# THE POSITION OF THE INQUISITIVE ATTITUDE IN THE LEARNING OUTCOMES OF ASSOCIATE DEGREE PROGRAMMES

*Guide Inquisitive Attitude at Level 5* 





## **COLOPHON**

### ROTTERDAM UNIVERSITY OF APPLIED SCIENCES ROTTERDAM ACADEMY

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Leeuwarden/Rotterdam, the Netherlands, May 2021

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## PREFACE

Universities of applied sciences conduct practicebased research. This type of research is aimed at increasing the quality of university graduates, at keeping education responsive and at innovation of professional practice. Universities of applied sciences have the social task of preparing students for high-quality professional practice. Applied research contributes directly to the professional training of graduates. Research at universities of applied sciences is directly fueled by questions from professional practice and education; the unique interaction between education, research and professional practice which arises as a result of this is typical of practice-based research.

For some years now, the number of Associate degree programmes in the Netherlands has been growing. As of 1 January 2018, the Associate degree has become a formal degree (higher education) NLQF 5. A new higher education programme and diploma in addition to the bachelor's and master's degrees conferred by universities of applied sciences.

This makes the Associate degree (Ad) a relatively "young" branch of the education system with its own position and functioning. One of the themes in which Ad-programmes are developing is the place of practicebased research in Ad-programmes. What do we want to achieve in the Ad-programmes in terms of students' inquisitive attitude and how do we do this in a way that suits the Ad-programme? Many Ad-programmes are looking for the appropriate place and/or interpretation of the inquisitive attitude. It is a relevant yet difficult issue.

NHL Stenden University of Applied Sciences and Rotterdam Academy, one of the institutes of Rotterdam University of Applied Sciences, have taken up the challenge of exploring this subject matter at a generic level. In cooperation with several universities of applied sciences and various organisations, they compiled the guide that is now before you.

This document is aimed at teachers, educational developers and educationalists, and can be used for the development of existing

Ad-programmes or as support in the development of new Ad-programmes. The guide aims (without being restrictive on educational vision, concept, methods, etc.) to help students make choices regarding the way in which the inquisitive attitude of the student can be interpreted in connection with the specific Ad. Without wanting to give a "ready-made" answer to all the issues surrounding this theme, this set of guidelines can help educational teams in a practical way to give the inquisitive attitude in the Ad the appropriate place and interpretation.

This document could not have come about without the enthusiastic involvement of many of our Dutch Ad-colleagues! This was evident, for example, during the online session on the inquisitive attitude and the Associate degree hosted by the Associate Degree Consultation Platform of the Netherlands Association of Universities of Applied Sciences in November 2020. The theme is very much alive, and we hope that this guide will contribute to improving Ad education in the Netherlands.

We would like to thank all those colleagues who have contributed and provided feedback on draft versions of this guide, namely Sandra Doeze Jager-van Vliet and Esther Gielen at Avans University of Applied Sciences, Marianne Golombek-Jansen at Driestar Educatief, Martin Wiersma at Expho, Annemarie van Alphen at Fontys University of Applied Sciences, Annechien Langevoord at Amsterdam University of Applied Sciences, Jaap Groot and Anouk Filé at HAN University of Applied Sciences, Roel Frijling and Mirjam Lasthuizen at NHL Stenden University of Applied Sciences, Suzanne Koster-Gros, Marchien van Marle-van der Wolk, Ineke Paulusde Mooij and Bert Reul at Rotterdam University of Applied Sciences and Shakira Tromp at Van Hall Larenstein University of Applied Sciences.

#### Leeuwarden, Rotterdam, May 2021

Herman Blom, Eeke van de Graaf, Mariëtte Muris, Natascha Padmos, Nina Spithost and Martin Struik

## **INTRODUCTION**

In this guide, the concept of an inquisitive attitude is mapped in terms of its application within the domain of Associate degrees (full-time, part-time or work & study / dual). What does the world of work and the university of applied sciences expect from the qualified Ad student when it comes to his inquisitive attitude? What do we actually mean when we refer to this "inquisitive attitude" and how do we give form and content to it in a way that suits the student in the professional practice at level 5? In addition to a number of frameworks and lines of thought, ideas are also provided on how to get started with this theme in a practical way in the Ad-programmes.

This guide focuses on the following questions:

- 1 What place does the inquisitive attitude have in the learning outcomes of the Ad-student, especially in relation to the professional profile of the specific Associate degree?
- 2 How is the inquisitive attitude stimulated in the Ad-curriculum and made visible in the learning outcomes?

First of all, it is important to establish that the Ad-professional track is primarily a practice-oriented track, which at level 5 must be closely linked to the specific requirements of the field in question. Therefore, it is important for the research-oriented attitude that, upon graduation, the Ad-professional can immediately start working in his own professional practice at level 5. That is why the starting point of this guide is a direct link with professional practice at level 5. This is reflected at several points, for instance in the approach to professional products. Subsequently, the positioning of the inquisitive attitude at level 5 is compared with level 4 (Senior secondary vocational education) and level 6 (Bachelor's degree).

As a basis, in addition to the more general frameworks (such as the Dublin Descriptors and the NLQF), reference is made to documents specifically aimed at level 5, such as the Description of level 5 Associate degree (Consultation Platform Associate degrees, 2018) and The inquisitive attitude at level 5 of Rotterdam Academy (Van de Graaf & Padmos, 2020).

The inquisitive attitude is described as a process and a cycle of action for the student. This is connected to 5 learning outcomes of the Level 5 description: problem solving ability, methodical action, learning ability, cooperation and communication. The choice has been made for a vocational approach based on professional products, which can help to further secure the direct link to professional practice at level 5. Furthermore, the ZelCom-model is used to map the competence level of the professional issues the student is working on. Again, the starting point is addressing the specific work field context of the Associate degree in question.

Finally, a set of guiding principles for curriculum design in relation to the inquisitive attitude is suggested, along with ideas for appropriate learning activities.

