






Ons onderwijs2032 Advisory Report

platformonderwijs2032

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Colophon

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CONTENTS

Foreword

Summary **08**

1 Platform Onderwijs2032: focus and process **10**
Terms of reference 11
Process 12
The society of the future 13
The role of education 15
The time for change is now 15

2 Education of the future **20**
2.1 Characteristics 21
- Knowledge and skills based on creativity and curiosity 21
- Personal development 22
- Freedom, responsibility and broad horizons 22
- Taking advantage of modern technology 23
- Individualized education 24

2.2 Competent, responsible and kind 25
- Personal development 26
- A relevant curriculum 27

3 Core and choice: new accents for the future **28**
3.1 A solid foundation for all students 29
- Language skills: Dutch 29
- Language skills: English 30
- Numeracy 32
- Digital literacy 32
- Citizenship 34
- World knowledge 37
- Interdisciplinary skills 42

3.2 Ambitious pursuit of greater depth and breadth 43
- A curriculum in line with students' interests and the requirements of academic advancement 44

3.3 A cohesive curriculum 47
- Cohesion for the student 47
- Connections with the outside world 48

4 Prerequirements for future-oriented education **50**
4.1 Review of the curriculum 51
- The core curriculum 52
- The elective component: greater breadth and depth 54

4.2 Assessment and examinations 54
- Assessment of core skills 55
- Assessment of the knowledge domains 55
- Assessment of elective component 55
- Measurable versus observable 56
- Accountability 56
- Regulation and inspection 57

4.3 Preconditions 57
- Investment in professional development and cooperation 57
- Training the teachers of the future 58
- Cohesion within the education system 59

4.4 Next steps: a systematic reappraisal 60
- A strong position for teachers 60
- Regular review 60

Literature and references **62**

Appendix 1

Official announcement of the Platform's appointment 64

Appendix 2

Members of the Platform 65

FOREWORD

What is the purpose of education? Do young people learn to pass examinations or to prepare themselves for life? This is an age-old discussion which, for many it seems, has yet to be resolved. Indeed, views have become even more divergent if we are to judge from the recent public discussion about the form and content of education in the Netherlands. The debate prompted the State Secretary of Education, Culture and Science to appoint an advisory commission, Platform Onderwijs2032, to consider the future of education and to make recommendations for reform. ('Onderwijs' is the Dutch word for education.) The Platform opted to fulfil its remit through a process of broad public consultation which began in early 2015. Some people are now calling for a complete overhaul of the education system and curriculum. They call for a shift in focus to allow students to develop the broad knowledge and skills they will need as adults living in the twenty-first century. This report is concerned with the desirability of reforms and the general direction that they should take. It presents the broad outlines; details must be determined at a later date.

When the Platform began its work in February 2015, we were aware that our efforts might attract a degree of scepticism, dissent or even outright opposition, not least from the people who work in education. We are happy to report that this was not the case. We have been very pleasantly surprised by the enthusiasm, engagement and willing cooperation shown by the thousands of teachers, school administrators, students and parents who have contributed to the discussion. There were nevertheless some who expressed concern that reform would lead to the irretrievable loss of significant values. We listened carefully to their misgivings, which centred on considerations such as freedom within education and the importance of examinations, certificates and diplomas.

This document outlines a vision. It should be regarded as the first step in reforming the curriculum at primary and secondary school level. There is a very long path to tread if we are to arrive at an education system which is truly in keeping with the demands of the twenty-first century while preserving all the valuable insights and knowledge developed in preceding centuries. The Platform sets out a number of preconditions which continue to apply today, just as they did in the past. Regardless of any reform or change, the key elements of good education remain the professionalism, expertise, energy and enthusiasm of those who work in the sector. The Platform wishes to thank all the institutions, organizations and individuals who have contributed to the discussion. Their input has been invaluable and we hope that all will show equal drive and commitment as we move into the next phase of making education in the Netherlands 'future-proof'. Reform is essential and it is appropriate to begin the process now rather than later: the time is ripe.

The Platform acknowledges that change is always difficult and that the new situation will call for a period of acclimatization. The process becomes even more complex because it is essential to maintain continuity. Throughout this report, the Platform's recommendations are interspersed by examples of ways in which the field is already pursuing reform. These examples illustrate that change cannot be achieved overnight. The process is not one of revolution but of evolution.

The proposals outlined in this document will create greater diversity in education. Schools will enjoy the freedom to design a significant part of their educational programmes according to their own insights and convictions, and in line with abilities and requirements of their students, within a discretionary or 'elective' curriculum component. We regard freedom in education as a basic right. However, freedom does not mean the absence of obligation; elective is not synonymous with optional. It remains essential to devise, design and offer education which will prepare young people for their future in the most thorough manner possible.

Paul Schnabel
Chair, Platform Onderwijs2032

January 2016

SUMMARY

In February 2015, the State Secretary of Education, Culture and Science appointed an advisory commission, Platform Onderwijs2032, which was instructed to conduct a thorough public consultation examining the form and content of primary and secondary education in the Netherlands. The objective was to identify the knowledge and skills that young people must acquire if they are to function effectively in a rapidly changing society. The Platform invited teachers, students, school administrators, parents, civil society organizations, and representatives of the private and cultural sectors to take part in a number of discussion meetings. In producing this advisory report, the Platform has also drawn upon the latest insights in educational science and best practice examples from home and abroad.

It is clear that education must take a new direction if the children who are now entering primary school are to acquire the knowledge and skills they will need when they complete their education in the year 2032. The Platform has identified several characteristics of 'education of and for the future', whereby there will be a greater emphasis on personal development. This is the third main purpose of education after the acquisition of knowledge and social development. A better balance between the three goals will support the all-round development of students to become independent adults with all the skills and competences they need to participate in society.

To transform its vision of education into reality, the Platform calls for a basic foundation of knowledge and skills which will enable students to progress into higher forms of education, and to function effectively in society. This mandatory 'core curriculum' will be restricted in scope and content, whereupon schools and teachers will have more time and opportunity to address the individual needs, ambitions and personal talents of their students by means of a discretionary or 'elective' curriculum, to be designed at the local level. The Platform proposes that the compulsory components of the core curriculum should be language (Dutch and English), numeracy (arithmetic and mathematics), computer literacy and citizenship. Students must also acquire the knowledge they need to understand the world around them and make a contribution. To ensure that students appreciate the significance and future relevance of their education, the Platform further suggests that this knowledge should be divided into three clusters: social studies, science, and language & culture. Students will acquire in-depth knowledge of selected topics within each domain.

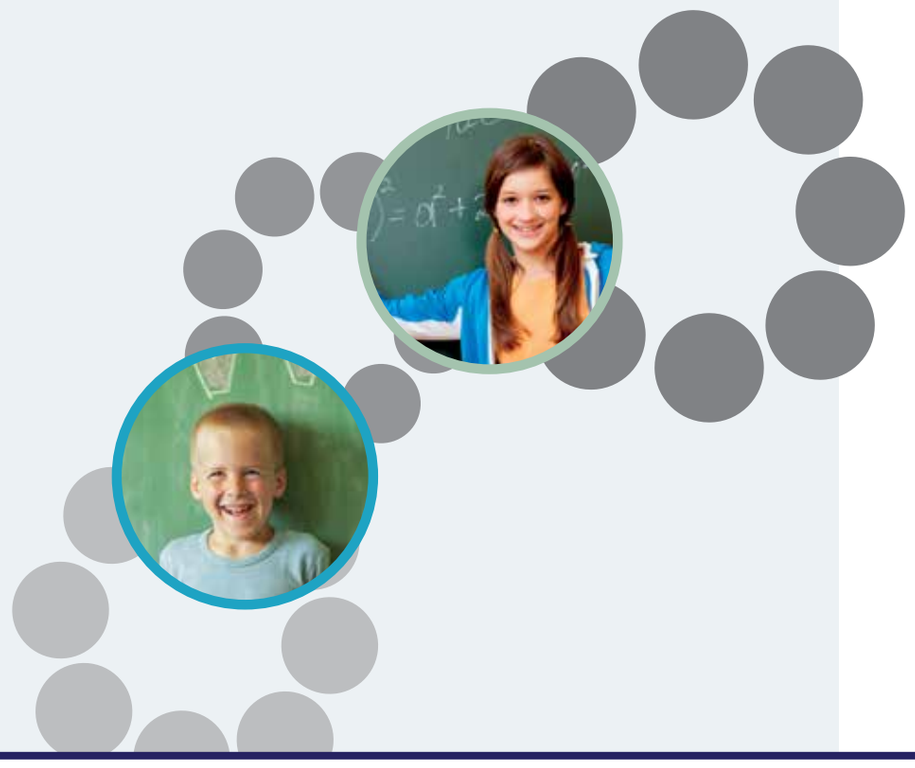
Rather than knowing 'a little about a lot' they will learn 'a lot about a little'. They will also learn to interconnect knowledge in different disciplines as they examine various social or societal issues from different perspectives. In addition to core knowledge, schools must also instil the general 'interdisciplinary' skills which are required across the board: learning skills, creativity, critical thinking, problem-solving and cooperation.

The core curriculum will provide a foundation upon which schools can build their own challenging and relevant curriculum in keeping with the specific characteristics of their students. Schools will select the subject components to be studied in greater depth or breadth, which will depend in part on the interests and requirements of students and their parents, as well as the professional expertise of teachers. The pursuit of depth and breadth by means of the elective curriculum is not optional. If they wish, schools may enlist the help of external partners such as the business community, social and cultural organizations, or sports associations.
To reform the content of education in this way demands a re-evaluation of the core objectives and learning outcomes. The current core objectives are no longer in keeping with modern requirements. The Platform calls for the implementation of a clearly defined, mandatory core curriculum accompanied by an 'elective' component to be designed according to the interests and requirements of the school and the individual student. The core curriculum will create a basis for cohesive education; all students will acquire the essential knowledge. During its design phase, attention must be devoted to differentiation and to strengthening the 'continuous learning line', i.e. facilitating the smooth transition from one level to the next.

