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INTRODUCTION

A level 5 degree is relatively new in the Netherlands. The government issued experimental status in 2006 and made the degree official in 2013. The level 5 degree is called an associate degree and is being issued by Universities of Applied Sciences. A level 5 degree is therefore in the field of Higher Education. In this article the term level 5 will be used as the definition for the associate degree programs in the Netherlands.

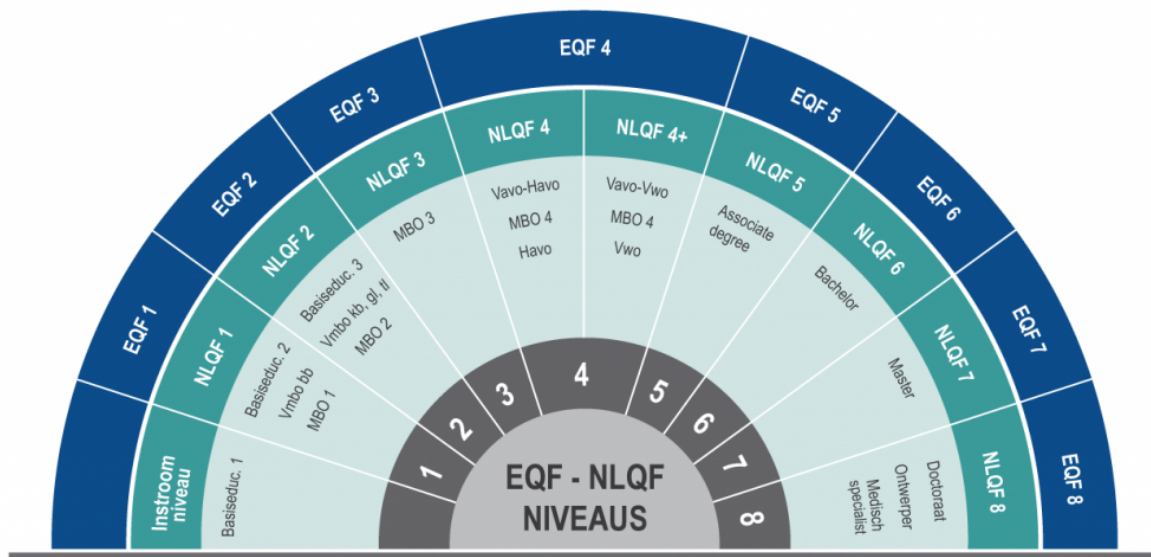
Students that have accomplished a diploma in vocational education level 4 are permitted at an associate degree colleges at the Universities of Applied Science.

Several regional associate college are starting new Associate degree programs. Teams of teachers design new curricula and new students are being recruited. In 2011 Rotterdam started associate degree programs with their own new didactical and organizational concept. This concept is now being adopted by other Universities of Applied Science across the Netherlands.

In this paper, we will address some critical factors in designing new curricula for level 5 in higher education. First we will discuss the description of level 5 in the Dutch educational system. Second we will address the different phases in designing the new programs and the team leader requirements to successfully deliver all the outcomes within the set framework.

THE DEFINITION OF LEVEL 5 IN EUROPEAN CONTEXT

The Educational Qualification Framework (EQF) was developed in 2008 on a European level. With this framework, all European countries can plot their own educational system on the agreed formulated levels. Communicating within Europe about educational qualification is made much easier with this framework and the local translation in hand. The framework is being translated for the Netherlands as follows:



In 2013 our team developed a reference table for design teams who are making new programs on level 5. Level 5 is a new degree in the Dutch educational system and this level requires a reference that can be used in designing courses within the program. The Dutch reference table is presented in the table below.