Wherever "he" or "his" is used in this guide, "she" or "her" can be read as well.

This guide is a thought process on paper, which is followed by an invitation to discuss with your own team how the inquisitive attitude for level 5 is seen and shaped. How this is expressed in the professional products, but also in the communication with the professional field (because the Ad is not very well-known yet). Together with your team, good practices can be chosen to illustrate how this can be incorporated into the study programme. It can also be used in the study information of Ad students; it gives direction!

Participants in the online session Inquisitive attitude and Associate degrees on 11 November 2020



## **1 FRAMEWORKS INQUISITIVE ATTITUDE AT LEVEL 5**

This chapter discusses the inquisitive attitude of the Adprofessional at level 5 according to the frameworks of the Description of Level 5 Associate degree, the NLQF and the Dublin descriptors. A comparison is also made with level 4 (Senior secondary vocational education) and level 6 (Bachelor's degree).

### 1.1 THE AD-PROFESSIONAL AT LEVEL 5

The Ad-profession is positioned between senior secondary vocational education (level 4) and Bachelor's degree (level 6). Several documents describe the Ad-level 5 in concrete terms and are therefore used as a framework for the elaboration of the inquisitive attitude. It concerns:

- Description of level 5 Associate degree of the Consultation Platform Associate degrees;
- Level 5 of the NLQF (Dutch Qualification Framework), see appendix 1;
- Comparison of NLQF levels 4, 5 and 6, see appendix 2;
- Dublin descriptors Short Cycle Higher Education, see appendix 3.

The Consultation Platform Associate degrees (2018) provides the following sketch of the Ad-professional:

## "

An Associate degree graduate has his feet planted firmly in practice, keeps an overview with his head, connects people and resources and thereby links thinking to doing.

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With this sketch, the following learning outcomes have been formulated for the Level 5 Associate degree: methodical action, cooperation, communication, problem-solving ability and learning ability.

If the Ad-professional works on a "real-life" problem from professional practice, he is expected to demonstrate the following, according to the Level 5 Associate degree description:

- He can formulate the question/problem.
- He can select theories and methods from the professional field and apply them to a practical problem from the current professional context that has no standard solution.

- He can analyse practical problems, indicate directions for solutions and implement solutions.
- He can cooperate in a team, lead an operational team and achieve a joint result.
- He can communicate effectively about his own role, tasks and results in the team and to those directly involved.
- He can permanently adapt to the changing role in the environment by sharing learning questions.

Underlying this are the final qualifications from the Dublin descriptors Short Cycle Higher Education (Dublin-SCHE) and from the NLQF level 5 (NLQF 5).

The Ad-professional:

- Is able to apply knowledge and understanding in vocational contexts. (Dublin-SCHE)
- Has the ability to identify and use data to determine a response to clearly defined, concrete and abstract problems. (Dublin-SCHE)
- Reproduces and analyses knowledge and applies it, in a range of contexts, to solve problems related to a profession and/or knowledge domain. (NLQF 5)
- Identifies limitations of own and existing knowledge in the professional practice and/or in the knowledge domain and takes action. (NLQF 5)
- Identifies and analyses complex and unpredictable problems in professional practice and/or the knowledge domain and solves these in a creative, flexible and inventive manner by identifying and using data. (NLQF 5)

 Obtains, processes, combines and analyses broad, in-depth and detailed information and a limited range of basic theories, principles and concepts, related to a few professions and/or knowledge domains as well as limited information on a few important current topics and/ or specialisations related to the profession and/or knowledge domain and presents this information. (NLQF 5)

The direct link between the document Description level 5 Associate degree and the professional practice is established in a (national) Ad-programme profile for one or similar Ad-programmes per domain. A programme profile provides an interpretation of the final level of the Ad-professional within a specific domain and the related learning outcomes (in accordance with NVAO Quality Standard 1). In addition, the profile contains a description of the issues that the Ad-professional is confronted with in the specific professional field and the way in which he/she approaches these issues. These of course are issues that are typically found in professional practice at level 5. The programme profile has been drawn up in consultation with stakeholders from the world of work and education. A national Ad-programme profile was established by the Netherlands Association of Universities of Applied Sciences. The relevant study programmes are jointly responsible for drawing up, validating and updating this profile (Consultation Platform Associate Degrees, 2021).

This document is a wonderful way to start a dialogue about this in our Ad-programme. It is perfectly suited to be used in the development of a vision and to translate this vision into one's own education and professional practice. It is suitable to further shape (the assessment of) this competence in the Ad-programme. The authors give a positive impulse to the operationalisation of the concept of an inquisitive attitude.

Jaap Groot, lecturer in business administration and HRM at HAN University of Applied Sciences



# 1.2 PRACTICE-BASED RESEARCH AT LEVEL 5: THE INQUISITIVE ATTITUDE

what can be expected of the Ad-professional in the field of the research

In the overview below, Doeze Jager-van Vliet has provided insight into

attitude in comparison to a professional at level 4 (Senior secondary

Variables/	Level 4 Senior secondary	Level 5 Associate degree	Level 6 Bachelor's degree
parameters	vocational education		
Related to context	Capable of doing his job	Connects professionalism with the design of the organisation for the shorter term, with attention for all internal stakeholders.	Is a professional in a broader context Focuses on long-term organisational development with framing in the chain context in relation to chain partners.
The role/use of theory	Works according to standard procedures and methods and applies them in his daily work.	Applies theories from his field to practical issues.	Works methodically and is able to translate theories into applications for practical issues.
Autonomy	Works almost independently on standard tasks.	Works under supervision on complex tasks or performs moderately complex tasks almost independently.	Works almost independently on more complex tasks.
Cooperation	Works together in his own team.	Leads an operational team.	Works together in an environment with multiple actors and interests.
Communication	Communicates about his own tasks in the team.	Communicates purposefully in the team and about goals of the organisation.	Communicates with multiple parties and oversees the different interests.
Depth and analysis	Identifies problems and works out solutions in practice.	Formulates and analyses the research question and works on a solution on the basis of methods provided.	Investigates the research question methodically on the basis of a self- developed framework.
Implementation /application of results	Applies the solutions provided.	Implements the solution.	Formulates the solution strategy.
Scope of new knowledge acquired	Acquires professional knowledge that can be directly applied in one's own practice.	Makes explicit connections between theory and evidence, explanations and descriptions. Findings are analysed and interpreted.	Evaluates and combines new knowledge with recent (scientific) knowledge, insights, concepts and research results and (international) developments in the professional field.
Formulating learning questions	Can, with guidance, formulate his own learning question.	Can formulate his/her own learning question independently.	Can direct his/her own learning question.

