



Research on Montessori education and the learning methods in VET in our country

Materials, numbers and needs

The Dutch National Report

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1) History of Montessori in our country.

In 1937 Maria Montessori moved to the Netherlands. As conflict seethed in Europe she lectured across the continent in an effort to persuade governments to cease preparations for war and to “educate for peace”. Her son Mario also worked at the Association Montessori Internationale (AMI) for a year assisting his grandmother and was secretary of the Dutch Montessori Training and Research Centre from 1964 to 1982. Maria Montessori died at Noordwijk in the Netherlands on May 6 1952 aged 81. (<http://www.montessori.org.nz/dr-maria>)

The Eerste Nederlandse Montessori School (First Netherlands Montessori School) in The Hague is a Dutch primary school steeped in history. Ninety-five years ago (in 1916) the city of The Hague was the first city in the Netherlands to have a primary school based on the innovative views of Maria Montessori, offering an education in which the child and its own potential for development are central. The school is located in the Vogelwijk in The Hague with the dunes as its back garden. This schoolbuilding still exists and is still a Montessori primary school.

In 1929, she founded the Association Montessori International in Amsterdam, Netherlands; she opened the Montessori Training Center in Laren, Netherlands, in 1938

Nowadays there are more than 180 Montessori schools varying from kindergarten to secondary education, all over The Netherlands.

The factory Nienhuis Montessori, settled in Zelhem, produces the Montessori materials for education, Its materials are exported worldwide. Nienhuis Montessori is responsible for worldwide sale of the Nienhuis products. The production is done by its own associated companies. Next to the sale of authentic Montessori materials it is also engaged with the development, the production and the sale of new educational material. Here at Nienhuis Montessori in Zelhem you are welcome to visit the showroom and the Montessori museum where you can see old and nostalgic materials, photos, films and writings.

2) Today's Statistics

In the Netherlands in 2011 the following number of Montessori schools can be found:

Kindergarten:	45
Primary education:	186
Secondary education:	20

There is a wide variety of Montessori Schools (kindergarten, primary, secondary) in the Netherlands.

Kindergarten generally is a sisterschool to the primary school: in the same building or very close in the surrounding of a primary school.

In some cities all categories of Montessori education can be found.



(Montessori school Zwolle, NL)

3) National and Local contacts for Montessori

The local contact for Montessori is a primary school: Openbare Montessori Basisschool Energieweg 9, 8017 BE Zwolle (phone: 038-4654220)

For Secondary Education our nearby contact is: Montessori College Twente Sloetsweg 153, 7556 HM Hengelo (phone: 074 – 2914629)

The national contact for Montessori in the Netherlands is: Nederlandse Montessori Vereniging (NMV), Bezuidenhoutseweg 251-253, 2594 AM 's-Gravenhage, Tel. (070) - 331 52 82, mail: nmv-secretariaat@montessori.nl, <http://www.montessori.nl>

Furthermore there is the Montessori Net (<http://www.montessorinet.nl>), but this is more for Primary education.

We may also contact Mr Michael Rubinstein of Kenniscentrum Montessori for further information (phone: 06 57 55 39 43)

◆ How does Secondary education use the Montessori method ?

The National Montessori Association has a set of 6 characteristics which must be found again in the Montessori Secondary Schools. These are:

1. Head, heart and hands
2. Learning by choosing
3. Reflect
4. Social learning
5. Cohesion of teaching material
6. Inside and outside of school

*Head, heart and hands: Montessori education offers a wider formation (not only cognitive ones) and aims at deepening of learning by integration of head, heart and hands.

*Learning by choosing: it is a requirement for the development of independence that pupils learn to make choices

*Reflect: reflection on one's learning is basic -for the teachers as well as for the students- to determine a pupil's development and to act according to this

*Social learning: pupils at this age (secondary schools) are very much focused on their social functioning with/within peers/peer groups. To learn from and with each other is a very important characteristic of the Montessori Secondary Schools

*Cohesion of teaching material: the nota 'het Montessorionderwijs in de 21ste eeuw/Montessori education in 21st century' outlines that pupils benefit of research of reality zones. This crosses the borders between the traditional subjects.

