



Integrating Entrepreneurship and Work  
Experience in Higher Education

# National Literature Review The Netherlands

Prepared by the Groningen Project Team

Groningen, March 2018.



Co-funded by the  
Erasmus+ Programme  
of the European Union

## PROJECT PARTNERS



This WEXHE publication is applicable to the following disciplinary sectors:

- Hard pure (e.g. physics etc.)
- Soft pure (e.g. literature etc.)
- Hard applied (e.g. engineering etc.)
- Soft applied (e.g. management studies etc.)

WEXHE research has showed that there are no substantial differences between these four sectors regarding the implementation of Work Based Learning in Higher Education. Therefore this document represents the four sectors mentioned.

This publication is a result of the project that is funded by the European Commission's Erasmus+ Programme, Key Action 2, Knowledge Alliances Projects (Grant agreement: 575683-EPP-1-2016-1-NL-EPPKA2-KA

The European Commission's support for the production of this publication does not constitute an endorsement of the contents, which reflect the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

## SAMENVATTING

De laatste jaren is arbeidsmarktoriëntatie van Nederlandse studenten een belangrijk thema geworden binnen het hoger onderwijs. Gedreven door uitdagingen in de hedendaagse arbeidsmarkt zijn vele belanghebbenden op zoek naar manieren om de band tussen het onderwijs en het bedrijfsleven te versterken. Dit resulteert in een duidelijk waarneembare toename van werkplekgericht leren in het Nederlandse hoger onderwijs.


Vooraf in het middelbaar beroepsonderwijs (MBO) heeft werkplekleren in Nederland een lange geschiedenis met diepgewortelde structuren en standaarden. In het hoger onderwijs wordt echter een compleet andere weg bewandeld. Alhoewel specifieke wetgeving is ontwikkeld voorziet deze niet in precieze voorschriften die werkplekleren reguleren. Hoger onderwijsinstellingen hebben dan ook de nodige vrijheid.

In het hoger onderwijs dient er onderscheid gemaakt te worden tussen het hoger beroepsonderwijs (HBO) en het wetenschappelijk onderwijs (WO). Het HBO wordt gekenmerkt door relatief veel oriëntatie op de praktijk. Een uniek fenomeen binnen het HBO is de inzet van de zogenoemde 'lectoren'. Dit zijn docenten die praktijkgericht onderzoek initiëren en coördineren en daardoor een belangrijke platformfunctie vervullen voor kennisontwikkeling en verspreiding onder studenten, docenten, en het werkveld. Het WO daarentegen heeft werkplekleren lange tijd buiten de curricula gehouden.

De laatste jaren is er echter sprake van een duidelijke toename in het verweven van de praktijk met het onderwijs. Zo zijn stages in veel Masterprogramma's gemeengoed geworden, en besteden universiteiten op andere manieren aandacht aan werkplekgericht leren, bijvoorbeeld door het organiseren van workshops en (extra-)curriculaire cursussen. Om deze processen te faciliteren zijn recent op alle Nederlandse universiteiten Career Service departementen ingesteld.

Naast stages wordt er in het hoger onderwijs ook in toenemende mate aandacht besteed aan ondernemerschap. Onderzoek toont aan dat alle Nederlandse hoger onderwijsinstellingen zich op één of andere manier bezighouden met ondernemerschapsonderwijs. Relevante praktijken variëren van complete Masters gericht op ondernemerschap tot cursussen en masterclasses waar het bedrijfsleven bij het betrokken wordt. Daarbij zijn er verschillende Centers of Entrepreneurship in het leven geroepen om de samenwerking tussen de instellingen, het bedrijfsleven, de Kamer van Koophandel en andere belanghebbenden op dit gebied te versterken. Een groeiend aantal studenten (nu twee derde) geeft aan in het verloop van hun studie een positievere houding jegens ondernemerschap te hebben ontwikkeld.

Traineeships en duaal onderwijs (ook wel apprenticeships genoemd) komen ook voor in Nederland, maar vooral buiten het hoger onderwijs. Waar traineeships hoofdzakelijk worden geïnitieerd door de overheid en grote bedrijven, gericht zijn op pas-afgestudeerden



en fungeren als talentontwikkeling programma's, worden apprenticeships met name ingezet in het lager beroepsonderwijs. In deze duale onderwijsvorm gaat een student gedurende het hele studieverloop een of twee dagen in de week naar school en werkt deze de overige dagen in de praktijk.


Binnen de Nederlandse context zijn vijf relevante ontwikkelingen waarneembaar. Allereerst is het hoger onderwijs zich meer bezig gaan houden met actieve vormen van leren die buiten de strikte onderwijssetting plaatsvinden, nadat in de jaren negentig specifieke wetgeving voor het hoger onderwijs in het leven werd geroepen (De Wet op het Hoger Onderwijs en Wetenschappelijk Onderzoek). Ten tweede zijn, voornamelijk binnen het HBO, duale studieprogramma's in het leven geroepen om de combinatie van leren en werken te faciliteren. Kort hierna ontstond het paradigma van competentiegericht leren, dat zich voornamelijk binnen het HBO manifesteerde in de vorm van stages. Later is competentiegericht leren ook doorgedrongen tot het wetenschappelijk onderwijs in de vorm van (extra-)curriculaire cursussen. Vandaag de dag wordt er in academische instellingen veel gediscussieerd omtrent het identificeren en introduceren van "21st Century Skills" in de (wetenschappelijke) opleidingen. Ten vierde worden studies binnen het hoger onderwijs in toenemende mate modulair van karakter, met meer ruimte voor individuele leerlijnen, om zowel in te spelen op individuele voorkeuren van studenten als de continu veranderende behoeften van het bedrijfsleven. De vijfde en laatste ontwikkeling is een toename in het aantal regionale samenwerkingsverbanden tussen hoger onderwijsinstellingen, het bedrijfsleven, en de (lokale) overheid. Deze partijen werken samen conform de principes van het Triple Helix model<sup>1</sup> om tot innovatieve samenwerkingen en oplossingen te komen. Voorbeelden hiervan zijn het Leiden Bio Science Park en het Techniekpact.

Daarbij zijn er een aantal factoren die de implementatie van werkplekgericht leren stimuleren in het Nederlandse hoger onderwijs. Zo is de economie sterk herstellende, zijn veel bedrijven (pro-)actief betrokken bij het faciliteren van werkplekleren, schept de overheid stimulerende condities (bijvoorbeeld subsidieregelingen), neigen studenten in het academische onderwijs steeds meer naar een carrière in het bedrijfsleven en zijn er in Nederland sterk ontwikkelde praktijken op het gebied van arbeidsmarktprognoses.

Natuurlijk zijn er ook factoren die de implementatie van werkplekleren in de weg staan. Allereerst is er sprake van een structurele kloof tussen het hoger onderwijs en de werkplek. Beide werelden zijn in beperkte mate op elkaar afgestemd en leerprocessen vinden relatief geïsoleerd van elkaar plaats. Dit is met name het geval binnen het wetenschappelijk onderwijs. Deels in het verlengde van de eerste barrière is er de situatie dat veel universiteiten terughoudend zijn in het inbedden van leerprocessen gericht op specifieke

---

<sup>1</sup> Het Triple Helix model is gebaseerd op de samenwerking van 3 partijen: 1) De Overheid (het uitvoeren van wetgevende controle) 2) Het Onderwijs ('productie' van nieuwe kennis) en 3) Ondernemers (genereren van economische groei en voorspoed).




werkcontexten. Dit wordt voor een groot deel ingegeven door de vrees dat door de implementatie van werkplekieren aan academische integriteit wordt ingeboet. Ten derde zijn veel beoordelingsprocessen in het hoger onderwijs nog summatief van aard terwijl formatieve leerprocessen onlosmakelijk verbonden zijn met individuele leerlijnen en werkplekieren een hoog contextueel karakter heeft.

Wat betreft de huidige en toekomstige impact van werkplekieren in het hoger onderwijs zijn er verschillende observaties te maken. Zo presteren studenten die tijdens de studie met werkplekieren bezig waren beduidend beter dan studenten die dat niet doen en bereiken ze over het verloop van hun carrière ook hogere inkomensniveaus. Daarbij nemen organisaties ook sneller studenten aan die tijdens de studie aan werkplekieren (voornamelijk stages) hebben gedaan. Over het algemeen zijn studenten erg tevreden over de stages die zij tijdens de studie lopen, maar opvallend is dat zij de begeleiding en voorbereiding vanuit de onderwijsinstelling slechts beoordelen met een krappe voldoende. Het ligt in de lijn der verwachting dat onderwijsinstellingen de begeleiding en voorbereiding verbeteren, vooral omdat zij hier in toenemende mate op zullen worden afgerekend door toekomstige studenten.

Cijfers wijzen uit dat afstudeerders bij duale studies op de korte termijn beter presteren op de arbeidsmarkt dan afstudeerders bij reguliere studies (in termen van werkloosheid na afstuderen). Dit effect verdwijnt echter na verloop van tijd, omdat de reguliere afstudeerders juist op de lange termijn weer beter presteren. Een mogelijke verklaring hiervoor is dat deeltijdstudenten hun eerder aangegane dienstverband na de studie voortzetten en niet op zoek hoeven naar een nieuwe baan. Onderzoek heeft uitgewezen dat duaal onderwijs relatief veel te lijden heeft onder de structurele kloof tussen de werkplek en het onderwijs. Met de pilots flexibilisering in het hoger onderwijs probeert de overheid hier verandering in aan te brengen. In deze pilots mogen hogescholen hun vaste onderwijsprogramma loslaten en in plaats daarvan eenheden van leeruitkomsten vaststellen. Scholen sluiten een onderwijsovereenkomst met de student waarin afspraken worden gemaakt over hoe de student die leeruitkomsten gaat bereiken. Getuige de grote belangstelling voor deze pilot van instellingen die duaal onderwijs aanbieden, zullen er in de toekomst waarschijnlijk verbeterlagen worden gemaakt en zal daardoor de kloof tussen werkplek en onderwijs verkleinen.