Comparison level 4 - 5 - 6 in relation to inquisitive mindset (based on: Doeze Jager-van Vliet, 2019)

The comparison level 4-5-6 and the frameworks for level 5 (mentioned in paragraph 1.1) show that the Ad-professional is not a researcher, but he uses his inquisitive attitude to develop himself and his professional practice. The context is limited to the professional's (national and/or international) work environment and research activities are focused on a distinct profession or knowledge domain.

This view is consistent with the vision of Rotterdam Academy, one of the institutes of Rotterdam University of Applied Sciences (2017), which provides a clear description of the inquisitive habitus of the Adprofessional graduate.

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An Ad-graduate shows that he is an independent professional with self confidence, who has learned to take a broader view. In a given professional situation, he identifies and interprets a possible problem or challenge. He dares to share his ideas about this with others and to ask questions, and he contributes to the formation of a shared picture and support for this. Based on this shared responsibility, he will make proposals for possible actions, substantiate them on the basis of current working models and theories from the professional field, and contribute to the decision-making process. Subsequently, together with others, he ensures the implementation and evaluation of the planned actions and suggests possible improvements for the future.

In this guide, the frameworks mentioned earlier will be used as a starting point to operationalise the inquisitive attitude in learning outcomes and learning outcomes for an Ad-programme and to determine the building blocks that stimulate the development of the inquisitive attitude. An inquisitive attitude does not simply mean believing everything you see or hear, but having a critical attitude. This guide, to which I also contributed, is in line with the path taken by the Avans Academy Associate degrees, in which action research and co-creation with the professional field are central. Our students show an inquisitive attitude, are open to surprise, like to test their ideas in practice and really want to understand something. The importance of this has been obvious to me for a long time and it also suits our Ad-students. Hopefully, it will help lecturers of the various associate degrees to better supervise and support students' research activities.

Sandra Doeze Jager-van Vliet, MT-member Associate Degrees and SWO Department: People & Sustainability at Avans University of Applied Sciences

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# **2 LEARNING OUTCOMES AND INQUISITIVE ATTITUDE**

In higher education, the terms learning outcomes and learning results are often used interchangeably. In this guide, however, we refer mainly to learning outcomes. Learning outcomes at final level - the final qualifications answer the question: 'What should someone have achieved as a result of his learning process? Learning outcomes are about the learning process: 'Learning outcomes determine what a learner is expected to know, understand and do at the end of a learning pathway and the way in which that which has been learned can be demonstrated' (NVAO, 2018). A learning outcome shows what someone knows and is capable of after completing a learning process. An inquisitive attitude can be a learning outcome. A learning outcome is a measurable result of a learning experience. A learning outcome can be seen as an output of the learning experience. A professional product such as an advice, a design, an action or a product can be a learning outcome.

This guide uses learning outcomes as its starting point. In this chapter, the learning outcomes from the Description Level 5 Associate degree are related to the inquisitive attitude. The cycle of the inquisitive attitude is also addressed.

### 2.1 LEARNING OUTCOMES OF DESCRIPTION LEVEL 5 AND THE INQUISITIVE ATTITUDE

As described in the previous chapter, the Description Level 5 Associate degree is based on five learning outcomes. According to Quality Standard 1 of the Accreditation Organisation of the Netherlands and Flanders (NVAO, 2018), the intended learning outcomes demonstrably describe the level as defined in the NLQF and the orientation of the programme. Moreover, they are in line with the current requirements set for the content of the programme by the professional field and the field of study from a regional, national and international perspective. Where applicable, the intended learning outcomes are also in line with relevant laws and regulations.

### **LEARNING OUTCOMES OF DESCRIPTION LEVEL 5**

### **Methodical action**

Selecting and applying theories and methods from the professional discipline to issues from the current professional context. Making the connection between different theories and methods presented to solve a problem that has no standard solution.

### **Problem-solving ability**

Analysing practical problems and indicating possible solutions. Realising appropriate solutions. The issue and the solution are the focal points here.

### **Cooperation**

Working together in a team/being able to lead an operational team and deliver a joint result.

Is a connector and adds value to the output of the bundled experience and expertise.

### Communication

Effective communication regarding his own role, tasks and results in his own team and to those directly involved. Connects both policy and implementation.

### Learning ability

Being able to continuously adapt to the changing role in the environment by sharing learning questions.

Consultation Platform Associate degrees (2018)

In the figure on the right, these learning outcomes are related to the inquisitive attitude. We start from the professional products approach and therefore take practical issues as the core. The critical analysis of the practical problem will have to be tackled with theories and methods provided. In cooperation with stakeholders, directions for solutions are mapped out. Good communication builds the bridge between policy and implementation. Reflective skills play a key role in the deployment of the inquisitive attitude. They generate meaningful questions, connect research with relevant values, give meaning to the data obtained and link new insights to existing knowledge

and experiences (Bruggink and Harinck, 2012). Reflection on the development process contributes to the development of the student role and to the development of appropriate solutions.



Learning outcomes of the Ad-professional (Blom & Struik, 2020)

The first four learning result areas mentioned above (methodical practice, problem-solving ability, communication and cooperation) can be linked to the inquisitive attitude. By subsequently reflecting on one's own actions and role development in the context of the profession, the learning ability is developed. Learning ability can be seen as an overarching learning result linked to the development of the Ad-professional. It is always about the inquisitive attitude of the Ad-professional, which manifests itself in the development of his own work/professional role. In this way, the link between the five learning outcomes and the inquisitive attitude becomes visible.

