

Netherlands

Full Review

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Aim and purpose

- What is the stated aim and purpose of this stage of education, e.g. linked to entry to higher education, the world of work; a broad aim of personal and societal enrichment etc.?
- What is the context to the development of the aims and purposes for this stage of education and what vision do they present for the future of this stage of education?
- Are these aims and purposes influenced by an overarching national plan for education or do they reflect the influence of international organisations such as the OECD?

One of the founding principles of the education system in the Netherlands, guaranteed under article 23 of the Constitution, is freedom of education, which covers the freedom to establish a school; the freedom to organise teaching in schools; and the freedom to determine the principles upon which a school is based. In theory, schools are therefore free to determine the curriculum they teach their pupils, although the Ministry of Education, Culture and Science sets:

- the standards of quality which all schools (both public and private) should meet
- the subjects learners should study at each level of education and the expected learning outcomes for each subject
- the content of national examinations
- the number of teaching hours per year
- the qualifications teachers are required to have.

The aim of secondary education as a whole, including the *tweede fase* (upper secondary routes leading to higher education, see the subheading 'Structure of the education system'), is to ensure that learners can develop their talents as far as possible within a study pathway which is appropriate to their knowledge and skills, and so be prepared for full

participation in society and employment.

The current structure of Dutch secondary education has been in place since 1968, when the Secondary Education Act came into force. This placed pupils in different secondary pathways from age 12+ whilst allowing them the flexibility to move from one secondary pathway to

another. The *tweede fase* routes (HAVO and VWO, see the subheading 'Available pathways / programmes'), prepare students for higher professional education and universities of all types respectively. The upper secondary vocational pathway, MBO, provides both theoretical instruction and practical training in preparation for the practice of a wide range of

occupations. It also furthers the personal development and general education of students, helping them to play an active part in society.

The Netherlands performs highly in the OECD PISA tests for mathematics, science and reading. As a 2016 report from the OECD states: ‘the Dutch education system is considered to be among the best performing across OECD countries [...] as with many high performing education systems, the issue is where and how to invest in order to further improve the performance and effectiveness of the system’ (OECD, 2016, pages 153-4).

Recent reforms relating to secondary education have mainly focused on modernising and improving upper secondary vocational education (the MBO pathway), and improving the transfer from lower secondary vocational education (VMBO, aged 12-16) to MBO, in order to reduce the 6,000 or so students who drop out of education at this point of transfer every year (European Commission, 2017b). Key changes have included:

- the establishment, in 2012, of the SBB *Samenwerkingsorganisatie Beroepsonderwijs Bedrijfsleven*). This organisation was developed to optimise the links between vocational education and training (VET) and the labour market and to develop vocational qualifications in secondary education. Government funding has also been made available over the past few years to improve the transfer between VET and regional labour markets
- the introduction of the requirement, in 2015, that schools and colleges offering VET must properly inform prospective students of the education on offer at their institution, alongside providing information about the labour market in their region. It was intended that this would reduce the chances of young people choosing an upper secondary vocational pathway (MBO) route which is not relevant to the local labour market
- allowing schools and colleges offering upper secondary vocational (MBO) routes to have more freedom (since 2015) to set up training courses and learning routes in cooperation with local employers in their respective regions, with a view to ensuring both that innovations in industry are incorporated into vocational teaching more quickly and that students are learning the skills needed to fill the labour market
- introducing over 400 optional modules for students in the MBO (2016), with a view to giving educational institutions more freedom to offer their students the skills and knowledge needed to succeed in the local labour market.

In addition, in order to reduce the number of upper secondary students leaving vocational (MBO) programmes early without a ‘basic qualification’ (see the subheading ‘Available pathways / programmes’), Ministers began preparing legislation in early 2017 which would make the transition from lower secondary (VMBO) vocational courses to MBO easier. Possible reforms include:

- allowing students to progress to an MBO route without obtaining a VMBO leaving examination first (and so creating an uninterrupted learning pathway, which already exists for some VMBO students, depending on the course they study)
- enabling students to gain a basic MBO qualification in five years, rather than six
- allowing VMBO pupils to attend MBO classes.

'Bridging programmes' may also be introduced to support students in their transition from VMBO and to provide guidance to students on how to approach further studies. These programmes may be introduced to support students to move from a VMBO lower secondary vocational route to the HAVO higher professional education upper secondary route.