Effective reform of the curriculum will flounder unless assessment and examination arrangements are also updated. Examinations must reflect the desired learning outcomes of the education process. In the Platform's view, education must devote attention to both 'measurable' and 'noticeable' outcomes. Effective reform also calls for certain preconditions to be met: investment in teachers' professional development, a fitting approach in teacher education, cooperation between all stakeholders, and a good digital infrastructure. It is essential that teachers enjoy a strong position in the next phase of the process. Given the positive experiences during the initial dialogue, the Platform welcomes the prospect of a similarly interactive approach in the months and years ahead.

1

PLATFORM ONDERWIJS2032: FOCUS AND PROCESS



The Netherlands can be justly proud of its education system. Quality is high, due in no small measure to the motivated, professional teachers who are committed to preparing their students to play a full and active part in society. Dutch education consistently achieves high rankings in various international comparisons.[1] Nevertheless, various social developments now compel us to reconsider what students should be expected to learn at school.

Current education policy and the resultant curriculum place a strong emphasis on cognitive performance. Many schools feel that they are being overloaded with demands to include all possible subjects in the curriculum. This situation has for some time demanded a fundamental discussion about the role of education in our changing society, whereby the reform of the current curriculum must also be considered.[2] Just such a discussion was conducted throughout much of 2015 under the auspices of Platform Onderwijs2032. It has resulted in the current advisory report.

Terms of reference

Platform Onderwijs2032 was established in early 2015 by the State Secretary of Education, Culture and Science, Mr Sander Dekker.[3] The Platform was asked to submit advice and recommendations based on a process of broad public consultation. The terms of reference centred around one key question: 'What knowledge and skills do students in primary and secondary education need in order to make a full and valid contribution to (future) society?' This gave rise to the following subsidiary questions:

1. What subjects, disciplines or skills form part of a balanced and future-oriented curriculum?
2. Given the constraints of time and resources, what knowledge and skills should enjoy less attention within the curriculum?
3. What knowledge domains and skills are currently under-represented within the curriculum?
4. What general design principles for a new curriculum can be identified?

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[1] Education at a Glance: Organization for Economic Cooperation and Development (OECD), 2015a; World Economic Forum, 2015; PISA: OECD, 2014; PIAAC: OECD, 2013.

[2] Education Council (2014); Administrative agreement for the primary education sector, 2014; Sector agreement for Secondary Education, 2014-2017.

[3] The legislative basis for the Platform and its activities is described in Appendix 1.

Process

Following an exploratory 'brainstorming' phase, the Platform (under its chair Paul Schnabel) initiated a broad social dialogue which began in February 2015.[4] A wide range of stakeholders – teachers, students, parents, school administrators, researchers, and the representatives of social and cultural organizations, the private sector and political parties – were invited to contribute. A large number of written requests, manifestos, research papers, reports and so forth were submitted for the Platform's consideration. The Platform members attended various meetings and other events, making themselves available to anyone who wished to comment. They also visited various primary schools, secondary schools and institutes of higher education, from which much valuable information was gleaned.

The Platform was extremely impressed by the interest and energy shown by the various contributors to the discussion. The Platform was also pleasantly surprised by the sheer number of ideas and suggestions about the future of education, and was gratified to note that many schools, companies and other organizations have already embarked upon the process of modernization.

The Platform bases its report on the current situation within Dutch education. It has also drawn on new insights in education science and some ongoing activities in other countries, notably Finland, Norway, England and Scotland.[5] The combined result is a wealth of information which provides a detailed picture of the aspects that are generally considered important to education reform.[6]

The Platform presented the outlines of its recommendations on 1 October 2015, inviting feedback from the various stakeholders.[7] Their comments and suggestions were taken fully into account during the production of this final version of the advisory report.

Scope

This report is concerned with the curriculum to be followed by primary, secondary and special education schools. A cohesive curriculum at all levels is crucial to the development of the student. Children entering primary school have already completed the first phase of their development. Education at both primary and secondary level builds upon this early learning and socialization, which also form the basis for progression into further education. This report restricts itself to the main points relevant to all students in primary, secondary and special education. It does not address the implications of the Platform's recommendations for specific age groups or streams, this being something to which attention must be devoted at a later date.

Here, the Platform presents its advice with regard to the curriculum rather than the organization of the education system as a whole. We attempt to describe the target situation in a way which will inspire everyone involved in education – from teachers to policy-makers – to develop an educational programme which is in keeping with their professional insights and personal convictions, while also addressing the interests, talents and abilities of their students. The Platform considers freedom of education to be a pillar of the Dutch educational system.

The society of the future

Dutch society has long been among the world's most developed, prosperous, well organized, stable and content. But we must not rest on our laurels. To maintain these high standards in the twenty-first century calls for ongoing efforts, to include the provision of excellent education which meets the demands of today and tomorrow. The Dutch government expects every healthy, able-bodied adult to be able to provide for himself or herself, to respect and care for others, and to take an active part in society. Therefore, in the decades ahead, there must be enough employment for approximately half of the total population of 18 million people. Compared to other countries, the Netherlands is heavily reliant on international trade. This, in combination with high wage costs, means that the population must be well educated, with a significant proportion qualified to at least degree level, if we are to achieve our ambitious objectives in terms of welfare and prosperity. There must also be a fair distribution of income and wealth to provide a good work-life balance. Everyone should be able to enjoy a fulfilling family life and ample time for leisure activities.

The second half of the twentieth century saw an enormous increase in the number of young people progressing into higher education. Today, over a third of the working population are graduates. The number is set to rise, while demand for people with sound vocational or technical training will also remain high. At the same time, there will be constant demand for people to undertake unskilled or semi-skilled work which demands little training but which cannot be automated or offshored. The services sector, however, is already showing a decline in demand for people with only secondary

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4 The members of the Platform are listed in Appendix 2.

5 A list of all sources consulted is available online at www.onsonderwijs2032.nl.

6 Reports of the discussion meetings and their outcomes are available online at www.onsonderwijs2032.nl.

7 Results of this consultation phase are available online at www.onsonderwijs2032.nl.

For almost everyone, the 'job for life' is now a thing of the past

education, while this was one of the major growth sectors of the twentieth century. For almost everyone, the 'job for life' is now a thing of the past. Job security will increasingly be determined by a person's ability to acquire new knowledge and skills, and by a certain degree of flexibility. The employee of tomorrow must be prepared to work in fields other than that for which he was trained. We are likely to see a growing number of people with professional qualifications undertaking work for which little or no education is required. Although the majority of labour market entrants will be on the payroll of a particular employer, mobility and entrepreneurship will also be required, possibly throughout one's working life. It now seems inevitable that the retirement age will rise to 70 within the foreseeable future.

Primary and secondary education must establish a firm foundation on which a person can make choices with regard to further education or employment in later life, doing so with confidence and a sense of security. Although much will change in the decades to come, there can be no doubt that the Dutch citizen will continue to need good language skills, both in his own language and English, alongside good numeracy skills. Working in an international context is now common and will become even more so. It generally calls for a good command of English, which is already the lingua franca of computer technology, an essential component of all aspects of life including education. We may be on the threshold of another technological push which will open up yet more opportunities but will also bring some major challenges. Certain routine tasks will be automated and performed entirely by machines, leaving only those which demand good social and communication skills. Consultation, negotiation and consensus-forming will become increasingly important in the workplace, as well as in an individual's personal and social life. The school is where all such skills are developed, practised and perfected.

The traditional hierarchical society, with its rigid authority structures, social relationships and social divides, has been teetering for many decades. Dutch society of a century ago is now very difficult for today's individualized citizens to understand. As a growing number of people from other countries and cultures make the Netherlands their home, the links with our 'common' past and its assumptions are becoming ever less distinct. For migrants and their children, good and effective education is particularly important because it provides access to our society and the employment market. While education reinforces individualization and provides increased autonomy, it must also promote the social integration of the individual. It must foster a sense of social responsibility. In today's pluriform and multicultural society, education must promote both personal development and citizenship in the interests of social cohesion. This too must be reckoned among its key tasks.

The role of education

Children and young people gain much of their knowledge and skills outside the classroom. They do so at home, while interacting with others of their own age, when using social media, at the sports club and during various other leisure activities. Although the school is not the only locus of learning, it is a very important one. It is here that students systematically develop knowledge and skills that they can only incidentally acquire in other areas of life. The school represents a rich social context in which students learn about their role in the community and how to respond to others' expectations. They develop as members of a group. The school also provides the basis for further education and for social participation. It can therefore be seen to have an emancipatory function. Good education enables all students, regardless of background, physical ability or intellectual capacity, to achieve their full potential.

In this document, which is based on both the historical perspective and future ambitions, the Platform is mindful of the immutable task of the school: the pursuit of the three main objectives of education, viz. imparting knowledge, supporting personal development and equipping the students to play a full and valid role in society. However, the school cannot and should not be expected to undertake this task entirely unaided. Success demands good cooperation with parents, while schools should also take advantage of the knowledge and experience of other partners such as organizations in the private, social and cultural sectors.

The time for change is now

Platform2032 is so called because 2032 is the year in which many of the children starting school in 2015 will complete their education and embark upon their professional careers as adults. The name must not be taken to imply that Platform's recommendations need only be implemented in 2032; the required reforms cannot wait that long. It is in everyone's best interests, not least those of young people themselves, for the process of change to be initiated as soon as possible. The Platform is gratified to note that many schools have already begun to explore reform. Examples are given throughout this report (in the shaded textboxes) and in the accompanying analyses. We hope that this report will encourage them to continue their efforts.

For other schools, the report offers practical advice on how to begin. The Platform's recommendations form a point of departure for a transition to future-oriented education. During the design phase, which commences in 2016, the recommendations should be refined to address the requirements of different age groups and streams.

