlutar kennslustunda til stúdentsprófs farið í að kenna móðurmál, erlend nútímamál, sögu, samfélagsgreinar, stærðfræði, raungreinar og íþróttir. Vægi þessara námsgreina hefur, ef eitthvað er, heldur farið vaxandi á kostnað lista og handverksgreina sem vikið hafa úr námskrá.

En hvaðan kom þessi listi yfir námsgreinar, sem hefur haldist svo lítt breyttur þrátt fyrir allt umrót tuttugustu aldar?

⁵ Upplýsingar sóttar 3. janúar 2010 á vef danska menntamálaráðuneytisins <http://www.uvm.dk/>. Slóð að skjali http://www.ug.dk/Uddannelser/gymnasialeuddannelser/studentereksamen_stx.aspx.

2 John Locke, upplýsingin og íslenskir frumkvöðlar á nítjándu öld

Sá hugsuður sem hafði mest áhrif á menntastefnu upplýsingarmanna var enski heimspekingurinn John Locke.⁶ Hann var uppi á árunum 1632 til 1704 og ritaði *Hugleiðingar um menntamál* (*Some Thoughts Concerning Education*) fyrir foreldra og kennara sem ala upp herramenn („gentlemen“). Þessi bók kom út árið 1693. Síðasti þriðjungur hennar er lýsing á námsgreinum sem Locke lagði til að ungum herramönnum væru kenndar. Námsgreinarnar sem hann mælti með voru:

- Lestur (§150–59)⁷
- Skrift (§160)
- Teikning (§161)
- Franska (§162)
- Latína (§163–4)
- Landfræði (§ 178–9 og 181)
- Talnareikningur (§180)
- Stjörnufræði (§180)
- Rúmfræði – Sex bækur Evklíðs (§181)
- Saga („Chronology“ og „History“) (§182–4)
- Siðfræði (§185)
- Stjórn málafræði, lög, hagnýtur fróðleikur um samfélagið (§186–7)
- Stíll og ritun á móðurmáli (§189)
- Biblíusögur (§190–91 og §158–9)
- Náttúruvísindi (§193–4)
- Dans (§196)
- Garðyrkja og landbúnaður (§204)
- Handavinna – smíði (§204)
- Bókfærsla (§210–11)

Til viðbótar við námsgreinarnar sem hér voru taldar mælti Locke með námsferð til útlanda. Hann skýrði ekki hvað hver grein ætti að fá mikinn tíma en af öðrum skrifum hans má ráða að hann taldi sumar þessara

⁶Schmitter, Tarcov og Donner 2006: 74.

⁷Tilvísanir innan sviga eiga við númeraða kafla í *Some Thoughts Concerning Education* (Locke 1989).

námsgreina mikilvægari en aðrar. Í riti sínu *Of the Conduct of the Understanding*, sem út kom að honum látnum árið 1704, lagði Locke t.d. áherslu á að stærðfræðinám væri sérdeilis góð þjálfun fyrir hugann.⁸

Locke lagði ekki beinlínis til að leikfimi eða íþróttir væru sérstök námsgrein þótt hann segði að líkamleg áreynsla væri nauðsynleg og hefði góð áhrif á heilsu manna. Ef til vill sleppti hann íþróttunum vegna þess að hann var heldur mótfallinn hefðbundinni íþróttakennslu fyrir syni yfirstéttarinnar þar sem áherslan var á skyldingar og fleiri íþróttir sem tengdust hernaði. Locke áleit þessa hefð ala á ofbeldi og vondum siðum eins og hólmgöngum.⁹

Fróðlegt er að bera námskrá Lockes saman við skrif frumkvöðla í íslenski skólamálaumræðu á nítjándu öld sem settu fram hugmyndir um námskrár fyrir unglunga. Þessum skrifum hefur verið safnað saman af Braga Jósepssyni í bókinni *Þættir úr íslenski skólasögu*. Þar má lesa um hugmyndir Jóns Sigurðssonar (1811–1879) og Boga Th. Melsteð (1860–1929) um stúdentspróf eða jafngildi þess. Einnig eru þarna skrif eftir Arnljót Ólafsson (1823–1904) og Stefán Stefánsson (1863–1921) um almenna menntun unglunga og greinargerð Valdimars Ásmundarsonar (1852–1902) fyrir hugmyndum sem settar voru fram af nefnd sem Alþingi kaus 1881 til að semja álit um almenna menntun á unglingastigi.

Hér eru þessar hugmyndir dregnar saman í stuttu máli. Ártölin gefa til kynna hvenær skrif höfundar birtust fyrst.

Jón Sigurðsson 1842: Trúarlærdómar, íslenska, latína, gríska, danska, þýska, franska, enska, hebreska, náttúrufræði, saga, landafræði, mælingafræði, reikningur, söngur, skrift, uppráttur.¹⁰

Arnljótur Ólafsson 1875: Íslenska, enska, franska, þýska, danska, náttúruvísindi og stjörnufræði, saga, landafræði, talnalist og stærðfræði, almenn siðfræði og félagsfræði eða gott ágrip af hagfræði, auðfræði, stjörnufræði og almenn lögfræði, skrift eða dráttarlist (teikning).¹¹

⁸ Locke 1993: 30–35 [§7].

⁹ Locke 1989; 253–4 [§198–9].

¹⁰ Jón Sigurðsson 1986: 30.

¹¹ Arnljótur Ólafsson 1986: 60.

Valdimar Ásmundarson 1886–7: „Alþingi 1881 kaus nefnd af þingmönnum til að semja álit um mentamál alþýðu. [...] Nefndin lagði til, að þessar fræðigreinar væri kendar: 1. Ágrip af nýju sögunni, einkum á þessari öld. 2. stutt yfirlit yfir helstu atriði landafræðinnar, [...] 3 saga landsins og lýsing þess. 4. stutt yfirlit yfir helstu landsréttindi og stjórn. 5. hin almennustu og einföldustu atriði náttúrufræðinnar og náttúrusögunnar. 6. lýsing á byggingu mannlegs líkama og heilbrigðisreglur. 7. almenn brot, þríliða, prósentureikningr, rentureikn., félagsreikn. og einföldustu reglur fyrir flatarmáli. 8. íslensk réttritun og æfing í að tala og rita skipulega. 9. að skilja dönsku á bók.“¹²

Bogi Th. Melsteð 1888: Leikfimi, söngur, handiðnir, teikning, skrift, stærðfræði, stjörnufræði, eðlisfræði, efnafræði, steinafræði, grasafræði, dýrafræði, líffærafræði, landafræði, sagnfræði, íslenska, danska, enska, þýska, latína, franska.¹³

Stefán Stefánsson 1888: „Á öllum unglingskólum ætti að kenna: lestur, teikning, skrift, kristileg fræði, reikning, rjettritun, valda kafla úr almennri sögu og sögu Íslands, og helstu meginatriði náttúrufræðingar, almennrar landafræði og heilbrigðisfræðinnar. Auk þess ætti að láta unglingana temja sér ýmsa leikfimi og handavinnu.“¹⁴

Tillaga Boga um nám til undirbúnings háskólanámi vikur mjög frá hefð Lærða skólans því Bogi gerir aðeins ráð fyrir latínukennslu fyrir 18 og 19 ára unglunga og segir að kennslan eigi að vera sem svarar 7 vikustundum. Þetta er talsvert ólíkt tillögu Jóns Sigurðssonar frá því tæpri hálfri öld fyrr, en Jón gerði ráð fyrir að latínan dreifðist á 6 ár og væri sem svarar 46 vikustundum af alls 204.

Það er sláandi hvað námsgreinalistinn hjá Locke er nauðalíkur þeim sem í gildi var við Hinn almenna menntaskóla í Reykjavík á árunum eftir 1904. Munurinn er einkum sá að Locke vildi kenna siðfræði, dans og garðyrkju eða landbúnað en söngur, fornaldarfræði (þ.e. grískar forn-bókmenntir) og íþróttir komust ekki á blað hjá honum og ekki heldur

¹² Valdimar Ásmundarson 1986: 123–4.

¹³ Bogi Th. Melsteð 1986: 132.

¹⁴ Stefán Stefánsson 1986: 163.

danska og þýska.¹⁵ Annar munur sem vert er að nefna er að Locke gerði ekki ráð fyrir að lestur fagurbókmennta væri innifalinn í kennslu móðurmáls eins og raun hefur orðið við menntaskóla nútímans. Einnig eru tillögur þeirra íslensku nítjándualdarmanna sem vitnað var til hér að ofan merkilega líkar námskrá Lockes.

Ákvörðunin um breytta námskrá til stúdentsprófs, sem tekin var fyrir danska menntaskóla árið 1903 og íslenska skólann ári seinna, var í samræmi við áherslur upplýsingarstefnunnar allt frá dögum Lockes og viðhorf sem voru útbreidd á nítjándu öld. Með þessari ákvörðun var horfið frá latínuskólahefðinni og námskráin meira miðuð við að nemendur öðluðust víðtæka þekkingu og skilning en að þeir kynntust dýrustu perlum menningarsögunnar.

En hvenær og hvernig náðu þessi viðhorf fótfestu í ríki Danakonungs?

3 Í ríki Danakonungs – þróunin til 1904

Eigi að leita að ástæðum fyrir því að námskrá til stúdentsprófs var eins og hún var á nítjándu öld og þeim miklu breytingum sem urðu 1904 þarf að skoða þróun skólamála í Danmörku, því á þessum tíma var Ísland hluti af danska ríkinu.

Fram á miðja nítjándu öld tók þróunin í Danmörku mjög mið af því sem gerðist í Þýskalandi en á því varð breyting í stríðinu um Slésvík og Holtsetaland sem hófst árið 1848 og eftir það fóru Danir sínar eigin leiðir við mótun menntakerfis.¹⁶

Árið 1850 voru sett ný lög um kennslu til undirbúnings háskólanámi í Danmörku. Í *Sögu Reykjavíkurskóla*, sem Sögusjóður Menntaskólans í Reykjavík gaf út árið 1975, segir að samkvæmt þessum lögum skyldu markmið lærðu skólanna vera að veita sanna almenna menntun og undirbúning undir háskólanám. Aðaláhersla skyldi lögð á „siðgæðilega menntun“ og þekkingu á menningu fornaldar, svo og bókmenntir á móðurmálinu.¹⁷ Áherslan á bókmenntir og

¹⁵ Námsgreinarnar lestur og skrift sem Locke nefndi voru líklega ætlaðar börnum fremur en unglungum.

¹⁶ Haue 2004: 47.

¹⁷ Kristinn Ármannsson o. fl. 1975: 10.

forna menningu var í anda nýhúmanismans sem hafði um nokkurra áratuga skeið verið í sókn eins og nánar verður frá sagt í 5. hluta.

Ítarleg saga hinna lærðu skóla og menntaskóla í Danmörku frá byrjun nítjándu aldar til nútímans hefur nýlega verið rituð af sagnfræðingnum Harry Haue. Hann segir að við breytinguna sem varð með löggjöfinni 1850 hafi stúdentspróf nútímans orðið til í Danmörku.¹⁸

Áður en lögin frá 1850 tóku gildi var hin nýja skipan framkvæmd til reynslu í þrem skólum og voru fyrstu stúdentsprófin í Danmörku haldin árið 1846 við Odense Katedralskole.¹⁹

Þessi skipan sem tók gildi um miðja nítjándu öld er oft kennd við Johan Nicolai Madvig (1804–86) sem var menningarmálaráðherra („kulturminister“) í Danmörku frá 1848 til 1851. Með henni var horfið frá því að láta háskólann annast lokapróf, sem kölluð voru „eksamen artium“ og voru í raun inntökupróf í sérhæft nám á háskólastigi. Um leið var námsefni fyrsta árs í háskólanum flutt til lærðu skólanna, allt nema heimspeki (eða heimspekileg forspjallsvísindi). Skyldi almennri menntun („almendannelse“) háskólaborgara nú að mestu leyti lokið í hinum lærðu skólum en háskólinn einbeita sér að sérhæfingu.²⁰

Madvig var menntaður í formálum og klassískum fræðum og menntahugsjónir hans mótaðar af nýhúmanisma. Með almennri menntun átti hann því ekki fyrst og fremst við víðtæka þekkingu og skilning á sem flestum greinum vísinda og fræða að hætti upplýsingarmanna heldur skyldi markmið hennar vera hæfni nemenda til réttar breytni í víðasta skilningi – að þeir öðluðust sem mesta lífsfyllingu og yrðu móttækilegir fyrir því sem lífgar og glæðir skipulega virkni andans („Indtryk og Tilskyndelser til ordnet aandelig Virksomhed“).²¹

Lærðu skólarnir lengdust úr 7 árum í 8 ár með lögunum 1850. Raunar samsvarar aðeins síðari hluti þessa 8 ára skóla námi til stúdentsprófs eins og það hefur þróast á seinni árum, en fyrri hlutinn var nær því að samsvara gagnfræðaskóla eða unglingadeildum

¹⁸ Haue 2004: 29.

¹⁹ Sama rit: 24 og 31.

²⁰ Sama rit: 21 og 24.

²¹ Sama rit: 22.

grunnskóla.²² Hér á landi var skólanámið við Lærða skólann aldrei eins langt og danskar reglur kváðu á um. Fyrir 1850 var hann í reynd 4 ár og eftir 1850 var hann 6 ár.²³

Upphaflega var ætlun Madvigs og annarra sem stóðu að breytingunum um miðja nítjándu öld að allir nemendur í lærðu skólunum hlytu sömu almennu menntunina. Hún skyldi grundvöllur menningarlegrar einingar menntamanna („akademisk enhedskultur“).²⁴

Á seinni hluta nítjándu aldar varð mönnum ljós aukin þörf fyrir menntun á sviði stærðfræði og raunvísinda. Reynt var að mæta henni í lærðu skólunum, eins og þeir voru eftir 1850, en þá voru kenndar, á 8 árum, alls 65 vikulegar kennslustundir í stærðfræði og raungreinum en 85 samtals í latínu og grísku.²⁵ Þeir sem vildu auka hlut stærðfræði og raungreina voru ekki sáttir við þessa skipan og úr varð að lögum um lærðu skólana var breytt árið 1871 og þeim skipt í tvær deildir, mála- og sögudeild annars vegar og stærðfræði- og náttúrufræðideild hins vegar.²⁶ Þar með var horfið að nokkru frá þeirri stefnu Madvigs að almenn menntun skyldi söm fyrir alla háskólaborgara. Þessi breyting var umdeild og var tekist á um hana fram undir lok nítjándu aldar.²⁷

Lögin frá 1871 fólu í sér fleiri breytingar en skiptingu lærðu skólanna í deildir. Með þeim voru tveir neðstu bekkirnir lagðir af svo skólinn varð 6 ár í stað 8 áður. Jafnframt voru stofnaðir forskólar eða undirbúningsskólar sem bjuggu nemendur undir inntökupróf í lærðu skólana. Fyrstu 3 árin í lærðu skólunum skyldu allir nema sömu greinar. En frá og með fjórða bekk skiptust þeir í deildir.²⁸

Í Danmörku hélst skipanin frá 1871 lítt breytt til ársins 1903 þegar sett voru ný fræðslulög sem mótuðu skólastarfið alla tuttugustu öld.

²² Sama rit: 29.

²³ Kristinn Ármannsson o. fl. 1975: 19.

²⁴ Haue 2004: 36.

²⁵ Sama rit: 36.

²⁶ Þótt lagabreytingin sem gerð var í Danmörku 1871 öðlaðist gildi hér á landi 1877 var skólanum í Reykjavík ekki skipt í deildir fyrr en 1919 (Kristinn Ármannsson o. fl. 1975: 10 og 78).

²⁷ Haue 2004: 55 og 60.

²⁸ Kristinn Ármannsson o. fl. 1975 10; Haue 2004: 53.

Með þessari löggjöf breyttist æði margt. Eins og fyrr segir var dregið mjög úr áherslu á latínu í menntaskólum og gríska lögð niður sem skyldunámsgrein. Við þessi tímamót var einnig tekið að veita stúlkum inngöngu í skólana.

Á vef danska menntamálaráðuneytisins er saga danska skólakerfisins sögð í stuttu máli. Þar segir um breytinguna 1903 að með henni hafi: Skólakerfið fyrst myndað samfellu sem hófst með 5 ára barnaskóla; Eftir barnaskólann tók við 4 ára miðskóli; Að miðskóla loknum gátu nemendur lokið ársnámi til gagnfræðaprófs eða farið í menntaskóla og tekið stúdentspróf að loknu 3 ára námi.²⁹

Eins og í Danmörku var stúlkum hér á landi heimiluð innganga í menntaskóla.³⁰ Ekki var þó allt eins hér og þar því hér var skilgreint 6 ára nám og skyldi það samsvara 4 ára miðskóla og 3 ára menntaskóla í Danmörku. Í stað þess eina árs sem á vantaði átti að krefjast frekari inntökuskilyrða en við dönsku miðskólana.³¹

Meðan þessari sögu vatt fram tókust á ólíkar hugmyndir um menntun og gildi hennar. Nefnt hefur verið að Madvig var handgenginn nýhúmanisma. Sú stefna reis sem andóf gegn upplýsingunni og þeirri menntastefnu sem sótti einkum innblástur í rit Lockes.

Á átjándu öld komu fram hreyfingar í dönskum skólamálum sem sóttu fyrirmyndir til Lockes og upplýsingarmanna. Þessar hreyfingar vildu meðal annars auka veg náttúruvísinda en draga heldur úr áherslu á formál og bókmenntir.³²

Undir lok átjándu aldar lögðu þeir sem réðu ferðinni við æðri menntastofnanir einnig vaxandi áherslu á menntun í náttúruvísindum. En þá var nýhúmanismi tekinn að styrkjast og eflast og átti eftir að hafa mikil áhrif á stefnumótun í menntamálum Dana alla nítjándu öld.³³

²⁹ Upplýsingar sóttar 3. janúar 2010 af vefsíðunni http://sekr.uvm.dk/historie/tekster_tidsoejle/latin_1903.html.

³⁰ Kristinn Ármannsson o. fl. 1975: 70.

³¹ Sama rit: 68.