Steeds meer studenten geven invulling aan werkplekieren in het buitenland. In 2014 had 1 op de 4 afstudeerders in het buitenland studie-ervaring opgedaan. Gezien het feit dat internationalisering meer en meer haar weg vindt binnen het hoger onderwijs en dat programma's als Erasmus+ de mobiliteit van studenten vergroten, is het te verwachten dat het aantal studenten dat tijdens hun studie ook in het buitenland studeert verder toe zal nemen.

Werkplekieren wordt in toenemende mate geïntroduceerd om de oplopende jeugdwerkloosheid het hoofd te bieden. Zo worden er bijvoorbeeld traineeships gebruikt binnen de zogenoemde Startersbeurs. In dit gesubsidieerde traineeship programma doen



afstudeerders werkervaring op en werken zij onder begeleiding van een deelnemend leerbedrijf aan verschillende competenties. Een evaluatie wees uit dat meer dan de helft van de deelnemers kort na dit traject regulier werk vindt. Het is opvallend dat ongeveer 9 van de 10 deelnemers een HBO/WO achtergrond heeft, terwijl de maatregel aanvankelijk gericht was op het MBO. Dit is wellicht illustratief voor de behoefte aan verdere ontwikkeling van het werkplekleren binnen het hoger onderwijs. De noodzaak voor dergelijke maatregelen zal waarschijnlijk voortduren totdat bedrijfsleven en hoger onderwijs erin slagen een holistische benadering voor werkplekleren ontwikkelen.

## TABLE OF CONTENT

<b>SAMENVATTING</b>	<b>3</b>
<b>TABLE OF CONTENT</b>	<b>7</b>
<b>INTRODUCTION</b>	<b>8</b>
<b>WBL UNDERSTANDING</b>	<b>10</b>
<b>WBL TYPOLOGY</b>	<b>13</b>
Work placements and apprenticeships	13
Traineeships	16
Entrepreneurship	17
<b>WBL CONTEXT</b>	<b>19</b>
Shifting legislation	19
Dual learning	19
Competence-based paradigm shift	20
Towards multi-disciplinary programmes	20
Governance & recent institutional arrangements	21
<b>WBL IMPLEMENTATION: DRIVERS AND BARRIERS</b>	<b>23</b>
Drivers	23
Barriers	24
<b>WBL IMPACT</b>	<b>26</b>
<b>CONCLUSION</b>	<b>29</b>
<b>BIBLIOGRAPHY</b>	<b>32</b>

## INTRODUCTION

In many contemporary labour markets, workers' lives are severely disrupted due to job polarization and de-industrialization. This disruption is heavily associated with two structural shifts: the globalization of labour markets and the fact that industrialized economies are becoming progressively knowledge-based (OECD, 2017). Subsequently, the demands for skills of the workforce are changing substantially. This has resulted in the EU Agenda for new skills and jobs (as part of the Europe 2020 strategy), and the OECD Skills Strategy (OECD, 2012; European Commission, 2013). One of the main requirements for the workforce becoming more resilient towards these changes is that the changing demands for skills have to be translated into up-to-date educational curricula. Furthermore, since many skills are acquired outside educational and training institutes, work-based learning should be promoted and facilitated to encourage the development of soft skills outside of the classroom environment (OECD, 2017).


In light of this, increased efforts are made by policy makers and educational practitioners to strengthen the employability of students and graduates. This need is also acknowledged by the stakeholders of the Integrating Entrepreneurship and Work Experience into Higher Education project (WEXHE), which recognized the apparent mismatch on the contemporary labour markets in the EU. This mismatch manifests itself in a large proportion of graduates who find themselves either unemployed or employed at a relatively low level. Simultaneously, at the other end of the spectrum, employers raise concerns about their difficulties in recruiting graduates with appropriate skills. As such, in the WEXHE project, stakeholders set out to collectively strengthen the alignment of curricula with demands of practice.

In the Netherlands, this strengthening has predominantly taken place within the realm of vocational education. Over the course of the last 25 years, significant efforts were made in this domain to strengthen The link between theory and practice. This resulted in the widespread introduction of work placements.

Governed by national legislation (the Adult and Vocational Education Act) and aided by centres of expertise, learners have been enabled to familiarize themselves with the workplace through work placements at accredited organizations. In recent years, a massive overhaul of lower vocational education was announced, in an attempt to further cater to the demands of the labour market.

Work placements are also an integral part of curricula of higher professional (vocational) education. Students generally engage in a mandatory work placement for approximately nine months near the end of their study programme, while their written theses are often based on work placements as well. Research universities, on the other hand, operate in a more traditional manner, embracing a relatively classical view on academic education. However, in recent years, universities seem to shift towards the practice-oriented approach





of higher vocational education. They are increasingly incorporating labour market orientation practices in their curriculum designs, including work-based learning (WBL) through work placements and professional development courses. There is also an on-going discussion about the development of “21st Century Skills” in university curricula (SER, 2016).

On a policy level, WBL has also gained momentum in The Netherlands through the introduction of subsidized work experience schemes. These were designed in a response to rising youth unemployment levels, and focused on strengthening school leavers’ (both with and without a diploma) employability through competence development in subsidized apprenticeships. Although the measure was primarily designed for school leavers with a lower vocational education, research has shown that it is mostly used by university graduates. This is perhaps illustrative for the mismatch between Dutch Higher Education and the labour market.

In this literature review, Dutch practices and (policy) developments with regard to WBL in higher education are further described. Particular attention is paid to the Dutch operationalization and typology of WBL, the WBL context, contingent drivers and barriers and the expected future impact.

## WBL UNDERSTANDING


Work-based learning is a phenomenon that sees a broad range of applications in the Netherlands beyond the educational setting. It is an integral part of an individual's life spanning career and an important stimulant of lifelong learning. Traditionally, it is considered an essential component of occupation-related learning processes (Eraut, Alderton, Cole & Senker, 1998), both in vocational education as well as in the career-starting phase. Work-based learning is defined as experiential learning, an active, constructive and autonomous process that takes place within the workplace. In this environment, problems and challenges related to (prospective) business realities are the objects of learning (Onstenk, 2003).

An important pedagogical starting point for work-based learning in education is the “golden triangle”, comprising student, educational institute and the workplace (Klarus, 2004). These three key stakeholders cooperate closely to shape work-based learning. The model of hybrid learning environments (Zitter en Hoeve, 2012) further develops two perspectives to learning. One perspective is that of learning in the educational setting, based on formal learning activities. The other is that of (informal) learning in the workplace (Tynjälä, 2008). Whereas the former is geared more towards the acquisition of knowledge by individuals through mental exercises, the latter is focused on the interaction between an individual and his/her surrounding co-workers and tasks in a specific workplace.

In the Netherlands, work-based learning manifestations can be found in several different forms within the formal education system. Primarily, work-based learning takes place in the form of work placements and apprenticeships which are embedded in various educational frameworks. These include secondary education, vocational education, higher professional education, and, to a lesser extent, academic education. Work placements are also utilized in several labour market policy measures for example by, promoting them as an instrument to combat staggering (youth) unemployment levels in the Netherlands. Prior to elaborating on the respective modes of delivery, it is critical to identify a deeper understanding of work-based learning in the Dutch context. Conceptually, there is a certain degree of ambiguity surrounding work placements and related work-based learning practices. Most commonly, reference is made in the Netherlands to traineeships, apprenticeships, work placements and entrepreneurship. These concepts are defined as follows:

**Work Placement:** A work placement can be best characterized as a temporary position at an employing organization, in which an individual engages in practical training. This is usually, but not necessarily, part of a study programme.

**Apprenticeship:** An apprenticeship is a systematic training period during which an apprentice is alternating between periods at the workplace and in an educational institution. The goal of the apprenticeship is to prepare participants adequately for the labour market. In the Netherlands, these are governed by an applicable legislative



framework for apprenticeships in vocational education and training (VET), the Adult Education and Vocational Training Act (Wet Educatie en Beroepsonderwijs/WEB), which comprises legislation on the roles and responsibilities of involved parties, quality assurance mechanisms, and specific apprenticeship agreements. Apprenticeships are also used as a part of active labour market policy.

**Traineeship:** Traineeships in the Netherlands typically function as junior talent programmes which are utilized by public and private organisations to attract young graduates by hiring them and subsequently providing them with additional training and education during the period of the traineeship.


**Entrepreneurship:** Entrepreneurship is widely considered to be an essential trait of graduates entering the contemporary labour market, which is characterized by increased dynamism and flexibilization. An increasing number of HEIs is encouraging entrepreneurial activities throughout their educational programmes.

In the Netherlands, the most common types of work-based learning in education are work placements and apprenticeships. These form a core aspect of vocational education and higher professional education.