Shared responsibility

The design phase is, of course, only the beginning of a long process. Education must be continually adjusted, updated and shaped to meet the changing requirements. This process takes place at various levels.[8] It is the schools which must put the vision into practice and ensure that education keeps pace with the times. This is therefore the joint responsibility of teachers and school leaders. At the national level, there must be a periodic review of the core objectives to ensure that they continue to provide the necessary foundation and inspiration.

[8] Onderwijsraad, 2014.

Platform Onderwijs2032: from discussion to advisory report

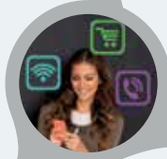
17/11/2014

National brainstorming event

12/02/2015

Launch of Platform Onderwijs2032

150 meetings attended by **9.069** contributors



612 online submissions

11.983 tweets

> 5.900 question sets for discussions with;
- students
- teachers
- parents
- researchers
- companies, etc.

23.752 visits to onsonderwijs2032.nl

59 brainstorming sessions
> 1.000 primary and secondary pupils

494 Facebook contributions

Analysis of discussion phase

> 300 white papers, surveys, manifestos, etc.

+ 46 meetings and interviews

+ 200 documents submitted

+ 155 Facebook contributions

+ 5.505 tweets

01/10/2015

Outline report

+ 212 online submissions

+ 21.353 visits to onsonderwijs2032.nl

Analysis of consultation and feedback phase

23/01/2016

Final advisory report

National brainstorming event

Dialogue phase

Consultation and feedback phase

Final report

2

FUTURE-ORIENTED EDUCATION

2.1 Characteristics

The contributions to the Platform's dialogue were rich and varied. Nevertheless, there was marked consensus with regard to the key principles of future-oriented education. In its analysis, the Platform has also drawn on recent scientific insights relating to the knowledge, skills and environmental factors which serve to support the three core objectives of education.[9] The Platform has also undertaken a comparative international study whereby members visited other countries to observe best practices at first hand.

Based on its activities to date, the Platform identifies the defining features of the education of the future as follows.

1 Knowledge and skills based on creativity and curiosity

Education must cultivate and encourage students' curiosity; their innate inquisitiveness. They learn to ask relevant questions and to develop strategies which will arrive at answers. By so doing, they will develop knowledge which will enable them to establish connections and form further insights. They will be able to reflect on their own learning process, and to work alongside others to achieve the best results. Education will therefore equip students with the knowledge they need to pursue their own development independently. They will develop the skills of 'lifelong learning', enabling them to respond flexibly to new developments, as indeed they must if they are to function effectively within a changing society.

Education for the future will also stimulate students' creativity, encouraging them to exploit their imagination and flair to devise new ideas and products. It will teach them to view the world from various angles and perspectives, and to combine knowledge from various disciplines and domains. Students will learn to experiment and to act confidently even in unfamiliar situations. They will be willing to take risks and able to deal with setbacks and disappointments. They will learn what to do when unsure what to do.

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[9] The Organization for Economic Cooperation and Development (OECD) conducted a desk study of relevant literature on behalf of the Platform. The resultant four papers (OECD, 2015b, c, d, e) can be found at www.onsonderwijs2032.nl/advies/.

2 Personal development

To take advantage of all opportunities within society, a young person must develop as a person. Students must find their place among and alongside all the other members of society. Education helps students discover their own standards and values, to identify what they consider important, and to define their relationship with others. They learn that they are entitled to feel proud of their achievements. They learn to make independent choices and to accept responsibility for their actions. They develop enterprise, resilience and self-confidence. They learn that working alongside others to arrive at a good result can be extremely satisfying.

Personal development also entails learning to express one's emotions in an appropriate manner, and to respect the position, interests and feelings of others. Empathy is the key to living alongside others in harmony. Students will discover what they need in order to care and provide for themselves and others. The basis laid in youth will contribute to well-being and social behaviour in later life.[10]

Education which supports rounded personal development will motivate students in many ways. It should be in keeping with their personal interests and values, but should also seek to broaden their horizons and introduce them to new experiences and ideas.

3 Freedom, responsibility and broad horizons

Today's citizen is increasingly permitted – and expected – to make his own life choices. He must decide how he is to structure his life, career and lifestyle and derive greatest satisfaction and fulfilment.[11] To exercise this autonomy well demands the ability to make responsible decisions. Education gives students self-confidence; it teaches them to respond flexibly to changing circumstances and to accept criticism. They learn how to form and maintain social relationships at all levels in a responsible, caring manner.

Today's world is one of ongoing globalization and increasing interdependency. At the same time, the process of individualization continues unabated. People no longer derive their identity from the traditional systems, be they political, social or religious. What values will guide the citizens of the future in their thoughts and actions? Education must allow students to appreciate their rights and obligations, both today and in later life. The curriculum should therefore cover topics such as children's rights, human rights, the democratic state and the collective values which underpin Dutch society. Education must also help to develop social skills, an open attitude, and knowledge and understanding of other cultures and religions. This will help students to appreciate the major societal challenges of today, and to think about viable solutions.

Education will encourage students to exercise personal responsibility in various aspects of their daily lives: health, finances or care for the environment, for example. It will introduce the international perspective, whereby students appreciate their role as 'global citizens' and are able to look beyond the boundaries of their own city or country.

In a newspaper article, a spokesman for MKB Nederland (the federation of small and medium-sized enterprise) notes that companies used to focus on domestic growth before thinking about expanding into other countries. Today, many 'go global' from the outset.
(*Nederlands Dagblad,* 31 October 2015).

4 Taking advantage of modern technology

New technology has a massive impact on who we are and what we do, but its role is sometimes underestimated. We now see huge growth in the volume of information available as we enter the age of 'Big Data'. Technological developments lead to permanent change both in the workplace and in the way we interact within today's global society.[12] Future-oriented education will develop students' digital awareness and skills, enabling them to continue developing these skills throughout later life. A sound knowledge of information and communication technology (ICT) and 'computational thinking' will ensure that students can understand how to use new technology products and services. They will learn the role of logical reasoning and programming, how to find digital information and how to make it readily findable for others, and how to work with (digital) media and images.

[10] OECD, 2015d; OECD, 2015f.

[11] Netherlands Institute for Social Research (SCP), 2004.

[12] Netherlands Bureau for Economic Policy Analysis (CPB), 2015; Social and Economic Council of the Netherlands (SER), 2015; Netherlands Scientific Council for Government Policy (WRR), 2015.

5 Personalized education

The education of the future will address the interests and abilities of students, encouraging them to develop their full potential. Particularly, it will take the capabilities and restrictions of each individual student fully into account. Students will feel engaged and involved in their own educational process, and will be aware that they are regarded as individuals. Education will actively involve them in the learning process and will provide the opportunity to make certain choices. This is not to say that students will enjoy everything they are required to do. All students will be expected to acquire a broad basis of knowledge and skills to prepare them for further education and for life as a responsible member of society. Nevertheless, there will be a varied curriculum with the opportunity to select certain subjects according to individual interests, abilities and learning styles. New technology will be used to the greatest extent possible.

Students wish to know why they are expected to study certain subjects and this should be explained. Students are more motivated to study subjects which they find interesting and appealing. They seek relevance to 'real life' and many have commented that the school should be more in touch with the outside world. Education for the future will build upon the student's motives for learning to develop the ability to address wider social and societal issues.

Staff of Stanislas College informed the Platform about their school's decision to cluster Dutch, English and Mathematics into a single programme (NEW). Lessons now take up less teaching time, there are fewer plenary sessions and students schedule their own work. The objective is to arrive at a more personalized approach in keeping with capabilities. 'We have seen an improvement in students' results at all levels because the students are now more motivated.'

What do students consider important?

No fewer than 59 brainstorming sessions were conducted as part of the dialogue, in which over one thousand primary and secondary school students took part. The findings show that students seek: (1) greater freedom of choice; (2) more attention for personal development; (3) more attention for globalization; (4) greater individualization with 'tailor-made' lessons; (5) greater attention for social skills; and (6) greater attention for citizenship skills.

LAKS (the National Action Committee for School-age Students) organized a number of meetings during 2015. They were attended by a total of 294 students from 93 schools, representing both the technical and academic streams, who were asked to contribute to the discussion process. Many said that they would like to be told why they are expected to study a certain subject. They also called for the curriculum to devote more attention to international current affairs: what is happening in the world and why?

Members of the Platform spoke to several students at the National Youth Debate. They believe that it is becoming increasingly important to discover and develop specific talents alongside general social skills.

2.2 Competent, responsible and kind

Based on the key features of education for the future described above, the Platform concludes that a shift in direction is necessary. There must be a better balance between the three main objectives of education to allow young people to develop into skilled and socially aware (in the broadest sense of the term) adults. Effective functioning within society demands a sound basis of knowledge and skills; education must provide that basis. Students should be able to interact in a dignified way and make a meaningful contribution to society. Education also contributes to their personal development.

Personal development

The school contributes to the development of independent, autonomous adults who are willing and able to accept and act upon their personal responsibility in all areas of life, professional and social. The school of the future will form an extremely important locus of personal development, building upon that which children and young people learn in other settings. The school plays a significant part in developing a sense of identity and in allowing students to formulate their motives and ambitions. It encourages them to explore their own values and how they can apply those values in their day-to-day lives. They will ask themselves questions such as 'Who am I?', 'Who do I want to become?', 'What do I find important?' and 'How do I wish to interact with others?' Students will also come to understand and respect the choices and opinions of other people. Education which promotes personal development motivates students to perform well in all aspects of life. They not only learn to use their heads, but their hands and hearts as well. This demands a rich and varied curriculum which enables all students to achieve their full potential, based on their individual talents and abilities. Attention must also be devoted to physical development and creative ability.

Students reflect on their personal values and how they are to be applied in practice

A healthy lifestyle

The Platform considers it important that the school should enable and encourage its students to adopt a healthy lifestyle. There should be ample time and opportunity for sport and exercise. Students will notice an ongoing improvement in their physical stamina and ability, thus coming to appreciate the value of physical activity throughout life. Moreover, participation in sports and similar activities contributes to personal and social development. Students learn to work as part of a team and to be gracious in victory or defeat. The Platform believes that it is important for students to be aware of their physical abilities and talents.