National debate continues in the Netherlands on the skills and knowledge

students should acquire at each stage of education in order to be ready for the future, and the curricula that would enable this. In 2015, a new platform called *Onderwijs2032* (Education2032) was launched, based on the principle that children born in 2014/15 would be applying for their first jobs in 2032. The Government invited individuals to use the platform to put forward their ideas for what a new curriculum should look like. Proposals from students,

parents, teachers and schools are being debated, and the Government is holding discussions with organisations including teachers' unions, representatives from different industries and trade unions. Key skills and areas of knowledge which have featured prominently in the debate include information and communications technology (ICT); problem solving skills; critical thinking; social skills; and citizenship.

Structure of the education system

- How is upper secondary provision for students structured, e.g two-year / three-year / varied approach; around subjects or broad areas of learning; broad/comprehensive or specialised / narrow in focus?
- When does compulsory education end?
- What is the age profile of students in this stage of education?
- How well does the structure of the system reflect the stated aim as outlined above

The length and structure of upper secondary education in the Netherlands depends on the pathway a student is following – VWO, HAVO, VMBO, MBO - as outlined in the table below:

Year	Age range	School Level
Pre-school education and childcare	Ages 0 - 4	Pre-school
Year 0	5-6	Primary school
Year 1	6-7	Primary school
Year 2	7-8	Primary school
Year 3	8-9	Primary school
Year 4	9-10	Primary school
Year 5	10-11	Primary school
Year 6	11-12	Primary school
Year 7-9	12-15	Lower secondary education preparing students for university (<i>voorbereidend wetenschappelijk onderwijs</i> , or VWO)
Year 7-9	12-15	Lower secondary education preparing students for higher professional education (<i>hoger algemeen voortgezet onderwijs</i> , or HAVO)
Year 7-10	12-16	Pre-vocational lower secondary education (<i>voorbereidend middelbaar beroepsonderwijs</i> , or VMBO)
Year 10-12	15-18	Upper secondary education preparing students for university (<i>voorbereidend wetenschappelijk onderwijs</i> , or VWO)
Year 10-11	15-17	Upper secondary education preparing students for higher professional education (<i>hoger algemeen voortgezet onderwijs</i> , or HAVO)
Year 11-13/14	16-18/19/20	Vocational upper secondary education (<i>middelbaar beroepsonderwijs</i> , or MBO)

Compulsory education runs from age five through to 16, although the vast majority of children voluntarily enter primary school when they are four years old. In addition, since 2007, all young people have been required to participate in education until they obtain a 'basic qualification' for entry into employment. This can be an upper secondary HAVO certificate (usually obtained at around age 17), a VWO certificate (age 18),

or an MBO certificate at Level 2 on the Netherlands Qualification Framework, obtained either by studying full-time in a school, or by undertaking a combination of study and work. Students who leave education before achieving a basic qualification are defined as early school leavers.

A certain degree of flexibility is inherent in lower and upper secondary education, since

students are given some opportunities to switch between pathways (see the subheading 'Flexibility and transfer options' for more information). In addition, gifted / talented students enrolled in VWO have, since 2016, been able to complete the VWO pathway in five years from the start of lower secondary education, aged 12, instead of six. This aims to ensure that they remain motivated, challenged and engaged.

Available pathways / programmes

- What pathways / programmes are available to students - academic / vocational / professional / flexible?
- Where reform is taking place, how is the reform being prepared / what is happening now to prepare the ground for this reform?
- At what stage are decisions about the student choice of pathway finalised and who has an input into these decisions?
- Where do these pathways lead - entry to higher education; accreditation for professional life; further training?
- What percentage of the overall cohort of students progress through each pathway?
- How many students progress to higher education / further education / workforce / apprenticeships?

The pathways available for upper secondary students are:

- The preparation for higher education pathway, the upper secondary years of which are known as *tweede fase*, which includes:
 - VWO (*voorbereidend wetenschappelijk onderwijs*), the upper secondary years of which run from Years 10 to 12 (ages 15-18) and prepare students for universities of all types. Students work towards completing a VWO certificate (Level 4+ on the Dutch Qualifications Framework, or NLQF)
 - HAVO (*hoger algemeen voortgezet onderwijs*), the upper secondary years of which run from Years 10 to 11 (ages 15-17) and prepare students for higher professional education. Students work towards completing a HAVO certificate (Level 4 on the NLQF).
- The vocational pathway – MBO (*middelbaar beroepsonderwijs*). Students can complete an upper secondary MBO route in school or through an employer. The MBO routes include:
 - MBO *Entreeopleiding*, or entry level route (MBO 1), which lasts one year and is aimed at those who have left lower secondary vocational education (aged 16) without a diploma. It allows them to achieve a Level 1 qualification on the NLQF and to enter the MBO *Basisberoepsopleiding* route (see below). The MBO 1 entry level route, which was introduced in 2014, offers students the opportunity to study a broad course which prepares them for further vocational training.
 - MBO *Basisberoepsopleiding*, or basic route (MBO 2), which lasts between one and two years (students aged 16-17/18) and prepares students to be able to undertake operational level tasks. It leads to a Level 2 qualification on the NLQF. On successful completion, students may also progress to further vocational education (MBO) at Levels 3 and 4.