*Inside and outside of school: the learning of competences and the acquisition of a social role inside and outside happens inside and outside the environment of the school. Analogues to the 'exercises for daily life' taught at the Montessori primary schools, the Montessori secondary schools pay extra attention to exercises for/about Social Life.

◆ How is Montessori education changed and what is still used in 2011?

The set of 6 characteristics mentioned above, is still used in Secondary Education. This set is a follow-up on the set used in Montessori Primary Schools. Montessori education in the Netherlands is very much alive and most parents that had their children in Primary Montessori school wish to have a Secondary Montessori education for their children too.

Also Montessori schools have to respond on change of time. The primary schools have less changes than the secondary schools. The primary schools are more engaged to their Montessori education materials according to the phases of grow of the young ones.

The secondary schools have to change according to national (compulsory) surveys.

When talking about modernization of Montessori education in The Netherlands we have to apply the note 'Het Montessorionderwijs in de 21st eeuw' / 'Montessori Education in the 21st century'. Here you can read about the mission of this education in The Netherlands in the future. This document must be taken as one's guide. It is the scope and has to be brought together with the characteristics of Montessori primary or secondary schools to form an entity.

What is still used? The guidance and coaching by Montessori teachers/educators is still very important. It is a certain way of coaching/facilitating. Montessori education cannot do without this specialty. Coaches must be able to observe (in a special way) which can be learned by doing.

Montessori Education is a strict combination of all aspects mentioned before: 'Montessorionderwijs in de 21^{ste} eeuw', its certain characteristics and specialty of coaching/guiding. All have to be united! Montessori education has a certain freedom though within a frame.

◆ Could the Montessori method be applied to VET / adult training?

This question is very hard to be answered when people do not know (much of) the insight of VET. At the same time people will not say 'no' instantly. They start thinking about possibilities. I was told that once there was an idea of starting a Montessori VETschool in The Netherlands. But as there was not much time and money for research this was stopped (..... or cancelled?)

There is one secondary Montessori school in Amsterdam which offers the first two years of VET, of certain courses, based on their Montessori principles.

Montessori Education, when or if, applied for VET could only succeed when the team of teachers is a bond: all have the same mission, the same approach, the same way to reach the aims: a unity of aspects.

When we talk about VET in The Netherlands we have to bear in mind that most of the VETinstitutions apply competency based learning in their programme.

When we think of Competency Based Learning and Montessori we might get a fruitful combination. Competency Based Learning is to integrate attitude, skills and knowledge. A student is expected to become critical to its own way of learning, of dealing with tasks and situation. In this way a student becomes aware of those learning steps which contribute to his/her better or good performance of tasks. This critical self-reflection activity should and has to be done with every single task or problem a student is confronted with. Critical self-reflection results in a deepening and expansion of those learning experiences: knowledge skills and attitude are integrated and the student positively moves towards competence-development.

Competence-development is a personal matter. Most institutions use portfolio in which students add their completed tasks. It is not yet realised that schools use personal developments plans. Some do. Many schools do practice personal talks with their students. And it is here where I am of the opinion that Competency Based Learning and Montessori Teaching could be linked to each other, in VET. Montessori Education opens the eyes of the students for many aspects to be expected in a life: phase by phase. Students learn to see and find out for themselves and are facilitated to put their interests into experiences. The teachers are the observers and facilitators and stimulators.

Montessori Education provides instruments for lifelong learning.

Montessori Education focuses on and especially on the development of competencies in the many aspects a person encounters in its life e.g. competence development in learning, in communication, in arts, and many more. Montessori education offers the student ways of learning to become aware and to cope with competencies.

It was Onstenk who said the following about Competency Based Learning (1997): (...) in a curriculum a basis must be formed to develop competencies for the future career, with specific attention on learning to learn competencies'.