Creative development

Students should learn how to explore and express their feelings, opinions and creativity. By doing so, they will demonstrate who they are, what they find worthwhile and attractive, and what they are good at. They will grow in confidence and can form connections with other, like-minded people. The Platform believes that it is essential for schools to devote ample attention to cultural development and the various artistic disciplines such as music, drama, dance and the visual arts.

A relevant curriculum

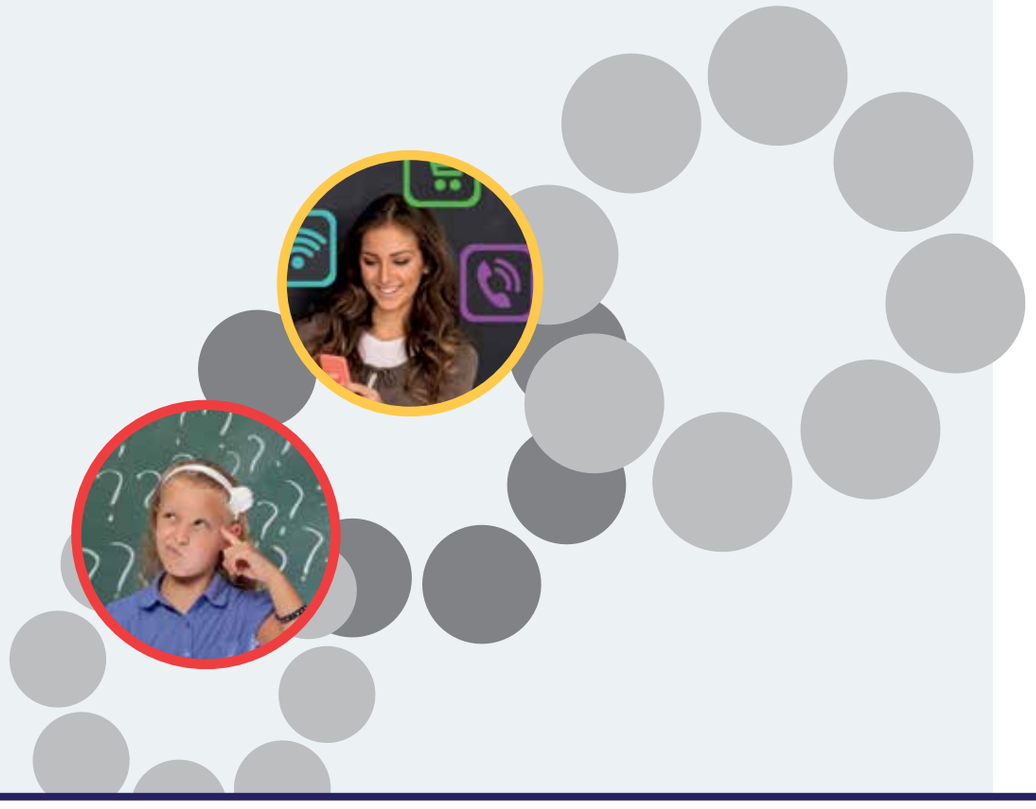
The personal development of students draws upon all components of the curriculum and demands education which is relevant and meaningful to the student. It should invite and encourage the student to ask questions, to probe on the basis of his own creativity and curiosity, thus developing enterprise and flexibility. At an early age, the student will learn to take and act upon his responsibility. He will feel engaged and appreciated.

To bring this vision of education to fruition, the Platform calls for a fixed basis of knowledge and skills which is restricted in scope, containing only that which is necessary to enable progression into higher education and/or effective functioning within society. Teachers will then have more time and opportunity to structure their programmes in a way which encourages students to pursue greater depth and breadth in areas which align with their personal interests and talents, thus supporting personal development. Moreover, teachers should be given greater responsibility in this respect. Schools will supplement the basic 'core' curriculum according to their own vision of good education, making full use of the professional abilities of their teaching staff. This approach also provides greater cohesion, in that the traditional boundaries between subject disciplines are crossed. In the Platform's view, it is important for students to develop the skills which apply equally to all subjects and disciplines.

By providing greater depth and breadth, schools can themselves design education in keeping with current requirements. In consultation with students and parents, they can develop a vision and curriculum which involves the input of external partners and meets the needs of the local community.

3

CORE AND CHOICE: NEW ACCENTS FOR THE FUTURE



The vision of education espoused by the Platform comprises three key elements:
- a fixed basis of knowledge and skills for all students which enables them to think and work across the boundaries of specific subjects or disciplines;
- flexibility for schools to offer additional knowledge and skills to allow students to pursue greater depth and breadth, based on their interests and abilities;
- the personal development of the student.

3.1 A solid foundation for all students

Every student requires certain skills and knowledge of the world in order to function within society. Dutch, arithmetic and mathematics will remain essential to all students in primary and secondary education. The Platform believes that English, computer literacy and citizenship should also be included in the core curriculum.

In addition, students need a knowledge of the world in order to understand and contribute to the world as responsible citizens. Attention must therefore be devoted to the social sciences, science and culture.

Language lessons are more appealing to the student when the various sub-skills – reading, speaking, listening and writing – are integrated in the activities.

Language skills: Dutch

A good command of Dutch is the key to social participation for anyone who lives in the Netherlands, and also goes a long way towards determining success on the employment market. Language enables students to express their personal feelings and to understand the world around them. The school is by far the most effective locus in which to develop language skills, particularly for those students who start school with some language deficit. Dutch will remain a core subject in both primary and secondary education.

Cohesion

Language tuition is more appealing, and hence more effective, when all the various sub-skills such as reading, speaking, listening (comprehension) and writing are combined. At present, they are often treated separately, an approach which fails to exploit their mutually reinforcing potential. Watching and listening to a debate, and then thinking about and discussing the content, helps students to formulate their own convincing arguments which they should then be able to express verbally or in writing. The development of language skills is not confined to lessons in Dutch itself, but forms part of virtually every subject as students read textbooks, write essays and give presentations. Stronger links should be established between language education pur sang and these other subjects.

Functional language skills

In the Platform's view, language education must devote more attention to functional language skills. Students should be aware of the purpose of their communication, their target audience, the form or channel of communication which will enable them to reach that audience, and the appropriate register. A different style is needed when texting a friend than when emailing someone we know less well or not at all. Critical appraisal of written material is another skill to which attention must be devoted, as is the ability to find one's way around the vast and growing volume of information now available. Digital sources are gradually supplanting traditional printed material. Students must be able to find and use them effectively. We do not read online material in the same way that we would read a newspaper or textbook, and anyone who wishes to derive information from visual sources must have certain observational and listening skills. The language education of the future will encourage students to discover the world around them and will engender a lifelong enjoyment of reading and learning.

Language skills: English

To communicate and cooperate effectively in an international context calls for a good command of English. It will give students the confidence they need to feel at home in today's global society, in which English is the second language of an ever growing number of people. Dutch children come into contact with English in daily life at a very early age, finding it in everything from storybooks to video games. This makes them eager to become competent in English.

More attention for English at primary level

Given the prominent role of English in the world, the Platform believes that it should form part of the core curriculum for all students. It is already a core subject at secondary level. In higher education, English is increasingly the working language of all programmes, and students are expected to have attained a high level of competence before they are permitted to enrol on those programmes. At primary level, by contrast, there is still significant variation. Some primary schools devote considerable time and attention to English, others very little. As a result, some students commence secondary education with a very basic knowledge of English and must start 'from scratch'.
The Platform calls for English to be given a permanent place in the primary school curriculum, with clearly specified learning outcomes to ensure a smooth transition into secondary education.

An early start

An increasing number of primary schools now include English tuition for even the youngest students and many report positive experiences. In general, the children show better general communication skills than those who start English lessons at a later stage.[13] Various studies conclude that learning a foreign language does not interfere with the development of one's first (native) language.[14] Even for students who do not speak Dutch at home, starting English lessons does not seem to interfere with the simultaneous development of Dutch as a second language.[15] Moreover, those who start English lessons at an early age are more positive about learning the language and more confident in their use of the language in practice.[16]

The Platform therefore believes that all children should begin learning English during the early years of primary education. The curriculum should then focus on spoken English whereby students are introduced to the language by means of stories, songs and games, with some simple comprehension exercises. The essence is that the lessons should be both enjoyable and relevant to the children's own frame of reference. For older students, interesting practical situations and role-playing exercises will be useful. The focus should be on the development of all-round communication skills in which the individual components (speaking, reading, writing and listening) are combined.

Primary school De Keerkring in Cadier-en-Keer invited children and their parents to hang their 'learning wishes' on the 'wish tree': a suggestions box for students and parents. As a result, English was incorporated into the daily programme from the first grade. The emphasis is on speaking and comprehension.

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[13] Geurts & Hemker, 2013.

[14] Van den Broek, De Graaff, Unsworth, & Van der Zee, 2014.

[15] Goorhuis-Brouwer & De Bot, 2010.

[16] Van den Broek, De Graaff, Unsworth & Van der Zee, 2014.

Numeracy

Numeracy and mathematical skills are absolutely essential. Without them, a student cannot progress into higher education or participate effectively in society.[17] Numeracy provides the means to process, clarify, order and structure information: the very basis of problem solving ability. Numeracy skills allow students to understand and apply numerical information presented as graphs, tables, statistics, mathematical models, and so forth. At school, children must learn how to use quantitative information. They should also learn responsible money management.

Numeracy should therefore be part of the core curriculum for all students. The school, at both primary and secondary level, is responsible for systematically instilling the necessary skills. The focus should not only be on basic mathematical skills, but also on critical use of statistical information and problem solving skills. Future-oriented education will allow students to appreciate the value of numeracy and discover how to use the knowledge and skills concerned in other school disciplines and in practical and workplace situations. They will pursue the level of depth which is appropriate to their future academic development and the subjects in which they choose to specialize.