- MBO *Vakopleiding*, or professional training (MBO 3), which lasts between two and three years (students aged 16-18/19). It prepares students to be able to operate independently and leads to a Level 3 qualification on the NLQF. Students may progress to a Level 4 qualification.
- MBO *Middenkaderopleiding*, or middle management training (MBO 4), which lasts between three and four years (students aged 16-19/20) and leads to a Level 4 qualification. On successful completion, students may progress to higher education.

MBO *Specialistenopleiding*, which leads to a Level 4 vocational qualification on the NLQF, is available for individuals who already hold a Level 3 or Level 4 vocational qualification. It is not part of upper secondary education, however, and is considered to be part of post-secondary (non-tertiary) education.

Students enrolled in VWO or HAVO pathways choose one area of specialisation from:

- nature and technology
- nature and health
- economy and social studies
- culture and social studies.

All vocational MBO routes are offered in four different areas of study, known as 'sectors', from which students choose one. These are:

- green / agriculture
- technology

- economics
- health / welfare.

MBO routes may also include classes from different sectors, creating combined study programmes.

Students generally progress through the same upper secondary education pathway (VWO, HAVO, or MBO) as the lower secondary pathway they have followed (VWO, HAVO, or VMBO respectively), although transfer possibilities do exist at the end of the lower secondary phase through what is known as *stapelen* – see the subheading 'Flexibility and transfer options'.

At the end of primary school, headteachers provide all pupils with recommendations about the type of pathway they might wish to pursue in secondary education (aged 12+). This recommendation is made based on a pupil's knowledge and aptitude and their results in primary school tests, taken in Year 6. The table below outlines the pathway recommendations made to pupils completing their primary education in 2014:

Secondary pathway	Headteacher recommendations for each pathway, %
VWO	18%
HAVO / VWO	7.5%
HAVO	19.3%
VMBO / HAVO	6.3%
VMBO	45.9%
Practical training programmes*	2.5%
Special needs education	0.3%
Unknown	0.2%

*intended for students who are not expected to obtain a secondary school diploma. Practical training programmes provide these students with a range of skills intended to enable them to participate in society and provide certification of those skills.

Source: Recommendations after primary education in 2014 (in %), Ministry of Education, Culture and Science, 2016

School boards decide on the pathway a pupil will follow in lower secondary education on the basis of their primary school assessment results and on their initial work in the first two years of secondary education (aged 12-14). These years therefore act as a 'bridge period', during which pupils are taught the same subjects and teachers assess their potential in order to decide which pathway they would best be suited for. Parents and pupils are included in the decision-making process.

Entry requirements for students wishing to follow the upper secondary vocational MBO routes (aged 16) are:

- MBO *Entreeopleiding* (Netherlands Qualification Framework, NLQF Level 1) (MBO 1): accepts students who have not achieved a lower secondary diploma.
- MBO *Basisberoepsopleiding* (NLQF Level 2) (MBO 2): students must have achieved a 'basic' pre-vocational lower secondary education certificate; or must have completed the pre-vocational VMBO certificate; or have completed a Level 1 MBO *Entreeopleiding* route; or have successfully completed either the lower secondary VWO route or HAVO route.

- MBO *Vakopleiding* (NLQF Level 3) (MBO 3): students must have achieved a pre-vocational lower secondary education certificate (VMBO); or have successfully completed either the lower secondary VWO or HAVO route. (Note: students with a 'basic' pre-vocational lower secondary education certificate cannot enter a Level 3 course.)
- MBO *Middenkaderopleiding* (NLQF Level 4) (MBO 4): students must have achieved a pre-vocational lower secondary education certificate (VMBO); or have successfully completed either the lower secondary VWO or HAVO route. (Note: students with a 'basic' pre-vocational lower secondary education certificate cannot enter a Level 4 course.)

In 2014, a total of 453,800 learners were enrolled in MBO routes and training programmes (Cedefop, 2016). The following table outlines the students in each MBO route by percentage in 2014:

MBO route	Percentage of students enrolled in route
MBO 1	3%
MBO 2	20%
MBO 3	26%
MBO 4	51%

Source: Figure 15, Cedefop, 2016.