With regard to vocational education, two routes can be identified. The Netherlands introduced a new VET school type in 1996, departing from the previous apprenticeship-system, offering courses at four levels in two tracks: one track is school-based, the other is an apprenticeship-based dual track (Nuffic, 2015). All Dutch VET qualifications can be acquired through either one of these tracks which are offered by either single- or multi-sector VET schools. While both tracks are equal in terms of status and currency, there are some striking differences. First of all, the BBL-route (“beroepsbegeleidende leerweg”) is apprenticeship-based and entails that students start working immediately while also going to school one or two days a week. Students following the BOL-route (“beroepsopleidende leerweg”) attend classes in school all week, but periods of classes are alternated with one or more periods of work placements (see 3.1).

In higher professional education, as in the VET system, work placements are typically included in curricula. Higher professional education in The Netherlands provides higher vocational education through various universities of applied sciences. The programmes of these universities aim to transfer theoretical knowledge and foster the development of skills that are closely linked to professional practices in higher occupations. Students generally engage in a mandatory work placement in the third and/or fourth year of the study programme. The work placement lasts approximately nine months, and is often the subject of a written final thesis.

Academia and the workplace are traditionally less intertwined compared to higher professional education. Universities are more focused on independence and the academic development of their students. As such, work placements are often the exception rather than the rule. However, while work placements are still far from the norm, facultative as



well as mandatory work placements have seen a spur of growth in recent years, especially in applied sciences.

While work-based learning is an integral part of a significant portion of Dutch educational programmes, several scholars have raised concerns regarding its effectiveness. This is because learning activities undertaken in the workplace are often focussed on working processes as opposed to actual applications of theory as well as the development of professional skills required to master an occupation. Therefore, the effectiveness of work-based learning in education is questioned (Nieuwenhuis, Poortman & Reenalda, 2014). This is in line with the concept of work-based learning still being in its infancy stage, as maintained by academics Pandy Brodie and Late Irving following their assessment of work-based learning in higher education (Brodie & Irving, 2007).

## WBL TYPOLOGY

As mentioned in the previous section, work-based learning manifestations (specifically work placements and apprenticeships) are integrated in various segments of the Dutch education system, as well as in active labour market policies and measures. Beyond that, “informal” work placements (known as work experience placements) are also increasingly taking place in the open market, due to the absence of available paid jobs in some sectors.

In this section, the main modes of delivery for each type of work-based learning are presented, while also taking into account the role of HEIs and external partners.

### Work placements and apprenticeships

Work placements are embedded in the following segments of the Dutch education system: secondary education; vocational education and training; associate degree; higher professional education; and academic education. This section aims to provide a complete overview of these segments, and to describe the respective degree of utilization of work placements.

#### **Secondary and vocational education**

Secondary education consists of three main forms: pre-university education (“VWO”), higher general secondary education (“HAVO”), and pre-vocational secondary education (“VMBO”) that has a further division of four tracks with a different range of emphasis between theory and practice. The latter, pre-vocational education, gravitates the most towards work-based learning through practice-oriented classes. The first two years of pre-vocational education consist of general subjects. In year three and four, students can choose from four different pathways: theoretical learning, combined learning, advanced vocational learning, and basic vocational learning. Albeit not compulsory (in case of the last three pathways) work placements are offered by many VMBO schools, typically taking place in the final two years of the programme.

Vocational education and training (“MBO” schools) aims to prepare students for the workplace and for further education. It plays a major part in the Dutch labour market, given the fact that nearly 40% of the Dutch working population has attained the vocational level of education (CBS Statline, 2017). Compared to all other educational forms, vocational education is connected to the workplace the most through work placements and apprenticeships. Vocational education is available in four different levels through two separate tracks in which work placements and apprenticeships are at the core of work-based learning.

There are several parties involved in the offering of vocational education: regional training centres (“ROCs”), agricultural training centres (“AOCs”) and trade schools (“Vakscholen”). All of these institutes are, at least partially, funded by the government (12% of the total budget for education is spent on these schools). There are also private training centres that operate

without government funding. Other than the government, the role of employing organizations is of equal importance due to their role as a facilitator for work placements.

To ensure that the relationship with the workplace meets a certain standard, industry-specific Centres of Expertise (“KBBs”) were introduced to develop appropriate VET-qualifications to maintain the current occupational basis on which these qualifications are based. Employer organisations and trade unions are actively involved in this process. The centres also monitor the quality and availability of apprenticeships and work placements to ensure an adequate alignment of VET-education with the labour market.

### **Associate Degree Programme**

The Associate Degree is a 2-year short cycle higher education programme aimed at facilitating the transition from vocational specialists, workers and the unemployed with a VET-level qualification to higher education (EQF level 5). The Associate Degree offers full-time as well as part-time courses that students can combine with a job. The programmes are tailor-made, in an attempt to link to individual differences. For instance, the recognition and validation of prior learning (conducted by a “kenniscentrum EVC”, an important external partner) can result in the exemption of specific parts of a programme. Furthermore, work experience is assessed to determine the type and length of a work placement to be taken in the programme. Associate Degree Programmes were first introduced in 2006 in the Netherlands as a pilot project. It has been growing steadily since, from 22 available programmes in 2006 to 239 in 2014 (Rijksoverheid, 2015). It mainly attracts VET graduates from the school-based track (SEO, 2010). The number of enrolments has increased from a few hundred in 2006 to 4500 in 2012, and shortly hereafter the Associate Degree was implemented in the regular education system.

The existence of the Associate Degree Programme (“ADP”) is a direct result of Dutch employers requesting an educational level that can be positioned between VET and higher professional education. The Associate Degrees is designed in a way that allows for a combination of education and (continued) working in a firm. The idea behind the ADP is that it decreases the barrier to higher education, due to its relatively short length and the possibility to continue working while studying, unlike most “traditional” Bachelor programmes. Upon completion of an ADP, students can choose to continue their education in a regular 4-year Bachelor study in the third year.

### **Higher professional education**

Higher professional education (“HBO”), or higher vocational education, prepares students for higher occupations on the labour market requiring both theoretical knowledge as well as specific skills. This educational system comprises 39 universities of applied sciences, and between 80 and 90 private institutions offering bachelor degree programmes. The Higher Education and Research Act defines HBO as ‘education aimed at transferring theoretical knowledge and the development of competences in close connection to the professional practice.’ It accounts for nearly 30% of all Dutch enrolled students in education. Students who take this type of education are awarded with a Bachelor’s degree, linked to EQF-levels

5-7. It is practice-oriented, and is organized by Dutch universities of applied sciences. Higher professional education can be attended part-time, or as part of a dual learning pathway.

While these programmes have a more theoretical focus compared to VET (and work based learning is not a formal requirement), work placements are generally a compulsory part of the curriculum, typically taking place in the 3rd or 4th year of the programme. Usually students write a final thesis in the final stage of their study based on this work placement. Contrary to VET levels, institutions are free to shape their own programmes and the involvement of social partners is lower. However, alignment with regional employers is obligatory. To ensure the programmes incorporate the most current developments in disciplines and professions institutions are assessed by the Dutch-Flemish accreditation body NVAO once every six years.

### **Academic education**

Academic education (“WO”) in the Netherlands has long maintained a strong, traditional focus on scientific research. As such, (mandatory) work placements have been practically invisible in curricula. However, over the past years, universities are increasingly trying to smoothen the transition to the labour market and strive to deliver readily employable graduates. As a result, the number of universities offering mandatory and elective work placements in their curricula is growing vastly, especially in social sciences, management studies and the applied disciplinary areas (De Gier & Warmerdam, 2009).

Universities are increasingly stimulating the undertaking of work placements abroad, and offer personal and professional development planning courses in their curricula to prepare for these work placements as well as for the transition to the labour market upon graduation. The format of these work placements and relevant curriculum design is at the discretion of each individual university (Panteia & De Haan, 2015). To support these practices, all Dutch universities have launched “Career Service” departments in which information and support regarding work placements, labour market orientation and professional development is offered to students. To foster mutual learning among universities, bi-annual meetings are organized in which representatives of all Dutch Career Service departments exchange best practices.

One example of a best practice is “SkillsLab”, introduced by the Technical University of Eindhoven in 2015. SkillsLab is a partnership of the Career Service department and a community of students organizing various events and workshops related to competence development, actively involving local businesses. Another example is the Young Talent Factory (“YTF”), launched by the University and Hogeschool of Amsterdam. YTF is a collaboration of the two HEIs and a labour market intermediary, jointly providing support to students who wish to develop their employability (through personal branding and professional workshops) and subsequently get in touch with prospective employers.

To support employability development endeavours, universities are also increasingly offering portfolio tools to students to facilitate the documentation and validation of learning outcomes related to employability (for example, as a result of a work placement). Tilburg

University, for instance, recently included portfolios in their educational profile (Tilburg University, 2017).

### **Work experience schemes**

Besides the above-mentioned work placements within the formal education system, several schemes were devised to foster the transition from education to the labour market. These so-called “work experience schemes” were created in the economic crisis, which saw the youth unemployment rate rise to an unprecedented 15% in the Netherlands. Their primary aim is to help both school leavers as graduates gain work experience and to subsequently increase their employability.

A prime example of such a work experience scheme is the “Work Experience Grant” (WEX), a joint initiative of a Tilburg labour market professor, youth unions and the local municipality of Tilburg. WEX targets school leavers between the ages of 18 to 26, and provides them with the opportunity to gain work experience in a paid apprenticeship lasting a maximum of six months. WEX has seen significant growth over the past few years, and is now being offered in over 150 municipalities. The grant (in most cases 600EUR, though conditions vary among participating municipalities) is jointly funded by the local municipality and the organization hosting the apprenticeship. Participants are guided in the development of several elective competences throughout the apprenticeship, a process which participating organizations are required to facilitate.