Digital literacy

For many students, the online and offline worlds are already largely integrated. This does not mean, however, that all students are able to find, apply or create digital information with the same level of proficiency. Recent research suggests that that only thirty per cent of students in their second year of secondary education are able to gather and manage information unaided.[18] Students in practice-based education and the VMBO stream (preparatory intermediate vocational education) are most likely to show shortcomings in this respect. In the Platform's view, all students must learn to operate effectively within the digital world. At the same time, they must be aware of how their use of online media can affect others. Technology is now ubiquitous; the ability to solve problems in this setting is a prerequisite to success on the employment market in virtually every field.[19]

[17] OECD, 2015b.

[18] Meelissen, Punter & Drent, 2014.

[19] OECD, 2015b

Although most schools now acknowledge the importance of computer technology, research shows that computer skills are given relatively scant attention in the classroom at either primary or secondary level.[20] The Platform believes that digital literacy should be at the core of future-oriented education.. This domain has four components information and communication technology (ICT) basic skills, information skills, media awareness and computational thinking, which helps to understand how technology works.

ICT basic skills

A sound basic knowledge of ICT is needed in order to follow, understand and take full advantage of technological developments. Students should be aware of the possibilities presented by the latest technology. They must learn about aspects such as security and privacy. They should be competent in simple computer management, and able to ask relevant questions concerning the use of the new technologies.

Information skills

Digitization of information and the ongoing improvement of the digital infrastructure mean that everyone can now find and publish information almost instantly. Because digital information can be copied, manipulated and distributed far more quickly than other sources, it is essential that students are able to assess its accuracy and reliability. The ability to manage and process large volumes of data will underpin lifelong learning, as will the ability to select and use relevant information.

Media awareness

The media play a significant role in today's society. It is important that students are aware of their own media behaviour and that of others. They must adopt an active and critical approach, respecting the accepted norms and values in terms of privacy, security and personal interaction. Everyone should be aware of their own role as a producer and consumer of media content, and must be aware of the strategies that certain media apply in order to influence behaviour. They must also realize that their media behaviour influences how other people see them.

[20] Thijs, Fisser & van der Hoeven, 2014.

Computational thinking

In view of current technological developments in areas such as robotics and smart integration the Platform considers it important that all students learn to understand the essence of computer technology and how computers are used to solve problems. How does a search engine rank its results? How can one build an impossible construction? Why does a robot do whatever it does?

Computational thinking is concerned with the ability to solve problems which involve many variables and large quantities of information ('Big Data'), and which call for significant processing power. It entails applying various thinking skills in combination: logical reasoning, pattern recognition and systematic logic, for example. The student will develop his or her computational thinking ability by using technology in practice. This may involve learning the basics of programming, working with robotics and/or experimenting with 3D printing. Such activities spark the student's interest and may inspire further specialization. Even without direct hands-on experience of technology it is possible to develop useful knowledge and skills: the more abstract 'design thinking' approach.

In Leiden, for example, the De Lorentz primary school uses a unique interactive sand-and-water table to show students what happens when sand shifts and how a region's climate is affected by its topography. The table can also be used to introduce the basics of programming and modelling.

Citizenship

The Platform believes that citizenship should be given a more prominent place in the curriculum. All schools, regardless of their religious affiliation or pedagogic vision, have a duty to prepare young people to take a full and active part in our democratic society. Keeping alive the core values of democracy and the constitutional state is a joint responsibility, as is promoting knowledge and understanding of democratic policy, its organization and its prerequisites.[21]

[21] Onderwijsraad, 2012.

Keeping alive the core values of democracy and the constitutional state is a joint responsibility

Key values

In a pluriform society in which the traditional ties are no longer as strong, acceptance and tolerance can be placed under strain. Globalization and migration have created an even more varied society in which a broad range of cultures and (religious) views are represented.[22] In this setting, it becomes even more important that all citizens are aware of, endorse and abide by the norms and values of our democratic society. They must be equipped to participate, and they must feel permitted and encouraged to do so.[23] Children and young people must therefore develop their social skills and their moral compass, familiarize themselves with the shared values of the community, and learn how to interact with others in a meaningful and harmonious manner even if opinions are divergent.

The school as a learning community

The Platform sees the school as an important learning community where students will develop the values and behavioural skills of good citizenship. It is here that young people learn to live and work together, to abide by certain rules, to form their own opinions and to respect those of others. The school therefore occupies a unique place in a young person's life, compared to the other settings in which personal development takes place: the home, neighbourhood or sports club.[24] At school, students acquire a different type of knowledge. They must interact with contemporaries and teachers on a daily basis. The school is a community in microcosm which helps students find their own place within broader society. Here, they will discover how they can contribute to their neighbourhood, region, nation and the world. The school has a significant role to play in preparing young people for their role as responsible global citizens.

[22] OECD, 2015c.

[23] Peschar, Hooghoff, Dijkstra & Ten Dam, 2010; Hurenkamp & Tonkens, 2008.

[24] OECD, 2015c.

Citizenship education

At present, education in the Netherlands devotes relatively little attention to citizenship compared to some other countries.[25] There are no clearly defined learning outcomes. Various studies conclude that Dutch students show relatively poor political knowledge and a limited sense of social engagement.[26] The Platform therefore calls upon the government to establish clear goals for citizenship education which cover the following:

- ***Democratic literacy:*** Students learn about various aspects of Dutch society, its constitution, institutions and political structure. They will be introduced to the basic values which underpin our democracy: equality, acceptance and freedom of expression. They will be encouraged to endorse and act upon, preserve and protect those values.

- ***Human rights, children's rights and their significance to everyday life:*** Students gain an insight of human rights and their universality: they apply to all people throughout the world and that is only possible if everyone respects the rights of others. Students will be encouraged to support and promulgate human rights in word and deed.

- ***Social skills and interaction:*** Respect for (people of) various backgrounds, beliefs and orientation; the ability to pursue dialogue and cooperation regardless of differences, to accept and act upon one's personal responsibility for respectful relationships, to consider all interests in order to arrive at mutually acceptable solutions to conflicts or disagreements, and to eschew violence in all its forms.

- ***Social responsibility:*** Students are willing and able to participate in society at various levels (school, neighbourhood, city, region, country and world). They become aware of the potential conflict between personal and collective interests and will be willing to pursue the latter.

This core citizenship curriculum will enable all schools to help their students develop as active citizens who have a clear vision of key values and who are willing to make a full contribution to society. Schools may wish to involve external partners such as civil society organizations in the curriculum activities.

[25] Maslowski, Naayer, Isac, Oonk & Van der Werf, 2010.

[26] Schulz, Ainley, Fraillon, Kerr & Losito, 2010; Wagenaar, Van der Schoot & Hemker, 2011.

World knowledge

The Platform sees the school of the future as a locus at which students acquire the knowledge and skills they need to understand the world around them, and to help in shaping that world. Students need a firm knowledge base to keep abreast of international current affairs, to acquire new knowledge, and to apply that knowledge as the situation demands. This knowledge base includes aspects such as how (international) society is organized, natural phenomena, technology, language and culture.

A more cohesive curriculum with clear links between subjects will make education more relevant for students

Three knowledge domains

Various subjects and disciplines form the basic pool of knowledge on which students must draw if they are to progress into higher education and participate effectively in society. Each discipline has its own, unique principles, concepts, skills, approaches and perspective of the world. At the same time, there are points of convergence between the disciplines. There is common ground in terms of the concepts they explore and the tools and techniques they use to do so. By establishing clearer interconnections between the disciplines, education becomes more relevant for students. An effective response to societal challenges also demands an interdisciplinary approach. To exploit the potential advantages of greater cohesion, the Platform proposes that the core curriculum should be structured within three interdisciplinary knowledge domains.

1 ***Social studies.*** Students will learn to view society and the human environment from various perspectives: the historical perspective (the impact of past and current events), the geographical perspective (the immediate setting, the Netherlands, Europe, the world), and the political, economic and social perspective (government, prosperity and society).

2 ***Science.*** Students will learn to understand natural, biological, technical and physical phenomena. The study of technology will focus on the creation of (innovative) projects based on knowledge drawn from various disciplines. In addition to a knowledge of concepts and theories of science and technology, students develop the skills needed to apply this knowledge, including enquiry and design skills. This domain is inextricably linked with mathematical concepts and applications.

3 ***Language & Culture.*** Culture determines what we make and what we do. It governs our interpretation of reality, and it determines how we interact and communicate with each other. This domain focuses on the role and significance of culture within society. Students will gain an understanding of their own culture and how it is expressed in language and arts. They will explore literature, music, cultural heritage, drama and the visual arts, learning to reflect on such cultural expressions as well as contributing to them on the basis of their own creativity. Students will also learn about the cultural expressions of other nations. This domain includes an exploration of religion as a manifestation of culture.

A cursory introduction to a wide range of subjects is too much, yet at the same time too little

More of less

The Platform considers it important that the knowledge within the three domains should be covered in appropriate depth. Students should not learn a little about everything. Rather, they should learn more about less. The course material currently in use is often overambitious in scope. A cursory introduction to a wide range of subjects is too much to take in, yet at the same time too little to be of any long-term value. Students gain a better command of a subject when it is examined in greater depth.[27] Not only can they learn knowledge and ideas, but they can also identify connections and are able to expand and elaborate on the material presented.[28] They better understand the subject and can apply what they have learned more effectively.[29]

[27] OECD, 2015b.

The education of the future must find the right balance between knowledge and insight. The focus must shift away from the pursuit of hard facts. Students do not need all the information that is crammed into the current textbooks in order to develop a view of the world based on historic, geographic and physical perspectives. Rather than knowing 'that' something happens or exists, they should be encouraged to think more about 'how' and 'why' it does so.[30]

Clearly defining core content

In determining what the core curriculum should and should not include, the Platform sees two distinct types of knowledge. The first is that which encompasses and perpetuates our culture: the history of the Netherlands and the identity of its people, which must be passed from one generation to the next. The other is knowledge which will inform and shape the future. Students should not learn something purely because it happened in the past but because it is considered important to the future. The emphasis should lie on the key concepts and characteristic approaches of the various domains and their disciplines, together with the problems and dilemmas faced by the professional practitioners of those domains where appropriate.