Note: the MBO 4 percentage in this table may include students enrolled both in the MBO *Middenkaderopleiding* and MBO *Specialistenopleiding* (not upper secondary) routes. Note also that the percentages above will include MBO students who entered directly on completion of lower secondary education, along with students who have enrolled in an MBO route following the completion of other studies (an upper secondary HAVO route, at age 17, for example).

Specified curriculum within pathways

- How is the curriculum within these pathways organised? Is it broad / comprehensive / specialised / narrow?
- Are there core subjects that are central to the curriculum?
- What degree of choice is afforded to students within each pathway?
- Is the curriculum presented in subject specifications / syllabi / learning outcomes?
- Is there differentiation of learning outcomes in terms of stage and / or ability?
- What degree of autonomy do teachers / schools have in shaping and implementing the curriculum?
- What is the place of wellbeing / social, personal and health education (SPHE) / citizenship education within the curriculum?
- What competences / key skills are promoted in the curriculum?
- To what extent are skills and competences central to the curriculum structure? How do they feature i.e. are they embedded in learning outcomes?
- Where reform is taking place, how is the reform being prepared / what is happening now to prepare the ground for this reform?

Tweede fase: VWO and HAVO pathways

There is no national curriculum in the Netherlands as such; each school is responsible for developing its own curriculum in line with the core objectives of that particular phase of education which are set by the Ministry of Education, Culture and Science. Core objectives for primary and lower secondary education outline the standards of knowledge, understanding

and skills which students are expected to achieve.

The Secondary Education Act outlines those subjects which should be included in secondary education, alongside the number of teaching hours for each secondary pathway in its entirety (from age 12 onwards). In addition, the Ministry of Education, Culture and Science has formulated learning targets

for the *tweede fase* - the upper secondary VWO (pre-university) and HAVO (preparation for higher professional education) pathways. These learning targets have been translated into examination syllabuses for VWO and HAVO, which act as a *de facto* national curriculum (OECD, 2014b). See the subheading 'Assessment and reporting' for further information on VWO and

HAVO examinations.

All students in the *tweede fase* study a number of core subjects (see below), although ‘reference levels’, developed by the Ministry of Education, Culture and Science, only exist for the Dutch language (literacy) and mathematics (numeracy); schools are required to ensure that students achieve minimum levels of attainment in these subjects according to the reference levels. There is a general description of the ‘fundamental level’ which all students are expected to meet, and a more ‘advanced’ reference level for gifted students, alongside a description of the tasks students should be able to carry out and the criteria these tasks have to meet. Reference levels for literacy describe oral fluency; fluency in writing and reading; and correct use of terms, definitions, grammar and spelling rules. Reference levels for mathematics exist for four main areas of knowledge: number and sense operations; expressions and equations; measurement; and ratio and proportional relations. Each reference level outlines the mathematical language students should be able to use; connections between

definitions, number and notations they should be able to make; and their use of mathematical operations to solve problems.

The website of the General Institute for Curriculum Development (*Instituut voor Leerplan-ontwikkeling* (SLO)) provides an overview of the textbooks and teaching materials which teachers and schools may use, but SLO does not accredit textbook providers. In addition, there are no detailed regulations regarding the curriculum in terms of the specific content which needs to be covered or the teaching methods and materials to be used. Schools consequently have a large degree of freedom when planning their teaching programmes and curricula.

All schools must, however, produce a school prospectus for parents and pupils, alongside a school plan which is updated every four years. School plans outline the school’s approach to the provision of education, including the steps taken to monitor and improve the quality of education on offer. These school plans are one of

the measures used by the Education Inspectorate to hold schools to account.

Students (aged 15+) in the *tweede fase* choose one of four subject clusters for their VWO or HAVO programme:

- nature and technology
- nature and health
- economy and society
- culture and society.

The vast majority of pupils opt for the economics and society subject cluster (Onderwijs in Cijfers, 2015). Students may also combine subjects from two different subject clusters.

Each subject cluster in a VWO or HAVO course contains the following elements:

- core subjects
- subjects which are unique to that specialisation / cluster
- classes preparing students for higher education; these are specific to the courses an individual student intends to study at university.

VWO pathway

The core subjects in the upper secondary pre-university VWO pathway are:

- Dutch language and literature
- English language and literature
- a second modern language
- social studies
- general science
- culture and the arts (in *atheneum* schools), or classics (in *gymnasium* schools)
- physical education.