³² Haue 2004: 16.

³³ Sama rit: 17.

Nýhúmanistar voru arftakar húmanisma endurreisnartímans á fimmtánda og sextánda öld og ætluðu fornmálum og fornum bókmenntum mikinn hlut, en bættu þó við nýrri áherslu á þjóðlegar bókmenntir.

Menntastefnan sem birtist í námskrá Lærða skólans um miðja nítjándu öld, þegar fornmálin fengu um 40% kennslutímans, var mála-miðlun milli menntastefnu nýhúmanista og upplýsingarmanna þar sem þeir fyrrnefndu voru atkvæðameiri. Með breytingunum sem urðu 1871 unnu sjónarmið í anda upplýsingarstefnunnar áfangasigur og enn stærri sigur svo 1903 þegar lærðu skólarnir breyttust í almenna menntaskóla. Síðan þá hefur listinn yfir námsgreinar til stúdentsprófs og hlutfallslegt vægi þeirra dregið dóm af stefnu upplýsingarmanna þótt komið hafi verið til móts við áherslur húmanista með því að samþætta bókmenntalestur við kennslu móðurmáls og með því að kenna greinar á borð við fornaldarfræði.

En hvernig hófst þessi togstreita upplýsingar og húmanisma?

4 Húmanisminn og uppreisn Lockes gegn honum

Húmanisminn, sem einnig er nefndur fornmenntastefna, mótaðist á fimmtánda og sextánda öld. Fylgismenn hans lögðu frá upphafi áherslu á að skólar kenndu göfuglyndi, glæsímennsku í framgöngu og stíl, smekkvísi, fágun og háleitar hugsjónir. Þetta átti að gera með því að miðla því besta úr bókmenntum og heimspeki fornaldar og þjálfanemendur í orðsins list. Menntun í anda húmanismans lagði áherslu á málfræði, mælskulist, sögu, siðfræði og skáldskaparlist fremur en kerfisbundna heimspeki í anda skólaspekinnar.³⁴ Á seinni tímum hafa talsmenn húmanískra viðhorfa haldið fram ágæti náms í bókmenntum og listum, stundum á kostnað raunvísinda- og tæknigreina eða námsgreina sem eru nátengdar atvinnulífi.

Þótt húmanisminn hafi átt marga fylgismenn í byrjun nýaldar voru þeir líka margir sem gagnrýndu þessa stefnu í skólamálum. Einkum var fundið að því hve mikill tími fór í að læra tvö fornmál, latínu og grísku.

³⁴ Bantock 1980: 18–19 og 45; Kallendorf 2006: 63–7.

Meðal þeirra sem andmæltu skólahaldi húanista á sextánda öldinni er Frakkinn Michel de Montaigne (1533–92) líklega frægastur. Hann fór hörðum orðum um fornmalastaglið og sagði að ekki væri sjón að sjá nemanda eftir 15 til 16 ára skólagöngu. Ekki yrði merkt að honum hefði farið fram á annan hátt en þann að latínan og grískan hefðu gert hann montnari og hrokafyllri en hann var áður en hann fór að heiman. Montaigne sagði að tímanum væri betur varið við að leika tennis heldur en við nám sem hvorki bætti hræringar sálarinnar né stuðlaði að heilbrigðari dómgreind: Tennis liðkaði að minnsta kosti líkamann.³⁵

John Locke, sem nefndur var í 2. hluta sem helsti menntahugsuður upplýsingarinnar og höfundur *Hugleiðinga um menntamál*, þekkti rit Montaigne³⁶ og tók undir gagnrýni hans á skólanám sem snerist einkum um latínu og grísku. En gagnrýni Lockes á skólahald sinnar aldar byggðist þó ekki nema að hluta til á því sem hann hafði lesið. Hann nýtti einnig sína eigin reynslu.

Frá 1646, þegar Locke var 14 ára, til 1652, gekk hann í strangan unglingskóla í Westminster þar sem skólapiltar kynntust hörðum aga. Þetta þótti virðulegur skóli á sínum tíma. Námsefnið var aðallega latína og gríska en einnig hebreska, arabíska, reikningur, rúmfræði og landafræði. Þrjú síðastnefndu fögin voru öll kennd á latínu. Skóladagurinn var langur og strangur og fór að mestu í latínu og forngrísku, einkum utanbókarnám á málfræði þessara mála; texta- og ljóðagerð; þýðingar milli þeirra og mælskulist.³⁷

Locke líkti þessum skóla sem hann gekk í við þrælahald í fornöld þar sem menn voru pískaðir áfram og sagði að þrælslegur agi gerði menn þrælslega í lund („slavish Discipline makes a slavish Temper“).³⁸ Mælskulist, eins og hann var látinn læra, taldi hann ekki eiga neitt erindi við börn og unglunga og ekki heldur ljóðagerð á fornmalum.³⁹ Hann andmælti ekki aðeins kennsluháttum, aga og áherslum þessa eina skóla sem hann gekk sjálfur í, heldur gerði uppreisn gegn allri

³⁵ Montaigne 1991: 156.

³⁶ Yolton og Yolton 1989: 8–14.

³⁷ Woolhouse 2007: 10–15.

³⁸ Locke 1989: 113 og 207 [§49 og §147].

³⁹ Sama rit: 230 og 240 [§174 og §188].

skólahefð húmanismans og mótaði nýja menntastefnu sem var öndverð henni.⁴⁰

Þetta kann að skýra að einhverju leyti að Locke ætlaði lestri skáldverka og kynnum af listum ekki neinn stað í námskrá sinni. Hann mælti að vísu með því að teikning væri námsgrein, en rök hans fyrir því voru aðeins á þá leið að ýmsar hagnýtar upplýsingar væri auðveldara að skrá með teikningu en orðum.⁴¹ Hann áleit rétt að halda aftur af ungmennum sem hneigðust til ljóðagerðar enda væri slíkt áhugamál til þess fallið að koma þeim í tæri við vafasaman félagsskap. Hann gerði líka heldur lítið út gildi þess að nema tónlist og málalalist og taldi slíka iðju vera tímasóun.⁴²

Á átjándu öld varð Locke helsta átrúnaðargoð upplýsingarmanna og þeir gerðu menntastefnu hans að sinni. Andstaða við áherslu húmanistanna á skáldskap er gegnumgangandi í ritum upplýsingarmanna. Immanuel Kant (1724–1804) lagði til dæmis til að allar skáldsögur væru teknar af börnum og sagði að þær héldu ímyndunaraflinu föngnu án þess að þjálfa hugsunina.⁴³ Lengst gekk þessi andstaða gegn bókmenntakennslu hjá mesta æringja upplýsingartímans, Jean-Jacques Rousseau (1712–1778), sem hélt því fram að börn skyldu engar bækur lesa og sagði að barn sem læsi hugsaði ekki.⁴⁴

Upplýsingin tókst á við stefnu húmanista allt fram að lokum nítjándu aldar og ef til vill standa þau átök enn. Námskrár og áherslur í skólamállum frá nítjándu öld draga dóm af þessu og má að miklu leyti skoða sem málamiðlanir milli þessara andstæðu sjónarmiða.

*

Menntastefnan sem John Locke setti fram og upplýsingarmenn tóku upp á sína arma var á ýmsan hátt framhald af stefnu sem átti fylgi meðal hreintrúarmanna (púríтана) á sextándu og sautjándu öld

⁴⁰ Bantock 1980: 240.

⁴¹ Locke 1989: 215 [§161].

⁴² Sama rit: 230–31, 252–3 og 256–7 [§174, §197 og §203].

⁴³ Kant 1992: 73 [§69].

⁴⁴ Rousseau 1991: 168.

og lagði meiri áherslu á víðtæka þekkingu en kunnáttu í fornmálum. Enski heimspekingurinn John White hefur rannsakað tengsl þessarar menntastefnu við guðfræðikenningar og trúarlegar hugmyndir og rökstutt að áherslan á sem víðtækasta þekkingu hafi fundið hljómgrunn meðal annars vegna þess hvað hún kom vel heim við trú á gildi þess að alvíska guðs endurspegladist í mannhuganum.⁴⁵ White hefur einnig sett fram þá kenningu að rýr hlutur listgreina í námskrá upplýsingarmanna og eftirkomenda þeirra sé að nokkru arfur frá hreintrúarstefnunni.⁴⁶

5 Málamiðlun upplýsingar og húanisma á nítjándu öld

Eins og rakið hefur verið gerðu Locke og eftirmenn hans í hópi upplýsingarmanna heldur lítið úr menntagildi skáldskapar og lista. Þegar kom fram á seinni hluta átjándu aldar fóru hugmyndir í anda húanismans aftur að sækja í sig veðrið og menntafrömuðir að ræða um uppeldis- og menntagildi fagurra lista. Hugmynd eða hugsjón um alhliða þroska er eins og rauður þráður í þeirri umræðu.

Þekktustu talsmenn þess að auka hlut listrænna viðfangsefna í almennti menntun töluðu gjarna um að án listanna þroskaðist aðeins hluti af gáfum mannsins, en menntun ætti að þroska allan manninn. Helsti frumkvöðull hugmynda af þessu tagi var þýska skáldið og heimspekingurinn Friedrich Schiller sem uppi var frá 1759 til 1805.

Rit Schillers um þessi efni, *Briefe über die ästhetische Erziehung des Menschen*, birtist upphaflega sem tímaritsgreinar árið 1795. Íslensk þýðing Arthúrs Björgvins Bollasonar og Þrastar Ásmundssonar nefnist *Um fagurfræðilegt uppeldi mannsins*.

Schiller andmælti menntastefnu upplýsingarinnar á þeim forsendum að hún legði ofuráherslu á skilning og skynsemi á kostnað tilfinninganna. Hann lýsti ríkjandi menntun og menningu við lok átjándu aldar svo að heilar stéttir manna þroskuðu aðeins hluta hæfileika sinna og fór hörðum

⁴⁵ White 2009.

⁴⁶ White 2005: 7.

orðum um menntun sem fól aðeins í sér undirbúning undir eitthvert starf í stað þess að leggja rækt við „mennskuna í sínu eigin eðli.“⁴⁷

Þótt Schiller hafi staðið fremstur meðal jafningja voru áherslur hans á gildi lista og fagurfræði í almennri menntun hvorki sérstakar né óvenjulegar. Þær spegluðu aldaranda sem birtist líka í ritum manna á borð við Vicesimus Knox (1752–1821), Samuel Taylor Coleridge (1772–1834), John Stuart Mill (1806–1873) og Matthew Arnold (1822–1888).⁴⁸

Schiller leit svo á að sönn menntun jafngilti alhliða þroska sem fæli í sér skilning, góðmennsku og smekkvísi og hún væri eftirsóknarverð í sjálfri sér en ekki einungis vegna þess að hægt væri að nota hana til að fá gott embætti eða öðlast einhver önnur veraldargæði. En þótt hann teldi menntun hafa gildi í sjálfri sér lagði hann líka áherslu vissa gerð af nytjagildi, einkum mikilvægi almennrar og alhliða menntunar fyrir þróun lýðræðislegri stjórnarháttá, jafnréttis og betra samfélags.⁴⁹ Hann hafnaði því ekki alfarið áherslum upplýsingarinnar á nytjagildi náms heldur reyndi að sætta og samþætta áherslur á hið háleita og hið hagnýta.

Svar Schillers við ofuráherslu upplýsingamanna á hið hagnýta var að endurvekja að nokkru menntahugsjón húmanismans og hefja forngríska menningu á stall enda taldi hann að aðalsmerki klassískrar grískrar menningar hefði verið að þar var maðurinn heill og sannur og þroski hans alhliða og jafnvægi og eining í tilverunni.⁵⁰

Þessi upphafna mynd Schillers af fornri menningu Grikkja birtist í ljóðum hans eins og til dæmis Skemmtigöngunni (*Der Spaziergang*) sem til er í íslenskri þýðingu Steingríms Thorsteinssonar og Grikkja-göðum (*Die Götter Griechenlands*) sem Helgi Hálfðanarson þýddi.

Fleiri andans jöfrar á þessum tíma sáu gríska fornmenningu fyrir sér í hillungum og þar var heimspekingurinn Georg Hegel (1770–1831) fremstur í flokki. Honum þótti, eins og Schiller, samtímamenn sínir

⁴⁷ Schiller 2006: 90–92.

⁴⁸ Arnold 1925: 8–9; Bantock 1984: 48 o. áf., 112, 209–210 og 216; Schmitter, Tarcov og Donner 2006: 87.

⁴⁹ Schiller 2006: 110; Þröstur Ásmundsson 2006: 46.

⁵⁰ Schiller 2006: 88 o. áf.

klofnir sundur í skynsemi og tilfinningar og trúði því að í Hellas hefði þetta ekki verið svona, þar hefði maðurinn verið heill.⁵¹

Svipaða hugsun og hjá Schiller má finna hjá mörgum af frumkvöðlum rómantísku stefnunnar sem töluðu um heildræna menntun og alhliða þroska, enda hafði Schiller mikil áhrif á upphafsmenn rómantikurinnar.⁵² Líkt og hann gerðu þeir uppreisn gegn menntastefnu upplýsingarinnar og dáðust að hugsjón humanista um heimsborgaralega menntamenn sem þekktu klassíska menningu.⁵³

Hugsjónir Schillers og rómantískra eftirmanna hans bárust víða. Í enskumælandi löndum urðu hugmyndir í þessum dúr einkum kunnar af ritum Matthews Arnold sem var eftirlitsmaður með enskum skólum frá 1853 til 1883 og atkvæðamikill í umræðu um skólamál á sinni tíð.⁵⁴ Ekki veit ég til að Arnold hafi haft áhrif á menntamál í Danmörku á níttjándu öld en þar sem hugsun hans er góður vitnisburður um tíðarandann finnst mér samt rétt að segja frá henni í fáum orðum.

Arnold áleit að menntun skyldi stuðla að heildarfullkomnun mannsins eða alhliða þroska hans (“harmonious perfection, developing all sides of our humanity”). Hann vildi bæta ljóðlist og fagurbókmenntum við námskrá upplýsingarinnar fyrir unglingastig og lagði í því sambandi ekki aðeins áherslu sígild rit Grikkja og Rómverja heldur líka á þjóðlegar bókmenntir.⁵⁵

Í ritgerðinni *Education and the State*, sem birtist í bókinni *On the Study of Celtic Literature*, sem út kom árið 1867, hélt Arnold því fram lýðræði væri að taka við sem stjórnskipan – jafnrétti væri kall tímans – og hann velti því fyrir sér hvernig sá nýi heimur sem var að verða til gæti ávaxtað það besta úr menningu eldra samfélags. Niðurstaða hans var að hámenning, sem miðlað væri skipulega í opinberu skólakerfi,

⁵¹ Atli Harðarson 1998: 215–16.

⁵² Beiser 2006: 140–41.

⁵³ Sama rit: 136–8.

⁵⁴ Knickerbocker 1925: x–xv.

⁵⁵ Arnold 1925: 8–9; Bantock 1984: 209–210.

gæti komið í veg fyrir að lýðræðið gerði Englendinga menningar-snauða, eins og hann áleit að Ameríkanar væru.⁵⁶

Arnold hélt áfram að fjalla um svipað efni í bókinni *Culture and Anarchy* sem út kom 1869. Menntunin sem hann lýsti þar, sem forsendu fyrir varðveislunni hámenningar, var að því leyti ólík menntuninni sem upplýsingarmenn mæltu með að fagurfræðilegt uppeldi skipaði öndvegi við hlið þess vitsmunalega. Orðið sem hann notaði yfir þessa menntahugsjón sína var „culture“ sem hann sagði að væri leit að alhliða fullkomnun („total perfection“) með því að kynast því besta sem hefur verið hugsað og sagt í veröldinni.⁵⁷ Hann leit svo á að slík menntun væri fyrir alla, ekki aðeins hástéttina, enda taldi hann, eins og áður segir, að upp væri runninn öld jafnréttis og lýðræðis.⁵⁸

*

Hér hefur verið greint í stuttu máli frá sókn viðhorfa í anda húmanisma undir lok átjándu aldar og fram eftir nítjándu öld. Þessi viðhorf birtust einkum í trú á gildi þess að kynast fornri menningu Grikkja, hugmyndum um mikilvægi skáldskapar og fagurfræðilegs uppeldis og kenningum um alhliða þroska sem markmið menntunar. Þær höfðu veruleg áhrif alla nítjándu öld sem komu meðal annars fram í því að í Þýskalandi, Danmörku og víðar var lögð áhersla á forngrísku í menntaskólum fram yfir aldamótin 1900.

Það var raunar ekki fyrir en 1908 að þýskir háskólar fóru að taka við nemendum sem ekki höfðu lært grísku í menntaskóla. Ensku háskólarnir í Cambridge og Oxford gerðu kröfu um grískukunnáttu til ársins 1920.⁵⁹ Í Danmörku varð breyting á þessu árið 1903 eins og hér hefur verið frá sagt.

⁵⁶ Arnold 1910: 169–179.

⁵⁷ Arnold 1925: 6.

⁵⁸ Sama rit: 66–7.

⁵⁹ Mann 2006: 144.

6 Lokaorð

Námskrá fyrir stúdentsnám sem mótaðist á Danmörku á nítjándu öld var málamiðlun milli menntastefnu upplýsingar og húmanisma. Þær miklu breytingar sem urðu á stúdentsnámi í Danmörku 1903 og hér á landi 1904 voru sigur fyrir upplýsingarmenn, án þess þó að sjónarmið húmanista væru algerlega fyrir borð borin. Síðan 1904 hafa engin ámóta róttæk þáttaskil orðið í sögu stúdentsprófsins. Hins vegar hefur smám saman stærri og stærri hluti hvers árgangs numið til stúdentsprófs. Eftirfarandi tilvitnun í grein sem Arnljótur Ólafsson ritaði árið 1875 gefur örlitla hugmynd um þá breytingu sem orðið hefur í þessum efnum síðan á nítjándu öld.