It is this sentence which completely covers the following idea on VET, I think

VET Education in general should be plainly based on the Competency Based Learning closely linked with Montessori Approach to provide our students with instruments for Life Long Learning. Our coaches in VET schools and at trainee opportunities should become observers and facilitators, All should be trained in the 'how' aspects of this. With FROJOL we would like to provide this group with the first steps into this way of approaching our VETstudents.

The individual approach of the student should become more clear in VET schools. The students must be offered well-designed instruments (portfolio or student's development plan) in which he/she can write about his/her competences development and clearly see his/her own growth in those. The teacher should address the student to stimulate, motivate and help to make his/her path of learning experiences easier and above all challenging. The student must become challenged by his/her surrounding, the theoretical information taught in schools must be offered in such a way that it demands the student to read and listen. The student must be activated in his/her own learningpaths at the very phase in which he/she is at that specific moment.

To become a critical self-reflector demands much of a student. It is the teacher, coach in school and in practice who must know how to lead/guide this activity. They are the ones who need to know how to activate the student in this. This is not an easy task either as you yourself should be well aware how to perform self-reflection. Have you ever followed any training in this before? Have you ever attended meetings on this subject?

In short I would answer this question with :Yes, it is definitely possible to apply the Montessori approach in VETeducation. But, as always, many aspects in the 'how ' must be borne in mind to do this in the very right way, Montessori basics taken into account and clearly worked out.

4) National VET situation in NL, a short introduction

◆ VET, an introduction.

VET is the main supplier to the labour market. Approximately 40% of the Dutch working population has completed a vocational course to at least a secondary vocational training level. There are currently 630,000 students in VET, 485,000 of them take part in regular VET. The remainder follows adult education programmes.

Facts and figures VET in the Netherlands:

Participants from the age of 16

A choice of 237 qualification files with

- 627 vocational courses
- 4 training levels
- 2 different routes in which courses can be followed: BOL – BBL
- 175 qualifications include internationalisation subjects

± 485,000 regular students

- Company based VET abt. 130,000 (BBL)
- School based VET abt. 340,000 (BOL)
- Private institutes abt.15,000
- ± 140,000 adult students

± 60 educational institutions/schools

- Regional colleges (43)
- Agricultural colleges (13)
- Specialised colleges (6)

17 centres of expertise divided per sector / branch / industry

- over 200,000 accredited learning companies

◆ The Educational system, including VET

Education is mandatory from the age of 5 until the age of 18. The last two years of the mandatory education are part-time. In the Netherlands, a child starts with Primary Education at the age of 4. After 8 years of basic education, at the age of 12, the child makes a choice: to either go on to the general secondary education (havo: 5 years, or vwo: 6 years, which leads to University) or to continue with preparatory VET (VMBO).

VMBO leads to the *senior secondary vocational educational system*, called MBO in Dutch. Most students enter the VET system at the age of 16. Preparatory VET forms part of secondary education. With a diploma of the highest level of VET or general secondary education, students can move onto higher education, which is either vocational or academic. The post-graduate vocational education encompasses a variety of courses offered by companies and private institutions to people who are already employed.

It has been legally established that employers, employees and educational institutes are involved in the description of the qualifications. Within its sectoral councils, the Centres of Expertise provide a platform to the three stakeholders for discussions on these matters. Centres of Expertise are sectoral organisations that represent over 40 branches of industry. They act on national and regional levels as strategic partners for ministries, municipalities, social partners and vocational education and training institutions. They are governed by a tripartite board of social partners – employers and unions – and education. There are seventeen Centres in total, each organised around a sector or branch of industry. Furthermore the Centres offer: vocational guidance, labour market information and accreditation of prior learning (APL.)

The Netherlands have a unique system of senior secondary VET, the competence-based qualifications structure. The structure defines the necessary competences of a graduated VET student, with the needs of the labour market as the basis.

All jobs and positions of vocational occupations are described in occupational profiles. These occupational profiles form the basis for the qualification files, in which qualifications are described. These qualifications describe the knowledge, skills and attitudes a person needs to fulfil a job or position. Companies and educational institutions use the qualifications files for the development of programmes and exams.