Restricting the knowledge presented to a basic core calls for astute choices. In essence, it is a question of deciding what all students should be expected to know, according to their age and academic ability, and what should be part of the enrichment programme designed by schools themselves, based on the individual needs and talents of their students.

A physics teacher at the Eerste Christelijk Lyceum in Haarlem remarked that it is possible to examine the subject in depth if you limit yourself to the core concepts. 'For students, this makes learning far more interesting than if they are asked to skim through ten chapters in a year.'

[28] Hattie, 2009; Stevens, Wineberg, Herrenkohl & Bell, 2005.

[29] Fullan & Langworthy, 2014.

[30] Van Streun, 2001.

An interdisciplinary approach

The Platform sees an interdisciplinary approach as essential if students are to acquire a deeper, more cohesive understanding of the course material. Such an approach will also increase motivation. The major societal challenges of today and tomorrow cannot be confined within the traditional subject disciplines. New developments and applications straddle the boundaries of the traditional disciplines. If students are to consider complex issues from various perspectives they must learn to adopt an interdisciplinary approach in both thought and action. They must be able to cooperate with others.[31] Within each domain, attention must therefore be devoted to the common aspects.

This demands a good working knowledge of the existing subjects and disciplines on the part of both students and their teachers. To address interdisciplinary issues effectively demands a frame of reference which draws upon social, cultural, scientific and mathematical concepts. Applying this multidisciplinary approach will help students to develop a far broader view of the world.

They will be able to consider issues relating to their own immediate situation, to current affairs at the national or international value, or to more abstract values. The Platform has compiled some examples of relevant issues which lend themselves to the multidisciplinary approach. The detail in which they are examined will depend on the age and ability of the students.

Examples of interdisciplinary issues

How can we ensure that the human environment remains 'liveable' for future generations?
A consideration of sustainability, encompassing topics such as climate, resource management, population growth, spatial planning, energy and environment.

How do we ensure a just, safe and secure human environment?
A consideration of authority and governance, encompassing topics such as democracy, the constitutional state, political divisions, migration, international cooperation and the European Union.

How can a country maintain its prosperity and ensure equal opportunity for all its citizens?
A consideration of economics and welfare at national and personal level, encompassing topics such as money management, taxation, collective versus individual responsibility, import, export, autonomy and interdependency.

How do we maintain optimum physical and mental health?
A consideration of health and illness, encompassing topics such as human biology, nutrition, the importance of physical activity and how the human mind works.

What impact does technology have on our lives?
A broad consideration of technology, encompassing topics such as the digital revolution, manufacturing processes, nanotechnology, industrial design, robotics and the emerging professions.

How do we give meaning to our lives?
A consideration of culture, philosophy, religion and aesthetics.

[31] OECD, 2015b.

Interdisciplinary skills

The Platform believes that certain interdisciplinary skills must also be included in the core curriculum for all students. Today's society and employment market call for skills which are not unique to any particular discipline but which support lifelong learning and ongoing personal development. Students must acquire these skills if they are to function effectively in society.[32] The Platform has identified five specific skills to which attention should be devoted:

1 ***Learning skills:*** Students should develop strategies which will enable them to acquire new knowledge and skills throughout their lives. This entails understanding their personal learning style, how to work independently towards a particular aim, and the ability to reflect on the learning process. Students must have an opportunity to apply and practise various strategies, not only those with which they are familiar, in order to gain new knowledge and solve problems. It is important that they can work accurately and conscientiously – an ability which can indeed be developed given good guidance and effective methods to embed appropriate learning strategies.[33]

2 ***Creativity:*** Students should be encouraged to devise innovative new solutions to existing problems. They might do so with or without (innovative) technology. When encouraged to experiment and pursue new directions, students will learn to think 'outside the box' and may well discover new insights.

3 ***Critical thinking:*** Students will learn to form, express and defend their personal opinions. They will be able to ask critical questions, analyse and clarify information, distinguish between facts and preconceptions, and reflect on their own opinions.

4 ***Problem-solving ability*:** Students will learn to identify and define problems whereupon they can implement a structured plan to arrive at solutions. They will be able to work in unfamiliar situations, devising and analysing various alternative solution strategies. They will be able to take decisions and will learn to think about the immediate and longer-term consequences of their actions.

5 ***Cooperation:*** Students will develop the ability to work alongside others in pursuit of a common goal. They will learn to adopt various perspectives, to offer their opinions while showing respect for other points of view, to arrive at a jointly agreed division of tasks and responsibilities, to act upon their role in the process, to accept criticism, and to monitor progress. They will learn to take responsibility for the overall result.

The Platform wishes to note that the above skills are not independent competences which can be learned in isolation. They are only meaningful when linked to concrete subject matter knowledge.

All students need greater breadth and depth in order to develop their talents and expand their world view

3.2 Ambitious pursuit of greater depth and breadth

The core curriculum will serve as the foundation upon which schools will build a challenging and relevant learning programme for their students. Because the mandatory core curriculum is deliberately limited in scope, there will time within the schedule for activities designed by schools and students themselves. Individual schools must decide how to add depth and breadth to the basic curriculum in a manner which is appropriate to their vision, the professional abilities of their staff, the interests and abilities of their students, the preferences of parents, and the requirements of higher education. Enriching the core curriculum in this way is not optional: all students need further depth and breadth in order to develop their talents, expand their world view and acquire the knowledge which will allow them to progress into higher education.

The pursuit of depth entails focusing on one or more subjects in the core curriculum in greater detail. The student will examine different aspects, design and perhaps implement new applications and solutions, and will explore new patterns and connections. The pursuit of greater breadth entails acquiring knowledge and skills in subject domains which are not included in the core curriculum, but which are complementary to those that are.

[32] OECD, 2015a, b, c, d.

[33] OECD, 2015b.

Information on which to base choices

The curriculum of both primary and secondary schools will pursue breadth and depth to some degree, although the time available will vary. In primary education, as well as special education (at both primary and secondary level), more time must be devoted to the core curriculum than in the latter years of secondary education.

It is for schools themselves to decide how to enrich the core curriculum in such a way that it addresses students' interests and is in line with their abilities. This will increase motivation and engagement.[34] If students are to be given every opportunity to maximize their potential, they must be informed of all possibilities so that they can make choices which are relevant to their personal perspective and needs. It is for the school to ensure that this is the case. It is also important that students are given appropriate careers guidance so that they will be able to form an impression of the employment market and their future contribution.

A curriculum in line with students' interests and the requirements of academic progress

Many schools have already adopted a very broad curriculum intended to allow students to develop knowledge and skills while pursuing greater depth and/or breadth in selected areas. These schools allow students to specialize to a certain extent. They may offer additional tuition in science, mathematics or languages, or they may run programmes focusing on art, culture, science, sport, health, enterprise, philosophy, certain professional skills or any number of other options. The Platform wishes to stress that there will be considerable opportunity to include additional learning activities in the school programme alongside the proposed core curriculum, in keeping with the age and ability of the students concerned. Examples of supplementary activities are given in the textbox.

Examples of depth and breadth in practice

Languages

Schools which opt to offer classes in languages other than English – French, German and Spanish – are giving their students the opportunity to expand their international horizons. The strengthening of students' international skills can be seen as particularly valuable given the European and global context in which the Netherlands operates. If students choose to study an additional foreign language, they commit themselves to doing so at a reasonably advanced level. The course is not 'lightweight' but devotes due attention to both communication skills and intercultural aspects.

Science

Many schools allow their students to pursue greater depth or breadth in the science domain, offering specialist programmes in areas such as technology, physics, chemistry and biology, perhaps including individual modules which examine topics such as nanotechnology or robotics. In addition, an increasing number of schools have adopted an interdisciplinary focus. There are now several primary schools with a Science, Nature and Technology programme which includes aspects of geography, history and ecology, and which establish links with other domains such as language and arithmetic. The exploratory learning approach encourages the simultaneous and cohesive development of attitude, skills, thinking ability and knowledge.

Social Sciences

While pursuing greater depth in disciplines such as history, geography, economics and civics, students take an interdisciplinary approach to current societal issues. At the 'Geofuture Schools', for example, students work on assignments which are designed by external partners in both the private sector and civil society. They must combine and apply their knowledge in fields such as geography, business economics, science and history to arrive at good solutions.

[34] OECD, 2015d.

Sport and exercise
Schools are free to devise their own activities in sport, physical activity and health education. Many opt to involve local sports associations and health care organizations. Students with a particular interest in physical education can take part in the Exercise, Sport and Society programme. They not only work to improve their own performance but also learn training and coaching skills, and about important aspects such as how to avoid sports injuries.

Arts and culture
While most schools have implemented a varied cultural programme, some have opted to specialize in the arts whereby the curriculum devotes much time and attention to relevant themes, topics and projects. Schools may opt to specialize in just one discipline: dance, the visual arts or music, for example. They can then take advantage of programmes such as 'More Music in the Classroom', which involves close collaboration with external partners such as private music teachers and conservatoires.

Professional practice
Many schools provide an introduction to professional practice, sometimes at quite an early age. With the help of local partners, from established companies to innovative start-ups, they organize guest lectures, excursions, company visits and work experience placements. Some schools run projects based on real-life case studies so that students have an opportunity to apply their knowledge in practice and explore the areas in which they might wish to specialize in future.

3.3 A cohesive curriculum

The Platform wishes to stress the importance of a cohesive school curriculum. When the knowledge and skills from each of the core subjects are combined, students will be able to explore all subjects in greater depth and they will learn to apply that knowledge in new situations.[35]

Cohesion for the student

Schools will enjoy considerable discretion in the design of their own curriculum. While one school may opt for a thematic approach, another may choose to retain the more traditional subject structure while introducing certain points of convergence.