In professional practice, this means, for example, that the Adprofessional can independently pose a learning question, share it with others, get to work (take action) and reflect on it. This fits in with the action-oriented, inquisitive attitude of the Ad-professional.

With respect to research knowledge as a component of an inquisitive attitude, it seems important for Ad-professionals to be able to place the value of research and have some insight into the reliability of information. In particular, an Ad-professional should be able to critically assess which facts are based on research and which are not (yet) substantiated. You could say, therefore, that the Ad-professional is characterised by analytical skills that match the information skills mentioned above.

With regard to the application of research results, the Ad-professional is expected to use problem-solving skills to identify and analyse complex problems in professional practice and in the knowledge domain. Moreover, he is able to solve problems methodically by identifying and using data. The Ad-professional seeks cooperation with others to understand the problem and find appropriate solutions. He can communicate and cooperate adequately.

In this regard, the aspect of added value plays an important role. You can look at this impact from the perspectives of the student, the professional field, and the study programme. In all three of these perspectives, impact is an issue (NRO, 2019). For the student, this means that he can reflect on his professional development during and after the

I have done research into all kinds of work fields into what is expected of Ad-graduates. You see that research is never explicitly requested at level 5. The other aspects are required: critical thinking, making improvements, etc. And that requires an inquisitive attitude. This attitude is also expected in the professional field. The world of work also demands a broader perspective.

Martin Wiersma, director at EXPHO - Expertise Centre Higher Education / Research and Advice For the professional field, this means that the solutions worked out are actually deployed, a process that is closely linked to the research strategy. For the programme, the knock-on effect can mean that a new student can once again follow up on the development started in the field.

All this occurs within the level of complexity and independence appropriate to level 5. The core of the desired attitude and skills thus consists of: identifying, asking questions, (contributing to) analysis, (thinking along with) solutions and finally implementation. The Adprofessional is capable of communicating with different stakeholders and from different perspectives. The latter requires a number of skills. Sternberg (2002) distinguishes between "analytical, creative and practical skills". Initially, the need of the professional field lies more with the practical skills. In the Associate degree, the student learns to critically examine and discuss the practical skills in order to subsequently optimise the work with the help of creative skills.

It is the combination of the mentioned attitudes and skills, in particular, that ensures a sustainable impact (Doeze Jager-van Vliet & Van Geelvan Hulle, 2020). It is the very choice of an appropriate research strategy, in which the people in the organisation are actively involved in the research process, that can contribute to the aforementioned combination. In this sense, for example, action research (Doeze de Jager-van Vliet, 2019) and design-oriented research (Blom & Van Lanen, 2021) are basic strategies that, with the use of observation and questioning methods, can contribute to increasing the impact from the perspective of the student and the organisation.

study programme.

### 2.2 THE CYCLE OF THE INQUISITIVE ATTITUDE

The Ad-professional is focused on taking action on the issue that he has to tackle. This action must be well-founded: it must be substantiated. Consequently, the Ad-professional conducts practice-based research. The Ad-professional is the actor who, on the basis of his own professional practice and expertise, organises and connects things. The starting point is that an Ad-professional can add something to his own professional practice.

In general, the research process of an Ad-professional starts from his own professional practice, because it identifies a problem or an opportunity. This is often an inductive process with deductive elements, for example, the derivation of criteria from which these criteria are applied in the testing of a prototype/implementation of a solution.

The learning outcomes to be achieved (see section 2.1) indicate that an inquisitive attitude can be expected from the Ad-professional. As is the case at level 6 (Bachelor's degree) and level 7 (Master's degree), at level 5 we see a research approach for which the "regulative cycle" of Van Strien (1986) serves as a model. The regulative cycle is the basis for a practice-oriented approach within scientific research. This is the way in which Van Strien links goal-oriented action to the research cycle.

The regulative cycle clarifies the logic of the inquisitive attitude cycle, as used by the Rotterdam Academy (Van de Graaf & Padmos, 2020). In each step of the regulative cycle, all learning outcomes can be deployed to a greater or lesser extent. The formulation of a problem requires the use of theories and methods from the field of study to identify the problem (methodical action), that this is done jointly (cooperation), with the aid of purposeful communication about the division of roles and tasks (communication), with a feeling for appropriate solution directions (problem-solving ability), while learning from one's own experiences (learning ability). Both models are presented side by side below for comparison.



In the table that follows, the steps of the regulative cycle and the inquisitive attitude cycle are elaborated and compared with each other.

INQUISITIVE ATTITUDE AD-PROFESSIONAL		CYCLE OF INQUISITIVE ATTITUDE (VAN DE GRAAF & PADMOS)		
Step in the regulative cycle	Explanation	Step in the cycle of inquisitive attitude	Learning outcomes level 5	Skills
1 Issue	The Ad-professional identifies opportunities or is confronted with practical issues. He considers the issue critically and questions stakeholders. In this way, the question behind the question becomes clear and the issue is examined from multiple perspectives. The context is enriched.	1 Identify opportunities	The student identifies opportunities for improvement / innovation within the context of professional practice.	<ul><li> Observing</li><li> Listening</li><li> Asking questions</li></ul>
2 Diagnosis	In the diagnosis stage, the Ad-professional develops into an expert by diagnosing good practices and placing the situation in underlying lines of thought/reflection. This can lead to a number of solution directions with accompanying arguments and scenarios. In this way, an autonomous view is developed of the issue in its context. In consultation with the parties involved, choices are made within the scenarios.	2 Become an expert	The student is an expert in the field of opportunities for improvement and consequences for the professional context. To this end, the student consults various perspectives in (international) literature, with experts and in professional practice.	<ul> <li>Formulating learning questions</li> <li>Searching, assessing and interpreting information</li> <li>Conducting and interpreting interviews</li> </ul>
		3 Form and communicate your perspective	Based on his expertise, the student has his own point of view of professional practice and the way in which the professional functions within it. The student communicates his own perspective of professional practice.	<ul> <li>Reflecting</li> <li>Presenting (orally and in writing)</li> <li>Convincing</li> <li>Giving and receiving feedback</li> <li>Communicating effectively</li> </ul>
		4 Come up with solutions in co- creation	Together with others, the student draws up scenarios to take advantage of opportunities and chooses the most suitable scenario for professional practice.	<ul> <li>Creative thinking</li> <li>Co-creating (collaborating and motivating others)</li> <li>Goal-oriented thinking</li> <li>Negotiating</li> <li>Making decisions (prioritize, substantiate, look for a win-win, make decisions)</li> </ul>