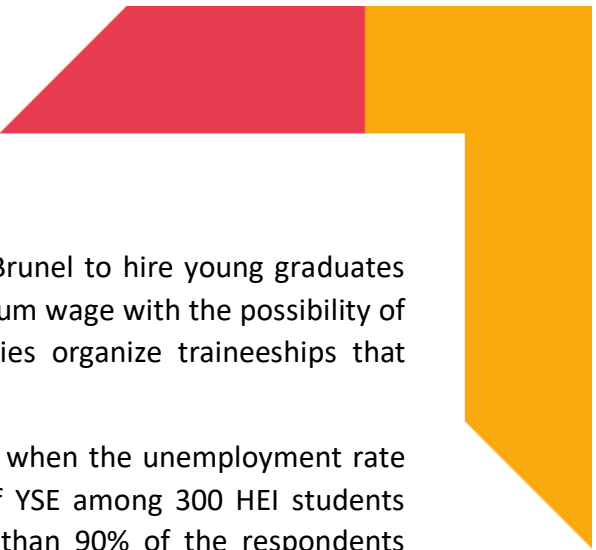
### **Traineeships**

Traineeships in the Netherlands comprise junior talent programmes mostly set-up by large companies and governmental bodies. In these traineeships, participants are employed by the hosting organization and are subjected to a combination of working and learning through additional training and education.

Organizations utilize traineeships to attract and retain talented students and graduates. In a research of recruitment consultancy YSE two types of traineeships are identified: ‘incompany’ traineeships and ‘intercompany’ traineeships (YSE Consultancy, 2015). Incompany traineeships are programmes that are organized by and set-up within one organization. During an incompany traineeship, trainees rotate across different divisions of the company, where they work in daily activities and/or specific projects, supported by department managers. Intercompany traineeships however, are usually set-up by an employment agency that selects recently graduates, approaches potential clients for assignments and then matches the trainee with an organization. Participants can do up to 5 assignments at different organizations within an intercompany traineeship.

Big companies or organizations are more likely to offer ‘incompany’ traineeships. This includes multinationals such as Shell, Deloitte and ASML, but also the Dutch government. The latter runs an extensive traineeship programme (“Rijkstraineeprogramma”), in which academic graduates are acquainted with several domains of the national government (i.e. policy development at a particular ministry and policy effectuation at an implementing agency) through a 2-year programme. Smaller organizations (especially municipalities) make






use of agencies such as Breinstein, Spring Professionals or Brunel to hire young graduates for a very short period. For 2 years, trainees receive a minimum wage with the possibility of a bonus if they are matched with a project. Most agencies organize traineeships that concern information management, IT, finance or marketing.

Traineeships gained momentum during the economic crises when the unemployment rate among recently graduates was high. In 2015, a research of YSE among 300 HEI students showed that traineeships were immensely popular. More than 90% of the respondents considered doing a traineeship after graduation, whereby the main motivation was that it would increase their employability. Around 60% would prefer doing an intercompany traineeship (YSE Consultancy, 2015). A year later, in June 2016, figures show that the demand for highly educated graduates increased since there were more than 3300 traineeship vacancies, especially within IT, sales and finance (CHRO, 2016). However, due to this increased offer of traineeships smaller, more regional organizations struggle with finding suitable applicants. In order to attract young graduates the Province of Limburg for instance tripled the number of trainee spots in 2017, guaranteed trainees regular employment upon successful completion and made their programme more versatile (Sjoerd Willen, 2018).

### Entrepreneurship

Entrepreneurship is not explicitly recognized in the Netherlands as a compulsory part of educational curricula. Up until a few years ago, it focused predominantly on vocational education where the development of entrepreneurial skills is emphasized through elective subjects. However, entrepreneurship has also found its way into Dutch higher education in recent years. The stimulation of entrepreneurship is considered to be of vital importance, since an entrepreneurial attitude is thought of as an essential graduate characteristic. Research has shown that now all Dutch HEIs offer some type of entrepreneurial education to their students, although the content varies significantly among institutions (MacGregor, 2015). Entrepreneurial skills are also becoming an important selection criterion for university teachers in order to prosper the further transfer of entrepreneurial knowledge and skills.

Some universities merely offer entrepreneurial education on an extracurricular basis, or in summer schools or master classes (with active involvement of entrepreneurs). Others also offer entrepreneurial education in the form of a major or minor. The University of Amsterdam, for example, offers an entire Master's programme dedicated to entrepreneurship. Several HEIs have introduced specific courses to learn entrepreneurial skills in the curriculum or have added practical elements to theoretical elements, for example to start up a fictitious business. Multiple higher professional education schools have also introduced "student companies": real businesses started by a group of students on a commercial basis, to familiarize students with entrepreneurship and related competences. An example is a 12-week programme devised by Saxion Hogescholen ("wasstraat") that stimulates and assists students in business development processes. The board of Saxion declared it is further prioritizing entrepreneurship during the opening of the



2017-2018 academic year (Saxion, 2017). Similarly, in the Brabant region, several HEIs support business incubators (as part of the Starterslift initiative) which are accessible to its students with entrepreneurial ideas.

These developments resulted in a nationally recognized certificate of entrepreneurship (“Certificaat Ondernemerschap”) which can be attained in higher education. Various Centres of Entrepreneurship have also been established in the country. These centres are cooperative efforts of universities, businesses, the chamber of commerce and other relevant stakeholders aimed at spreading and developing entrepreneurial knowledge and experiences. The University of Groningen Centre for Entrepreneurship (UGCE) and the University of Twente’s expertise centre on Entrepreneurship NIKOS (Netherlands Institute of Knowledge Intensive Entrepreneurship) for example started the VentureLab East in Enschede and VentureLab North in Groningen. These VentureLabs offer start-ups, students, alumni and PhD students a cohesive one year business development programme. Since 2013, HEIs are also able to file for an accreditation of their entrepreneurial education activities through the “Bijzonder Kenmerk Ondernemen”, awarded by NVAO, which is also responsible for accrediting the curricula of Dutch HEIs (Agterbos, 2014).

The Dutch government has stimulated entrepreneurial education by the subsidy programme “Actieprogramma Onderwijs en Ondernemen”, which ran between 2008 and 2013 (RVO, 2008). The programme aimed to foster entrepreneurial activities within educational programmes and to promote entrepreneurial behaviour among students.

## WBL CONTEXT

### Shifting legislation


In the Netherlands, the link between education and the workplace was first established in the beginning of the 20th century. Legislation governing vocational education was first effectuated in 1913, through applicable law (“Wet op Nijverheidsonderwijs”). This law resulted in the embedding of vocational education within Dutch regions. This regional connection, driven by regional interests, resulted in mutual commitment between vocational schools and businesses. As a result, work placements were introduced to bring the two worlds together. Legislation reached a historical milestone in 1963, when a law was passed (“Wet op het Voortgezet Onderwijs”, better known as the “Mammoetwet”) which introduced the distinction between secondary education; lower, middle and higher vocational education; and scientific education. Around the same time, in the sixties and seventies, strong economic growth resulted in a surge of occupations and sparked the inception of various new vocational schools and universities.

The explosive growth of educational institutes resulted in thinner relationships with the work field, a phenomenon that was addressed by wide scale fusions and reorganizations in the eighties and nineties. Legally, up until 1986, Dutch higher professional education was confined to the constraints of secondary education regulation. It became a separate entity, with separate legislation, after a period of educational expansion from the seventies throughout the early nineties. This culminated in the 1993 Higher Education and Research Act, which, to this day regulates higher professional as well as academic education.

### Dual learning

The introduction of the Higher Education and Research act marks a shift from a passive to a more active way of learning outside specific higher educational contexts. Whereas previously work-based learning was restricted to general vocational education, it also found its way to higher professional education through the introduction of dual learning in the nineties, enabling students to perform tasks in practice. At the time it was expected that this shift would be a viable strategy to improve and strengthen the relationship between HEIs and the business community, in particular with SMEs. Consequently this would lead to an improved fit between education and the labour market. To foster the implementation of dual learning trajectories, subsidy schemes were introduced by the government. Recently the Dutch government initiated a subsidized experiment (running from 2016 until 2022) aimed at further aligning dual programmes with individual needs and interests through a modular programme.

In the late nineties, dual learning was introduced in academic education, firstly on an experimental basis. This resulted in several universities overhauling existing programmes on a dual basis. In law studies, for example, labour law specialization would be implemented. This was strongly advocated by experts and policy makers as a means to foster flexibility and diversity in academic education (Geurts & Meijers, 2003). This paradigm shift was controversial in academia, many questioned whether academic standards could be upheld



when learning would be organized outside the universities, since organizations would largely dictate the learning opportunities. An evaluation of the conducted experiments by the Dutch Inspectorate for Education revealed that all actors involved were in favour of dual education, stating it was a valuable addition to higher education (OCW, 2001). However, recent examples of academic universities offering dual education are scarce.

### Competence-based paradigm shift

Next to dual learning, the introduction of competence-based learning in several HEIs also occurred in the nineties, following a widespread implementation in VET education. In the surrounding debate, two approaches can be identified: a differentiated approach (in which competences are a type of generic skill to be added to a student's skillset) and an integrated approach (in which competences are a fundamental part of a student's skillset). Both approaches have been adopted by several Dutch HEIs, although experts have particularly advocated the use of the integrated approach. In higher education, competence-based learning mostly found its way to higher professional education, in which practical employment experience is used as a vehicle for the strengthening of competences. In recent years, there is increasing attention for the development of general, social and personal skills as well as growing emphasis on multi-disciplinary courses in curricula.