Ég skal aðeins nefna eitt land, það er Prússland, er nú um tíma hefir fengið mestan veg, sem kunnugt er. Þar gengu nú fyrir nærfellt 40 árum síðan svo margir í latínuskóla og gagnfræðaskóla, að einn skólapiltur kom á hverja 585 landsmanna. Eftir því ætti hér á landi að vera nálægt 120 pilta í skóla ár hvert. Með öðrum orðum: nálega helmingi fleiri þurfa að læra en nú er.⁶⁰

Englendingurinn Micheal Oakeshott (1901–90) var einn af merkustu menntaheimspekingum síðustu aldar. Í grein eftir hann sem heitir A Place of Learning og birtist árið 1975 lýsti hann skóla sem stað þar sem er næði svo hægt sé, ótruflaður af erli tímans, að hlýða á þá sem skarað hafa fram úr. Hann dásamaði líka frjálsa menntun sem væri laus við þá mæðu að uppfylla tilfallandi þarfir. Í þessari sömu grein sagði hann að menntun í hefðbundnum námsgreinum gerði nemendum kleift að taka þátt í samræðu lærða manna á mörgum tímum og nema fleiri raddir en þá sem hæst lætur nú um stundir. Oakeshott sagði að þessi háværesta rödd samtímans mælti máli græðginnar („the language of appetite“).⁶¹

Í augum þeirra sem sjá skólanám í svipuðu ljósi og Oakeshott er skiljanlegt og eðlilegt að innihald stúdentsnáms breytist hægt og að

⁶⁰ Arnljótur Ólafsson 1986: 72.

⁶¹ Oakeshott 1989: 24, 28, 38 og 41–2.

þrátt fyrir allt umrót tuttugustu aldar hafi listinn yfir námsgreinar sem stúdentsefni læra haldist lítt breyttur.

En hugsi menn sem svo að stúdentsnámið eigi einkum að mæta tilfallandi þörfum og þeir sem móta námskrá eigi umfram allt að hlusta á raddir sem mest gjalla í samtíðinni, kann þeim að virðast undarlegt og jafnvel óskiljanlegt hvað innihald þess hefur breyst hægt og lítið undanfarna öld þótt annað hafi verið á ferð og flugi.

Hér hefur verið gerð ofurlítill grein fyrir tveim ólíkum, og að ýmsu leyti öndverðum, stefnum í menntamálum sem mótuðu áherslur danskra, og þar með líka íslenskra, skóla. Báðar þessar stefnur geta aðlagast breyttum tímum og fylgismenn beggja geta beitt sér fyrir nýjungum í skólamálu. Eins og tveir af þekktustu talsmönnum húmanisma í menntamálu nú síðustu árum, þau Martha Nussbaum og Edward W. Said,⁶² hafa rökstutt af miklum lærdómi, hlýtur menntun í anda þessarar stefnu að vera öðru vísi núna en fyrir einni öld meðal annars vegna þess að nú þarf að miðla fjölbreytilegri menningararfi og tala til sundurleitari nemendahóps. Sömuleiðis hlýtur menntun í anda upplýsingarinnar, þar sem áhersla er lögð á víðtækan skilning á náttúru og mannlífi, að þróast í takt við tímann. Það er til dæmis mikilvægara nú en fyrir einni öld að læra ensku og upplýsingatækni svo eitthvað sé nefnt. Þrátt fyrir þessa fyrirvara má segja að bæði húmanisminn og upplýsingin leggi til námskrá sem er lítt háð stað og stund og hlýtur að breytast fremur hægt. Húmanisminn gerir þetta einkum með áherslu sinni á að nemendur kynnist (einhverju af) því besta sem menn hafa hugsað og skapað og upplýsingin með því að halda fram gildi þess að þeir öðlist víðtæka þekkingu á mannlífi og náttúru og skilning á sem flestum greinum vísinda og fræða.

Sú málamiðlun á milli upplýsingar og húmanisma sem hér var lýst er ekki sérstök fyrir Danmörku og Ísland. Ég hygg að hægt sé að segja svipaða sögu frá flestum löndum í okkar heimshluta, enda eru námskrár víða líkar.⁶³

⁶² Nussbaum 1998; Said 2004.

⁶³ Carr 2003: 137–8; White 2005: 6.

*

Við námskráargerð er óráðlegt að hugsa einungis um stundargildi og stundarhag. Nú þegar verið er að endurskoða námsbrautir til stúdentsprófs og skrifa nýjar skólanámskrár er ef til vill hollt að hafa í huga að sú skipan sem fyrir er á sér djúpar rætur í menningu okkar. Eigi að rökræða hana af einhverju viti þarf að horfa til langs tíma og átta sig á umræðu sem staðið hefur lengi. Sum mikilvægustu rökin sem þarf að taka afstöðu til er að finna í ritum sem eru meira en aldargömul. Sjálfur held ég að eitt mikilvægasta umræðuefnið ætti að vera hvort ekki hafi hallað fullmikið á bókmenntir, listir, menningarsögu og heimspeki á síðustu öld. Ef til vill er tímabært að dusta rykið af Schiller og auka aftur veg húmanískra mennta.

Nám til stúdentsprófs hefur um langt árabíl sameinað áherslu húmanista á að nemendur kynnist því besta úr menningunni og áherslu upplýsingarinnar á að þeir öðlist víðfeðman skilning. Þetta þýðir vitaskuld ekki að námsefnið skuli óbreytt alla tíð. Góðar hefðir eru sveigjanlegar. En sá sem hyggst hafna hefðinni, og semja námskrá sem byggir á einhverju allt öðru en nýrri málamiðlun upplýsingar og húmanisma, ætti að minnsta kosti að gera sér ljóst að áform hans eru býsna róttæk.

Rit

- Arnþjótur Ólafsson. (1986). Um skóla á Möðruvöllum. Í Bragi Jósefsson *Þættir úr íslenskri skólasögu*, (bls. 57–76). Reykjavík: Kennaraháskóli Íslands.
- Arnold, Matthew. (1910). *On the Study of Celtic Literature and other Essays*. London: J. M. Dent & Sons, Ltd.
- Arnold, Matthew. (1925). *Culture and Anarchy*. New York: The MacMillan Company.
- Atli Harðarson. (1998). *Vafamál*. Reykjavík: Hið íslenska bókmenntafélag.
- Bantock, G. H. (1980). *Studies in the History of Educational Theory: Volume 1, Artifice & Nature 1350–1765*. London: George Allen & Unwin.

- Bantock, G. H. (1984). *Studies in the History of Educational Theory: Volume 2, The Minds and the Masses 1760–1980*. London: George Allen & Unwin.
- Beiser, Frederick C. (2006). Romanticism. Í Randall Curren (ritstjóri), *A Companion to the Philosophy of Education*, (bls. 130–142). Malden, Massachusetts: Blackwell.
- Bogi Th. Melsteð. (1986). Um menningarskóla. Í Bragi Jóseppson, *Þættir úr íslenskri skólasögu*, (bls. 127–156). Reykjavík: Kennaraháskóli Íslands.
- Bragi Jóseppson. (1986). *Þættir úr íslenskri skólasögu*. Reykjavík: Kennaraháskóli Íslands.
- Carr, David. (2003). *Making Sense of Education: An Introduction to the Philosophy and Theory of Education and Teaching*. London og New York: RoutledgeFalmer.
- Haue, Harry. (2004). *Almendannelse for tiden – en ledetråd í dansk gymnasieundervisning*. Odense: Syddansk Universitetsforlag.
- Jón Sigurðsson. (1986). Um skóla á Íslandi. Í Bragi Jóseppson, *Þættir úr íslenskri skólasögu*, (bls. 19–32). Reykjavík: Kennaraháskóli Íslands.
- Kallendorf, Craig. (2006). Humanism. Í Randall Curren (ritstjóri), *A Companion to the Philosophy of Education*, (bls. 62–72). Malden, Massachusetts: Blackwell.
- Kant, Immanuel. (1992). *Kant on Education (Ueber Pädagogik)* (ensk þýðing Annette Churton). Bristol: Thoemmes Press.
- Knickerbocker, William S. (1925). Editor's Introduction. Í Matthew Arnold, *Culture and Anarchy*, (bls. vii–xxii). New York: The MacMillan Company.
- Kristinn Ármannsson, Einar Magnússon, Guðni Guðmundsson og Heimir Þorleifsson. (1975). *Saga Reykjavíkurskóla 1: Nám og nemendur*. Reykjavík: Sögusjóður Menntaskólans í Reykjavík.
- Locke, John. (1989). *Some Thoughts Concerning Education*. Oxford: Clarendon Press.
- Locke, John. (1993). *Of the Conduct of the Understanding*. Bristol: Thoemmes Press.

- Mann, Wolfgang. (2006). The Past as Future? Hellenism, the Gymnasium, and, Altertumswissenschaft. Í Randall Curren (ritstjóri), *A Companion to the Philosophy of Education*, (bls. 143–160). Malden, Massachusetts: Blackwell.
- Menntamálaráðuneytið. (1999). *Aðalnámskrá framhaldsskóla: Almennur hluti*. Reykjavík: Menntamálaráðuneytið.
- Menntamálaráðuneytið. (2004). *Aðalnámskrá framhaldsskóla: Almennur hluti*. Reykjavík: Menntamálaráðuneytið.
- Montaigne, Michel de. (1991). *The Complete Essays* (ensk þýðing M. A. Screech). London: Penguin Books.
- Nussbaum, Martha Craven. (1998). *Cultivating Humanity: A classical Defense of Reform in Liberal Education*. Cambridge, Massachusetts: Harvard University Press.
- Oakeshott, Michael. (1989). *The Voice of Liberal Learning*. New Haven; London: Yale University Press.
- Rousseau, Jean-Jacques. (1991). *Emile* (ensk þýðing Alan Bloom). London: Penguin Books.
- Said, Edward W. (2004). *Humanism and Democratic Criticism*. New York: Columbia University Press.
- Schiller, Friedrich. (2006). *Um fagurfræðilegt uppeldi mannsins* (íslensk þýðing Arthúrs Björgvins Bollasonar og Prastar Ásmundssonar). Reykjavík: Hið íslenska bókmenntafélag.
- Schmitter, Amy M., Tarcov, Nathan og Donner, Wendy. (2006). Enlightenment Liberalism. Í Randall Curren (ritstjóri), *A Companion to the Philosophy of Education*, (bls. 73–93). Malden, Massachusetts: Blackwell.
- Stefán Stefánsson. (1986). Það þarf að mennta alþýðu. Í Bragi Jóseppson, *Þættir úr íslenskri skólasögu*, (bls. 157–164). Reykjavík: Kennaraháskóli Íslands.
- Valdimar Ásmundarson. (1986). Alþýðumentun. Í Bragi Jóseppson, *Þættir úr íslenskri skólasögu*, (bls. 115–126). Reykjavík: Kennaraháskóli Íslands.
- White, John. (2005). *The Curriculum and the Child – The Selected Works of John White*. London og New York: Routledge.

- White, John. (2009, 8. september). Why General Education? Peters, Hirst and History. *Journal of Philosophy of Education*. (Sótt 28. mars 2010 af <http://www3.interscience.wiley.com/cgi-bin/fulltext/122591805/PDFSTART>).
- Woolholuse, Roger. (2007). *Locke – A Biography*. New York: Cambridge University Press.
- Yolton, Jean S og Yolton, John W. (1989). Introduction. Í John Locke, *Some Thoughts Concerning Education*, (bls. 1–75). Oxford: Clarendon Press.
- Þróstur Ásmundsson. (2006). Inngangur. Í Friedrich Schiller, *Um fagurfræðilegt uppeldi mannsins* (íslensk þýðing Arthúrs Björgvins Bollasonar og Þrastar Ásmundssonar). Reykjavík: Hið íslenska bókmenntafélag.

Paper 4

Atli Harðarson

Why the Aims of Education Cannot Be Settled

The final purpose of education [...] is liberation and the struggle for a higher liberation still (Hegel, 1978, p. 125).

Abstract

The dominant model of curriculum design in the last century assumed that school education could be organized around aims, defined primarily in terms of students' behaviour. The credentials of this model were questioned by, among others, Lawrence Stenhouse, who pointed out that education serves purposes that cannot be stated in terms of behavioural objectives. In this article, I offer support for Stenhouse's conclusion and go beyond it, showing that if education aims at critical understanding of its own value, then it is even more radically open-ended than Stenhouse argued.

My argument is based on two premises. One of them is that the reason why people disagree about what education involves is that they have less-than-perfect knowledge of what human characteristics are worth cultivating. This premise is supported by a theory of meaning advanced by Hilary Putnam. The other premise is that one of the aims of education is intellectual independence. From these premises, I conclude that a successful course of education serves purposes that cannot be completely stated in advance.

Introduction: Aims and objectives

The classic statement of the objectives model of school curricula was set forth by Ralph W. Tyler in his 1949 publication, *Basic Principles of Curriculum and Instruction*. In this influential book, that 'crystallized a half-century of curriculum development thought' in the US (Pinar, Reynolds, Slattery, and Taubman, 1995, p. 140), Tyler maintained that one of the most fundamental questions that must be answered by those who design or develop a curriculum is 'What educational

purposes should the school seek to attain?' (Tyler, 1949, p. 1). He then argued that education should be viewed as a process of changing the behaviour patterns of learners and that the 'educational purposes' should be defined as objectives that 'represent the kinds of changes in behaviour that an educational institution seeks to bring about in its students' (Tyler, 1949, p. 6).

Models of curriculum design and development, similar to Tyler's, were subsequently advocated by influential curriculum theorists such as Benjamin S. Bloom (1956) and Hilda Taba (1962). Such models were, indeed, dominant for most of the 20th century (Elliott, 2001; Kliebard, 1987, p. 121; Pinar et al., 1995, p. 148). They are still influential and have largely been incorporated into the so-called Bologna Process where one of the key concepts is 'learning outcome' (Karseth, 2006). An article in *The Bologna Handbook* thus advocates learner-centred, specific outcomes in almost the same terms as Tyler, and claims that among 'the great advantages of learning outcomes is that they are clear statements of what the learner is expected to achieve and how he or she is expected to demonstrate that achievement' (Kennedy, Hyland, and Ryan, 2009).

Although the objectives model still holds sway, philosophers and curriculum theorists have found reasons to question its credentials. Some of the relevant questions were advanced by Michael Oakeshott (1989), who maintained that education is aimless, like a conversation. More modest protests were voiced by Richard S. Peters (1966, 1973), who argued that the model of means to ends is not generally applicable to education, and Lawrence Stenhouse who, quoting Peters, pointed out aspects of education that the objectives model cannot accommodate. On Stenhouse's account, education comprises at least four different processes: training, instruction, initiation, and induction. The objectives model gives, he observes, a reasonably good fit in the cases of training and instruction. He does not say much about initiation (or the socialization that goes on in schools) nor does he exclude the possibility that it may be covered by the objectives model. However, the 'great problem in applying the objectives model lies in the area of induction into knowledge' (Stenhouse, 1975, p. 81). He explains this problem as follows:

Education enhances the freedom of man by inducting him into the knowledge of his culture as a thinking system. The most important characteristic of the knowledge mode is that one can think with it. This is the nature of knowledge – as distinct from information – that it is a structure to sustain creative thought and provide frameworks for judgement.

Education as induction into knowledge is successful to the extent that it makes the behavioural outcomes of the students unpredictable.

Consider the marking of history essays. The examination marker has a large number which he must monitor.

As he reads them he often becomes aware that there is a depressing similarity about them. [...] From the pile of essays a few leap out at the marker as original, surprising, showing evidence of individual thinking. These, the unpredictable, are the successes (Stenhouse, 1975, p. 82).

Stenhouse's argument shows that *some* of the aims of education cannot be specified as, or analysed into, behavioural objectives. This is because we cannot both expect students to surprise their teachers and demand that teachers specify in detail how students are to behave. The reasons Stenhouse gives, however, leave it open whether or not education can be aims-based, providing that we extend the meaning of 'aims', prevalent in the curriculum literature, to include aims such as intellectual or moral virtues that cannot be analysed, defined or completely described in terms of behaviour.

In this article, I maintain that education is open-ended in an even more radical way than that argued by Stenhouse. My argument not only supports Stenhouse's reservations about the objectives model, but goes beyond them. It is based on two premises. My first premise is that we have less-than-perfect knowledge of what education involves. My second premise is that one of the aims of education is to make people intellectually independent, so that they can reflect on and criticise what they have been taught. The conclusion I draw from these premises is that education is radically open-ended in the sense that although we can specify some of its purposes and make general statements to the effect that it aims at improvement or excellence of

some sort, we cannot justify any definitive or exhaustive description of its purpose. This conclusion supports Stenhouse's view that curriculum design should, to some extent at least, leave it open what students are to get out of a course of education because using detailed aims as principle of organisation tends 'to bind the future and to set limits to the possibilities of the developing situation' (Stenhouse, 1983, p. 48). These possibilities are realised by the students. The outcome of a successful induction into knowledge can therefore not be completely determined in advance by those who design the curriculum.

The second premise, for which I will not actually argue here, is implicit in Kant's answer to the question 'What is Enlightenment' (Kant, 1983, pp. 41–8) and thus an integral part of our modern ideals of equality and Enlightenment. My first premise is borne out by the variety of learned and lay opinions about what is most truly educative, and can also be supported by a theory of meaning advanced by Hilary Putnam (1975). Before I rehearse Putnam's philosophy of language and defend my first premise, I shall briefly outline some examples of how people understand the word 'education'.

Stereotypes and learned accounts

In literature, in movies, and in daily speech we come across many and various conceptions of what an educated person is like. One familiar stereotype is portrayed and parodied in *Educating Rita*, a 1983 film directed by Lewis Gilbert and based on a play by Willy Russell. The movie tells the story of a working class girl, Rita, who attends an Open University course in English literature in order to become educated. Although it brings Rita's original preconceptions of the superior lives of the literati into question, the movie assumes that the audience accepts its stereotype of an educated person as one versed in the works of William Blake and D. H. Lawrence. Other stereotypes, no less familiar, depict the professional, the scientist, or the philosopher as paradigms of education. If we go back to the middle of the 19th century, we come across writings where it is assumed, without question, that being educated means having learned Latin and Greek, and going still further back we have the Enlightenment ideal of an unprejudiced and encyclopaedic mind.