Subjects which are unique to each subject cluster (specialisation) are:

- nature and technology: mathematics; physics; chemistry; an additional optional subject
- nature and health: mathematics; biology; chemistry; an additional optional subject
- economy and society: mathematics; economics; history; an additional optional subject
- culture and society: history; mathematics; an additional optional subject.

HAVO pathway

The core subjects in the upper secondary HAVO (preparation for higher professional education) pathway are:

- Dutch language and literature
- English language and literature
- social studies (which may cover topics like citizenship)
- culture and the arts
- physical education.

Subjects which are unique to each subject cluster are:

- nature and technology: mathematics; physics; chemistry; an additional optional subject
- nature and health: mathematics; biology; chemistry; an additional optional subject
- economy and society: mathematics; economics; history; an additional optional subject
- culture and society: history; a second modern language; an additional optional subject.

Individual schools determine the optional subjects that are available to VWO and HAVO students.

Note: the Government is currently encouraging national debate on the curriculum, and the skills and knowledge students should be expected to acquire at each stage of education if they are to be prepared for their futures. See the subheading 'Aim and purpose' for further information on *Onderwijs2032* (Education2032).

MBO pathway

Students enrolled in an MBO route follow courses related to one of three subject areas:

- business
- engineering and technology
- personal and social services and health care.

The curriculum for each MBO route is determined by the qualifications students work towards in each route. The SBB – the organisation responsible for cooperation between the vocational education and training (VET) sector and the labour market

/ industry (see below) – develops 'Qualifications dossiers', which outline the knowledge and skills a professional should be able to demonstrate on obtaining a particular qualification. These dossiers are adopted by the Ministry of Education, Culture and Science and the Ministry of Economics, after which schools and vocational training colleges use them to shape the content of their teaching. Schools and teachers therefore have some degree of freedom when planning their teaching / curricula, although they are encouraged to offer students an education

which will prepare them to meet regional skills demand. In addition, the Secondary Education Act outlines the subjects to be included in MBO routes, alongside the number of teaching hours for each secondary pathway in its entirety – from age 12.

The *Samenwerkingsorganisatie Beroepsonderwijs Bedrijfsleven*, SBB, was established in 2012 to ensure cooperation between the VET sector and the labour market. It works on qualification development in secondary education, as well as on optimising the links

between VET and employers to ensure that education and training pathways meet the needs of employers and the economy, and produce the well-qualified professionals industry needs.

The qualifications students work towards in the different MBO routes are competence-based and include reference to occupational standards. The current qualifications on offer (which total 176) were introduced in 2016, following a revision of their content. Areas of study in the MBO routes contain the following core elements:

- general subjects, including literacy, numeracy, citizenship and career management skills
- core vocational subjects, which are common to all students specialising in a particular industry or area
- qualification-specific subjects at different levels of the Dutch qualifications framework (Levels 2, 3 and 4, depending on the specific MBO course being followed)
- optional modules, which form 15 per cent of a student's learning hours. Since 2016, these have numbered more than 400, giving educational institutions freedom to offer their students the skills and knowledge needed to succeed in the labour market in their respective areas. Examples of new optional modules introduced in 2016 include 3D modelling, 3D production and German.

All MBO routes include practical training which forms 20-60 per cent of a student's study time when they choose to study through a school; and more than 60 per cent of a student's study time when they choose to study through an employer.

Inclusion

- How is inclusion addressed?
- How are the learning needs of all students catered for, including students who have completed a reduced curriculum at lower secondary school, students with challenging behaviour patterns who find it difficult to function in larger classes, international learners for whom the language of instruction is not their first language, students with special educational needs?
- Where reform is taking place, how is the reform being prepared / what is happening now to prepare the ground for this reform?

General support measures

In circumstances where a student in upper secondary education is at risk of dropping out of school without achieving a 'basic qualification' for employment (a VWO or HAVO qualification, or at least an MBO 2 certificate), schools are able to work with other educational institutions (including another school or vocational training and adult college) to create a tailored programme for him / her. In such cases, students may also study in a VAVO (*Voortgezet algemeen volwassenen onderwijs*) institution, which generally caters for individuals over

the age of 18 who left secondary school without achieving any qualifications.

In cases where a pupil is not expected to obtain a lower secondary vocational diploma (VMBO), at age 16, they enrol in a practical training programme (known as *praktijkonderwijs*, or PRO). In 2014, 2.5 per cent of primary school pupils were recommended for enrolment in PRO in secondary education (Ministry of Education, Culture and Science, 2016). Practical training programmes provide pupils aged 12 to 18 with

practical experience and 'learning through doing', training them to enter the world of work. Students, parents and teachers decide which practical training programme suits the needs and skills of the student in question, although all students are taught to be self-sufficient and work independently. Depending on the practical training programme they are enrolled in, students may go straight into employment or may continue with further study; around 40 per cent of PRO students transfer to the MBO 1 route (Cedefop, 2016).