In academic education, the number of WBL practices has long been limited due to its strong gravitation towards academic growth and research-based practices. However, in recent years the number of universities stimulating practices has seen a steadily increase. Universities are increasingly making use of work placements and research projects tied with the workplace, especially in disciplines of applied sciences. Directly tying into competence-based learning, there is an on-going discussion about the introduction of "21st Century Skills" in university curricula (SER, 2016).

### Towards multi-disciplinary programmes

HEIs are increasingly stressing the need for multi-disciplinary courses in their curricula. They are creating more opportunities for flexibility when designing educational programmes that receive a (more) modular structure, with an emphasis on specific blocks of courses. Students have more opportunities to design their own learning route. They have more options to take courses outside disciplinary boundaries and take courses in other disciplines, at other institutes within the framework established in shared agreements. These agreements concern the general curricular structure and content in order to let students broaden their scope and competence profile. HEIs have developed integrated study programmes that combine knowledge from different disciplinary fields. These might be new interdisciplinary studies, crossing traditional boundaries, such as biophysics, biomedical sciences, and bioinformatics. However, combinations of traditional disciplines within integrated curricular programmes are also possible. For instance, "double" qualifications such as 'management and law' or 'health and sports' in higher professional education.

Universities as well as higher professional education institutes are creating programmes with broad, multidisciplinary subject differentiation, for instance at the Digital Society

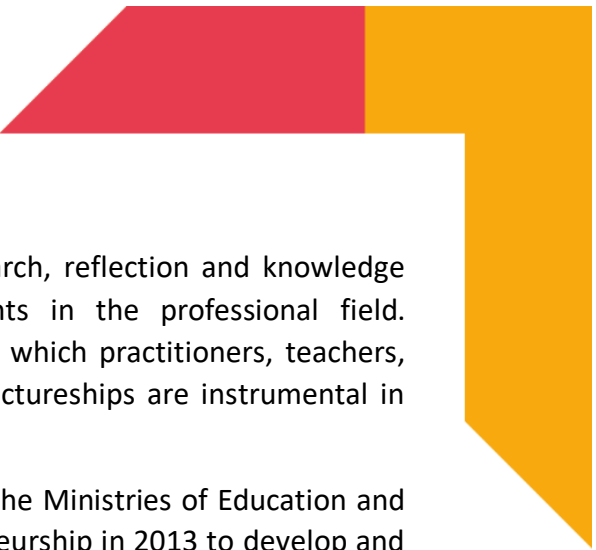
School in Amsterdam and the University Colleges in Groningen and Leeuwarden. These differentiations might also cross traditional boundaries and thus provide a better fit between the qualifications and labour market demands. Differentiations are usually developed after having consulted actors in the professional fields of the disciplines and on the labour market.

### *Governance & recent institutional arrangements*

Throughout the years, businesses have become key partners and stakeholders within the entire higher education domain, predominantly in higher professional education. They contribute relevant and up-to-date occupational information and offer various opportunities for students to connect with the workplace, primarily through work placements. However, this process is not as tightly organized as in vocational education. HEIs are free to design their curricula and incorporate work placements, as long as graduating students can be held to a certain standard through examination. Other than in vocational education, HEIs mostly collaborate with medium to large enterprises that mostly possess ample resources to maintain this relationship to be autonomously. The degree of required supervision is also significantly lower. As such, the primary responsibility to facilitate an adequate connection with the workplace rests with HEIs. In practice, this leads to the creation of dedicated divisions that organize work placements in some universities, whereas in others it is merely facilitated through the networks of individual teachers.

The Dutch government recognizes the scarcity of WBL practices in HEI and formulated several goals to strengthen higher education as part of their 2015-2025 agenda. Among these goals is the fostering of work placements and entrepreneurship to strengthen the relationship of higher education with the labour market (Rijksoverheid, 2015). The government sets out to achieve this by stimulating the formation of regional alliances between businesses and HEIs with financial impulses. In the Strategic Agenda for HE, reference is made to examples such as the Leiden Bio Science Park and the National Science Pact. The former is a large life sciences cluster of start-ups, established businesses, and higher education institutes. The latter is a programme designed to foster the influx of students in the disciplines of science, technology, education and mathematics, in response to a shortage of qualified technical personnel in the Netherlands. It consists of information campaigns, work placements for students and special projects related to higher technical education. In higher professional education, many strategic relationships between HEIs and businesses exist, although the government acknowledges that these are mostly incidental by nature, rather than strategic. As such, the government will stimulate the undertaking of work placements in order to (further) professionalize them, additionally they will invest in regional networks and also facilitate the hiring of lecturers at higher professional colleges.

Lecturers (seated in lectureships) are a relatively new phenomenon in higher professional education. These lecturers initiate and coordinate practice-oriented research related to issues that occur in the business world and society. Lectureships are part of a government-supported programme, aimed at strengthening knowledge development for applied research in higher professional institutes and cover a wide range of disciplines, including



alpha, beta and gamma. They provide a platform for research, reflection and knowledge dissemination regarding current trends and developments in the professional field. Activities take place within so called 'knowledge circles', in which practitioners, teachers, students and researchers are brought together. As such, lectureships are instrumental in linking the institute to the workplace.

To further stimulate entrepreneurship in higher education, the Ministries of Education and Social Affairs mandated the Amsterdam Centre of Entrepreneurship in 2013 to develop and implement a strategy which further embeds and stimulates entrepreneurship in higher education, as well as to foster the exchange of best practices. Shortly after, in 2014, the Amsterdam Centre of Entrepreneurship launched the Master of Entrepreneurship, a joint degree programme at the University of Amsterdam and the Open University. Also in Groningen efforts are made to stimulate entrepreneurship in this northern region. For instance the Northern Knowledge entrepreneurial platform will be opened in June 2018. The objective of this platform is to profile public-private cooperation for the University of Groningen (UG), University Medical Centre Groningen (UMCG) and the Hanze University of Applied Sciences (HUA). Northern Knowledge will facilitate entrepreneurs to start a business and speed up new business as well as innovation by providing entrepreneurial education and business development support.

## WBL IMPLEMENTATION: DRIVERS AND BARRIERS

There is a multitude of drivers and barriers surrounding the implementation of various manifestations of work-based learning in HEI in the Netherlands. In this section, these will be addressed from various perspectives.

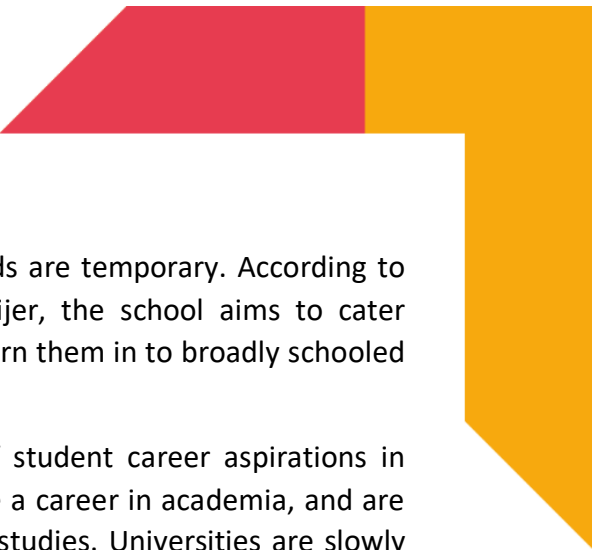
### Drivers

From a general labour market perspective, a strong force driving WBL implementation is the current growth of the Dutch economy. In various reports and articles, the Dutch labour market is portrayed as one which suffers from a certain degree of mismatch with respect to education, especially in certain sectors of industry (i.e. the technical industry). As such, policy makers are concerned with the strengthening of education to contribute to a stronger match with the workplace. The fostering of employability among students and graduates is a core issue in this regard and therefore arrangements are designed that will result in more employable graduates.

Another driver for work-based learning in HE is the active involvement of organizations. This is especially so in higher professional education. These organizations (collectively or individually) address policy concerns and preferences on sectoral as well as national level. This has resulted in initiatives such as the National Science Pact (as described in 4.3), impacting nearly all levels of education, from secondary schools up to academic education. This active involvement of organizations is illustrated by the situation that roughly one in two Dutch companies have worked with interns from either the higher professional or academic level (Souhuwat & Van der Sluis, 2014). It could be argued that because work-based learning in HE is less regulated than in VET, there is a higher degree of flexibility and adaptability, i.e. by addressing sector-specific challenges and skills gaps.

The Dutch government is another important driver of WBL practices by offering fiscal arrangements for organizations. Companies that offer work placements to part time and dual students in higher professional education can receive a subsidy to (partially) cover the costs related to the work placements. This fiscal scheme is, however, restricted to sectors of industry suffering from a shortage of qualified personnel. In addition to this fiscal scheme the government launched a subsidized scheme (“Subsidieregeling Flexibel Hoger Onderwijs”) to advance dual learning in higher professional education. In 2016, this subsidy was allocated to twenty private and public institutions (Rijksoverheid, 2016).

The above mentioned subsidy schemes are illustrative of another trend driving WBL in the Netherlands, namely the increasingly flexible and individualized character of learning pathways. To make higher education more accessible and more responsive to changing labour market needs, several HEIs are set-up modular curricula in which students can choose their own specialization. For example, three local HEIs in Amsterdam launched a Digital Society School in close collaboration with the workplace. The curriculum of this school is structured in a way to allow constant adaptation to current themes of interest in



society and the industry, in the understanding that all trends are temporary. According to the dean of the Hogeschool van Amsterdam, Geleyn Meijer, the school aims to cater students of law, medicine, economics, arts and design and turn them in to broadly schooled professionals (Financieel Dagblad, 2017).