These stereotypes, or at least some of them, hark back to educational philosophies of past ages. Rita's ideal is, for instance, reminiscent of romanticism and the revival of humanism in the 19th century, when Matthew Arnold described education as 'a pursuit of our total perfection by means of getting to know, on all the matters which most concern us, the best which has been thought and said in the world' (Arnold, 1925 [1869], p. 6). Likewise, it can be said that the modern stereotype of the scientist has at least some tincture of the Enlightenment. Different people have different stereotypes or paradigms in mind when they talk about education, and these relate to different ideals from past philosophies. But that is not all: learned accounts given by modern authorities also differ.

Oakeshott described education as initiation into a world of understandings, imaginings, meanings, and beliefs (Oakeshott, 1989). A similar account has been given by Charles Bailey in his 1984 monograph on liberal education, where he elaborates on its capacity to liberate students from the restrictions of the present and the particular, and involve them instead in what is most fundamental and general, worthwhile and rational (Bailey, 2010 [1984]). One of the most sophisticated attempts to analyse the concept of education is that of Peters in the first part of his *Ethics and Education* (Peters 1966), where he argues that being educated entails having a broad range of worthwhile knowledge. Peters' conception of education excludes any narrow specialisation and requires initiation into a wide variety of different subjects such as natural science, literature, and history. Other distinguished scholars have raised doubts about this, however, including Mary Warnock (1977) and David Carr, who points out that

... we may regard people as educated on grounds other than broad initiation. Thus, it seems reasonable to regard someone who has an in-depth knowledge of poetry and literature (say), but little else as better educated than the 'know-all', who is a mine of shallow information (Carr, 2003, p. 210).

Sceptical responses to Peters have also come from scholars who think that education is not primarily about knowledge but rather

about moral virtue, freedom or autonomy. In *The Aims of Education Restated*, published in 1982, John White argued, for instance, that education should, primarily, make pupils morally autonomous persons who form an integrated life-plan worked out from a moral point of view. The view that to be educated is to be morally autonomous seems implicit in his argument. In recent publications, White has written about human flourishing as the primary aim of education. However, he still emphasises autonomy and provides convincing arguments to the effect that flourishing is simultaneously dependent on participation in changing cultural traditions and on autonomy, i.e. ability to reflect critically on goods that contribute to human wellbeing (White, 2007).

It may be tempting to conclude from this diversity of views that different authors have different concepts of education. In his later works, Peters expressed reservations about his own analysis and said that although education must, by definition, entail some sort of improvement, all attempts to specify exactly what the concept involves are essentially contestable (Peters, 1981). Since then, many theorists have entertained similar doubts. Some of them are quoted by Carr (2010) who describes the current situation as follows:

In the contemporary literature of educational philosophy and theory, it is almost routinely assumed or claimed that 'education' is a 'contested' concept: that is, it is held that education is invested – as it were, 'all the way down' – with socially-constructed interests and values that are liable to diverge in different contexts to the point of mutual opposition (Carr, 2010, p. 89).

Carr subsequently argues that the case for contestability of education rests on a confusion and points out that, in spite of different viewpoints, most theorists agree that education is about emancipation 'conceived in terms of something like the promotion of critical (rational) open-mindedness' (Carr, 2010, p. 100).

As Carr points out, most serious accounts of what education is overlap. White's autonomy has, for instance, something in common with Bailey's liberation from the present and the particular, and such

liberation may perhaps be achieved through Oakeshott's initiation into a world of understandings that, in turn, may include what Peters called a broad range of worthwhile knowledge. But those who doubt that there is one common concept of education can still point out that, in spite of such overlaps, people hold quite different beliefs about what education involves.

What shall we think? Are there many concepts of education – or at least, many essentially contestable conceptions of a single overarching concept? Does White, who focuses on the moral aspect, have a concept that is different from that of Peters, who emphasises the cognitive aspect? Does Rita, who thinks education is about familiarity with great works of literature, have one concept of education, and does someone who focuses on science and mathematics have a different concept? Do advocates of the objectives model have a concept of education that is different from the one that Stenhouse and its other critics work with, and if they do, is there then any reality that one side to the dispute is right about and the other is wrong about?

The meaning of 'meaning' and what it means for education

In a paper from 1975, entitled 'The meaning of 'meaning'', Putnam (1975, pp. 215–271) criticised some of the then-prevailing philosophical accounts of meaning according to which the intension of a term (that is, a psychological state existing in the mind of each speaker who knows what it means) determines its extension.

Putnam's arguments are well known, and the conclusions he states have become part of the mainstream in analytical philosophy of language:

We have now seen that the extension of a term is not fixed by a concept that the individual speaker has in his head, and this is true both because extension is, in general, determined socially – there is division of linguistic labor as much as of 'real' labor – and because extension is, in part, determined indexically. The extension of our terms depends upon the actual nature of the particular things that serve as

paradigms, and this actual nature is not, in general fully known to the speaker. Traditional semantic theory leaves out only two contributions to the determination of extension – the contribution of society and the contribution of the real world! (Putnam, 1975, p. 245)

To qualify as having understood a word, one does not have to be able to produce an exact definition. For instance, I can use the word 'tiger' in a meaningful way although there exist some big cats that I cannot tell whether to classify as tigers or leopards. Nevertheless, some minimum knowledge is required. One does not count as understanding the word 'tiger' unless one knows that tigers are animals. Probably most linguistic communities also require speakers to know that tigers typically look like big striped cats. We can, however, leave it to experts on zoology to determine if a white Siberian feline is a tiger or something else. For ordinary speakers, a stereotype suffices and having stripes is part of the stereotype of a tiger; still the word 'tiger' denotes stripeless white tigers as well as the striped members of the species, so that the stereotype is not necessarily true of everything the word denotes. One example Putnam uses is 'gold'. The stereotype of gold includes being yellow even though pure gold is almost white. 'But the gold we see in jewelry is typically yellow (due to the presence of copper), so the presence of this feature in the stereotype is even useful in lay contexts' (Putnam, 1975, p. 250).

In short, we use stereotypes to pick out some typical examples and the extension is whatever shares their relevant (sometimes known, sometimes unknown) properties. Most often our stereotypes suffice to pick out paradigm cases, but sometimes, linguistic communities get it wrong. One example Putnam uses is the stereotype of a witch in New England three hundred years ago.

Towards the end of the paper, Putnam proposes a normal form for the description of meaning and says it should at least include the following:

- (1) the syntactic markers that apply to the word, e.g. 'noun';
- (2) the semantic markers that apply to the word, e.g. 'animal', 'period of time';
- (3) a description of the additional

features of the stereotype, if any; (4) a description of the extension. (Putnam, 1975, p. 269)

The extension of the word 'gold' is, in fact, the element with atomic number 79 and not, for instance, iron pyrite although it looks like the common stereotype of gold. People talked about gold for ages without knowing how to define the extension of the term, that is, how to state the necessary and sufficient conditions for something being gold. We use many words without knowing exactly how to describe their extension. If Putnam is right about the meaning of 'meaning', we cannot jump from the premise that people associate different stereotypes with the word 'education', and that experts give different accounts of its extension, to the conclusion that the word is used to express more than one concept.

As far as I can see, there is general agreement on some semantic markers and the minimum knowledge required to count as understanding the word 'education': that education involves, for instance, some desirable or commendable qualities people acquire through learning. In spite of the above-mentioned differences, most theorists and lay people seem to agree on some characteristics of the extension of 'education', in particular that it has something to do with rationality, open mindedness and critical thought, and that becoming more educated involves an increase in worthwhile abilities, virtues, knowledge, understanding, or wisdom.

Putnam's theory of meaning invites us to think that 'education' denotes whatever known or unknown characteristics the semantic markers and stereotypes point to. Because the 'extension is, in part, determined *indexically*' (Putnam, 1975, p. 245), the meaning of the term is not completely settled by what speakers have in mind. It depends on objective truths and these truths may be partially unknown, more or less dimly understood, and waiting to be discovered, explained, or illuminated.

On this account, disagreement about how to describe the extension of 'education' is to be expected as long as people disagree about what human excellences to cultivate and which of them are enhanced by learning. The thinkers mentioned in the previous section

(Oakeshott, Bailey, Peters, and White) listed understanding a world of culture, liberation from the present and the particular, a wide range of worthwhile knowledge, and moral autonomy. But what about artistic creativity, skills in specialised fields such as, say, carpentry, or political acumen? If all of these count also, then people can be educated in many different ways, and there is ample room for disagreement about how to order and evaluate educational ingredients. Because of our limited knowledge, there is also room for disagreement about what types of experience count as educative. We cannot conclude from this, however, that there are many concepts of education. (There are also different types of furniture but it does not follow that those who go for rococo and those who shop in IKEA have different furniture concepts.)

It may be objected at this point that the word 'education' is often used to designate activities and practices that have very little or even nothing to do with human excellence. Like many other words, it is frequently used in a loose sense that deviates from the core meaning. One common deviation is to equate education with formal schooling, as people do when they take it for granted that of two persons, the one with the higher degree, or more ECTS credits, is better educated. When sensible people talk in this way, their words are not meant to be taken too literally.

Maybe one can find examples of government newspeak where some simplistic conflation of education and years of formal schooling or number of ECTS credits is taken to be the last word about the meaning of 'education.' Newspeak was, after all, 'designed not to extend but to *diminish* the range of thought' (Orwell, 1983 [1949], p. 258). It is obvious that two courses that take equal time can differ in educational value. It is also clear that users of public libraries can educate themselves without going to school and that some people spend years in school without getting much education.

Although years of formal schooling cannot be taken seriously as a theoretical description of the extension of 'education', it may very well be a part (or even the whole) of someone's stereotype. There is nothing wrong with the answer proposed in the following quotation unless what is pointed to as a stereotype is taken to be a definition:

If I were asked quickly what education means, I would probably say 'teaching' or 'schools'. Yet I would sense that it means more than that and hope that the questioner would not probe too deeply (Fletcher, 1990, p. ix).

This author mentions teaching and schools. He could also have used the word 'learning' because 'education' is sometimes used in a loose sense to designate all sorts of learning, and 'learning' is sometimes used as a stereotype or semantic marker to point out the reference of 'education'. Equating learning and education cannot, however, be the last word about the nature of education. Oliver Twist learned how to pick pockets, and some unfortunate people learn how to kill. Maybe there are newspeak dialects where 'education' is applied to examples like this literally and without qualification. But in ordinary language, 'education' cannot mean the same as 'learning' because some of the things people learn make them worse, not better.

One important implication of including the contribution of society and the contribution of the real world in our semantic theory is that our stereotypes can be misleading and our proposed definitions can be wrong. We should keep an open mind to the possibility that what we think of as educative is not really so. A little over four hundred years ago, Michel de Montaigne wrote about what was then taken to be good school education:

If our souls do not move with a better motion and if we do not have a healthier judgement, then I would just as soon that our pupil should spend his time playing tennis: at least his body would become more agile. But just look at him after he has spent some fifteen or sixteen years studying: nothing could be more unsuited for employment. The only improvement you can see is that his Latin and Greek have made him more conceited and more arrogant than when he left home. He ought to have brought back a fuller soul: he brings back a swollen one; instead of making it weightier he has merely blown wind into it (Montaigne, 1991, p. 156).

If people could not err about what falls under the concepts they use, we would have to say that Montaigne thought education was, at

least sometimes, bad for people. But once we realise that such errors occur, we have a better option: We can say that he thought that the schools he wrote about did not really educate their students but were falsely believed to do so.

If the meaning of 'education' were constituted by what people have in mind when they use the word, then we would have many concepts of education. Granted that some of the aims of education follow logically from analysis of the concept, different concepts of education would support divergent, equally valid, accounts of what aims schools must serve to count as educational institutions. If what Putnam said about the meaning of 'meaning' applies to the meaning of 'education', however, the problem is to determine what is truly educative. On the presumption that this theory of meaning is on the right track, the most plausible explanation of why we disagree about what education involves is that we have less than perfect knowledge of what human characteristics are most worthy of being fostered. Our understanding of the purposes of education is under way because we are still searching for answers to the questions about human excellence and the good life posed by the ancient philosophers. An end of that search is not in sight.

Education, aims and values

If there are many different ways to educate students, choice between them can be guided by considerations that have little to do with education as such. A society, or its government, may, for instance, choose one course of school education over another because it is more conducive to economic growth.

Education is a purposive activity that aims at improvement of some sort. It has aims that are internal or immanent, in the way that the aim of getting cleaner is internal to washing. We can divine from the very concept that hand washing aims at removing dirt from one's hands. But this does not exclude other aims that are contingently related to the concept, such as preventing the spread of an epidemic, showing courtesy, or making a statement as Pilate did.

From the truth that some worthwhile aim is internal, that is, that it follows from the right definition of an activity, we cannot, (at least not

generally), conclude that the activity is, or is to be, undertaken for the sake of that aim. And from the truth that some aim is external, that it is contingently related to a concept that is used to describe an activity, nothing follows about its importance (or lack of importance). I can have all sorts of reasons for washing my hands without caring much about cleanliness. We can also have reasons to seek education without caring much about the aims that are internal to education.

Granted that schools are to educate their students: does anything follow about what they should teach and what they should aim at? At the very least, they have to make their students better in some way; a course cannot be a course of education if it fosters vice rather than virtue. (Hand washing can also serve various aims but people cannot wash their hands in order to leave dirty fingerprints on things they touch.) If what goes on in school thwarts the aims internal to education, the school is no longer an educational institution. What we discover about aims internal to education is therefore relevant to what educational institutions can reasonably be expected to do.

From the weak premise that schools are to educate their students, we cannot draw strong conclusions. But what if we start with something more substantial? In what follows, I argue that from what I have already said about our less than perfect knowledge of what education involves, and the premise that education should make students intellectually independent, it follows that the aims of education (or schools qua institutions of education) can only be partially specified or stated.

As Stenhouse (1975, p. 80) readily acknowledged, training and instruction often have aims that can be known and stated in advance. Both teachers and pupils know (to some extent at least) why it is desirable to learn, say, spelling or arithmetic. Learning and teaching these subjects can, without great distortion, be seen as means to reach previously-known ends. Although this applies in many cases, it is not generally true. Some of the most obvious exceptions have to do with the acquisition of appreciative judgement through learning.

Some parts of a course of education involve learning to appreciate and care for values. The distinction between learning to appreciate and other types of learning can be drawn within any subject, and

many values can be appreciated through different subjects. Someone learning to swim can, at the same time, learn to appreciate the value of graceful motions and of physical fitness. But it is also possible that someone taking swimming lessons has learned to appreciate or care for these values beforehand. Someone learning history may learn thereby to realise the value of equality or freedom. But it is also possible that our history student has learned to care for these values before entering that particular course of study.

I can aim at acquiring a skill that I lack. But can I aim at acknowledgment or approval of values that I do not appreciate? In a sense I can – if I realise, for instance, that something I do not fathom is probably valuable because there are people I respect who value it. But then I appreciate it as valuable although I concede I am not able to evaluate it independently because of my lack of knowledge or understanding. One does not aim at appreciating something as valuable unless one already thinks of it as worth something. From the students' point of view, learning to appreciate something can therefore not be a means to an end that is previously known and desired, because, in that case, they would already care for the values they have not yet learned to appreciate. This does not preclude teachers from understanding what they do as providing a means to previously-known ends. But what if the students are not only to appreciate the values imparted, but also to criticise them?

Can educators really want students to accept, without criticism, doubt, or reservation the values imparted through a course of study? If students are, eventually, to become intellectually independent, they must at some stage become able to evaluate the course they have been through. Otherwise the educator hands over to them something they have to accept as subordinates or epistemic inferiors. Ronald Barnett, writing about the concept of higher education, expresses this as follows:

If there is an underlying idea, it is that of the development of the student's autonomy as a self-sufficient rational inquirer. Following a process of higher education, a graduate (whatever his/her field of study) should have not just an understanding of the field—its key concepts, theories and

findings—and be able to carry out the relevant operations, but should be able to engage with the field with a certain degree of detachment. He/she should be able to maintain a distance from the field, and be able to evaluate and be critical of it. (Barnett, 1988, p. 245)

In other words, if we educate our students to be the equals of ourselves, the educators, then we expect them to end up having something to say about what is worth learning and, hopefully, to progress to a better understanding than we have of what is educative. Ideally our students should be able to participate in a conversation where proposals like those made by Oakeshott, Bailey, Peters, and White are criticised and improved upon. To understand why it follows from this that the aims of education (or schools qua institutions of education) can only be partially specified or stated, let us consider the following. Suppose we had made a definitive list of aims: Aim₁, Aim₂ ... Aim_n. This list may e.g. include statements about intellectual and moral virtues, preparations for work, and personal flourishing. As I have argued, it follows from the premise that we should educate our students to be intellectually independent that something like the following must be one of the items on the list:

Aim_k: Education should enable the student to criticise the list and propose a better one.

If Aim_k is admitted, we expect our students to find something better to do than merely work towards the aims on our list, and thus the list is not definitive. This one aim makes other items on the list tentative and subject to revision. As far as education is reflexive, that is, as far as it enables students to criticise its own value and progress to an improved understanding of what is worth learning, its aims cannot be settled. This conclusion can be read as an extension of Stenhouse's conclusion that when induction into knowledge succeeds, the results are surprising and original, something the teacher could not have specified in advance. It applies regardless of whether the aims in question are behavioural objectives or abilities, virtues or understandings that cannot be analysed in terms of behaviour – and also regardless of whether they are narrowly defined and subject

specific or stated in general terms, e.g. as ideals having to do with intellectual and moral virtues or democratic citizenship.

Although schools can have aims and although some of these aims can be stated as behavioural objectives or learning outcomes education that leads to intellectual independence transcends any given list of aims and serves purposes that cannot be completely stated in advance. Paraphrasing the quotation from Hegel at the beginning of this paper, we can say that education aims not only at liberation as it is conceived of by the educators. It is also a struggle for a higher liberation still. If the nature of education were fully known, this would not follow. Thanks to our human limitations, the best we can do is to invite our students to join us on a journey of discovery. Insisting on a totally aims-based course of education is like asking them to traverse uncharted territories and still insist that they only go to places we have pointed out on a map.