		Bachelor
	Associate Degree	"is a craftsman in a wider context"
Secondary vocational	"links craftsmanship to operations and strategy"	+
"knows his business"	+	+
<i>The starting professional</i>	<i>The starting professional</i>	<i>The starting professional</i>
who <i>works</i> according to standard procedures and methods and <i>applies</i> them in daily work	who applies the theories of his discipline to a <i>practical</i> problem	who works <i>systematically</i> and can translate theories to <i>applications</i> for practical problems
who works practically <i>independently</i> on standard tasks and collaborates within his own team	who, while being counselled, works on <i>complex</i> tasks and <i>manages</i> an operational team	who practically independently works on complex tasks and collaborates in an environment with several <i>parties</i> and <i>interests</i>
who <i>communicates</i> about his own tasks in the team	who communicates <i>purposefully</i> about tasks in the team in relation to goals of the organisation	who communicates with <i>multiple</i> parties and <i>understands</i> the different interests
who <i>signals</i> problems	who <i>formulates</i> the (research) question	who <i>researches</i> the question
who <i>applies</i> solutions handed to him	who <i>implements</i> the solution	who formulates the <i>solution strategy</i>
who can formulate, <i>while being counselled</i> , his own learning requirements	who can formulate his learning requirements <i>independently</i>	who <i>directs</i> his own learning requirements

In the first column, the descriptors of level 4 are stated. The descriptors are mainly derived from the EQF and the Dublin descriptors as well as national-standards for level 4. The second

column is the new degree; the associate degree (also defined as level 5). The outcomes in this level are deduced from descriptors mentioned in the EQF, the Dublin descriptors and outcomes defined at bachelor and vocational level. The last column describes the descriptors of the bachelor level.

The design teams are comprised of teachers from level 4 (vocational institutes) and level 6 (higher educational institutes). Both types of teachers have their own reference of educational level they bring into the designing process. The table above helps calibrating the exact level and defining the right assessments and programs at the associate level.

The next section gives an overview of the phases in the design-process. Each phase is concluded with attention points for team leaders of the design teams. Team leaders have great responsibility on outcome and output of the curricula in terms of quality assurance. All parties involved have to be consulted to agree on a definite program.

DESIGN OF CURRICULA: THE PHASES

Several teachers from vocational institutes and from higher education institutes are brought together to create new curricula for level 5. This means the curricula are being designed from scratch for the two year program. Together the team discusses the requirements for the new program. There are four phases in curricula development.

The four phases are:

1. Investigate
2. Design
3. Pedagogy
- 4 Program development

Phase 1 Investigate

The teams start the investigating phase analyzing information on jobs on level 4, 5 and 6 in their particular field. The teams search for literature and reports on trends in their field in particular and level 5 in general. A report is made with an analysis and first conclusions on all information gathered.

Second, the teams research jobs in their region where level 5 is required or recommended. Level 5 is not widely known in the labour market yet. Teams also introduce this level to employers and provide basic information on this new level. In some jobs level 5 is executed by starting professionals with a bachelor's degree, or employers with a vocational diploma and extended years of experience and additional training.

The teams interview employers using the following central questions:

- What does a starting professional typically do in this position?
- What kind of skills do they need?
- What are the competencies they need to have?

The teams collect and analyze this data. After this part of the phase they meet with stakeholders from vocational institutes. Design teams consist of teachers from vocational institutes. These teachers use their own network to arrange interviews with key persons within the organization. Interviews with teachers, administrators and students include the following questions:

- What's the level of competence students already have after graduating at level 4?
- What do teachers and students think is critical to learn in the future jobs?
- What do students expect from a two-year program in higher education?

Finally, the teams interview stakeholders at the higher educational institutes. The other half of the design team consists of teachers from these institutes. They teach on bachelor level and know the key persons within the institute to arrange interviews and gather information. Teams ask the following central questions:

- What are the jobs bachelor students are aiming for?
- If students would continue studying after the associate degree, what kind of competences do they need to finish their bachelors?

Team leaders encourage design teams to ask their own network to cooperate. Team leaders need teams to thoroughly investigate and analyze all data. Teams report the analysis and conclusions and use it in the next phases. When interviewing employers, selling level 5 is equally important as interviewing and providing basic information on level 5.

In this investigational phase, team leaders need to

- Bring-stakeholders together
- Sell level 5 as a new degree to the workforce
- Be thorough in investigating

Phase 2 Design

After the investigational phase the designing phase starts. The programs are designed around critical work situations (beroepsvraagstukken misschien beter?). The teams need to find out what's the critical work situation for that particular program. Teams use the report from phase 1 as their main input.

The teams have to define the learning outcomes, and the critical work situations. Teams define and discuss all probable outcomes. Team leaders are critical on the first outcomes and keep on questioning if this particular outcome and work situations is really a critical one or a random one.