A fifth driver of WBL is related to the changing nature of student career aspirations in academic education. The majority of students do not pursue a career in academia, and are increasingly gravitating towards the workplace during their studies. Universities are slowly beginning to cater this need by introducing modules about professional development and career mobility in the curriculum (even though most is still on an experimental level).

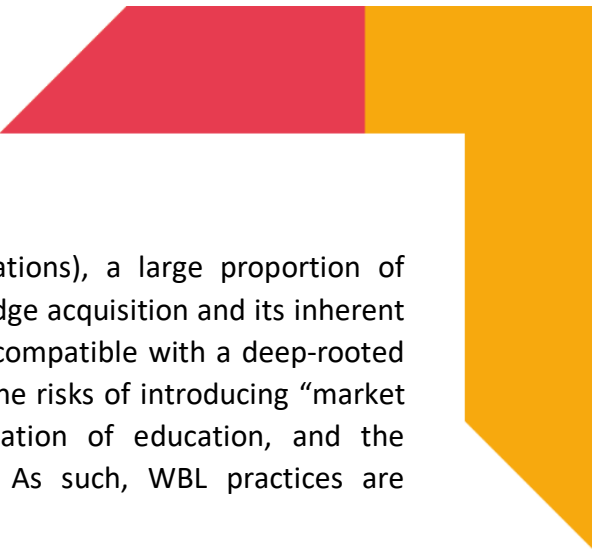
The final driver of work-based learning in the Netherlands is characterized by detailed and innovative labour market forecasting and skill anticipation practices. The Research Centre for Education and the Labour Market (“ROA”), for instance, publishes a periodic report (every two years) in which labour market forecasts are described in terms of educational attainment and occupations. The report includes current and anticipated trends and policy developments and their implication for the labour market (ROA, 2016). Another example is the “Arbeidsmarktdashboard” (labour market dashboard), an online database of current labour market information launched in 2015 and still in active development. The database is designed to provide labour market information for the needs of different stakeholders. For instance, jobseekers can explore current and future job opportunities, employers can establish the presence of jobseekers with a matching skillset in a certain region, and policy makers can gain insight present and future skill gaps. In terms of education, youngsters can base their educational choices on the forecast labour market perspectives of different programmes and tracks. Similarly, several websites have been introduced to fulfil this purpose (e.g. Studiekeuze123.nl and Keuzegids.org).

## Barriers

One barrier for the effective implementation of WBL, particularly in academic education, is posed by relatively poor levels of alignment between HEIs and businesses especially with regard to offering a holistic learning environment. In practice, the HEIs are responsible for their curricula, and organizations are responsible for the offering of work placements. These activities are near-isolated events, with generally absent coordination mechanisms (Reenalda, 2011). To a large extent, this divergence of responsibility can be explained by a historical divide between HEI and the workplace posed by their respective cultures. In the Netherlands, businesses have long been critical of educational institutes for insufficiently addressing their demands through curriculum design. Although several practices have emerged that improve relations between business and academia, both worlds remain relatively isolated.

Another barrier to implement WBL in higher education pertains to the reluctance of academic universities to incorporate work-based practices in their curricula. While an increasing amount of universities is embracing WBL practices (in part due to the previous





mentioned driver of changing student careers and aspirations), a large proportion of universities still strongly values academic formation, knowledge acquisition and its inherent autonomous position. These values are considered to be incompatible with a deep-rooted connection with the workplace. Scholars have pointed out the risks of introducing “market thinking” in higher education, including the commodification of education, and the standardization of educational processes (Lorenz, 2006). As such, WBL practices are expected to remain controversial in academia.

A third barrier is related to the traditional validation and assessment of learning. In Dutch higher education, summative assessment processes are the norm to validate a student’s learning outcomes. However, formative assessment processes (which are highly personalized and focused on the highly contextual process of learning itself) are an important facilitator and stimulator of learning. When coupled with summative assessment, this could add meaning to highly contextual WBL practices (Duvekot & Brouwer, 2015).

## WBL IMPACT

WBL in Dutch higher education is mostly manifested through work placements in higher professional education. The labour market outcomes of these work placements have been reported to be favourable: graduates who engaged in a relevant work placement as part of a study programme (or had a relevant part time job) achieved higher income levels throughout their careers (SEO, 2017). Furthermore, organizations that facilitated work placements reported that over 53% of academic interns were offered employment following their work placement, compared to over 38% of interns in higher professional education (Souhuwat & Van der Sluis, 2014). Students evaluate their work placements favourably as well, with an average score of 4.12 out of 5. However, when asked about the supervision and preparation offered by their HEI, their evaluation is more critical with a score of 3.14 out of 5. In the future, educational institutes are expected to further enhance these practices, especially since they are under increased scrutiny by prospective students regarding their labour market orientation practices.

In recent years the number of traineeship programmes has increased rapidly in the Netherlands. This increase was a result of the economic crisis. For companies, setting up a traineeship programme (or participating in one from an employment agency) was a way to cheaply increase the work force and to attract the most talented graduates. For recently graduates on the other hand, traineeships were considered to be a good stepping-stone for the world of work in a country with high (youth) unemployment rates. There is however not much research on the impact of these traineeships. A survey from 2015 shows that on average trainees are satisfied with their activities, but this survey does not cover employability after the traineeship and is very generic (YSE, 2015). Noteworthy is a research of psychologist Justin Junier. In 2017 he researched 15 traineeship programmes, interviewed 20 to 30 coordinators and several hundred trainees. His research revealed that 60% of all trainees leave their organization during or shortly after a traineeship (Junier, 2017). According to Junier, this high percentage is caused by the following three reasons:

- 1) The first and foremost reason is the fact that most traineeships are a 2-year 'pressure cooker' programme. Trainees have to learn on the job, learn how to function in the world of work and also learn about themselves. For trainees this is considered to be a very demanding situation since they are expected to fully commit from the very start. A great deal of trainees that participated in Junier's research faced burnout related issues.
- 2) Secondly, although most traineeships have a personal development track, the quality of these tracks can be questioned. Many of these tracks were set-up very poorly and did not match with the demands of the trainee. According to Junier, setting-up tailor made development tracks take a lot of time, effort and money and not all traineeship providers are willing or able to make such an investment.

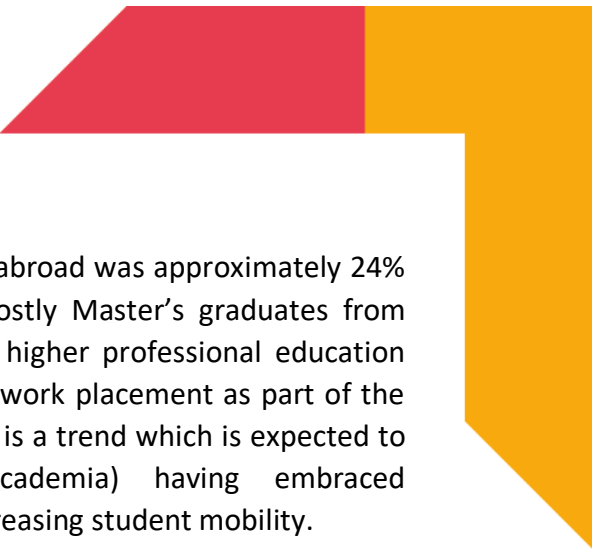
- 3) The third reason is related to the objective of traineeships. Many young graduates apply for traineeships to figure out what they want to do in the world of work. Therefore, they have the possibility (in most traineeships) to do variable assignments. However, according to Junier, most organizations barely invest in matching procedures and since trainees often do not (yet) know what they want, trainees fulfilled assignments during their programme that did not suit their strengths or preferences. More than half of the respondents stated that they weren't satisfied with the assignments they did during their traineeship.

It must be remarked that Junier's article is not clear about what type of traineeships he researched and in what kind of organizations. Since the amount of traineeship-vacancies has increased immensely in 2016 (CHRO, 2016), it can be assumed that this hindered the research outcomes of Junier. Separating the wheat from the chaff became more difficult.

In terms of entrepreneurship, evaluations of the 2007-2013 subsidy programme "Actieprogramma Onderwijs en Ondernemen" revealed that the first goal of strengthening entrepreneurial activities in curricula and actively involving employers was met. Regarding the second goal, promoting entrepreneurial behaviour among students, figures show that over two thirds of students in HE consider themselves entrepreneurial, and that they have a positive attitude towards entrepreneurship. This is a slight increase compared to the start of the programme. Over 20% of students was found to possess actual entrepreneurial aspirations. While no causality could be established due to the research design, the researchers maintained that these statistics could be attributed to the subsidy scheme and the respective activities designed at the different Centres of Entrepreneurship (De Graaf & Flippo, 2013). Universities are increasingly offering business incubation services to students, a trend which is expected to continue in the future due to the prioritizing of knowledge valorisation and entrepreneurship by many HEIs.

The impact of dualization in HE is also notable in the Netherlands. Graduates in dual programmes in higher professional education perform better than graduates in "regular" programmes, with a current unemployment rate of 1.1% in dual studies compared to 4.6% in fulltime studies. However, when comparing these groups over time it appears that this discrepancy is caused by graduates of dual programmes continuing employment at their employing organizations and that, in fact, graduates of fulltime studies ultimately achieve better positions on the labour market. Research has shown that dual education, in fact, suffers from the earlier mentioned structural divide between education and the workplace (Reenalda, 2011). This is expected to improve in the near future, with the Dutch government stimulating the advancement of dual education through subsidized experiments.