References

- Arnold, M. (1925) [1869] *Culture and Anarchy* (New York, The MacMillan Company).
- Bailey, C. (2010) [1984] *Beyond the Present and the Particular: A Theory of Liberal Education*. (London, Routledge).
- Barnett, R. (1988) Does Higher Education Have Aims? *Journal of Philosophy of Education*, 22.2, pp. 239–250.
- Bloom, B. S. (ed.) (1956) *Taxonomy of Educational Objectives: The Classification of Educational Goals* (New York, David McKay Company).
- Carr, D. (2003) Philosophy and the Meaning of ‘Education’, *Theory and Research in Education*, 1.2, pp. 195–212.
- Carr, D. (2010) Education, Contestation and Confusions of Sense and Concept, *British Journal of Educational Studies*, 58.1, pp. 89–104.
- Elliott, J. (2001) Making Evidence-Based Practice Educational, *British Educational Research Journal*, 27.5, pp. 555–574.

- Fletcher, C. (1990) Series Editor's Introduction, in: D. Hamilton, *Learning About Education* (Milton Keynes, Open University Press), pp. ix–x.
- Hegel, G. W. F. (1978) *Hegel's Philosophy of Right*, T. M. Knox trans. (Oxford, Oxford University Press).
- Kant, I. (1983) *Perpetual Peace and Other Essays*, Ted Humphrey trans. (Indianapolis, IN, Hackett Publishing Company).
- Karseth, B. (2006) Curriculum Restructuring in Higher Education after the Bologna Process: A New Pedagogic Regime? *Revista Española de Educación Comparada*, 12, pp. 255–284.
- Kennedy, D., Hyland, Á., and Ryan, N. (2009) Writing and Using Learning Outcomes: A Practical Guide, in: E. Froment, J. Kohler, L. Purser, L. Wilson, H. Davies, and G. Schurings (eds.), *EUA Bologna Handbook: Making Bologna Work*. Available online at: <http://www.bologna.msmt.cz/files/learning-outcomes.pdf>.
- Kliebard, H. M. (1987) *The Struggle for the American Curriculum 1893–1958*, (New York, NY, Routledge & Kegan Paul).
- Montaigne, M. (1991) *The Complete Essays*, M. A. Screech trans. (Harmondsworth, Penguin Books).
- Oakeshott, M. (1989) *The Voice of Liberal Learning* (New Haven, CT, Yale University Press).
- Orwell, G. (1983) [1949] *Nineteen Eighty-Four* (Harmondsworth, Penguin Books).
- Peters, R. S. (1966) *Ethics and Education* (London, Allen & Unwin).
- Peters, R. S. (1973) [1959] *Authority, Responsibility and Education* (London, Allen & Unwin).
- Peters, R. S. (1981) *Essays on Educators* (London, Allen & Unwin).
- Pinar, W. F., Reynolds, W. M., Slattery, P., and Taubman, P. M. (1995) *Understanding Curriculum: An Introduction to the Study of Historical and Contemporary Curriculum Discourses* (New York, NY, Peter Lang Publishing).
- Putnam, H. (1975) *Mind, Language and Reality: Philosophical Papers, Volume 2* (Cambridge, Cambridge University Press).

- Stenhouse, L. (1975) *An Introduction to Curriculum Research and Development* (London, Heinemann).
- Stenhouse, L. (1983) *Authority, Education and Emancipation* (London: Heinemann).
- Taba, H. (1962) *Curriculum Development: Theory and Practice* (New York, NY, Harcourt, Brace & World).
- Tyler, R. W. (1949) *Basic Principles of Curriculum and Instruction* (Chicago, IL, The University of Chicago Press).
- Warnock, M. (1977) *Schools of Thought* (London, Faber & Faber).
- White, J. (1982) *The Aims of Education Restated* (New York, NY, Routledge).
- White, J. (2007) Wellbeing and Education: Issues of Culture and Authority, *Journal of Philosophy of Education*, 41.1, pp. 17-28.

Paper 5

Atli Harðarson

Equality and academic subjects

We all observe, and we all reason, [...] we all ascertain truths [...] If we could not do it in any degree, we should be mere instruments in the hands of those who could: they would be able to reduce us to slavery. (Mill 2009 [1867]: 154–155)

Abstract

A recent national curriculum guide for upper secondary schools in my home country, Iceland, requires secondary schools to work towards equality and five other overarching aims. This requirement raises questions about to what extent secondary schools have to change their curricula in order to approach these aims or work towards them in an adequate way. Textbooks on curriculum theory commonly invite their readers to choose between different perspectives that are presented as mutually exclusive. From one perspective, they tend to emphasize academic subjects, to the exclusion of perspectives that focus on improvement of society or individual development. There are, however, reasons to doubt that organizing a curriculum emphasizing general aims such as equality excludes using academic subjects as its principal building blocks. In this paper, I argue that if we take equality seriously as an aim of education, we should indeed emphasize academic school subjects, just as advocates of liberal education have done for a long time. Focusing on subjects and focusing on aims, such as equality, are therefore not mutually exclusive perspectives but two aspects that must coexist in any reasonable and sound pedagogy.

Introduction

A recent national curriculum guide for upper secondary schools, issued by the Icelandic Ministry of Education, Science and Culture

(2011: 14–22) requires secondary schools to work towards six overarching aims, called fundamental pillars of education. These are literacy, sustainability, democracy and human rights, equality, health and welfare, creativity. This requirement raises questions about to what extent secondary schools have to change their curricula in order to approach these aims or work towards them in an adequate way. Can they continue to emphasise academic subjects like mathematics, foreign languages, history, literature, and social and natural sciences as they have done for a long time?

Some well-known authors of texts on curriculum theory, for example, Eisner and Vallance (1974), McNeil (1977), Kliebard (1987), Walker and Soltis (1997), and Schiro (2008), take curricula that emphasise academic subjects as being merely one out of a handful of possible options, the others being, for instance, curricula emphasising social reconstruction or individual development. In what follows I argue that these options are compatible and, therefore, we do not have to choose between focusing on subjects and focusing on general aims having to do with improvement of society. We can do both. I single out for consideration one general aim, which is equality. According to the curriculum guide mentioned above education for equality promotes social equality and justice and involves both appreciation of the value of equality and knowledge about the circumstances that lead to ‘discrimination of some and privileges for others’ (Ministry of Education, Science and Culture 2011: 20). My argument shows that education for equality in this broad sense is not only compatible with a subject-centred curriculum, but actually requires emphases on particular academic subjects such as history, literature and social and natural sciences. This conclusion supports a traditional subject-centred curriculum. My argument has, however, a radical bent because it underlines the importance of enabling all students to participate in rational and critical discussions of political and social issues.

I am aware that some educationists, like e.g. Bybee (2010), emphasise the importance of the so-called STEM subjects, i.e. science, technology, engineering and mathematics, for adaptability, innovation, technical skills and hence economic prosperity. They defend subject-centred curricula from another point of view than I do.

I have, however, no quarrel with them as I think schools have many different purposes and a balanced curriculum could and should be made to serve both the economy and political ideals like social justice, democracy and equality.

Allegedly exclusive perspectives on school curricula

In a review of several attempts to classify theoretical views on school curricula published in 1992, Jackson examines a textbook on curriculum by McNeil (1977), a collection of essays edited by Eisner and Vallance (1974), and a book by Kliebard (1987) on the history of school curricula in the USA from 1893 to 1958. All these works describe several perspectives, or different ways to think about school curricula, that are depicted as competing with one another so that 'the choice of any one perspective rules out the others' (Jackson 1992: 16). For instance, Kliebard outlines four different approaches to curriculum design that were taken in the first half of the 20th century. 'First, there were the humanists, the guardians of an ancient tradition tied to the power of reason and the finest elements of the Western cultural heritage' (Kliebard 1987: 27). Arrayed against them were, according to Kliebard (1987: 27–29), three different kinds of reformers, one focusing on the natural order of development in the child, another on social efficiency and the third on social change and social justice.

In a similar vein, McNeil (1977: 1) says that 'there are four prevailing conceptions of the curriculum, humanistic, social reconstructionist, technological, and academic'. Likewise, Eisner and Vallance (1974: 3) describe 'five orientations that have been formulated: the cognitive processes approach, curriculum as technology, curriculum for self-actualisation and consummatory experiences, curriculum for social reconstruction, and academic rationalism'.

A number of more recent textbooks classify curriculum perspectives in ways similar to those reviewed by Jackson. Walker and Soltis (1997), for instance, describe three perspectives: Student-centred, society-centred, and knowledge-centred. They claim that each of these perspectives 'puts one part of the entire educational situation in the foreground, and that inevitably pushes the other parts to the background' (Walker and Soltis 1997: 33). Another representative,

and relatively new, textbook by Schiro (2008) distinguishes between four curriculum perspectives: scholar academic, social efficiency, learner centred, and social reconstruction. Schiro describes these four stances as four great magnets that ‘tug on all of us who are interested in education, pulling us in four different directions’ (Schiro 2008: 9).

The perspectives mentioned so far are distinguished by different views concerning the purposes of education, wherein one camp, variously denominated *humanist*, *academic*, or *knowledge-centred*, allegedly assumes its main purpose is to teach subjects, while the other camps focus on aims having to do with improvement of society or individual development. There are, however, other criteria of classification. Kelly (2009), for example, elaborates upon three perspectives that differ in their views on the organisation of curriculum design and development, rather than on what purposes are most important. One of the perspectives Kelly describes focuses on subject matter or content; another on objectives, aims, or purposes; and the third on procedural principles.

Although his approach is different, Kelly goes along with Walker and Soltis, Schiro, and the authors reviewed by Jackson in describing the emphasis on school subjects as a separate option, rather than, say, an ingredient in any potentially reasonable curricular approach. In several publications on the philosophical aspects of curriculum theory, the English philosopher of education White seems to concur with Kelly on this. In a recent paper, White writes about subject-centred approaches to the development of school curricula and asks, ‘Why start with academic disciplines and seek justifications of them? Logically, curriculum planning has to start with aims, not with vehicles whereby aims may be realised’ (White 2010: 125). White traces the history of modern subjects-based school curricula in the UK back to the 16th century and complains that:

Through all the reforms since 1988, governments have insisted that the existing structure of academic subjects is not to be tampered with. Rather than seizing the opportunity to rethink school education as a genuinely aims-based enterprise, they have clung to the centuries-old pattern described in this paper. (White 2010: 139)

White's underlying assumption seems to be that the building blocks of a 'genuinely aims-based' curriculum are something other than academic subjects.

In his review, Jackson points out that the various classifications that have been given of perspectives on school curricula are strange. He describes them as academic abstractions that 'do not hold up as being genuinely inhabitable' (Jackson 1992: 18). In what follows, I defend and expand upon Jackson's stance and argue that we do not have to choose between academic subjects, on the one hand, and education as a genuinely aims-based enterprise or a vehicle of improvement or reconstruction of society, on the other. Before I proceed, I will reflect on Kelly's distinction between two types of non-subject-centred approaches to curriculum design and clarify what is involved in talk about general educational aims.

Educational aims and principles of procedure

Peters (1973: 122–131), who was a pioneer in educational philosophy in the UK in the latter half of the 20th century, once proposed that some so-called general aims of education are really principles of procedure rather than ends to be reached. The process model of curriculum design, defined by Stenhouse (1975), is based on this proposal. Stenhouse put forth his process model in opposition to the objectives model defined by Bobbitt (1972 [1918]) and Tyler (1949). The objectives model was later refined and elaborated in detail by Bloom (1956) and Taba (1962), and it was dominant for most of the 20th century (Elliott 2007, Kliebard 1987: 121, Pinar *et al.* 1995: 140–148). Although it was most prominent among advocates of social efficiency as the primary aim of school education (Schiro 2008: 51–54), the objectives model was embraced by various groups with different views on education and the purposes of schooling (Pinar *et al.* 1995: 155).

As Kelly (2009: 15, 67–68, 93–94) makes clear, his distinction between perspectives that focus on educational aims and those concerned with procedural principles is, basically, the same as the distinction between Bobbitt's and Tyler's objectives model on the one hand and Stenhouse's process model on the other. The objectives model assumes that the first question to be answered by those who design or develop a curriculum is

just what educational purposes the school should seek to attain (Tyler 1949: 1). The gist of this model is expressed clearly and succinctly by White (1997: 52–54) where he says that school improvement schemes should start with the aims which are to power everything else. The next stage is ‘to see what follows from these aims about sub-aims which are their necessary conditions.’ When the sub-aims have been identified, experts in various fields are called on to figure out the details of implementation.

Stenhouse concedes that the objectives model fits some important parts or aspects of school education. Nevertheless, he opposes this model and proposes focusing on disciplines that have their built-in standards of excellence, and thus ‘can be appraised because of the standards immanent in them rather than because of what they lead on to’ (Stenhouse, 1975, p. 84). Kelly (2009: 95) recommends a version of Stenhouse’s process model and says that it allows us to have goals, purposes, intentions, or aims without taking them to be extrinsic to the educational process.

To clarify the distinction between objectives and procedural principles it is, I think, helpful to distinguish on the one hand between two types of ends or purposes and on the other hand between two different sorts of relations between means and ends. The different types of purposes I have in mind are *objectives* that can be reached, and *ideals* that people can work towards although the task cannot be completed. Painting the kitchen or going for a walk together next Sunday are aims of the first type. Keeping a beautiful home and having a happy marriage are lifelong tasks of the second type. Educational aims defined in terms of behaviour typically belong to the first category. Memorising who is married to whom in *Njál’s saga* (a 13th century work of literature read in Icelandic secondary schools), or facts about the constitutional assembly at Eidsvoll in 1814 (which had consequences for the development of democracy in the Nordic countries) can be seen as objectives. Understanding sexual relations in *Njál’s saga*, or what effect events of 1814 had on politics in Scandinavia is, however, not something one does once and for all. In all these cases, our understanding depends on other knowledge that is evolving and under review and can therefore not be complete and final. Likewise, learning to use Newton’s inverse square law to calculate the gravitational force between two masses may be

understood as an objective in this sense, but understanding gravity is better seen as an ideal that cannot be conclusively reached. When has a student understood gravity: When she has learned to do simple calculations based on Newton's formula? Is able to explain how massive objects affect space-time? Has mastered the concepts used to describe black holes? Can participate in debates about the differences between gravity and the other fundamental forces of nature? Understanding gravity is an ideal that people can approach in countless ways but which can arguably not be completed.

Open-ended aspirations or ideals form what the Canadian philosopher Charles Taylor (1999) has called our *horizon of significance*. In an earlier work, Taylor (1989) called such ideals *frameworks*. If Taylor (1989: 507) is right, such horizons or frameworks are a necessary precondition of meaningful existence. In light of the examples I have given it seems plausible that, without ideals, objectives are pointless. Memorising formulae, like the inverse square law, or facts about events that took place two hundred years ago is worth something, provided we are trying to understand nature or society; painting the kitchen or going for a walk together is desirable if we want to keep a beautiful home or have a happy marriage. I will let this brief discussion of the two types of purposes suffice for the present and will now turn to the other distinction: the different sorts of relations that obtain between means and ends.

The different means-end relations are, on the one hand, *causation*, and, on the other hand, *subsumption*, where the means are constitutive of the end. As an example of the latter type of relationship, let us suppose that I carry someone's bag in order to help that person to get home with a load of goods. Carrying the bag is then a means to the end of helping. Carrying the bag and helping are, however, not two events where the former causes the latter. Here, talking of means and ends are two ways to describe the same action where the second description justifies that action by subsuming it under a category of deeds that do not need further justification.

Putting these two distinctions together, we have four types of purposive acts or endeavours, represented in the following table (where my example of carrying someone's bag in order to help would belong to category number three).

Table 1: Four types of purposive actions

	Objectives (can be completed)	Ideals (lifelong endeavour)
Ends caused, or causally contributed to, by the means.	1	2
Ends that are constituted by the means.	3	4

The process model advocated by Stenhouse (1975) and Kelly (2009) is best seen as focusing on categories three and four rather than as denying that school education should be organised to serve ends, aims, or purposes. This is because, as White has pointed out, emphasis on principles of procedure ‘takes it for granted that the teacher wants to instil in his pupils a respect for rationality, benevolence, or whatever. In so far as he does, this is what he is aiming at’ (White 1982: 6–7). Biesta, an educational theorist and philosopher who is, like Stenhouse and Kelly, critical of the objectives model has recently made a similar point and argued that in education means and ends are ‘related internally or constitutively’ (Biesta 2007: 10).

In some of what they say, Bobbitt (1974 [1918]) and Tyler (1949) seem to be primarily concerned with category number one. In recent years, their objectives model has largely been incorporated into the so-called Bologna Process in Europe (Karseth 2006: 270). In an article in the Bologna Handbook, Kennedy *et al.* (2009) advocate specific outcomes in almost the same terms as Tyler used to do. Like Tyler, and Bobbitt before him, they seem to focus mainly on category number one. Although Bobbitt, Tyler and later advocates of the objectives model can perhaps be justly criticised for this overly narrow focus, their basic tenet—that curriculum development should begin with a statement of educational purposes—does not exclude the other three categories. So, although focusing *exclusively* on category number one would be antagonistic to any potentially reasonable curricular approach, it is not clear that there is generally an opposition between the process model and those methods of curriculum design that emphasise educational purposes.

In the beginning of the second book of his *Nicomachean Ethics*, Aristotle argued that people learn to be virtuous by acting in accordance with virtue (Aristotle 1941: 952–953). On this account, each virtuous action performed by someone who is not yet (completely) virtuous, is both worthwhile in itself and good because it causes the doer to become (more) virtuous. In this case, both of the types of means-ends relations that I have outlined above apply to the same action: The end is partially constituted and partially caused by it. Something similar seems to apply to equality as an educational aim. Promoting equality is probably best seen as belonging both to category number two and to category number four. If equality as a value or norm is built into school practice and this causes pupils to appreciate the value of equality, then the practice simultaneously *exemplifies* the end and *contributes to it causally*.