INQUISITIVE ATTITUDE AD-PROFESSIONAL		CYCLE OF INQUISITIVE ATTITUDE (VAN DE GRAAF & PADMOS)		
Step in the regulative cycle	Explanation	Step in the cycle of inquisitive attitude	Learning outcomes level 5	Skills
3 Plan	Subsequently, in cooperation and consultation with those involved, an intervention plan can be developed to deal with the issue. Usually, the plan will consist of several interventions, which can then be set out in a timeline.	5 Take action (implementation)	Together with others, the student takes actions to move from the existing situation to the desired situation.	<ul> <li>Acting purposefully</li> <li>Planning and organizing</li> <li>Communicating effectively</li> <li>Making decisions</li> </ul>
4 Intervention	The time has come to take action. Interventions are made, or in Van Strien's terms, the process is intervened in. In addition to the content, a description of the process is desirable. This fits well in a journal. What is done (the facts) and how does it progress? What level of independence is used and how does the Ad-professional develop in this process (reflection)? There is also co-creation in the execution: not only making a plan together with the stakeholders, but also executing it together.			<ul> <li>Collaborating</li> <li>Motivating others</li> <li>Giving and receiving feedback</li> </ul>
5 Evaluation and safeguarding	Ultimately, it is about solving a practical problem. In the course of the process, and certainly at the end, it is important to visualise the effect. The effect on professional practice is evaluated with the stakeholders. In addition to the substantive effect, the effect on the role development of the student deserves attention in the context of the learning process. This should therefore also be part of the evaluation. The next step is to examine how the effects can become sustainable as part of daily practice (securing). It is not a one-time action, but is part of the daily work context of the Ad-professional.	6 Measure the effect	The student has insight into the effect of his own actions and those of others on the quality of professional practice and acts accordingly (securing or improving).	<ul> <li>Reflecting</li> <li>Communicating effectively</li> <li>Giving and receiving feedback</li> <li>Motivating others</li> <li>Making decisions</li> </ul>



## **3 THE PROFESSIONAL PRODUCTS APPROACH**

In order to give shape to the coherence of the learning outcomes from the Level 5 Associate degree description and the cycle of the inquisitive attitude, we need a framework. We choose the approach of the professional products (vocational approach).

The learning outcome "problem solving ability" indicates that Adprofessionals analyse practical issues, indicate solution directions and achieve appropriate solutions (Consultation Platform Associate degrees, 2018).

The analysis process of the Ad-professional thus focuses on development steps of a product that improves the practical situation. We call such a product a "professional product". In this process, a coherent set of activities is developed. These include interventions, measures, plans and physical and digital products. A diversity of professional products can be identified, which have been classified into a number of types by Losse (2018).

Each professional product type has its own process of methodical action. The pursuit of different types of professional products therefore contributes to the use of different theories and methods to make the connection to actual professional practice. The professional product can take different forms:

- The professional product Analysis is the coherent dissection of an issue and feeds the information need linked to the practical context. Analysis is usually not an independent professional product, but can serve as a basis for another professional product mentioned below.
- The professional product Advice describes what the client can best do to change or improve a situation (Kayzel, 2002).
- The professional product Design is aimed at the development of a new process, tool or artefact. It is a visual or model-based representation of a product or intervention (Oskam, et al., 2017). In this context, an intervention refers to the deployment of intermediate activities with the aim of contributing to the process that leads to the solution or improvement of a practical problem.
- The professional product Action refers to a professional interaction with a client, patient or user, such as a conversation with a client, a lesson in education or a musical performance.
- The professional Manufactured product indicates the realisation of a design in the form of a functional physical or digital end product (Roozenburg & Eekels, 1998).

#### Advice

Focused on scenarios for problem solving and improvement of a situation.

(for example: policy measures, legal advice, communication advice, business scenarios, solution directions)

#### **Analysis**

Focused on analyses used in a concrete professional context, including in conjunction with the other professional products.

(for example: cost calculations, inventory, chemical analysis, requirement analysis, legal analysis, evaluation study, a performance test)

#### Action

Professonal behaviour towards a client, a customer, an audience, a pupil.

(for example: nursing, music performance, teaching, negotiating, networking, pitching)

Design

Elaborated new process, tool or artefact to satisfy a need.

(for example: software architecture, treatment method, interior design, production line, educational materials, construction plan, implementation plan)

#### **Manufactured product**

Realisation of a design into a functional physical of digital product.

(for example: software, journalistic production, machine part, art object, budget, sensor

*Typology of professional products (Losse, 2018)* 

It is conceivable that, in an educational programme, several types of professional products will be developed in conjunction with each other. Each type of professional product requires a specific approach. The information gathering method and the substantiation and justification of the choices made, depend on the capabilities of the student, the complexity of the issue, the time and information available and the needs of the client and the person bringing in the issue.

From NVAO standard 1 (Vision and policy), a translation is made to the curriculum (NVAO standard 2 Implementation). The research attitude of the Ad-professional is directly linked to the practical process by means of the professional products approach. The relevant professional products can be determined and validated in cooperation with the professional field of the programme. The professional products approach offers the possibility to elaborate the mentioned learning results in a tangible way. The connection to the field of work also allows for the validation of the learning outcomes, which is a strong argument in favour of distinguishing between professional products.