Additional support measures are also available to students in secondary school, including:

- extra training or assistance from a language coach for students with language difficulties

- Dutch language support for recently arrived immigrant learners; schools apply for extra funding for this support, and decide how best to spend this funding themselves, depending on the needs of the learner(s).

Support for students with special educational needs

Students with additional learning needs are, as far as possible, integrated within the mainstream school system. Funding is available to support students with disabilities, including those with cognitive, sensory or physical impairments; students with severe psychiatric difficulties; students with learning or behavioural difficulties; those with multiple impairments; or students with protracted illness in secondary schools. Schools use this funding in different ways to support their students, including providing them with additional guidance or support, or adapted learning materials. Depending on their disability / special need, students may also benefit from:

- extra time in examinations (up to a maximum of 30 minutes) and the use of a calculator in examinations for students with dyscalculia

- oral examinations or digital aids in examinations for students with dyslexia (such students require a statement from a certified psychologist or remedial educator).

If a school feels that they will not be able to adequately provide for a student with special needs, such students may attend a special school. These fall into four main categories:

- schools for learners with visual impairments or multiple disabilities
- schools for learners with impaired hearing and communication difficulties
- schools for learners who are physically and / or intellectually disabled or have a chronic illness
- school for learners with mental or behavioural disorders.

Each of these schools offers its learners three pathways:

- daily activity, which focuses on life skills
- labour market activity, which focuses on readiness for the labour market
- further education, which focuses on the same attainment targets as those in mainstream lower secondary education.

Learners are placed on one of the three pathways. Each teaches students general social participation skills and supports their personal development. Students may follow the curriculum on offer in practical training programmes (see above), or in the HAVO (preparation for higher professional education), VWO (pre-university) or VMBO (lower secondary vocational education) pathways.

Students enrolled in the further education pathway in a special school work towards a school leaving qualification (a HAVO, VWO or VMBO certificate), and receive a certificate

detailing the examinations they have completed on leaving education. Students enrolled in the daily activity and labour market activity pathways are generally given testimonials by their school when they leave education. Students are permitted to participate in special school education until the age of 20.

Where mainstream schools determine that they are not able to adequately provide for an individual student's special needs, it is the school's responsibility to find the student a place in an appropriate educational setting – rather than the responsibility of

the student's parent / carer. This placement can be in another mainstream school, or in a special educational needs school.

Assessment and reporting

- How is the curriculum assessed?
- What variety of assessment modes and methods are in evidence? For example, external assessment / internal assessment / online assessment / portfolios / formative / summative / synoptic etc.?
- How does the system recognise varied learning / skills / competences?
- How does assessment link to certification / qualifications / a qualifications framework / selection for further and higher education?
- How is vocational / technical education assessed and accredited?
- How is achievement reported? What is reported?
- Where reform is taking place, how is the reform being prepared / what is happening now to prepare the ground for this reform?

Depending on the pathway they are enrolled in, students in upper secondary education work towards the completion of a VWO (pre-university) certificate (Level 4+ on the Netherlands Qualification Framework, NLQF), or a HAVO (preparation for higher professional education) certificate (Level 4 on the NLQF). Students in upper secondary vocational education work towards the completion of an MBO certificate (usually at Levels 2, 3 or 4).

Tweede fase: VWO and HAVO pathways

Students in their final year of VWO (Year 12, aged around 18) and HAVO (Year 11, aged around 17) take school leaving examinations in a number of subjects. These examinations consist of two main parts:

- a central / national part, which is developed by CITO (the Central Institute for Test Development), following input from subject matter experts and teachers, and guidance from the College of Examinations (*College voor Examen, CVE*)
- a school-based part, which is developed by each individual school in line with examination syllabuses and examination guidelines published by the General Institute for Curriculum Development (*Instituut voor Leerplan-Ontwikkeling* or SLO).

Schools must submit their examinations for review by the Education Inspectorate before they are permitted for use. They should clearly outline which elements of the examination syllabus will be tested and when, alongside how marks are allocated, the weight allocated to each test and any resit opportunities. Generally, schools focus their examinations on the skills which are not tested in the central examinations; for example, the central examinations for modern languages focus on reading skills, which allows school examinations to focus on listening, speaking and writing skills (OECD, 2014b).