If what I have said about means and ends is right, we should think of Kelly's two non-subject-centred perspectives as compatible rather than as mutually exclusive. But what about the subject-centred perspective? Can it coexist with the other two? And if it can, is it perhaps compatible with most, or even all, of the views on the purposes of education elaborated by Eisner and Vallance (1974), McNeil (1977), Kliebard (1987), Walker and Soltis (1997), and Schiro (2008)? A negative answer seems to be taken for granted by those who see the different perspectives as mutually exclusive. From their point of view, the persistence of subject-centred curricula bespeaks failure of aims-driven school reform. Kliebard, writing on the history of school curricula, says for instance:

If the success of the 65-year effort to reform the American curriculum is to be judged by the extent to which English, mathematics, science, history, geography and the like simply survived the assault against them, then the effort must be counted a failure. (Kliebard 1987: 269)

How plausible is this? Did the school subjects persist because reform failed, or did they persist because they were needed to reform schools and make them serve the needs of students and society? It is outside the scope of the present article to propose a general answer

to this question. Focusing on one type of reform, namely education for equality, I will show that it is not antagonistic to subject-centred curricula but, on contrary, needs support from induction into knowledge within fields typically represented by academic school subjects.

I do not deny that focusing exclusively on subjects or content can cause people to neglect educational aims like equality. Preoccupation with aims, without concern for the knowledge that makes them comprehensible and intellectually defensible, may likewise cause educators to underestimate the value of the rich intellectual traditions that stand behind academic school subjects. Why should a good pedagogue not be mindful of *both*, like a master builder who focuses simultaneously on building materials and aesthetic criteria and understands that using bricks does not exclude harmonious proportions?

Apprehension of worthwhile aims

The far longest chapter of Tyler's classic statement of the objectives model, published in 1949, is entitled 'What educational purposes should the school seek to attain?' Tyler emphasises the importance of beginning with clearly defined goals or purposes and points out that they can be obtained through various areas of study including philosophy, psychology, and studies of contemporary life outside the school (Tyler 1949: 3–62). Although he tells his readers where to look for educational objectives, Tyler takes a neutral stance towards questions of value and says very little about what the purposes of school education should be. The closest he comes to advocating one sort of purposes rather than another is where he says that 'commonly, educational philosophies in a democratic society are likely to emphasise strongly democratic values' (Tyler 1949: 34).

Tyler's work focuses on methods of curriculum development and he tries to justify neither specific content nor definite aims. He probably wanted his curriculum-science to be value neutral, the way good scientific work was supposed to be in the middle of the last century, when philosophers, as diverse as Ayer (1971 [1936]) and Sartre (1956 [1943]), taught that values were ultimately a matter of choice rather than discovery or rational deliberation, and hence outside the field of scientific study. True to the spirit of his time, Tyler

declared that 'in the final analysis objectives are matters of choice, and they must therefore be the considered value judgements of those responsible for the school' (Tyler 1949: 4). Ever since there has been a tendency among a certain group of influential curriculum theorists to fight shy of questions of value. Writing in 1984 the philosopher of education Barrow saw this tendency as predominant within the curriculum field and maintained that:

North American curriculum writing, which forms the bulk of curriculum writing, has deliberately eschewed the problem of values, and built up a body of curriculum theory on the pattern of engineering, a subject the ends or objectives of which are relatively uncontentious (Barrow 1984: 17).

As long as we see the purposes of schooling as matters of choice, or political decision, rather than as something to be found out or discovered through research and rational argument, it is tempting to think that curriculum design begins with a statement of what we want to attain. If, on the other hand, we reject subjectivism about values and require that the purposes of school education be supported by rational argument, the logical starting point of curriculum design becomes the knowledge we use to apprehend the aims or purposes.

In a publication from 2004, White asks how far the curriculum should be planned on a subject basis. 'School subjects are, after all, only vehicles to achieve certain ends: they are not self-justifying entities. Now that we have a set of overarching aims, could these be realised by other kinds of curricular vehicle?' (White 2004: 1). Granted that we need education to apprehend aims, we can turn White's question upside down and ask: How far should the curriculum be aims-based at all? Educational aims are, after all, only values that we have learned to appreciate: they are not self-evidently worthy of choice. Given that, we have a set of school subjects, could the understanding achieved through them give rise to different educational aims?

This is reminiscent of the riddle of which came first, the chicken or the egg. The aims of a course of education are, as White points out, logically prior to its content. Prior to the aims there has to be some educational content or knowledge that enabled the designers of

school curricula to acquire the understanding they have of what aims are worth seeking. The concepts needed to apprehend educational aims having to do with, say, equality, democracy, or critical thinking have been forged and refined through a critical discourse whose development has taken a long time, and our understanding of these aims depends on large bodies of knowledge.

Understanding equality

To what extent educational aims are discovered and to what extent they are chosen is a complex issue that I will not try to settle here. For present purposes, it suffices to argue, as I do below, that our understanding of equality as a rationally justified overarching aim of school education depends on academic disciplines.

The first thing to notice is that many of the deep questions about equality are questions within academic subjects such as philosophy, literary studies, history, sociology, psychology, and biology. Our understanding of gender equality is, for instance, evolving through academic work in philosophy and social sciences, and premises from fields as various as biology and history are relevant to weighty questions about what is involved in sexual equality. Other aspects of the complex ideal of equality, such as equality before the law, also have historical and philosophical ramifications that scholars are still in the process of working out. In one of the most distinguished philosophical books on equality written in recent years, Walzer (1983: 26) says that to get this large idea right 'is to map out the entire social world'. Walzer was, like Williams, Dworkin and Rawls, to whom I refer below, among the most important moral philosophers of the last decades of the 20th century.

Second, much of moral and political philosophy from Hobbes, Spinoza, and Locke to the present can be read as a search for a rationally justifiable conception of human society as a community of equals, and, according to Dworkin (1978: 127), questions of equality have 'been central to political theory at least since Kant'. Rationally defensible answers to these questions depend on understanding of society and human nature. As Williams (1962: 130) has pointed out, they need contact with such things as economic needs and human

desires. More recently, Rawls (2007, p. 6) has argued that democratic politics requires a background culture citizens come across 'in their conversation and reading, in schools and universities and in professional schools'. All in all, our understanding of equality is being negotiated and is progressing through discourses that are dependent on rich intellectual traditions. This is, I think, also true of other educational ideals of comparable scope, such as democracy. It requires learning to sort out legitimate from illegitimate interests, understanding of what is for the good of all from ideologies and illusions. This sorting out goes on, to a large extent, within academic subjects.

An obvious implication of what I have said so far about our understanding of equality is that a great deal of learning is needed to organise a school curriculum if it is to promote equality in a way that can be rationally justified. That is, however, only part of the story. Another part of the story is that people cannot form a community of equals without some understanding of what is involved in equality. If it is only the authors of the curriculum who understand the ideals aimed at, then the pupils who are supposed to behave in accordance with them, without themselves having such an understanding, will be mere followers of prescriptions meted out by others. In that case, these others, who set the terms, will be 'more equal' than the pupils, like the pigs in Orwell's (2000 [1945]) *Animal farm*. A third and no less important, part is that society cannot be a society of equals unless ordinary citizens have the intellectual means to evaluate political proposals and participate in rational discussions about the good of society. Such participation requires knowledge, and therefore, as Mill pointed out, we all require the ability 'to form a rational conviction on great questions of legislation and internal policy, and on the manner in which our country should behave to dependencies and to foreign nations' (Mill 2009 [1867]: 154). This point, which was made by Mill in the 19th century, is supported by the Australian educationist Fenwhich (2011) in a recent paper where she reviews attempts to promote equality through curriculum reform and argues that this cannot be done without emphasising academic learning and advanced thinking skills for all students. In his recent work, the English sociologist Young defends a similar view. Young (2008, 2009, 2010a, 2010b, 2011) argues that there is no contradiction between supporting a subject-

centred curriculum and emphasising social justice as a purpose of schooling. To support this conclusion Young argues that the knowledge students gain from learning academic school subjects is 'powerful knowledge' in the sense that it is reliable, can be used to explain and predict and enables people 'to move beyond their experience and locate themselves in a wider context' (Young 2010a: 11). From his account of knowledge, he concludes that 'there is a link between the emancipatory hopes associated with the expansion of schooling and the opportunity that schools provide for learners to acquire "powerful knowledge"' (Young 2009: 17). Although my argument has a similar conclusion, it is a different argument because I focus on the nature of equality rather than the nature of knowledge. My main point is that equality requires understanding of what equality involves and such understanding depends on academic learning.

I do not think it follows from this that education for equality requires everybody to study all the subjects relevant to achieving an understanding of what equality involves. The utter inability to participate in critical discourse on issues related to equality is one extreme on a wide spectrum of capacities. The cultivated ability to do serious academic research into deep and difficult questions about fairness, equity, power, and subordination is another extreme. I do not see how we can aspire to equality without trying our best to help everybody progress towards the latter-mentioned end of this spectrum. A community of equals is hardly viable unless most people are at least able to express their own protests, doubts, and reservations, in a comprehensible and rationally respectable way, when they confront political notions that appear to them treacherous and oppressive. The tried and true way to foster this ability is by teaching school subjects such as history, literature studies, philosophy, sociology, psychology, and biology.

Our knowledge of what educational aims to seek, and what aims such as equality really involve, is not settled. It is under debate. We cannot both aim at equality and be content with a system of education where only some are able to participate in this debate and form a minority that sets educational aims for others who do not possess the intellectual means to criticise them. In other words, the ideal of equality demands that students have a share of the

knowledge used to adjudge the educational ideals that give sense and direction to curriculum objectives and content.

This argument may seem to support curriculum perspectives that view the school subjects as merely instrumental. Yet it would surely be rash to conclude that we can do without them. Likewise, language is, in a sense, an instrument we use to express our thoughts, but it does not follow that the same thoughts could exist without language, and could somehow be expressed by different means.

Equality and liberal education

What the conclusions I have reached so far amount to, is that equality, as an educational ideal, requires at least a minimal autonomy for all, that is to say an ability to evaluate and reflect critically on political aims, including the very aims of education, and such ability is fostered by teaching academic school subjects.

If we view the approach to educational ideals, such as equality, as dynamic, and grant that we, as a community, are still learning how to understand them, then we cannot take the content of education to be simply subservient to a dogma of aims. Once we face the fact that our understanding of educational aims is limited, and evolving, we are bound to assume a dialectical relationship between educational aims and educational content. What we learn in history or philosophy may, for instance, change what we take equality to involve. If some subjects are especially apt to have such consequences, emphasising them should not be viewed simply as means to previously defined ends, but also as enabling students to find out themselves what ends are worthwhile. This is what liberal education aspires to. It seeks to develop the pupil's own judgement and is thus, as US curriculum theorist Null (2011: 15) points out, 'the opposite of indoctrination'. The spirit of liberal learning is more apt to help students transcend the aims set by educational authorities, than to bring about predetermined changes in their views.

Advocates of liberal education are sometimes taken to claim that academic subjects are worthwhile in themselves, while others grant them at most an instrumental role. But I do not think that a sharp distinction between ends and means can be drawn in this context,

just because the ends are partially constituted by, or exemplified by, the means. Studying a subject is simultaneously a way of being rational and autonomous and a means to become more so.

We can think of subjects such as history, literature, philosophy, or biology as means for realising such educational ideals as grasping what equality involves and why it is so important. That does not allow us to conclude that the end can be apprehended and sought independently of the means. It is not plausible to suppose that a defensible conception of equality can be posited as an educational aim and realised as such otherwise than through the medium of intellectual traditions like those that support the academic subjects.

Numerous writings on curriculum theory present an emphasis on academic subjects as one option out of a handful. We do not have to choose, however, between teaching subjects and working towards equality. Those options are complementary, not antagonistic.

References

- Aristotle (1941) *The Basic Works of Aristotle* (New York: Random House).
- Ayer, A. J. (1971) [1936] *Language, Truth and Logic* (Harmondsworth: Penguin Books).
- Barrow, R. (1984) *Giving Teaching Back to Teachers: A Critical Introduction to Curriculum Theory* (Brighton, Sussex: Wheatsheaf Books).
- Biesta, G. (2007) Why 'what works' won't work: Evidence-based practice and the democratic deficit in educational research. *Educational Theory*, 57(1), 1–22.
- Bloom, B. S. (ed) (1956) *Taxonomy of Educational Objectives, the Classification of Educational Goals: Handbook I: Cognitive Domain* (New York: David McKay Company).
- Bobbitt, F. J. (1972) [1918] *The Curriculum* (New York: Arno Press).
- Bybee, B. W. (2010) Advancing STEM Education: A 2020 Vision. *Technology and Engineering Teacher*, 70(1), 30–35.

- Dworkin, R. (1978) Liberalism. In S. Hampshire (ed.), *Public and Private Morality* (Cambridge: Cambridge University Press), 113–143
- Eisner, E. W. and Vallance, E. (1974) Five Conceptions of Curriculum: Their Roots and Implications for Curriculum Planning. In E. W. Eisner and E. Vallance (eds), *Conflicting Conceptions of the Curriculum* (Berkeley, CA: McCutchan), 1–18.
- Elliott, J. (2007) Making Evidence-Based Practice Educational. In M. Hammersley (ed), *Educational Research and Evidence-Based Practice* (London: Sage Publications), 66–87.
- Fenwick, L. (2011) Curriculum Reform and Reproducing Inequality in Upper-Secondary Education. *Journal of Curriculum Studies*, 43(6), 697–716.
- Jackson, P. W. (1992) Conceptions of Curriculum and Curriculum Specialists. In P. W. Jackson (ed), *Handbook of Research on Curriculum: A Project of the American Educational Research Association* (New York: Macmillan Publishing Company), 3–40.
- Karseth, B. (2006) Curriculum restructuring in higher education after the Bologna Process: A new pedagogic regime? *Revista Española de Educación Comparada*, 12, 255–284.
- Kelly, A. V. (2009) *The Curriculum: Theory and Practice* (6th ed.) (London: Sage Publications).
- Kennedy, D., Hyland, Á. and Ryan, N. (2006) Writing and using learning outcomes: A practical guide. Article C 3.4-1 in E. Froment, J. Kohler, L. Purser and L. Wilson (eds), *EUA Bologna Handbook – Making Bologna Work* (Berlin: Raabe Verlag).
- Kliebard, H. M. (1987) *The struggle for the American Curriculum 1893–1958* (London: Routledge & Kegan Paul).
- McNeil, J. D. (1977) *Curriculum: A Comprehensive Introduction* (Boston: Little, Brown and Company).
- Mill, J. S. (2009) [1867] Inaugural address delivered to the University of St. Andrews. In A. O'Hear and M. Sidwell (eds), *The School of Freedom: A Liberal Education Reader from Plato to the Present Day* (Exeter: Imprint Academic), 149–156.

- Ministry of Education, Science and Culture (2011) *The Icelandic National Curriculum Guide for Upper Secondary Schools: General Section 2011*. Available online at: <http://www.mennta-malaraduneyti.is/utgefid-efni/namskrar/adalnamskra-framhaldsskola/>, accessed August 5, 2012.
- Null, W. (2011) *Curriculum: From Theory to Practice* (Plymouth, UK: Rowman & Littlefield Publishers).
- Orwell, G. (2000) [1945]. *Animal Farm* (Harlow, Essex: Longman).
- Peters, R. S. (1973) *Authority, Responsibility and Education* (3rd ed.) (London: George Allen & Unwin).
- Pinar, W. F., Reynolds, W. M., Slattery, P. and Taubman, P. M. (1995) *Understanding Curriculum: An Introduction to the Study of Historical and Contemporary Curriculum Discourses* (New York: Peter Lang Publishing).
- Rawls, J. (2007) *Lectures on the History of Political Philosophy* (Cambridge, MA: Belknap Press of Harvard University Press).
- Sartre, J. P. (1956) [1943] *Being and Nothingness* (English translation H. E. Barnes) (New York: Washington Square Press).
- Schiro, M. S. (2008) *Curriculum Theory: Conflicting Visions and Enduring Concerns* (Los Angeles: Sage Publications).
- Stenhouse, L. (1975) *An Introduction to Curriculum Research and Development* (London: Heinemann).
- Taba, H. (1962) *Curriculum Development: Theory and Practice* (New York: Harcourt, Brace & World).
- Taylor, C. (1989) *Sources of the Self: The Making of the Modern Identity* (Cambridge, MA: Harvard University Press).
- Taylor, C. (1999) *The Ethics of Authenticity* (Cambridge, MA: Harvard University Press).
- Tyler, R. W. (1949) *Basic Principles of Curriculum and Instruction* (Chicago: The University of Chicago Press).
- Walker, D. F. and Soltis, J. F. (1997) *Curriculum and Aims* (3rd ed.) (New York: Teachers College Press).

-
- Walzer, M. (1983) *Spheres of Justice: A Defence of Pluralism and Equality* (New York: Basic Books).
- White, J. (1982) *The Aims of Education Restated* (New York: Routledge).
- White, J. (1997) Philosophical Perspectives on School Effectiveness and School Improvement. In J. White and M. Barber (eds), *Perspectives on School Effectiveness and School Improvement* (London: University of London, Institute of Education), 41–60.
- White, J. (2004) Introduction. In John White (ed), *Rethinking the School Curriculum: Values, Aims and Purposes* (London: RoutledgeFalmer), 1–19.
- White, J. (2010) Why general education? Peters, Hirst and history. *Journal of Philosophy of Education*, 43, 123–141.
- Williams, B. (1962) The idea of equality. In P. Laslett and W. G. Runciman (eds), *Philosophy, Politics and Society: Second Series* (Oxford: Basil Blackwell), 110–131.
- Young, M. F. D. (2008) *Bringing Knowledge Back In: From Social Constructivism to Social Realism in the Sociology of Education* (London: Routledge).
- Young, M. F. D. (2009) What are schools for? In H. Daniels, H. Lauder and H. Porter (eds), *Knowledge, Values and Educational Policy* (London: Routledge), 10–18.
- Young, M. F. D. (2010a) Why educators must differentiate knowledge from experience. *Journal of the Pacific Circle Consortium for Education*, 22(1), 9–20.
- Young, M. F. D. (2010b) The future of education in a knowledge society: The radical case for a subject-based curriculum. *Journal of the Pacific Circle Consortium for Education*, 22(1), 21–32.
- Young, M. F. D. (2011) The return to subjects: A sociological perspective on the UK coalition government's approach to the 14-19 curriculum. *Curriculum Journal*, 22(2), 265–278.