The content of the programme of education and training is determined by the educational institutions. The qualification is offered in at least 80% of the programme, this means that the institutes can fill in a maximum of 20% of the programme with educational content of their own choosing, this is called the 20% Free Space. The subjects offered to the participants are laid down in the curricula. The dossier is developed according to development standards (format.)

Qualification level	Description level	Duration in years
1	Assistant training	0,5 - 1
2	Basic VET training	2 – 3
3	Professional training	2 - 4
4	Middle management training	3 - 4
	Specialist training	1 - 2

(source: NL report INtheMC, Margrieta Kroese/ Hilde Bastiaannet)

5) Learning system

- ◆ Starting from august 2012 all Dutch VET schools use competence based qualifications.

Landstede started 5 years ago with competence based learning, given permission to act as an experimental school on this matter.

VET-Qualification files are competence-based:

- task analysis: occupational profile
- knowledge, skills, and general competences (set of 25)
- one (national) format for development

Competences are described in

- o core task areas, work processes, formal requirements
- o a combination of theoretical and practical learning

◆ Stage / internship

All VET qualifications include a work placement (learning in practice) of at least 20% of their guided learning time. Training at each level is available in **two learning pathways**:

1. the theoretical or school-based learning option with 20-60% practice placement (BOL) and
2. the practically oriented with minimal 60% practice placement (BBL) pathway.

At the end of both pathways, students obtain the same diploma with the same value. The main difference between these routes is the amount of time a student spends on practical occupational training at the work placement company. Both students and VET can search for work placements, but students have to write an application letter. (source: NL report INtheMC)

Internships are qualifying for the diploma: it is (part of) the exam(s). Students have to work out the several tasks/project at a sufficient level to fulfill this/these. Next to their file there will be a talk on these tasks in which the student explains and tells about her experience. During the period of internship the student is observed in her/his progress. According to all these aspects he/she will pass the internship: go to a higher group, pass the exam, fails or has to repeat the internship (partly or completely).

There is a great variety of exercises depending on the level of education, the course and the profession and its field of work. It indeed can be an assignment/a complicated project which has to be worked out during the entire period of internship. You may have this kind of task when you are doing a course at level 4 of VET. At level 3 you may have several small tasks which together form a project. And at level 2 you have a variety of small exercises to work out.

The goal of an internship is to have a good insight in the field of a profession. It is an eye-opener to the student. He/she learns about the several departments and/or the several tasks within the job or profession that have to be carried out. It is a personal experience of the profession.

6) Research on target groups.

◆ What is needed to involve the project target group in education?

Relevance. Show students how what they are learning matters in real life. This is one of the most effective motivation techniques, especially for older students, as it lends meaning and purpose to their hard work. Guide students to discuss the new material, and allow students to draw on their own experiences to enrich and comprehend the new material

Teamwork. This is one of the most important factors in motivating students. When they work together to succeed at a common goal it will help them to bond and work well together in the future. Having this cohesion in the classroom will boost productivity amongst the students and make for a more positive teaching environment.

Inviting environment. It is the real work situation in a company that triggers students to act. A classroom – for some students – is too far away from the job they want to do once.

Guidance. Within the Montessori system the role of the coach / mentor is very important. The coach should know when to leave the student in peace, once he is busy with his 'task', because this is an effective learning moment. The coach should also know that the student plans the right things in the right time, following the Montessori thought, that the coach should have frequent contact with the learner to keep sight on what the process is that the learner is involved in.

7) Best practices – NL and Landstede VET Zwolle

◆ How are subjects taught through specific methods?

1 Learning-by-doing; a very very structured concept in combination with praise and a safe environment.

2 The educational system of Landstede is called Talentvol Ontwikkelen / Talent Development and is based on the search for and development of the students' own talents.

Ad 1: Learning-by-doing is a *national method of approaching* groups of the lowest level in VET, level-1, AKA. AKA is short for Arbeidsmarkt Gekwalificeerd Assistent which is Qualified Assistant for the labourmarket. The AKA concept is national but the content can vary per organization. The approach of the students is almost the same everywhere.