Once the learning outcomes and critical work situations are defined, they are verified with stakeholders to ensure they are aligned with the needs and vision of future jobs in the field. The team then create a logical pathway for the two-year degree program.

Team leaders are crucial in leading discussion in the design teams. Team leaders need to challenge all teachers to define the right outcomes and situations. The design teams are newly formed with teachers from both sides of the educational dimensions. Team leaders need to positively influence group dynamics. Sometimes working attitudes within vocational and higher educational institutes differ. Teachers in higher institutes experience more autonomy than some teachers do in vocational institutes. While discussing on the design of

level 5 in the teams these different attitudes need to be addressed to work effectively together.

In this designing phase team leaders

- Inspire teams to look at trends, future developments and apply them to the new program
- Use their network to check learning outcomes and critical work situations.
- Challenge teams to go a step deeper and really define the most critical situations and not randomly chosen
- Positively influence group dynamics so teams work effectively together and come up with the best outcome

Phase 3 Pedagogy

The third phase develops the pedagogy of the curriculum. A vision of pedagogy is usually defined by staff members with input from stakeholders such as teachers and working professionals. This vision of pedagogy is implemented in the actual design of the new two-year programs.

For example, in one of the new associate colleges formed in the South of the Netherlands the vision statement talked on the learning environments. Level 5 programs need environments encouraging students on deep learning. Deep learning involves learning that's deeply rooted within the system of the learner itself. The vision statement describes that deep learning can only take place when:

- It is connected to real life situations and problems/ challenges.
- It has been reflected on by all parties (peers, employers, teachers, self).

The design teams search for ways to make deep learning occur in the designed program.

Teams came up with different designs, such as

- Project based and problem based learning
- Dual learning and internships
- Feedback tools consider formative assessment from all parties
- Blended learning encourage thorough research on subjects.

Design teams jointly interpret the vision on pedagogy to be able to apply the vision to the level 5 program. Teams investigate different curriculum design principles that best suit the vision on pedagogy as well as the requirements of work force that's reported in phase 1. The design principles fitting all acquirements is chosen.

Team leaders direct the teachers to the desired principles. Leaders have to make sure the decision is a joint decision for all of the next steps are derived from this decision.

To actually guide the right decision, team leaders need to:

- Challenge teams to incorporate the principles in all kinds of ways.
- Encourage teams to be consistent in translating the vision and applying the principles
- Bring together other administrators, faculty, registrars to build it together.

Phase 4. Program development

After the pedagogy phase the actual design of courses, assessments, different tests, and agreements on cooperation with employers take place. Teachers create specific courses and pathways in the two-year programs. They develop coursemaps, learning activities and formative and summative tests. They make sure the curriculum is aligned and consistent throughout the two years.

This part of the designing is work collaboratively on the program development. Designing curriculum on this operational level is something teachers have done many times before in their jobs. It's a natural part of the qualification process all curricula in all institutes go through. There's no difference in working attitude between teachers from both institutes.

In this phase the team leader directs the achievement of high standards and the delivery of output on scheduled timeline. Deadlines are strict and can't be changed. Students start the program the upcoming semester and are already registered, a delay in starting the program isn't possible. In this final phase the team leader

- Keeps helicopter view and maintains the principles from the former phases
- Brings relevant teachers together: selects the right talents working on the different subjects.
- Provides formats, guidelines and coaches
- Directs on time management and deadlines
- Motivates team members and corrects them
- Pushes teachers to higher levels

When all four phases are completed the design of the program is ready for the first groups of students to participate. The normal quality assurance cycles will start during this first year of implementation with evaluating the program and adjusting the program.

The pioneer work in making total new programs requires team leaders who

- Bring talented teachers together from different disciplines and backgrounds.
- Motivate their teams to create innovative new programs that creates new jobs.
- Network to bring workforce, teachers, vocational and higher education together.
- Maintain and be consistent on the principles that were set at the start.

CONCLUSION

Developing new programs from scratch for a new degree in the Dutch context is pioneering. This pioneering requires open minded team leaders that can switch between vocational and higher education institutes. The team leaders are the ones that inspire their teams to new future proof programs that educates our vocational students to higher levels. The associate degree is the missing link between vocational and higher education and increases permeability. Therefore, design teams have a broader assignment than just designing programs. They are the teams that bring two worlds together: the vocational and higher education. Both for institutes, as for the labourmarket as for the students.