Central examinations comprise both multiple choice and open-ended questions. Generally, school examinations consist of two or more tests per subject, and these may be written, oral or practical. Practical assignments may also be included, but no marks are awarded for these; acknowledgement is simply provided for students who have completed them correctly.

Compulsory subjects in which each student takes examinations vary depending on the subject cluster in which they are enrolled (see the

subheading 'Specified curriculum within pathways'). However, all students in the VWO and HAVO pathways must take examinations in Dutch, English and mathematics.

Students are marked out of 10 for each examination they take, where a grade of 1 is 'very poor' and 10 is 'outstanding'. Students must obtain a 6 ('satisfactory') at minimum to pass an examination. While multiple choice questions are marked electronically using software from CITO, school examinations and open-ended central examinations are initially marked by a student's own teacher, following guidelines provided by the College of Examinations (CVE). These include detailed descriptions of rules for scoring students' responses on individual questions within each examination. Following this initial marking, a teacher from another school marks the examinations. If there is disagreement between the two grades awarded, the Inspectorate appoints a third marker, whose grade is final.

A student's final grade for each subject is calculated using the average of marks obtained in the central

and school examinations. Central and school examinations are given approximately equal weight when calculating these averages. Students with an average of 6 out of 10 or more in a specified number of subjects (depending on the subject cluster) are considered to have achieved a VWO or HAVO certificate.

Students take examinations in the final year of their VWO or HAVO course, usually in May. There are opportunities to retake examinations in June and August of the same year for students who were unable to take the examinations in May, or who need to retake them.

There is school-level and national reporting of aggregated student results.

MBO pathway

Depending on the specific MBO route on which they are enrolled, students take examinations at the end of Year 11, 12, 13 and / or 14 (ages 17-20). The examinations are designed by the educational institution they are attending. They link to the qualification a student is working towards and are competence-based, assessing whether students can carry out specified tasks and have the necessary knowledge and skills for a particular role within an industry.

Individual educational

institutions must ensure that their MBO examinations meet national quality standards which are outlined by the Government, and must work with companies providing work-based training in their design. The Education Inspectorate is responsible for monitoring the quality of examinations. Educational institutions which design examinations that fail to meet appropriate standards may have their right to design and set examinations withheld. In such cases, these institutions must outsource

their examinations to institutions which are still approved to set and hold examinations.

Recent discussions on the quality of education in upper secondary vocational education have included proposals to introduce compulsory national examinations in Dutch and mathematics (which would be introduced in phases); to give the business community a more significant role in the design of MBO examinations; and to standardise examinations in vocational subjects.

Progression to higher education

Different types of higher education institutions have different entry requirements:

- Courses in science and research universities require a VWO certificate or completion of one year of (post-MBO) higher vocational education. In some cases, universities may also require prospective students to have studied specific subjects.
- Courses in higher vocational education institutions require a VWO or HAVO certificate, or an MBO Level 4 certificate. Again, in some cases, the study of certain subjects in upper secondary education is required. Students with an MBO Level 4 certificate may be exempted from the first year of a course in a higher vocational institution, if the courses they studied at MBO Level 4 were in a related field of study.

Some popular courses in higher education, including medicine, veterinary medicine, dentistry, journalism and physiotherapy, have a limited number of places on offer for undergraduate students. Selection procedures for such courses may include weighted draws, where a higher average mark in a student's final upper secondary examinations gives the student a higher chance of being offered a place.

Flexibility and transfer options

- What flexibility is inherent in the system for movement between or within pathways?
- What are the student transfer options?
- Can students combine study across schools / institutions?
- Can credits / certification be transferred?

A certain degree of flexibility is inherent in upper secondary education, since:

- Students who have successfully completed the VMBO lower secondary vocational route may, at age 16, transfer to Year 10 in the upper secondary HAVO (preparation for higher professional education) route. One in five students do this (Onderwijs in Cijfers, 2016). Generally, such students need to repeat a year to reach the required level for entry to the HAVO course, although there were proposals in early 2017 to amend legislation and allow upper secondary schools to set their own entry requirements. There are also proposals to more closely align the VMBO and upper secondary HAVO routes, with a view to ensuring that VMBO students are better prepared to continue their studies in the HAVO pathway, and to introduce possible 'bridging' programmes. These proposals are a possible response to OECD conclusions that improving the permeability of the secondary education system in the Netherlands would improve the system further (OECD, 2016).
- Students who have successfully completed the lower secondary HAVO (higher professional education preparation) route, at age 15, may transfer to Year 11 in the pre-university VWO pathway.
- Students in *tweede fase* (the VWO pre-university pathway, or the HAVO higher professional education preparation pathway), all of whom must select a specific subject 'cluster' for their studies, may vary their studies by also including subjects from different subject clusters.
- Students who have successfully completed the lower secondary HAVO (higher professional education preparation) route in Year 11 (aged 17) may move to Year 12 (the final year) of the upper secondary pre-university VWO route.
- Students at risk of dropping out of upper secondary education without achieving a basic qualification for employment (a HAVO or VWO qualification, or an upper secondary vocational - MBO – qualification at at least Level 2 on the Netherlands Qualification Framework (NLQF)) may have a special study programme tailored to their needs. In such cases, students may also study in a VAVO institution, which generally cater for individuals over the age of 18 who left school early without achieving any secondary school qualifications.