In both higher professional education and academic education, international opportunities for work-based learning are offered through a combination of exchange programmes and work placements abroad. The Erasmus+ scholarship was introduced in 2015 to foster international mobility of European students and graduates. Graduate surveys reveal that the



total proportion of graduates with study-related experience abroad was approximately 24% for the 2013-2014 cohort. This figure was made up of mostly Master's graduates from research universities (26%) and Bachelor's graduates from higher professional education institutes (23%). 62% of the former category engaged in an work placement as part of the exchange, compared to 75% of the latter (Nuffic, 2016). This is a trend which is expected to continue, with most Dutch HEIs (especially in academia) having embraced internationalization and with programs such as Erasmus+ increasing student mobility.

With respect to the impact of WBL practices as part of active labour market policy, research has shown that the Work Experience Grant (WEX) has significantly enhanced labour market prospects of participants, with more than 52% obtaining regular employment during the apprenticeship or shortly thereafter. Notably, 87% of participants have either a higher professional or academic educational background (predominantly in alpha and gamma sciences), compared to a mere 13% of the primarily targeted participants with a vocational background. The necessity of these schemes is expected to extend into the future, especially in academic programs with a weak link to the workplace, and at least until HEI and the workplace develop a more holistic approach to work-based learning.

## CONCLUSION

In recent years, the labour market prospects of graduates in Dutch higher education has become a grave concern among educational policy makers and practitioners. Faced with imminent labour market challenges, which call for a stronger alignment between education and practice, a clear trend can be observed towards an increased incorporation of work-based learning practices in higher education.

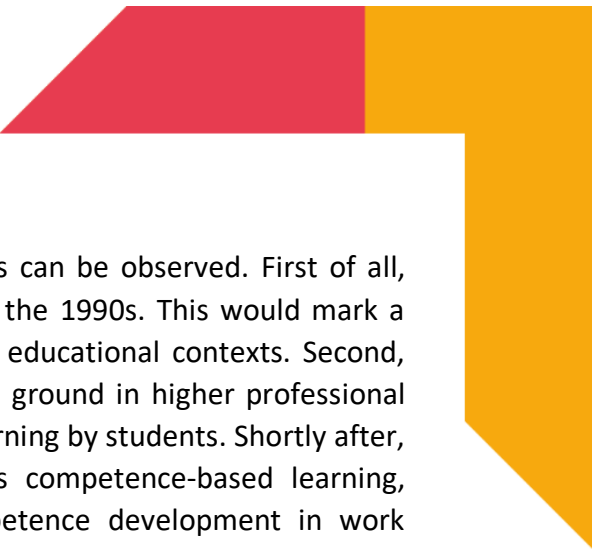
Whereas in Dutch vocational education there is a long history of highly governed and standardized WBL practices, a completely different approach is adopted in higher education. Legislation has been put into place (the Higher Education and Research Act), though it does not prescribe a specific design for WBL practices. Instead, standards are defined to which students are held through examination. As such, the exact incorporation of WBL is at the discretion of the HEI.

Within Dutch higher education, an important distinction has to be made between higher professional education and academic education. The former can be categorized as higher vocational education and is more practice-oriented. In most programmes, work placements are compulsory and an adequate alignment with regional employers is prescribed through legislation. A unique phenomenon in higher professional education is the use of lectureships. These are introduced in institutions as a platform for research and knowledge dissemination, in which practitioners, teachers, students, and researchers actively take part. Lectureships are an important linking pin between professional education and the workplace.

In the academia, WBL is a relatively new phenomenon. Work placements (elective as well as mandatory) are, however, increasingly finding their way to university curricula (especially in management studies, social sciences, and applied sciences). WBL is also incorporated in other shapes and forms, including courses and workshops aimed at professional development, and projects in which students start a (fictitious) business. Career Service departments were introduced in all Dutch universities to support these practices.

Growing attention is also paid to entrepreneurship in higher education. Figures show that at present all Dutch HEIs offer some type of entrepreneurial education to their students. The practices range from a fully dedicated Master's programme, to curricular and extra-curricular courses and summer programmes. Across the country, several Centres of Entrepreneurship have been established to foster entrepreneurship. These centres are the result of cooperation between HEIs, businesses, the Dutch chamber of commerce, and other relevant stakeholders.

Traineeships and apprenticeships are also apparent, but mostly outside of the realm of higher education. Traineeships function as junior talent programmes employed by the government and large corporations. Apprenticeships are mostly specific to vocational education and active labour market policies.

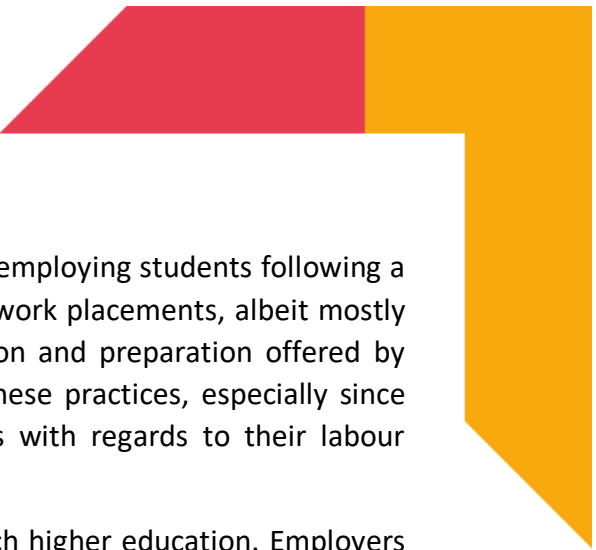


Upon examination of the Dutch context, five relevant shifts can be observed. First of all, separate legislation for higher education was introduced in the 1990s. This would mark a shift towards more active ways of learning outside specific educational contexts. Second, dual study programmes were devised (which mostly gained ground in higher professional education) to facilitate a combined effort of studying and learning by students. Shortly after, as the third shift, the learning paradigm shifted towards competence-based learning, especially in higher professional education through competence development in work placements. In academic education, while not as widespread as in higher professional education, there is an increasing amount of universities offering (extra-)curricular courses related to competence development. This trend coincides with an on-going discussion about the sustainability of these efforts through the identification of “21st Century Skills”. Fourth, HEI programmes are becoming increasingly modular by nature meet the individual needs of students as well as to changing labour market demands. The fifth and final observed shift is represented by the increasing number of regional alliances following the “Triple Helix” model of cooperation between knowledge institutes, the government, and businesses. For instance, the government stimulates the formation of these alliances through financial impulses. Recent examples include the Leiden Bio Science Park and the National Science Pact.

Many drivers for work-based learning could be identified in the Netherlands. The Dutch economy is growing again, businesses engage (pro-) actively in WBL, the governments puts stimulating and facilitating measures in place and there are increasingly flexible and individual learning pathways. What also drives WBL is the changing nature of student aspirations in academia (of which a declining proportion pursues an academic career post-graduation in favour of a professional career) and strong labour market forecasting practices which are vital for the agility and flexibility of educational programmes.

However, three barriers to WBL implementation were also identified. First of all, there is a structural divide between the workplace and higher education, especially in academic education. The level of alignment between the two environments is often poor, due to the relatively isolated environments of the higher education institutes and the workplace in which learning activities take place. Second, despite clear WBL advancements in academic education, there is still a reluctance to incorporate specific work-based practices out of scepticism towards “market thinking” and a fear of compromising academic integrity. Third, the validation of learning in higher education is mostly focused on summative assessment of learning outcomes. Formative assessment is in its early infancy stage in higher education, while such practices are critical to cater to the individual learning pathways and highly contextual work based learning practices.

Regarding the current and future impact of WBL in The Netherlands, a few striking observations could be made. First of all, the labour market outcomes of students engaging in WBL during their studies have been favourable: these graduates achieve higher income levels in the course of their careers.



Organizations have also demonstrated a clear propensity to employing students following a work placement. Students are generally satisfied with their work placements, albeit mostly with the work placement itself and less with the supervision and preparation offered by their educational institute. HEIs are expected to improve these practices, especially since they are under increased scrutiny by prospective students with regards to their labour market orientation efforts.

Second, entrepreneurship has seen a spur of growth in Dutch higher education. Employers have become increasingly involved, and a growing proportion of students (now over two thirds of the student population) indicate to have developed a positive attitude towards entrepreneurship in their studies. In the future, HEIs are expected to further expand the promotion and facilitation of entrepreneurial behaviour, especially with the current strategic prioritizing of knowledge valorisation and entrepreneurship which is prevalent in many Dutch HEIs.

Third, graduates of dual study programmes are found to outperform graduates of regular programmes in terms of the unemployment rate shortly after graduation. Interestingly, this effect reverses over time. It is argued that the short-term advantage is caused by graduates of dual programmes continuing employment upon graduation, as opposed to obtaining employment. Research has shown that dual education suffers from the earlier mentioned structural divide between education and the workplace. This is expected to improve in the future, with the Dutch government actively stimulating and facilitating the furthering of dual education through subsidized pilot schemes.

Fourth, WBL is increasingly taking place across Dutch borders. In 2014, one in four graduates had acquired studies abroad. A large majority of these graduates had undertaken a work placement. This trend is expected to continue in the future, with an increasing number of Dutch HEIs embracing internationalization and with programs such as Erasmus+ increasing international student mobility. Fifth and finally, WBL has been introduced in several active labour market policy measures in the Netherlands, with favourable results. The Work Experience Grant for instance, meant for school-leavers and graduates to gain work experience and to develop general competences through a subsidized apprentice, resulted in over half of participants finding regular employment directly following the apprenticeship. The large majority of participants were HE graduates, while in fact the measure was primarily targeted at individuals with a vocational background. This is perhaps illustrative for the need for more widespread WBL practices in Dutch higher education. As such, until the workplace and HEIs develop a more holistic approach to work-based learning, these measures are expected to extend into the future.