Paper 6

Atli Harðarson

Are educational aims principles of design,
reform, justification, or rationalisation?

Abstract

Curriculum guides for secondary schools issued by the Icelandic Ministry of Education, Science and Culture list several overarching aims towards which schools are requested to work. Some of these aims have to do with democratic citizenship and intellectual and moral virtues.

I asked two groups of teachers whether their practice served these aims. Most of them said they had been working towards them since before they were published. The courses they taught, however, were not, in most cases, organised with them in mind. This raises questions about how to understand what the teachers said about these aims.

In this paper, I outline how the teachers responded to my questions and propose a scale where possible views on how educational aims can relate to school practice are ordered: from seeing them as principles of design, through reform and justification, to rationalisation. Finally, I argue that on this scale, the views of the teachers who answered my questions belong mostly in the middle rather than at either extreme. They use general aims to justify their practice and to reform it in a piecemeal way rather than as a way to design it from square one.

Introduction

The Icelandic *National Curriculum Guide for Upper Secondary Schools*, published in 1999, had a section on general aims, based on an act on upper secondary schools from 1996 (Ministry of Education, Science and Culture, 1999a). This section was rewritten for the second edition, published in 2004, where it said that the schools' role is to:

- Encourage the overall development of students in order to prepare them as well as possible for active participation in a democratic society.
- Prepare students for employment and further study.
- Cultivate responsibility, broad-mindedness, initiative, self-confidence and tolerance in students.
- Train students in disciplined, independent working practices and critical thinking.
- Instruct students in the value of culture.
- Encourage students to seek knowledge on a perpetual basis (Ministry of Education, Science and Culture, 2004, p. 6).

During the school year 2009–2010, I interviewed eighteen secondary school teachers to find out what they thought about these aims and how they related them to their work. All of them understood themselves to be working towards aims having to do with democratic citizenship and moral and intellectual virtues. When I inquired further about this, most of them said they approached these general aims by focusing on their subjects; however, the courses they taught were not specifically designed to serve those aims.

A new act on secondary schools was passed by the Icelandic legislature in 2008. *The Icelandic National Curriculum Guide for Upper Secondary Schools* issued in 2011, in accordance with this act, emphasises six general aims, called fundamental pillars of education. These are literacy, sustainable development, democracy and human rights, equality, health and welfare, and creativity (Ministry of Education, Science and Culture, 2011, pp. 14–22). During the school year 2011–2012, I participated in a university course for secondary school teachers. The topic was the general aims, or fundamental pillars, listed in the 2011 curriculum guide. The participating teachers were asked to reflect on how they had served these aims. Most of them said that they had been working towards them even before they were introduced by the ministry. All of them had, however, been primarily occupied with teaching courses that were not organised with these aims in mind. The answers given by the two groups of teachers raise general questions about how practice relates to the overarching general aims listed in curriculum guides.

Educational aims and curriculum design

On a common conception of aims that goes hand-in-hand with ideas of scientific planning, aims determine practice and must be stated before it is decided what to teach and how. This conception is at the core of a theory of curriculum design that was presented by Tyler in 1949 in his *Basic Principles of Curriculum and Instruction*. This theory assumes that school curricula should be designed as experiences that make students attain pre-specified educational objectives.

Tyler's model of curriculum design was dominant for decades after the middle of last century (Pinar, Reynolds, Slattery & Taubman, 1995, p. 149). It still held sway among school administrators in the USA in 1980 (Jackson, 1992, p. 35), and it reached new heights of influence and ambition, in both England and the USA, when its advocates 'allied themselves with the neoconservative movements of the 1980s' (Reid, 2006, p. 67). Quite recently, it was still seen as dominant in school administration in these countries by several prominent scholars in the field (Elliott, 2009; Holt, 2009; Klein, 2009; Short, 2009). The changes that took place in England and the USA in the 1980s had their analogues in other countries, e.g., in Finland, Iceland, and Sweden in the 1990s, where aims-based organisation, or goal steering, became an integral part of a managerialist educational policy (Jóhannesson, Lindblad, & Simola, 2002). This model has now been largely incorporated into the so-called Bologna Process in Europe (also known as the Process of Building the European Higher Education Area), where one of the key concepts is 'learning outcome' (Karseth, 2006, p. 270). In an article in the Bologna handbook, Kennedy, Hyland, and Ryan (2006) advocate learner-centred specific outcomes as principles of curriculum design in almost the same terms as Tyler used to do. The English curriculum theorist Reid has described Tyler and his followers as the archetypal thinkers and workers in curriculum theory, and remarked that attitudes to curriculum are typically expressed in a language that is essentially metaphoric, and here 'the metaphor is an engineering one' (Reid, 2006, p. 13).

If educational aims are thought of as top-level specifications of what schools are supposed to achieve, and if what teachers do is supposed to be somehow derived from these aims, then the answers

given by the teachers seem almost paradoxical. How can they claim to be working towards aims that had not even been stated when they decided what to teach and how? To make their views comprehensible we need some other picture of the relation between ends and means than the one outlined by Tyler (1949).

Teaching, like any other activity, can relate to its aims in different ways. It is aims-based in a strong sense if the details are derived from previously specified aims or designed to meet them, i.e. if the aims are principles of design. Thinking of aims in this way as plans or guidelines for re-creating school curricula *ab initio* has its parallels in top-down design or top-down engineering. The basic idea behind this methodology is that design should begin with a clear statement of what is to be accomplished, and progress downwards to details of implementation. Suppose, for instance, that our aim is to make a chocolate cake. We can break that down into two sub-tasks, or subordinate aims, such as baking the cake and making the topping. On the next level below, we break the former sub-aim down into mixing the dough and heating the oven. Down at the bottom of this hierarchy, we have details like breaking the eggs. All these details are subservient to the top-level aim of making a cake. Without the top-level aim, we would not spend time and resources on the subtasks. This view of curriculum design as top-down engineering where the details are derived from top-level, or overarching, aims has been defended by White, the English philosopher of education in a book published in 1997. School improvement schemes should, said he, start with ensuring that the aims that 'are to power everything else' are soundly based. Then the next stage is 'to see what follows from these aims about sub-aims which are their necessary conditions.' After the sub-aims have been identified, experts in various fields are called on to figure out the details of implementation (White, 1997, pp. 52–54).

An alternative to top-down design is bottom-up design, which begins with what we have. I used chocolate cake as an example to explain what top-down design is like. A similar example can also explain the main idea behind bottom-up design. Suppose all shops are closed and I want to make a cake. I find three eggs and some soft cheese and yogurt in the refrigerator, one banana, some honey, vegetable oil and flour in the larder and I ask myself what I can do

with what I have. In this case, I do not begin with a detailed specification of the outcome, but with ingredients that would be mentioned close to the bottom of the hierarchy in a top-down model of baking a cake. When using a bottom-up strategy, exact specification of the outcome comes last.

The USA curriculum theorist Schwab argued against Tyler's model of curriculum design in a series of papers, published in 1970, 1971, and 1973. These papers are entitled 'The Practical: A Language for Curriculum', 'The Practical: Arts of Eclectic', and 'The Practical: Translation into Curriculum'. They are all reprinted (the second in a slightly different form) in Schwab (1978). In these papers, Schwab argued that we cannot derive a whole curriculum from a statement of what we want schools to accomplish. His criticism of the dominant view is, basically, an argument against using aims as principles of design, i.e. against top-down design of school curricula. Although Schwab did not use the term 'bottom-up' to describe his position, he argued, in effect, for a bottom-up approach to curriculum reform. His followers in curriculum theory, commonly denominated *deliberators*, e.g. Reid (2006) and Null (2011), have also argued that curriculum reform must begin with a realisation of what we have rather than with a specification of outcomes. They advocate piecemeal reform within existing school traditions rather than rebuilding schools *ab initio* by deriving details of practice from abstract principles or general, overarching aims.

Top-down design begins with a clear and detailed statement of what we want, and then proceeds to specify what we need in order to get what we want. Bottom-up design begins with realizing what we have, and then proceeds to figure out how to use it. In short, those who work from top down ask how to get what they want, but those who work from bottom up ask how to make use of what they have. Using bottom-up methods does not exclude working towards aims or having a purpose. In the example above, the purpose is clearly to make something to eat.

In real life, we often mix these two approaches. Suppose, for instance, I believe that, to make a decent cake, I need baking soda in addition to the ingredients listed above. If I call my neighbour and ask

her to lend me some, I am using top-down thinking along with the bottom-up approach, because the need for a raising agent is derived from an idea of what I want to end up with, namely something with the texture and grain of a cake. Likewise, the design of the chocolate cake that was supposed to be an example of top-down engineering relies on a whole world of agriculture and culinary traditions that were not designed as aims subordinate to the top-level aim of making a cake. Between approaches that are purely top-down or entirely bottom-up, there is a whole spectrum of intermediate possibilities. I mention some of those below in the discussion section, after introducing the results of my two studies.

Method: Study 1

The eighteen secondary school teachers I interviewed between September 2009 and March 2010 all taught academic subjects to students ranging from 16 to 20 years old. Six of them taught natural sciences, six taught mathematics, and six were history teachers. The reason I chose these particular subject areas was that the curriculum guide from 1999/2004 required teaching within them to deviate more than other branches from previously prevailing traditions. Teachers of these subjects were therefore most likely to have reflected on the ministry's requirements, and to have changed their practice to adjust to the aims listed in this publication.

I met each teacher once. Before each interview, I explained the nature of my research and promised that their identities would be kept secret. Most of the interviews, or fifteen, were conducted in the interviewees' schools, but three of the teachers invited me to their homes. Most of the interviews were about 50 minutes long, though the shortest two were 35 minutes and the longest one was 60 minutes. The teachers worked in eight different schools: four grammar schools ('menntaskólar' in Icelandic) and four comprehensive schools ('fjölbrautaskólar' in Icelandic). Their principals recommended them as being experienced, successful, and leaders within their peer groups (except for one, who was recommended by the chair of the national association of teachers of his/her subject). Twelve of them were men and six were women. Eleven of them had careers in teaching from 20 to 30 years long,

while four had worked shorter than that and three had worked longer. The average was 22.5 years. I tried to cover the spectrum of Icelandic secondary schools by choosing institutions in both rural and urban areas, large and small, old and new.

I based my methodology on texts on qualitative research by Taylor and Bogdan (1998), Charmaz (2006), Creswell (2007), and Kvale and Brinkmann (2009). After I had typed the interviews, I used a qualitative research design called grounded theory to extract information from my data. This research design aims at the generation of a general explanation or theory by systematically coding and analysing the views of participants (Creswell, 2007, p. 63).

Method: Study 2

After I completed the eighteen interviews, I published two papers in Icelandic about my findings (Harðarson, 2010a, 2010b). I was however far from sure whether the group of successful and experienced teachers I talked with was typical for the profession. I suspected that younger teachers would tell different stories. Two years after I did the interviews I had an opportunity to find out what a different group of secondary school teachers thought about general educational aims. At that time, I participated as an assistant teacher in a university course offered as in-service training for teachers. The course was about the general aims listed in the new curriculum guide for secondary schools issued by the Icelandic Ministry of Education, Science and Culture in 2011. It was held at the School of Education in the University of Iceland.

Most of the teachers who participated in this course were relatively young in comparison to my interviewees. From their discussions and conversations in class, it was evident that they were in favour of the new general aims published by the ministry and wanted to promote the values they enshrined. Towards the end of the school year, the participating teachers were asked to hand in written answers to two questions. Twenty, out of twenty three who completed the course, allowed me to use their answers as data for my research provided their identities were kept secret. The two questions were:

1. Has your practice and your choice of subject matter and teaching materials, until now, served aims that are similar to any of the fundamental pillars of education described in the 2011 curriculum guide?
2. What changes do you expect to make in your practice, choice of subject matter and teaching materials in order to adjust your practice (better) to the six fundamental pillars of education that are emphasised in the curriculum guide from 2011?

Most of the answers I got were quite long, more than one thousand words. When I analysed the answers, I used the same methods I had used in my work on the eighteen interviews. Those who answered were fifteen women and five men. They worked in ten different schools that cover the spectrum of secondary schools in Iceland equally well as my sample of eighteen interviewees described above. Six of them taught foreign languages, four were natural science teachers, three taught Icelandic, three mathematics, two history, and two sociology. The subjects of philosophy, life-skills and visual arts were taught by one teacher each. These numbers add up to a little more than twenty because some of the teachers taught more than one subject.

Results: Study 1

Only two out of the eighteen teachers I interviewed said that they had actually organized their teaching with the overarching aims listed in the curriculum guide from 1999/2004 in mind, and no one had adjusted his or her teaching to meet all the general aims listed. They all claimed, however, to work towards aims that were similar to some of those listed and also more general than just subject-specific aims.

Three out of six mathematics teachers said that their subject was especially apt for promoting parts of the general aims. One of them, however, said that these aims were served by all schoolwork and could be 'reached by any normal schooling, in mathematics just as any other subject.' Some of the science teachers thought the general aims required them to emphasise certain special topics and mentioned environmental issues in connection with this. When they explained this in more detail however, it became clear that, in their view, these

general aims were served by working towards subject-specific aims, and therefore did not take up any extra time.

When talking about the general aims, the teachers related them to subject-specific aims. For instance, four of the science teachers talked about raising environmental awareness or appreciation of the importance of environmental issues as a way to prepare students for active participation in a democratic society. In this same context, two of them also mentioned the relevance of scientific knowledge to health. Perhaps understanding news and current issues (mentioned by four science teachers) and an ability to participate in social discourse (mentioned by two of them) appear to have only loose ties to the natural sciences. But in the conversations, however, the connections were quite close, the teachers bringing this up after the discussion had touched on genetically modified grain, mutations of a flu virus, or exploitation of natural resources. The same applies to the other teachers. The mathematicians mentioned, for instance, enhancing critical thought, logical acumen, and the ability to present information in an organized way. The history teachers talked about students' abilities to understand their own society and culture and develop a critical stance towards information. Some of them also mentioned broad-mindedness, the ability to place oneself in the situation of others and to understand a culture different from one's own.

Although teachers of natural sciences, mathematics, and history work under a certain amount of time pressure, and the subject specific sections of the curriculum guide from 1999/2004 (Ministry of Education, Science and Culture, 1999b, 1999c, 1999d) list more topics than can easily be covered, only one of my interviewees mentioned lack of time as a relevant factor in connection with the general aims. The other seventeen did not seem to think of these aims as competing for time with subject-specific aims. With one exception, they took themselves to be working towards the general aims by teaching their subjects rather than by doing something in addition to that. This one exception was a mathematics teacher who reflected on the possibility that the general aims might require her to do something other than focus on mathematical topics. This came up in connection with the promotion of critical thinking. She said that she wanted her students to be aware of how mathematics can be misused

to deceive people and to understand that although mathematical models match reality to some extent, the fit is not complete: 'You can model the increase of world population. But you cannot infer from it that sometime in the future people will stand on the shoulders of each other for lack of space.' But then she added that perhaps promotion of a critical attitude within mathematics was not enough, perhaps the authors of the curriculum guide meant that teachers of all subjects should make their students critical of the society in which they live, and concluded that she focused on critical thinking insofar as it had connections with her subject.

With this single exception, the teachers seemed to think that the general aims listed by the curriculum guide were approached by working towards subject-specific aims. This view was most clearly stated by the history teachers. One of them said that 'good history teaching includes a large part of them' when discussing general aims having to do with intellectual virtues and democratic citizenship. The other five history teachers expressed similar views, and did not take such general aims as competing with subject-specific aims and subject-centred teaching.

Most of the eighteen teachers interviewed had begun their careers in teaching before 1999, and most of them thought they had actually served these very aims before they were published by the ministry.

Results: Study 2

Out of the twenty teachers who handed in written answers to my two questions, seventeen said, without reservations, that they had served aims that were similar to the fundamental pillars of education described in the curriculum guide from 2011. Three did not state clearly whether they had served such aims. Most of the teachers said they had been working on these aims long before they were introduced by the ministry in 2009, two years prior to their definitive publication in 2011. One typical response came from a science teacher who said that she was surprised to find out to what extent she had really been working towards these aims even though she was not thinking in those terms. Another teacher said that the six pillars of education defined by the curriculum guide from 2011 were based on

values that most Icelanders hold in high regard, and implied that teachers had been working towards these aims before they were actually told to do so.

Although the twenty participants in the course came from different schools and represented different subjects, their responses were surprisingly similar when asked if they had served the general aims listed in the curriculum guide from 2011. Like my eighteen interviewees, they believed themselves to have worked towards many of these overarching general aims before they were stated and made mandatory by educational authorities. They also said that they had served these aims without using them as principles of design or taking special notice of them when choosing course materials and teaching methods. In their answers to the second question, about what they expected to do in order to adjust to the demands of the new curriculum guide, some of the twenty course participants did, however, propose changes in their practice to approach the six general aims in ways more adequate than those used before. Teachers from three of the ten schools had plans to design one new cross-disciplinary course which would approach some or all of the six aims in question. Other examples of changes proposed by the teachers were mostly modifications of programmes or courses they were running, such as:

- A proposal from a teacher of Icelandic to put more emphasis on writing in order to enhance students' creativity;
- Plans made by a teacher of mathematics to increase group work and cooperation between students in her classes;
- The intention of a teacher of life-skills to teach more about sustainable development.

Several teachers said that they were thinking of changing their practice without going into details. One example was a history teacher who said 'I do not think I will necessarily have to change the course materials I use. I will rather have to change how I approach these materials'. Most of the changes proposed by the teachers seem rather minor. In Icelandic secondary schools, most students take five, six, or seven courses per term, i.e., from ten to fourteen courses per academic year. University-preparatory study lines take from six to

eight terms, and most vocational lines from four to eight terms. Adding one cross-disciplinary course would thus not change much more than about one sixth of what an individual student is engaged in for just one out of the program's four to eight terms.