## **4 COMPETENCE LEVEL OF PRACTICAL REAL-LIFE ISSUES**

In NLQF level 5 (see appendix 1), the skill for applying knowledge is that of analysing and performing complex (professional) tasks. It is important to specify the degree of complexity. Bulthuis' (2013) ZelCom model establishes the relationship between the complexity of the issue and the degree to which it is worked on independently.

The ZelCom model provides a basis for indicating the competence level of an issue based on the variables Complexity and Independence and is also used in the Level 5 Associate degree description. The ZelCom-model enabled the estimation of the competence level of practical issues by referring to complexity and independence of study tasks. However, the combination of complexity and independence can differ considerably per study programme and field of work. How do you give shape to a combination of complexity and independence that suits the Adprofessional within his/her professional practice? That is the question that study programmes must answer themselves when shaping the inquisitive attitude of their students within their courses.

In order to distinguish levels of competence, the variables are placed in a model. In this model, the two factors are compared and each is classified as low, medium and high. The combination of the degree of independence

and the degree of complexity leads to five levels. Level A represents the lowest level and level E the highest.



The ZelCom model (Bulthuis, 2013)

Independence is increased, for example, if:

- there is little guidance/guidance/interaction;
- there is a high degree of freedom of action in making choices;
- solution strategies can be chosen;
- decisions can be made;
- there is a large responsibility for the end result, and/or the work and learning process of others;
- the role in the whole is more strategic

Complexity can be determined by the complexity of the task that someone performs and by the complexity of the context in which the task is performed (Bulthuis, 2013).

For example, the task is more complex if:

- the scope (duration) and content (number of aspects) of the task are extensive;
- standard procedures are lacking and the student has to apply or invent new procedures/knowledge/technologies;
- stringent quality requirements are imposed;
- several disciplines come together in the task.

The context is more complex if, for example:

- there is a large organisation with a multitude of rules;
- there are several clients and parties;
- there are major financial, political or business interests (risk of harm);
- there is a lot of (international) interaction and communication.

Different values of the parameters determining independence and complexity lead to different levels of competence. For example, someone who completes a large task in a large international organisation completely independently, for which there are no standard procedures, has a higher level of competence than someone who carries out the same task under supervision.

The possible combinations vary from field to field. The validation of those combinations of dimensions of the learning outcomes is only possible by reference to the professional field. It is the combination of independence and complexity that determines whether the level of competence required of the Ad-professional is achieved or surpassed. For example, a high degree of complexity may be associated with a low degree of independence and thus be suitable for the Ad-professional. Or: a low degree of complexity goes hand in hand with a high degree of independence. Such choices can be determined per professional product. The different combinations of competency levels allow for a diversity of learning outcomes, while the different professional products elicit a diversity of learning outcomes.

The level of the Associate degree can be seen as a combination of the degree of independence of the student in the execution of the assignment and the degree of complexity of the practical assignment. According to Losse, complexity can be seen as the degree to which a problem can be thoroughly understood. According to Losse (2018), whether an issue is one that can be "fathomed" can be worked out in three ways.

The following three parameters are distinguished:

- 1. Well-known: the solution can be formulated on the basis of existing guidelines or existing procedures.
- 2. Complicated: a problem can be easily understood on the basis of what is already known. Yet there are many possible solutions. The most plausible solution is chosen on the basis of criteria or a set of requirements.
- 3. Complex and unpredictable: a good solution is found by searching, trying and experimenting until an acceptable solution is found.

The combination of complexity and independence can take different shapes, varying from 'familiar' via 'complicated' to 'complex and unpredictable'. The combination of the lowest form of independence and complexity in the ZelCom model ('familiar') fits the Senior vocational education level (A). Such issues could be called 'simple' in Losse's typology (2018, p. 32). In the same typology, the combination of the highest forms (D and E) of both could be called 'complicated and yet to be fathomed'. This would fit the bachelor level. The most farreaching form of independence and complexity could be characterised as 'chaotic' and 'unpredictable', which would be the right level of challenge for Master's programmes.



The forms that fit level 5, depending on the field and the type of assignment, are moderately complex and easy to fathom.

The following characteristics are involved (Consultation Platform Associate degrees, 2018):

- o The degree of complexity and independence are both average.
- o The degree of complexity is high and the student is guided step by step, with a low degree of independence.
- o The student is given great responsibility and works independently in a relatively simple environment.

It is conceivable that the structure of the curriculum of the programme follows the sequence 'simple' - 'complicated' - 'complex' and 'chaotic'.

Conclusions are:

- Complexity: there is a build-up in scope/frameworks (organisation); the context determines the breadth of the view.
- Complexity related to independence: developing a reflective attitude takes place in steps.



We are pleased that there is a document that all universities of applied sciences can use as a source of inspiration. We also welcome that this document emphasises the inquisitive attitude of Ad-graduates (and not the performance of research) and that attention is paid to its translation into education.

Shakira Tromp, educationalist at the Department of Education & Research at Van Hall Larenstein University of Applied Sciences

# **5 TRANSLATING TO EDUCATION**

When translating the inquisitive attitude into the curriculum of a study programme, the frameworks described in the first two chapters are leading for the interpretation of the final level. The professional practice and the professional profile are taken as a starting point for the development of the curriculum. Students developing as Ad-professionals focus on delivering added value to this professional practice within a clear job description.