Whichever option is followed, the Platform urges all schools to ensure that students are fully aware of the cohesion that exists. It must be clear how one part of the overall curriculum relates to all others and contributes to the development of the student's knowledge and skills. The school curriculum must be relevant to the student and to the world beyond the school gates. It is also important for students to be aware of the way in which the curriculum contributes to their personal development. Many schools, particularly those in the primary education, special education and VMBO sectors, are already devoting considerable attention to personal development. Their efforts deserve recognition and emulation.

Vathorst College in Amersfoort has devised a programme for the younger secondary school students, based on eighteen themes in which aspects of geography, history, economics, science and the arts are combined. 'Students learn to examine the themes in combination, as one cohesive whole. This establishes a firm basis for later years, when the students examine each of the subjects in greater depth and detail.'

[35] OECD, 2015e.

Connections with the outside world

The Platform believes that all schools should establish stronger connections with the outside world, involving external partners in the educational process. Children entering primary school have already completed the first phase of their development, whether at home, in day care, at nursery school or in a playgroup. It will be useful for the school to know exactly what they have learned thus far. Cooperation with the various forms of pre-school education should be strengthened. The Platform therefore calls for the (further) development of integrated early-learning centres.

Melanchthon Business School in Bleiswijk devotes much time and attention to ‘hands-on’ project-based learning. It maintains close ties with local companies, especially those active in horticulture. Students often work in modern glasshouses and with state-of-the-art production technology.

Closer cooperation should also be sought with social and cultural organizations, science centres, museums, libraries, the business community and sports associations. Partnerships will promote the ongoing exchange of expertise, perhaps in the form of internships or placements for students and teaching staff, or having the staff of the external partner spend some time working at the school. Students will be able to gain valuable knowledge and experience in an appropriate setting, under expert guidance. Teaching staff will be able to draw upon knowledge and facilities which are not available within the school itself, thus enriching the curriculum. The Platform notes that cooperation with parents is also of immense value.

The mother of a student at De Optimist Special Education School in Emmeloord reports that her son is really enjoying his work experience placement with a large toy retailer. ‘He is learning to interact with other people. This practical experience is extremely important.’

4

PREREQUIREMENTS FOR FUTURE-ORIENTED EDUCATION

The proposed education of the future consists of a national core curriculum for all students, together with opportunities to pursue breadth and depth in keeping with the abilities and requirements of the individual school and its students. Some schools have already taken advantage of the opportunities to create a unique programme. If other schools wish to follow suit, various preconditions must be in place. At present, teachers complain of limited opportunity for choice due to overcrowded textbooks and the pressure to prepare their students for examination success. The current core objectives provide too little direction, while the content of education remains dominated by the examination requirements. Schools are not always able to use the 'freedom of education' to create appropriate cohesion between the various subjects or to offer their students the opportunity to pursue an tailor-made curriculum in keeping with their interests, ambitions and abilities. To overcome these difficulties demands a change of direction on the part of both the sector and the government. The curriculum must be revised and renewed. Regulation of the sector must be organized differently, and there must be a shift in emphasis in terms of learning outcomes and examination requirements. Only then will it be possible to create the preconditions required to make future-oriented education a thing of today.

4.1 Review of the curriculum

The Platform was asked to produce an advisory report which can serve as the basis for the reform of the curriculum. i.e. the formal national curriculum under which the core objectives and learning outcomes are established by law. In the Platform's view, the education of the future should be based on a curriculum with two distinct components: the 'core curriculum', which is established by legislation, and the 'elective' component, to be designed by the individual school in keeping with the local requirements and possibilities. Determining the precise content of the core curriculum is primarily a government responsibility. The Platform believes that it must include the elements listed in Chapter 3, which are seen as essential to progression into higher education and the ability to function effectively in society. The core curriculum should offer teachers a framework on which to base a balanced, rounded and cohesive educational programme.

The elective component is the responsibility of the individual school. Based on their vision and experience, staff are free to design a programme which will allow students to pursue greater depth and breadth of knowledge than is provided by the core curriculum alone. Schools will determine the content of the programmes, courses and lessons, for which they are directly accountable.

As part of the discussion process supporting the production of this document, the teaching profession submitted a manifesto (Manifest Leraar2032) which calls for far-reaching reforms. 'Following the implementation of a curriculum which comprises both a fixed core component and a dynamic, discretionary component, teachers will have greater control and influence over the educational process, whereupon they will enjoy the autonomy to design their programmes and lessons as they see fit.'

The core curriculum

The core curriculum sets out the knowledge and skills which are considered essential for all students in primary and secondary education. It consists of two elements:

- the **basic skills** they will require in order to function effectively in society. The core curriculum will establish the learning objectives in terms of language skills (Dutch and English), numeracy (arithmetic and mathematics), computer literacy and citizenship.

- the **knowledge** which students must possess in order to understand and contribute to society. This knowledge is divided into three domains: social studies, science, and language & culture. Considerable attention will also be devoted to generic skills which are required in all disciplines: learning skills, creativity, critical thinking, problem-solving ability and cooperation.

The Platform recommends that the following design principles should be applied:

Concrete and restricted to the essentials

The core curriculum can only perform its function if it is indeed restricted to the essential core. The criteria for the inclusion or exclusion of each component must be very carefully considered in terms of what is essential for the student to function effectively in society and what can be left to the individual discretion of school or student.

The Platform believes that learning objectives should be more precisely defined than is currently the case, so that teachers can see what content is compulsory and what has been left to their individual discretion. The current core objectives fail to make this clear, and they fail to establish the level at which students are expected to learn the material. They therefore provide little support to the teacher. During the design phase, there should be close consultation with the field to determine how the learning objectives should be formulated. They must be detailed enough to establish firm requirements while allowing schools enough discretion to design classroom activities in an appropriate manner.

Strengthening the continuous learning line

To ensure a smooth transition between primary and secondary education, it is important that the objectives and learning outcomes at both levels are defined using the same structure and terminology. The knowledge and skills to be included at each level, should be determined according to scientific insights in the fields of developmental psychology and educational science. Attention must also be devoted to the transition between early education and primary education, as well as that between secondary education and intermediate vocational education (MBO) or higher education.

Differentiation

In the interests of maintaining a continuous learning line between primary and secondary education, reference points should be formulated at various transition moments, i.e. at the end of primary education, at the end of lower secondary education, and upon completion of secondary education. These reference points are essential to monitor both the longitudinal cohesion of the syllabus and the progress of the individual student. The Platform believes that they should be specified at various levels so that students are challenged and motivated to perform to their full potential. An appropriate system of differentiation for each component of the core curriculum should be explored during the design phase, when the specific requirements of the various clusters in the special education and practical (vocational) sectors can also be addressed. The Platform does not consider it necessary for all students to achieve the same grade for all components.

A cohesive programme

The core curriculum should form the basis of a fully cohesive programme of education. It should be evident how the various elements of the core curriculum relate to each other and how they are interconnected. During the design phase, it is therefore necessary to examine how best to achieve visible cohesion. The result must inspire teachers to provide education which not only allows their students to acquire the necessary knowledge but also helps them to identify interconnections and to adopt an interdisciplinary approach. In the Platform's view, education can only be termed 'cohesive' if all such aspects are reflected by the assessments and examinations as well. They should include questions which demand interdisciplinary knowledge and skills.

The elective component: depth and breadth

The core curriculum is deliberately limited in scope to offer schools and students the opportunity to pursue further depth and breadth as they see fit. However, the elective component of the school curriculum is not optional. Schools must provide accountability for their design and implementation of a cohesive programme which maintains the continuous learning line into the higher levels of education. To assist schools and teachers in this respect, the Platform recommends the development of suggested learning lines on which the elective curriculum can be based. During the design phase, it will be appropriate to examine how schools can contribute to this process.

4.2 Assessment and examinations

The improved balance in the objectives of education should be accompanied by updated assessment and examination arrangements. The form and content of examinations should reflect the objectives of learning and the contents of the curriculum. At present, the form and content of education is unduly influenced by examination requirements. Because much emphasis is placed on those parts of the curriculum required to pass examinations, too little attention is devoted to the socializing function of education or to personal development.

The Platform believes that a review of current assessment and examination arrangements is essential if the desired educational reform is to be successful. The new curriculum cannot be implemented effectively unless examination requirements are updated accordingly. There must be an appropriate balance between standardized national testing and local autonomy to ensure that schools are able to pursue the broader purpose of education. The Platform wishes to draw attention to the following points.

The new curriculum cannot be implemented effectively unless examination requirements are updated accordingly

Assessment of core skills

To maintain a smooth transition between educational levels and to promote social equality, some standardized national assessment will remain necessary. The Platform considers it important that the core knowledge and skills in Dutch, English, and numeracy and mathematics are subject to examination at the conclusion of both the primary and secondary phases of education. It may also be appropriate to assess citizenship and computer literacy, although not necessarily by means of a standardized, national examination.

Assessment of the knowledge domains

The Platform suggests that the knowledge and skills acquired by students should be made evident at each of the transition moments. The form of assessment or examination best suited to this purpose should be identified during the design phase. Again, this will not necessarily entail a standardized, national examination. Two points should be taken into consideration:

- When assessing the knowledge domains, devote attention to their interdisciplinary nature. The assessment must include appraisal of the generic interdisciplinary skills.
- Conclude the study of all three knowledge domains at the end of lower secondary education, so that students can specialize in one knowledge domain in line with their personal interests.

Assessment of the elective component

In the Platform's view, schools should be required to demonstrate the quality of their additional, non-core curriculum. Assessment of students' performance is a means of doing so. It will be necessary to devise suitable forms of final examination which are of the quality required to ensure a smooth transition into the next phase of education. This demands a professional culture on the part of the schools. They must be able to justify their choice of assessment forms and their vision with regard to the relationship between the learning process and assessment results. Such a culture entails consultation and cooperation within the school itself, cooperation between schools, and cooperation with institutes of higher or further education. In the next phase of the reform process, it will be appropriate to examine how external assessment organizations can contribute to the quality of assessment in the school.