Discussion

From what I have said so far, it is tempting to conclude that the British curriculum theorist Lawrence Stenhouse hit the nail on the head when he said that expressed at high levels of generality, aims give little guidance in planning (Stenhouse, 1983, p. 48). Another point made by Stenhouse may also be apposite: namely, that one 'difficulty with aims is that they readily become rationalizations of practice' (Stenhouse, 1983, p. 48). In other words, it is tempting to think that the aims are either vacuous, or are misused by the teachers to rationalise their practice rather than to reform it. These are, however, not the only options we have. There is a wide spectrum of possibilities between conceiving of aims as principles of design and thinking of them as rationalisations in a pejorative sense. I think it is clear that most of the teachers in my two samples did not think of general aims as principles of top-down design. They did not decide on the details by finding out what would be a good way to reach the aims. Most of the details were there before the aims were specified. If their practice had anything to do with the general aims, it was based on them in some weaker sense. The only exceptions were those who were planning to design new courses in order to approach the six aims listed in the 2011 curriculum guide and, possibly, the two interviewees who said that they had designed their courses with some of the general aims of the older curriculum guide in mind.

Some of the teachers perhaps conceived of the relation between their practice and the general aims of the curriculum guides as bottom-up. They had their subjects, their textbooks, presentations, assignments, ways of communicating with their students, and so on. They may have seen elements of their practice as possible ingredients in a recipe for approaching the aims listed in the curriculum guides. If they did look at it in this way, however, they should still have changed their practice in some way. If we use what we have to create something new, we normally use it in a different way from what we did before.

A bottom-up approach invites us to use aims as principles of reform, i.e. to modify our practice piecemeal rather than to build it from scratch. Most of the teachers did not seem to take the general aims as requiring much change in their practice however. It is therefore doubtful that they saw them as, first and foremost, principles of reform. If they did, the reforms they envisaged were surprisingly small.

I have outlined two ways in which general educational aims can relate to school practice. They can be principles of design or principles of reform. I have also argued that there are intermediate possibilities. We can think of these possibilities as a scale. On one end, we have rationalistic top-down design where we rebuild the curriculum from the ground up. After passing through the intermediate options, we find more conservative approaches where piecemeal reform of old ways is used in a bottom-up fashion to approach the aims we seek. There is, however, no reason to think the scale ends here. We can continue even further, towards conceptions of general aims as principles of justification. If the aims express values that most teachers accept, values that have shaped their practice for some time before the aims were published, then they may justify the practice. The same is true if the subjects or intellectual traditions represented by the teachers enshrine these values. This latter possibility is at the heart of the ideal of liberal education where learning is seen as leading to virtue and responsible citizenship. Probably it is also behind the remark of the history teacher, quoted above, who said that such aims are included in good history teaching.

If we refer to general aims to explain how education benefits individuals and society, then we are using them to justify school practice rather than to modify or reform. Such explanations may help preserve good traditions. Moreover, because there are intermediate positions on the scale between reform and justification, using aims to some extent as principles of justification does not exclude honest endeavour to improve schools. Reforming a tradition is sometimes the way to preserve it, and preserving it is sometimes accomplished by adjusting to new conditions.

If we move further down the scale, we envisage aims as principles of rationalisation, or what radical critics of school reform in the USA, Popkewitz, Tabachnick, and Welage (1982, pp. 168–173), described as ‘mechanisms of occupational legitimation’. Noble aims can be used to give more credibility to archaic customs than they deserve, hiding what is bad about them rather than explaining what is good about them.

Most of the teachers in the two groups who answered my questions and conversed with me did not think of general aims as principles of design. But this does not imply that they used them to rationalise their practice: I found no reason to suspect that they were trying to hide anything, and I think it would be unfair to describe their stance towards general aims as rationalisation. They mostly seemed to talk about general aims as principles of justification when asked whether they had been serving them so far. When asked how they planned to serve them in the future, at least some of them saw the aims listed in the curriculum guides as principles of reform. In this they were closer to Schwab and the deliberators than to Tyler and the dominant model of curriculum design. The fact that their views are not located at one end of the scale which ranges from design, through reform and justification, to rationalisation does not give us any reason to place them at the other extreme. By and large, they probably belong somewhere in the middle.

References

- Charmaz, K. (2006). *Constructing grounded theory: A practical guide through qualitative analysis*. London: Sage.
- Creswell, J. W. (2007). *Qualitative inquiry and research design: Choosing among five approaches*. Thousand Oaks, CA: Sage.
- Elliott, J. (2009). Connecting action with research. In E. C. Short, & L. J. Waks (Eds.), *Leaders in curriculum studies: Intellectual self-portraits* (pp. 77–90). Rotterdam; Boston; Taipei: Sense Publishers.
- Harðarson, A. (2010a, December 31st). Hvaða áhrif hafði Aðalnámskráin frá 1999 á bóknámsbrautir framhaldsskóla? *Netla*. Retrieved from <http://netla.khi.is/greinar/2010/014/index.htm>.

- Harðarson, A. (2010b). Skilningur framhaldsskólakennara á almennum námsmarkmiðum. *Tímarit um menntarannsóknir*, 7, 93–107.
- Holt, M. (2009). The scenic route. In E. C. Short, & L. J. Waks (Eds.), *Leaders in curriculum studies: Intellectual self-portraits* (pp. 105–116). Rotterdam; Boston; Taipei: Sense Publishers.
- Jackson, P. W. (1992). Conceptions of curriculum and curriculum specialists. In P. W. Jackson (Ed.), *Handbook of research on curriculum: A project of the American Educational Research Association* (pp. 3–40). New York: Macmillan Publishing Company.
- Jóhannesson, I. Á., Lindblad, S., & Simola, H. (2002). An inevitable progress? Educational restructuring in Finland, Iceland and Sweden at the turn of the millennium. *Scandinavian Journal of Educational Research* 46(3), 325–339.
- Karseth, B. (2006). Curriculum restructuring in higher education after the Bologna Process: A new pedagogic regime? *Revista Española de Educación Comparada*, 12, 255–284.
- Kennedy, D., Hyland, Á., & Ryan, N. (2006). Writing and using learning outcomes: a practical guide. Article C 3.4-1 in E. Froment, J. Kohler, L. Purser, & L. Wilson (Eds.), *EUA Bologna Handbook – Making Bologna Work*. Berlin: Raabe Verlag.
- Klein, M. F. (2009). Pivotal events and people in my career. In E. C. Short, & L. J. Waks (Eds.), *Leaders in curriculum studies: Intellectual self-portraits* (pp. 117–128). Rotterdam; Boston; Taipei: Sense Publishers.
- Kvale, S., & Brinkmann, S. (2009). *Interviews: Learning the craft of qualitative research interviewing*. Los Angeles: Sage.
- Ministry of Education, Science and Culture. (1999a). *Aðalnámskrá framhaldsskóla: Almennur hluti*. Reykjavík: Author.
- Ministry of Education, Science and Culture. (1999b). *Aðalnámskrá framhaldsskóla: Náttúrufræði*. Reykjavík: Author.
- Ministry of Education, Science and Culture. (1999c). *Aðalnámskrá framhaldsskóla: Samfélagsgreinar*. Reykjavík: Author.

- Ministry of Education, Science and Culture. (1999d). *Aðalnámskrá framhaldsskóla: Stærðfræði*. Reykjavík: Author.
- Ministry of Education, Science and Culture. (2004). *National curriculum guide for upper secondary school: General section*. Reykjavík: Author.
- Ministry of Education, Science and Culture. (2011). *The Icelandic national curriculum guide for upper secondary schools: General section*. Reykjavík: Author.
- Null, W. J. (2011). *Curriculum: From theory to practice*. Plymouth, UK: Rowman & Littlefield Publishers, Inc.
- Pinar, W. F., Reynolds, W. M., Slattery, P., & Taubman, P. M. (1995). *Understanding curriculum: An introduction to the study of historical and contemporary curriculum discourses*. New York: Peter Lang Publishing.
- Popkewitz, T. S., Tabachnick, B. R., & Wehlage, G. (1982) *The myth of educational reform: A study of school responses to a program of change*. London: The University of Wisconsin Press.
- Reid, W. A. (2006). *The pursuit of curriculum: Schooling and the public interest*. Greenwich, CT: Information Age Publishing.
- Schwab, J. J. (1978). *Science, curriculum, and liberal education: Selected essays*. Chicago; London: The University of Chicago Press.
- Short, E. C. (2009). Introduction: In anticipation of these essays. In E. C. Short, & L. J. Waks (Eds.), *Leaders in curriculum studies: Intellectual self-portraits* (pp. xvii–xx). Rotterdam; Boston; Taipei: Sense Publishers.
- Stenhouse, L. (1983). *Authority, education and emancipation*. London: Heinemann.
- Taylor, S. J., & Bogdan, R. (1998). *Introduction to qualitative research methods: A guidebook and resource*. New York: John Wiley & Sons.
- Tyler, R. W. (1949). *Basic principles of curriculum and instruction*. Chicago; London: The University of Chicago Press.

- White, J. (1997). Philosophical perspectives on school effectiveness and school improvement. In J. White, & M. Barber (Eds.), *Perspectives on school effectiveness and school improvement*. London: University of London, Institute of Education.

Index of names

- Akker, Jan van den, 13, 21, 156–168
- Apple, Michael W., 47, 48
- Aristotle, 13, 14, 55, 68, 239
- Ármansson, Kristinn, 157, 186, 192–194
- Arnold, Matthew, 199–201, 215
- Ásmundarson, Valdimar, 189, 190
- Ásmundsson, Þröstur, 199
- Au, Wayne, 43
- Ayer, Alfred J., 37, 240
- Bailey, Charles, 24, 25, 28, 29, 215, 216, 220
- Bantock, Geoffrey Herman, 17, 196, 197, 201
- Barnett, Ronald, 224
- Barrow, Robin, 23, 24, 37, 47, 48, 72, 241
- Beckett, Kelvin Stewart, 77, 78
- Beiser, Frederick C., 200
- Biesta, Gert, 238
- Biklen, Sari Knopp, 133, 162
- Blake, William, 214
- Bloom, Benjamin S., 12, 39, 41, 47, 61, 67, 212, 235
- Bobbitt, John Franklin, 12, 33–47, 57, 67, 86, 89, 106, 107, 235, 238
- Bogdan, Robert C., 132, 133, 162, 259
- Bollason, Arthúr Björgvin, 199
- Boni, Alejandra, 67
- Bowles, Samuel, 47, 48
- Brinkman, Svend, 162, 259
- Bruner, Jerome, 16
- Bybee, Rodger W., 232
- Carr, David, xiii, 24–29, 57, 82, 95, 96, 159, 204, 215, 216
- Charmaz, Kathy, 133, 162, 259
- Coleridge, Samuel Taylor, 199
- Creswell, John W., 133, 160, 162, 259
- Crittenden, Brian, 54, 57
- Cuban, Larry, 18–20, 42, 91, 92, 147
- Daníelsson, Ólafur, 128
- Denti, Louis G., 21, 42
- Descartes, René, 62
- Deway, John, 12
- Donner, Wendy, 188, 199
- Dreyfus, Hubert L., 90
- Dreyfus, Stuart E., 90
- Dunne, Joseph, 90
- Dworkin, Ronald M., 242
- Eggertsdóttir, Rósa, 43
- Einarsson, Ólafur G., 127
- Eisner, Elliot W., 232, 233, 239
- Elam, Gillian, 130, 161

Eliot, T. S., 57
 Elliott, John, 12, 43–45, 212, 235, 255
 English, Andrea, 78
 Entwistle, Harold, 80
 Fenwick, Lisl, 243
 Fletcher, Colin, 221
 Føllesdal, Dagfinn, 133, 164
 Fowers, Blaine J., 12, 65
 Gadamer, Hans-Georg, 90, 162
 Gibboney, Richard A., 105
 Gilbert, Lewis, 214
 Gintis, Herbert, 47, 48
 Gramsci, Antonio, 80, 81
 Green, Maxine, 47, 49
 Guðmundsson, Guðni, 155, 186
 Hálfðanarson, Helgi, 200
 Hamilton, David, 21, 91–93
 Harðarson, Atli, 19–24, 68, 82, 84, 93, 100, 101, 200
 Haue, Harry, 93, 191–195
 Hegel, Georg Wilhelm Friedrich, 200, 211
 Hempel, Carl G., 52
 Hippokrates of Kos, 79
 Hirst, Paul Haywood, 73, 176
 Hjartarson, Jón F., 127, 128
 Hobbes, Thomas, 242
 Hogan, Pádraig, 80
 Holt, Maurice, 43, 255
 Hreinsdóttir, Harpa, xiii
 Hueso, Andrés, 68
 Hyland, Áine, 44, 212, 255
 Illich, Ivan, 47, 49
 Ingvarsdóttir, Hafdís, 147, 159
 Jackson, Philip W., 24, 26, 29, 30, 43, 74, 93, 94, 233–235, 255
 Jóhannesson, Ingólfur Áseir, xiii, 43, 44, 158, 255
 Jóseppsson, Bragi, 189
 Kallendorf, Craig, 196
 Kant, Immanuel, 197, 214, 242
 Karseth, Berit, 44, 212, 238, 255
 Katz, Michael S., 21, 42
 Kellough, Noreen G., 42
 Kellough, Richard D., 42
 Kelly, A. Vic., 13, 47, 48, 72, 84, 234–239
 Kendall, John S., 42
 Kennedy, Declan, 44, 212, 238, 255
 Klein, M. Frances, 43, 255
 Kliebard, Herbert M., 12, 19, 66, 212, 232, 233, 235, 239
 Knickerbocker, William S., 200
 Knox, Vicesimus, 199
 Kristjánsson, Kristján, xiii, 7, 23, 29
 Kvale, Steinar, 162, 259
 Lárusson, Eggert, 159
 Lawrence, D. H., 77, 214

- Lewis, C. S., 80, 81
- Lewis, Jane, 130, 159
- Lindblad, Sverker, 44, 255
- Locke, John, 17, 184, 188–191, 196–198, 242
- Lozano, J. Felix, 67
- Macdonald, Allyson, 159
- MacIntyre, Alasdair C., 52–54
- Madvig, Johan Nicolai, 192, 193
- Magnússon, Einar, 155, 186
- Mann, Wolfgang, 202
- Marzano, Robert J., 42
- McNeil, John D., 232, 233, 239
- Melsteð, Bogi Th., 186, 189, 190
- Mill, John Stuart, 17, 199, 231, 243
- Miller, Alistair, 173
- Montaigne, Michel de, 196, 221
- Nagel, Thomas, 90
- Nelson, Barbara Belle, xiii
- Neurath, Otto, 91
- Null, Wesley, 47, 48, 85, 245, 257
- Nussbaum, Martha, 68, 203
- Oakeshott, Michael, 24–29, 72, 77–81, 173, 174, 202, 203, 212, 215, 217, 220
- Ólafsson, Arnljótur, 189, 190, 202
- Orwell, George, 220, 243
- Peris, Jordi, 67
- Peters, Richard S., 24–29, 64, 65, 69, 75–81, 84, 85, 106, 157, 158, 166, 174, 212, 215–217, 220, 235
- Piaget, Jean, 47
- Pinar, William F., 12, 34, 36, 39, 41, 42, 211, 212, 235, 255
- Popkewitz, Thomas S., 61, 93, 266
- Pring, Richard, 54
- Putnam, Hilary, 27–29, 211, 214, 217–219
- Quine, Willard van Orman, 56
- Rawls, John, 242, 243
- Reid, William A., 43, 46–49, 68, 85, 98, 99, 255, 257
- Reynolds, William M., 12, 211, 255
- Ritchie, Jane, 130, 159
- Rousseau, Jean-Jacques, 198
- Russell, Willy, 214
- Ryan, Norma, 44, 212, 255
- Said, Edward W., 203
- Sarason, Seymour B., 21, 92, 147
- Sartre, Jean-Paul, 37, 240
- Scheffler, Israel, 24, 31
- Schiller, Friedrich, 199, 200, 204
- Schiro, Michael Stephen, 232, 234, 235, 239
- Schmitter, Amy M., 188, 189

Schwab, Joseph, 47, 87, 91, 94–99, 105, 257

Scott, James C., 90

Seneca, Lucius Annaeus, 173, 174

Short, Edmund C., 43, 255

Sigþórsson, Rúnar, 43

Sigurðsson, Jón, 189, 190

Simola, Hannu, 44, 255

Skúlason, Páll, 7

Slattery, Patrick, 12, 211, 255

Soltis, Jonas F., 232–234, 239

Spinoza, Benedict, 242

Stefánsson, Stefán, 189, 190

Stenhouse, Lawrence, 47, 48, 71–86, 102, 105, 211–214, 217, 223, 235, 236, 238, 264

Stephen, Martin, 86, 173

Taba, Hilda, 12–14, 21, 39–41, 45, 47, 61, 62, 67, 212, 235

Tabachnick, B. Robert, 61, 93, 266

Tarcov, Nathan, 188, 199

Taubman, Peter M., 12, 211, 255

Taylor, Charles, 60, 237

Taylor, Steven J., 133, 162, 259

Þorleifsson, Heimir, 155, 186

Þórólfsson, Meyvant, 161

Thorsteinsson, Steingrímur, 200

Tyack, David, 19, 20, 42, 91, 92, 147

Tye, Barbara Benham, 18–20, 102, 145, 147

Tyler, Ralph W., 12, 34–47, 57, 67, 73, 93, 211, 212, 235, 238, 240, 255–257

Vallance, Elizabeth, 232, 233, 239

Walker, Decker F., 232–234, 239

Walzer, Michael, 97, 242

Warnock, Mary, 24, 25, 29, 215

Welage, Gary, 61, 93, 266

Westbury, Ian, 47, 48

White, John, 13, 14, 17, 21, 22, 24, 26, 28, 29, 42, 44, 85, 88, 93, 157, 166, 172, 174, 198, 203, 216–218, 220, 225, 234–236, 238, 241, 256

Williams, Bernard, 242

Winch, Christopher, 13, 160

Woolhouse, Roger, 197

Yolton, Jean S., 196

Yolton, John W., 196

Young, Michael, 243, 244

Zeno of Elea, 14, 15