#### **5.1 INQUISITIVE ATTITUDE IN THE CURRICULUM**

At the start of the study programme, it is assumed that every student has an innate curiosity and a natural urge to investigate. During the study programme, the professional inquisitive attitude is shaped by a certain disciplining of the innate inquisitive attitude. Students learn to apply their inquisitive attitude methodically in their professional practice, in order to gain insight into the current situation and, by means of co-creation, to solve problems or take advantage of opportunities. To support students in this, they are encouraged to develop various skills and to reflect on the results of their own actions. In order to reach this final level, students will have to develop their inquisitive attitude during the study programme by experimenting with its application in the study programme and in professional practice. This involves an increase in complexity in the professional situations and an increase in the degree of independence. By applying the ZelCom model in the curriculum, a clear line can be made visible. Issues that require a limited amount of knowledge of the system and at the same time contain small differences between stakeholders can be placed at the start. Gradually, the required level of knowledge may then increase, but there may also be an increasingly complex social construct. More conflicting interests of stakeholders must be bridged. The context also becomes more complex when there are influences from different layers of the organisation. The corporate culture then becomes an element of increasing influence.

Students are therefore expected to develop an inquisitive attitude in which they investigate not only the "what" and "how" in co-creation with their stakeholders, but also the "why". These questions are also reflected in the triple-loop learning model of the learning organisation (Wierdsma & Swieringa, 2011).

## **Co-creation and ZelCom**

In the world of work, it is expected that Adprofessionals deal independently with common problems and will be able to implement or at least actively contribute to solutions and/or innovations in co-creation with stakeholders.

The development of an inquisitive attitude in education (Van de Graaf and Padmos, 2020, based on Bruggink and Harinck, 2012)





Triple-loop learning model (IM-Academy, 2021)

In the case of the "how" question, it is necessary to ask yourself whether you are using the correct knowledge. That is a good basis for initiating change or improvement. You also have to consider comparable situations in other companies. You try to answer the question of how they approached it there and how this can help you design your own solution direction. Then the "why" question comes up. Does the chosen solution fit the vision and culture of the organisation? Does it fit with their values? Here it comes down to an integration of different types of knowledge, skills and attitudes. In this way you try to make the intervention process come more from yourself. You identify with the solution direction.

Students show the results of this process in the substantiation and justification of their professional products and their reflection on them.

# Dimensions Theme-Centered Interaction and ZelCom

When building complexity and independence into the curriculum, it is suggested to start from the model of Theme-Centered Interaction (Ruth Cohn Institute for TGI Low Countries, 2021). It outlines the following dimensions:

- a. I: the wellbeing and personal effectiveness of each individual (personal identity)
- b. We: the collaborative processes in the group (professional identity in social relations in the organisation)
- c. It: the realisation of the common task and goals (achieving organisational goals from the individual; contribution to the common activity)
- d. Globe: the context in which work is done (analysis, stakeholders)

Theme-Centered Interaction assumes that these four dimensions are of equal importance and that they influence each other. This means that each of these factors should receive attention and that they should be approached in relation to each other. When incorporating the model into a curriculum, it is important that all dimensions are addressed, starting with the "I" perspective and then building up the complexity to the attention for "We" and "It". All this within the own professional context.

Theme-Centered Interaction (Ruth Cohn Instituut voor TGI Lage Landen, 2021)



The document offers a good basis and some interesting directions to explore for further elaboration within a curriculum. We consider it important that there remains sufficient room to apply one's own accents and elaborations within programmes and that the existing elaborations can continue to be used where appropriate. Terminology used is a point of attention in this respect. Further concretisation in terms of discussion materials (without being prescriptive) to conduct the discussion with th professional practice and the educational teams would be helpful.

Marianne Golombek, educational designer at Driestar Educatief

The aim of Theme-Centred Interaction is to develop leadership qualities and self-management, as well as to take joint responsibility for the realisation of the task and for constructive cooperation processes. The Ad-professional will develop his independence in this. Communication between and cooperation with stakeholders is important. Cooperation is aimed at the effectiveness of the organisational process in balance with the personal and professional development of the people involved. The result is a result-oriented and goal-oriented approach to the common task, whereby all those involved also learn from each other.

An example of the way in which the four dimensions of Theme-Centered Interaction can be translated into a curriculum is the curriculum of a part-time Ad Management in Health Care course (see Appendix 4). The first semester focuses on the "I" perspective and this gradually expands to "We" and "It" (semesters 2 and 3) whereby complexity and independence increase. In the graduation semester, all dimensions are adressed.

# 5.2 DIDACTIC APPROACH TO STIMULATE AN INQUISITIVE ATTITUDE

In addition to a curriculum with a constructive character and the opportunity for the student to apply the knowledge and skills in professional practice, the didactic approach of lecturers also plays an important role in the development of the students' inquisitive attitude. Students develop their inquisitive attitude best when they can and may experiment with it in a safe and challenging learning environment with fellow students (e.g. in a learning team). Teachers have a supporting and guiding role in this. They challenge students to try new things, they ask questions and give feedback and stimulate students to do the same. This gives students the confidence to apply their inquisitive attitude in professional practice. Students' experiences are used by teachers in the lessons: students reflect on the behaviour they have started and its effects, share their insights with fellow students. Subsequently, they take the new insights back to the professional practice and consciously put them to work.

The development of (unconscious) competence in the inquisitive attitude in students can be stimulated by teachers in various ways.



### **1. Identify opportunities (critical analysis)**

The student takes a critical look at his professional practice and identifies opportunities for improvement/renewal.

Skills: using observation and listening skills, asking questions.

#### **Teacher goals:**

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- The teacher trains students to become aware of recurring patterns (in behaviour, systems or processes) within and outside professional practice, and to examine the extent to which these patterns contribute to the achievement of (organisational) goals.
- The teacher encourages the student to investigate the background behind signals or symptoms before translating this into a question.
- The teacher trains the student to translate identified opportunities for improvement into a research question that contributes to improvement/renewal and (organisational) objectives.