## BIBLIOGRAPHY

Agterbos, H.M. (2014). *Onderweg naar een ondernemende samenleving. Ondernemerschap en duurzame werkgelegenheid*. [Essay]. Ede (Gld.): Ondernemend.nu.

AWTI (2015). *MKB en Hogescholen: Partners in innovatie*, Den Haag, Retrieved October 4, 2017 from: <https://www.awti.nl/documenten/adviezen/2015/4/22/mkb-en-hogescholen>

Brodie, P. and Irving, K. (2007). *Assessment in work-based learning: investigating a pedagogical approach to enhance student learning*. *Assessment & evaluation in higher Education*, 32, nO1, pp 11- 19

CBS Statline (2017). *Hoogst Behaald Onderwijsniveau*. Retrieved October 5, 2017 from: <https://www.onderwijsincijfers.nl/kengetallen/sectoroverstijgend/nederlands-onderwijsstelsel/hoogst-behaalde-onderwijsniveau>

CHRO (2017). *Het Traineeship is niet meer wat het was*. Retrieved February 8, 2018 from: <https://chro.nl/artikel/het-traineeship-is-niet-meer-wat-het-was>

De Gier, E., Warmerdam, J. (2009). *Reforms in Higher Education and Active Labour Market Policies within the Context of a European Knowledge Society: Synthesis Report on the Netherlands*

De Graaf, D., Flippo, R. (2013). *Ruimte voor Onderwijs in Ambitieuus Ondernemerschap*. Retrieved October 5, 2017 from: <https://www.onderwijsraad.nl/upload/documents/publicaties/links/Ruimte-voor-onderwijs-in-ambitieuus-ondernemerschap.pdf>

Duvekot, R.C. & Brouwer, C.J. (2015). *Valideren van leeruitkomsten in het hoger onderwijs*. Houten, CL3S.

ECBO (2014). *Apprenticeship-type schemes and structured work-based learning programmes*

Eraut, M., Alderton, J., Cole, G., & Senker, P. (2000). *Development of knowledge and skills at work. Differing visions of a learning society*, 1, 231-262.

European Commission. (2013). *Europe 2020*. Retrieved April October 1, 2017, from [https://ec.europa.eu/info/strategy/european-semester/framework/europe-2020-strategy\\_en](https://ec.europa.eu/info/strategy/european-semester/framework/europe-2020-strategy_en)

Financieel Dagblad (2017). *We Moeten Af van de Digitale Eenheidsworst in het Onderwijs*. Retrieved September 28, 2017 from: <https://fd.nl/morgen/1202159/we-moeten-af-van-de-digitale-eenheidsworst-in-het-onderwijs>

Geurts, J. A. T. M., & Meijers, F. J. M. (2003). *Kiezen voor aantrekkelijker bèta/techniek: aanbevelingen voor vernieuwingen natuurwetenschappelijk onderwijs*. Stichting Axis.



Junier, Justin. (2017) 3 Redenen waarom 60% van de trainees vertrekken na hun traineeship. Retrieved February 8, 2018 from: <https://nl.linkedin.com/pulse/3-redenen-waarom-60-van-de-trainees-vertrekken-na-hun-justin-junier>.

Klarus, R. (2004). Omdat het nog beter kan. VELON Tijdschrift voor lerarenopleiders, 25(4), 18.

Lorenz C. (2006), Universiteit is geen markt, in NRC Handelsblad, 27 June 2006.

MacGregor (2015). Entrepreneurship Education is now in all universities. University World News. Retrieved October 6, 2017 from: <http://www.universityworldnews.com/article.php?story=2015110614531639>

Nieuwenhuis, A. F. M., Poortman, C. L., & Reenalda, M. (2014). Nieuwe concepten voor het vormgeven van werkplekieren. Pedagogische studiën, 91, 39-53.

Nuffic (2015). The Netherlands: The Dutch Education System Described. Retrieved October 2, 2017 from: <https://www.nuffic.nl/en/publications/find-a-publication/education-system-the-netherlands.pdf>

Nuffic (2016). Outgoing Student Mobility in Dutch Higher Education. Retrieved October 8, 2017 from: <https://www.nuffic.nl/en/publications/find-a-publication/outgoing-student-mobility-in-dutch-higher-education-2015-2016.pdf>

OCW (2001). Duaal academisch onderwijs: de werkplek als academische werkplek? Evaluatie van de experimenten duale opleidingen wo. Utrecht: Inspectie van het onderwijs (rapport 2001-5).

OECD (2012). Better Skills, Better Jobs, Better Lives: A Strategic Approach to Skills Policies. Retrieved October 4, 2017, from <http://dx.doi.org/10.1787/9789264177338-en>

OECD (2017). OECD Employment Outlook 2017. Retrieved October 4, 2017 from: [http://dx.doi.org/10.1787/empl\\_outlook-2017-en](http://dx.doi.org/10.1787/empl_outlook-2017-en)

Onstenk, J. (2003). Entrepreneurship and vocational education. European educational research journal, 2(1), 74-89.

Nieuwenhuis, A.F.M. and Poortman, C.L. and Reenalda, M. (2014) Nieuwe concepten voor het vormgeven van werkplekieren. Pedagogische studiën, 91 (1). 39 - 53. ISSN 0165-0645

Panteia, M., De Haan, L. (2015). Internships in the Netherlands Reenalda, M. (2011).

Effecten van Dualisering in het HBO. University of Twente. Rijksoverheid (2015).

Cijfermatige achtergrondinformatie ten behoeve van Slotconferentie HO-tour. Retrieved October 1, 2017 from:

<https://www.rijksoverheid.nl/binaries/rijksoverheid/documenten/publicaties/2015/02/25/cijfermatige-achtergrondinformatie-voor-slotconferentie-ho-tour/slotconferentie-feiten-en-cijfers.pdf>

Rijksoverheid (2015). De Waarde van Weten: Strategische Agenda Hoger Onderwijs. Retrieved October 5, 2017 from: <https://www.rijksoverheid.nl/binaries/rijksoverheid/documenten/beleidsnota-s/2015/07/07/de-waarde-n-van-weten-strategische-agenda-hoger-onderwijs-en-onderzoek-2015-2025/strategische-agenda-hoger-onderwijs.pdf>

Rijksoverheid (2016). Pilots Flexibilisering. Retrieved October 9, 2017 from: <https://www.rijksoverheid.nl/onderwerpen/hoger-onderwijs/experimenten-om-deeltijdonderwijs-flexibeler-te-maken/pilots-flexibilisering>

ROA (2016). De Arbeidsmarkt naar Opleiding en Beroep. Retrieved October 4, 2017 from: <http://roa.sbe.maastrichtuniversity.nl/?p=7634>

RVO (2007). Actieprogramma Onderwijs en Ondernemen. Retrieved October 9, 2017 from: <https://www.rvo.nl/subsidies-regelingen/actieprogramma-onderwijs-en-ondernemen>

Saxion (2017). Ondernemerschap Nieuw Speerpunt bij Saxion. Retrieved October 9, 2017 from: <https://saxion.nl/over/persberichten/ondernemerschap-nieuwe-speerpunt-bij-saxion/>

SEO (2010). Monitor Associate Degree 2006-2010, SEO, Amsterdam.

SEO (2017). Studie en Werk 2017. Retrieved October 2, 2017 from: [http://www.seo.nl/uploads/media/2017-41\\_Studie\\_\\_\\_Werk\\_2017.pdf](http://www.seo.nl/uploads/media/2017-41_Studie___Werk_2017.pdf)

SER (2016). Mens en Technologie: Samen aan het Werk. Retrieved October 6, 2017 from: <https://www.ser.nl/nl/publicaties/adviezen/2010-2019/2016/mens-technologie.aspx>


Souhuwat, S., Van der Sluis, B. (2014). Nationaal Stageonderzoek Studenten 2014. Retrieved September 29, 2017 from: [http://nationaalstageonderzoek.nl/media/nso\\_2014\\_studenten.pdf](http://nationaalstageonderzoek.nl/media/nso_2014_studenten.pdf)

Tilburg University (2017). Onderwijsprofiel. Retrieved October 8, 2017 from: <https://www.tilburguniversity.edu/nl/over/profiel/onderwijsprofiel/>

Willen, Sjoerd. (2018) Provincie Limburg wil meer trainees, Binnenlands Bestuur, Published on 8 januari 2018, Retrieved February 8, 2018 from: <http://www.binnenlandsbestuur.nl/ambtenaar-en-carriere/nieuws/provincie-limburg-wil-meer-trainees.9578115.lynkx>.

Witte J., Van der Wende M., Huisman J. (2008) Blurring boundaries: How the Bologna process changes the relationship between university and non-university higher education in Germany, the Netherlands and France, *Studies in Higher Education*, 33(3), pp. 217-231.

YSE (2015). YSE: Driekwart van de studenten wil een traineeship volgen. Retrieved February 8, 2018 from: <https://www.consultancy.nl/nieuws/10234/yse-driekwart-van-studenten-wil-traineeship-volgen>.



Zitter, I., & Hoeve, A. (2012). Hybrid learning environments: Merging learning and work processes to facilitate knowledge integration and transitions. OECD Education Working Papers, (81), 0\_1.