Measurable versus observable

Some outcomes of education cannot be measured in terms of examination results but are evident from the student's everyday performance and achievements. Do students accept and act upon their personal responsibility? Do they show engagement and commitment to school or extracurricular activities? Have those activities helped them to develop self-confidence? These qualities are observable rather than measurable and must be assessed in a different way. The school bears primary responsibility for monitoring and recording the development of its students. Schools collect relevant information, to which they assign value, in a process which involves teaching staff, students and parents. The result is a rich all-round appraisal of the student which looks beyond his or her grades to embrace various aspects of personal development.

It is important that students experience assessment as part of the learning process. Assessments and examinations have a formative function. The Platform is keen that formative assessment should play a more prominent role within a school's education programme.

The principal of De Bras primary school in The Hague describes how the school monitors students' development using a digital portfolio and a system of scores for engagement, well-being and morale, competence, performance and achievement. 'Students gradually learn to reflect more effectively on their own learning process. They understand what they are doing and they enjoy learning.'

Accountability

Schools provide accountability to their students, parents, other schools and institutes of further education by means of their school plans and annual reports. The school plan also forms the basis for supervision by the Inspectorate of Education. In the Platform's view, the school plan must provide accountability for the way in which the school designs and implements a fully cohesive programme. It should demonstrate how the core curriculum is presented and expanded to provide the desired extra depth and breadth. The plan should set out how the school furthers the personal development of its students. The Platform also considers it important that students understand how their performance is assessed. This means that schools must offer students and parents full transparency with regard to the purpose of any assessment, the manner in which it is graded, the assessment model and the manner in which feedback is provided, and completed assessment papers should be made available to students after they have been graded.

Regulation and inspection

It is important that external supervision promotes and incentivizes the desired process of change.[36] The Education Inspectorate must not focus solely on students' results in national or school examinations, but should take into account the manner in which schools work to maintain the overall quality of education (e.g. the degree of attention devoted to personal development and equipping the student to participate in society). The Platform believes that the Inspectorate has a clear role to play in safeguarding basic quality and in encouraging school managers and teaching staff to pursue ongoing quality improvements.

4.3 Preconditions of future-oriented education

The Platform calls for the reform of the objectives, assessment arrangements and supervision of education. However, the process goes further than this: there are several other basic preconditions which must be met before any progress can be made. Time and resources must be made available to allow teachers the opportunity to work together in developing the content of their programmes. There must also be professional cooperation within schools, as well as cooperation between schools, teacher training colleges and various other relevant organizations. The Platform also calls for the school organization to be made more flexible, and for greater cooperation throughout the education chain based on the vision presented in this document.

Investment in professional development and cooperation

Teachers and school managers must be given the resources required to design and develop the educational programme as a team. The members of that team will contribute knowledge of educational science, good leadership and cooperative ability. Access to inspiring examples and (scientific) research is therefore an essential precondition. Teachers must be given the time to join their colleagues and other professionals, both within and beyond the school itself, to design a fully cohesive curriculum and to share knowledge with regard to all aspects of the educational process. School managers must play an active role in encouraging and facilitating these efforts.

[36] Letter to Parliament, Toezicht in transitie, Parliamentary Proceedings 2014-2015, 33 905, no. 1; Motion tabled by Mr Roelof Bisschop, Parliamentary Proceedings 2013-2014, 33 862, no. 3.

With a new and future-oriented system of education, the organization of the school and its routine should allow greater flexibility. Innovative forms of just-in-time learning environments should be explored by schools and teachers. They may wish to discuss alternative forms of tuition, with student contact at different times, alternative arrangements for grouping students, and different ways in which to present course material. To take advantage of the possibilities which innovation brings, it is essential to maintain the quality of the IT infrastructure and support.

The principal of De Fonkelsteen primary school in Zaltbommel believes that enthusiasm and an inquisitive nature are the most important qualities of a teacher. 'You must have confidence not only in the children but also in yourself. As a teacher, you develop alongside the children. Our team vision is that we must take responsibility for all children. We are very strong in this regard.'

Training the teachers of the future

A new direction for education demands a new and modern approach to teacher education. The Platform considers it essential that the teacher education programmes equip their students to put the 'education of tomorrow' into practice. There must be close cooperation between schools, teacher education institutes and the research field to achieve professionalization and to enable the teachers of tomorrow to do justice to the new curriculum. Such cooperation might take the form of alliances between schools and the teacher training institutes, whereby both partners contribute to the training programmes.

Trainee teachers must acquire the knowledge required to play their part in designing and developing an educational. In other words, they must not only develop subject matter knowledge and pedagogical content knowledge, but must also become thoroughly familiar with the principles of interdisciplinary education and personal development.

The Platform believes that schools and teacher education programmes at all levels should continue to share their knowledge and expertise in these areas. The teacher education institutes should also maintain close contact with their alumni, particularly in the first few years after qualification. It is important that newly qualified teachers setting out on their careers are quickly welcomed into the networks in which scientists, researchers, experienced teachers and various other professionals are able to learn from each other's knowledge and experience.

Cohesion within the education system

Cohesive education demands effective cooperation between many stakeholders: teachers, school managers, parents, policy-makers, teacher training programmes, publishers, inspectors, examination boards, professional associations, knowledge institutes, and so forth. A shared vision of the purpose of education, its content and the appropriate division of tasks and responsibilities is required, not only within the school but also at national level. The entire education system must be imbued with a shared ambition if all students are to fulfil their potential and gain qualifications which are in keeping with their abilities and interests. This entails structured cooperation and coordination between pre-school education, the primary sector, the secondary sector, (intermediate) vocational colleges and higher education. A good basis for such cooperation has already been established, while the Strategic Agenda for Higher Education[37] and the Vision for the Future of Vocational Education[38] both stress the importance of broad development.

[37] Strategic Agenda for Higher Education and Research; Parliamentary Proceedings 2014-2015, 31 288, no. 481.

[38] Letter to Parliament, Parliamentary Proceedings 2014-2015, 31 524, no. 250.

4.4 Next steps: a systematic reappraisal

The Platform hopes to have inspired schools and everyone else involved in education to continue building towards the education of the future. The presentation of this advisory report to the government marks the completion of the Platform's formal assignment, but not of the attainment of the ambitions it sets out. The report is merely the precursor to a design process which will eventually lead to the re-evaluation of the form and content of school education in the Netherlands. Schools will draw upon the Platform's work as they devise their own ambitions for the future.

A strong position for teachers

Inspiring, expert teachers encourage their students to learn. It is the teacher who gives form and substance to the curriculum. In Platform's view, teachers should therefore be given a very prominent role within the design process. That process could usefully draw upon the networks, both new and existing, in which teachers and other education professionals work to develop educational content. Given the positive experiences gained during the dialogue, the Platform recommends that the design process should be as transparent and interactive as possible. Schools will then be able to learn from each other, drawing on best examples of how the proposed vision can be put into practice.

Regular review

Based on the results of the design process, the content of the new core curriculum for primary and secondary education will be established by Act of Parliament. The Platform recommends that the curriculum nevertheless remains subject to periodic review, preferably involving a similar process of consultation and dialogue extending throughout the education chain. At some point in the future, this re-evaluation process should be extended to include pre-school and vocational education.








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Appendix 1: Official announcement of the Platform's appointment

Staatscourant (Government Gazette) no. 10783, 21 April 2015, here in translation.

Decree issued by the State Secretary of Education, Culture and Science and the Minister for Housing and the Central Government Sector on 27 February 2015, no. 735240, with regard to the appointment of an advisory commission on education and curriculum reform.

Article 2. Appointment and remit

1. The advisory commission shall be known as Platform Onderwijs2032.

2. The task of the Platform is as follows:

a. Based on broad public consultation and debate, to arrive at a curriculum for primary and secondary education which will serve current and future requirements and may thus be deemed 'forward-looking'.

b. To formulate a vision of forward-looking education, to be presented to the State Secretary of Education, Culture and Science as an advisory report. This document is to consider:
   1. The knowledge and skills which should be included in a balanced and forward-looking school curriculum.
   2. Given the constraints of time and manpower, the knowledge and skills to which less attention should be devoted within the curriculum.
   3. The knowledge and skills which are underrepresented in the current school curriculum.
   4. The general design principles which will apply to the process of educational reform.

c. When considering the above points, the Platform should set out:
   1. The knowledge and skills required to ensure that students are fully prepared for progression into higher education and participation in the employment process.
   2. The knowledge and skills required to ensure that students are prepared to take a full and active part in a pluriform, democratic society, together with the norms and values underlying such participation.
   3. The contribution that education can and should make to personal development and the fulfilment of potential, and how efforts in this respect can be incorporated into the curriculum.

d. To make a proposal for the establishment of a young persons' forum, whereby the input, commitment and engagement of the younger generation can be placed at the service of the general public debate.

Appendix 2: Members of the Platform Onderwijs2032

Paul Schnabel (chair)
Former director of the Netherlands Institute for Social Research (SCP); Professor of Social and Cultural Policy at Utrecht University; member of the Senate of the States General.

Geert ten Dam
Professor of Educational Science, University of Amsterdam; former chair of the Education Council, member of the Social and Economic Council of the Netherlands (SER).

Theo Douma
President of the Executive Board of Openbaar Onderwijs Groep Groningen (O2G2); former member of the Executive Board of ROC Nijmegen.

Renée van Eijk
Practising teacher at De Pijler primary school, Rotterdam; chair of Leraren met Lef Foundation; former practising teacher at Combinatie 70 primary school, Rotterdam.

Farid Tabarki
Zeitgeist analyst; founder and director of Studio Zeitgeist, Amsterdam; columnist Het Financieele Dagblad.

Ab van der Touw
CEO Siemens Nederland; vice president of the Dutch Technology Federation.

Jan Verweij
Department of Philosophy at Tilburg University and Sint Odulphus Lyceum, Tilburg; voted Teacher of the Year 2012.

Martine Visser
Executive director of Centrada Wonen; former principal at Scholengemeenschap Calvijn, Rotterdam and Barendrecht.