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Glossary of terms and abbreviations

<i>Atheneum</i>		School offering the VWO pathway.
CVE	<i>College voor Examen</i>	College of Examinations.
CITO		The Central Institute for Test Development.
<i>Gymnasium</i>		School offering the VWO pathway.
HAVO	<i>hoger algemeen voortgezet onderwijs</i>	Lower and upper secondary education which prepares students aged 12-17 for higher professional education. Leads to qualifications at Level 4 on the NLQF.
ICT	Information and communications technology	
MBO	<i>middelbaar beroepsonderwijs</i>	Upper secondary vocational education.
MBO <i>Basisberoepsopleiding</i> (MBO 2)		Basic route in the vocational pathway in upper secondary education (MBO), which leads to a Level 2 qualification on the NLQF.
MBO <i>Entreeopleiding</i> (MBO 1)		Entry level route in the vocational pathway in upper secondary education (MBO), which prepares students for MBO <i>Basisberoepsopleiding</i> . Leads to a Level 1 qualification on the NLQF.
MBO <i>Middenkaderopleiding</i> (MBO 4)		Middle management training route in the vocational pathway in upper secondary education (MBO), which leads to a Level 4 qualification on the NLQF.
MBO <i>Specialistenopleiding</i>		Vocational training in post-secondary, non-tertiary (not upper secondary) education, which leads to a Level 4 qualification on the NLQF.
MBO <i>Vakopleiding</i> (MBO 3)		Professional training route in the vocational pathway in upper secondary education (MBO), which leads to a Level 3 qualification on the NLQF.
	Ministry of Education, Culture and Science	Ministry responsible for education, culture, science, gender equality and communications.
NLQF	Dutch qualifications framework	Level 1 - <i>MBO Entreeopleiding</i> Level 2 - <i>MBO Basisberoepsopleiding</i> Level 3 - <i>MBO Vakopleiding</i> Level 4 - <i>MBO Middenkaderopleiding</i> or <i>Specialistenopleiding</i> ; HAVO certificate Level 4+ - VWO certificate Level 5 - Associate degree Level 6 - Bachelor's degree Level 7 - Master's degree Level 8 - PhD

OECD	Organisation for Economic Co-operation and Development	
<i>Onderwijs2032</i>	Education2032	Platform launched in 2015 aimed at engaging individuals in a national debate about the skills and knowledge which should be taught at school.
PISA	Programme for International Student Assessment	International survey which tests the skills and knowledge of 15-year-old students.
PRO	<i>Praktijkonderwijs</i>	Practical training pathway – a secondary school pathway aimed at pupils aged 12-18 who are not expected to achieve a secondary school diploma.
SBB	<i>Samenwerkingsorganisatie Beroepsonderwijs Bedrijfsleven</i>	Organisation which works towards cooperation between vocational education and training and the labour market.
SLO	<i>Instituut voor Leerplan- Ontwikkeling</i>	General Institute for Curriculum Development.
<i>stapelen</i>		Name given to transfer possibilities from one pathway at the end of lower secondary education to another (different) pathway in upper secondary education.
<i>tweede fase</i>		The pathway in upper secondary education which includes routes that can lead to higher education. It includes the final two years of the HAVO (higher professional learning) route and the final three years of the VWO (university preparation) route.
VAVO	<i>voortgezet algemeen volwassenen onderwijs</i>	Education which generally caters for individuals over the age of 18 who left school early without achieving any qualifications.
VET	Vocational education and training	
VMBO	<i>voorbereidend middelbaar beroepsonderwijs</i>	Lower secondary vocational education, which usually prepares students for upper secondary vocational education (MBO).
VWO	<i>voorbereidend wetenschappelijk onderwijs</i>	Lower and upper secondary education, for 12- to 18-year-olds, which prepares students for university. Leads to qualifications at Level 4+ on the NLQF.