The AKA is a starting employee who has a basic assistant role. He/she is responsible only for the workingactivity which he has been given. He/she asks for advice for changing or unexpected situations. His workingactivities have no or very little risks for the company. The AKA is being guided during his work. He/she gets his/her instructions by a senior. The workactivities of this starting employee are standardized. He/she has knowledge and skills for these activities, this assisting profession, only.

AKA is a combination of in-school-period and traineeship-period.

Ad 2: The educational system for all 4 VET-levels within the Landstede locations for VET is based on the development of the students' talents. This means that it is always the student himself, that is the reference for education, within the possibilities of the VET-qualification that the student entered. This also is the connection with a possible Montessori approach, as the 6 characteristics for Montessori should fit in 'Landstede Talentvol Ontwikkelen' / Talent Development.

◆ Best practices concerning on the job learning for target groups in VET

AKA is a very good example. The students 'grow' in their knowledge, skills and behaviour.

0 – 6 weeks : Orientation Phase. Activities are: drama, Dutch, Arithmetic, English (basic), general ways of behaviour, Who am I/What can I do/What would I like to do?, *working together* in pairs or trio on small tasks to practice this, learn to plan

6-15 weeks: Preparation Phase. Above-mentioned activities continue and new activities are: teambuilding and training in social skills, profession and their demands, training to upgrade skills on several possible basic traineeship activities, studyvisits to companies and one-day-stay at possible company where the student may have his traineeship.

15 – 34 weeks: Practical Phase. Students is a trainee in a company for 380 hours, 3-days a week. The other two days he/she is in-school to work out the tasks and to continue being guided in above mentioned skills. Students work on their portfolio and learn more about civics.

34 – 40 weeks: Final/Examination Phase.

Margriet Nieuwenkamp: 'In my opinion this method works. I was the initiator of this at Landstede in Raalte and managed it in its first year. It works when there are not too many teachers (not more than 4) on a group, the groups must be no more than 12 students, the team of teachers must be a bond, the communication with the companies must be well-structured, all who are committed to AKA (school and companies) must have followed special trainings on guidance of these students.'

In the Netherlands all stakeholders (including the working field) are unanimous about the importance of on the job learning. The competence learning already provides students with real and complicated tasks, guiding them to become a starting professional once qualified. However, not for all students the tasks that are set are reachable as they are. **This is where the Montessori method may be integrated in VET. Assisted by a solid format and the qualification and guided by his coach, the student himself – triggered by the work environment – should come up with what he wants to learn on that moment.**

8) Conclusion and proposals.

The pilot group will be groups of our Landstede landscape Design&Entertainment, levels 2, 3 and 4. Probably other groups and/or landscapes and the AKA (level 1) might join the pilot as well.

The idea is that the coach, the supervisor of the trainee and the student consult and discuss about the way(s) in which the student would like to fill up his/her traineeship or day release (BBL) while having an empty format of a project/assignment and the qualification in front of them.

These groups are more independent (starting from their higher level) to organize their own learning processes. At their workplacement, a new surrounding, they will be inspired and invited to do so: they can see (new) chances and challenges.

In this way you can bring together/ cohesive independent way of working, the taking of responsibilities and the personal pace of work. Students learn how to plan and organize their activities, to give priorities to questions, to cooperate and join forces, to consult/discuss and agree upon matters. Those are skills students will need now and always in daily life. This way of learning will stimulate, motivate and activate the students: they will have more room/space than we normally allow in schools. We trust in their possibilities and their power to grow in several aspects (of life/profession).

As a second thought Margriet Nieuwenkamp is of the opinion that FROJOL could also be used in AKA, a further development of this. also at level-2

-drama-activities for teachers to gain confidence in what they are doing/about to do.

-drama-activities for team of teachers (e.g. AKA) so as to work as one team, one working method and to be open in all aspects

-the new learning method could give guidance in short paths of courses. This helps the student to oversee his education. A one-year course is to be overseen by most students. A Three- or four-years-course can last very long for someone who needs structure. Then you can work with phases as described above for AKA.

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