#### Activities:

- Practice observing behaviour, systems, techniques, processes (e.g. observing professional behaviour in professional practice in a film or mapping a process together).
- Encourage students to investigate the origins of signals or symptoms or bottlenecks by having conversations with colleagues, fellow students, etc. Why do you do the things you do? How did this develop?
- Collect and discuss information about the organisational environment (regional, national, international) during the lesson.
- Approach experts (internal/external) and invite guest lecturers.
- Train basic interviewing skills: listening, summarising and asking follow-up questions.
- Stimulate students to look at their own organisation with the help of different theoretical models.
- Discuss daily situations and activities in the group: what is effective and what is ineffective and why? What does the theory say about this? How does this look in practice and why was this chosen? What is the effect? (Recognising cause-effect relations)

#### 2. Become an expert (critical analysis)

The student is an expert in the field of the opportunity for improvement and consequences for the professional context. To this end, the student consults various perspectives in (international) literature, among experts and in professional practice. The student demonstrates 'being an expert' through his insight into the size and scope of the problem, the consequences for those involved and the degree of priority for his professional context. In addition, he has insight into the relevant theories that are applicable to this problem and that can be used to think about possible solutions.

**Skills:** formulating learning questions, searching for/assessing and interpreting information, conducting and interpreting interviews.

#### **Teacher goals:**

- The teacher trains students to formulate learning questions.
- The teacher trains students to consciously choose different sources of information to answer their learning questions.
- The teacher trains students to retrieve/search for information, test information for usefulness and reliability, interpret and process information.

#### Activities:

• Practise formulating learning questions and checking who/what can answer these questions (looking broadly: within and outside professional practice).

- Consulting sources of information and assessing their reliability and usefulness (with given learning questions).
- Reading information sources and extracting the essence. Looking at the source through different glasses (e.g. theoretical glasses, practical glasses).
- Preparing interviews and rehearsing them in class with fellow students. Have the results worked out in a summary.
- Discuss in class: what information do I get from everything I have seen, heard and read and how do I use this for my professional practice?

What a beautiful piece of work and very useful tools. I am definitely going to make use of them.

Annechien Langevoord, Policy Officer for Research and Education at Amsterdam University of Applied Sciences.



# Series and communicate your perspective (critical analysis)

Based on his expertise, the student has his own view on the professional practice and the way the professional functions within it. The student communicates this view in the professional practice.

**Skills:** reflecting, presenting, convincing, giving and receiving feedback, conversation skills.

#### **Teacher goals:**

- The teacher trains students to formulate their own viewpoint on an issue/opportunity and to defend this with arguments.
- The teacher trains students to present viewpoints in a businesslike written report or by means of a presentation.
- The teacher trains students to give feedback according to the feedback rules.
- The teacher prepares students for reactions in professional practice to their own viewpoint (feedback, resistance).

#### Activities:

- Training and assessment: giving and receiving feedback, arguing, having convincing/motivating conversations, dealing with resistance, presentation skills, business writing.
- Have students present their own view on subjects during the lessons and substantiate this view (with sources).
- Plan formative evaluation moments in lessons, in which students give each other feedback.



# 4. Come up with solutions in co-creation (scenarios and choosing the most suitable one)

Together with others, the student draws up scenarios to exploit opportunities and chooses the most suitable scenario for professional practice.

**Skills:** creative thinking, co-creation, goal-oriented thinking, negotiation, decision-making)

#### **Teacher goals:**

• The teacher encourages students to look at the problem first, before moving on to the solution. The students keep the common goal in mind.

- The teacher lets students look at different solutions and argue what they would bring to the context.
- The teacher lets students make a (conscious) choice and argue this choice. Students do this both individually and with others. This allows them to experience when which strategy works.

#### **Activities**:

- Discuss which stakeholders the students will involve in devising solutions and why.
- Give instructions to draw up a plan of requirements (with real or fictitious assignments).
- Discuss the added value of solutions for the organisation, the client and the student.
- Use creative working methods to generate creative ideas for problem solutions in the classroom.
- Have students work together on an assignment, alternating roles as chair. Evaluating the cooperation and reflecting on your own role in this.
- Training for achieving effective meetings.



Together with others, the student takes actions to move from the existing situation to the desired situation.

**Skills:** goal-oriented action, planning, organisation, conversation skills, decision making, cooperation, motivating others, giving and receiving feedback.

#### **Teacher goals:**

- The teacher guides students in drawing up a time-bound step-by-step plan for the implementation of the improvement.
- The teacher discusses critical situations with students and makes them reflect on their own behaviour.

#### Activities:

- Identify the actions necessary to realise the change (taking into account a willingness to change and ability to change) and have them draw up a plan.
- Have students jointly determine a strategy to implement a change and practice this on fellow students and then apply it in professional practice.
- Intervision: what contribution can students make to the change?
- Training in dealing with resistance.



### 6. Measure the effect

The student has insight into the effect of his own actions and those of others on the quality of professional practice and acts accordingly. The student demonstrates 'measuring the effect' by looking at the results of the interventions and determining to what extent the problem has been solved. In addition, the student evaluates the process steps with those involved and reflects on his own role in this.

**Skills:** reflecting, interviewing, giving and receiving feedback, motivating others, making decisions.

#### **Teacher goals:**

- The teacher makes students consciously practise looking back and evaluating.
- The teacher makes students consciously think about what is needed to anchor the new situation in the organisation.
- The teacher makes students consciously reflect on their own role in this situation.

#### Activities:

- Measuring and assessing results in fictitious or real professional practice through interviews or quantitative measurements: to what extent were the goals achieved? What can we learn from this?
- Intervision and reflection on one's own role in the process.
- Advice on securing or improving (focused on regulations and legislation, efficiency, people and resources, sustainability, costs and benefits).

My compliments! It is a beautiful document with a lot of background information and a concrete interpretation of the teacher's objectives and activities for each part of the cycle. Because of this concrete interpretation, it will be possible for me to translate it into an interpretation for my own study programme.

Mirjam Lasthuizen, research lecturer Social Media & Organization at NHL Stenden University of Applied Sciences

What a beautiful starting document this has become. Completely focused on Ad-level 5 and very applicable to Ad-programmes from the many domains and backgrounds. It offers a framework on which programmes can focus and from which they can draw the basis of an inquisitive attitude (translated for their domain).

Annemarie van Alphen, lecturer Ad and Bachelor Commercial Economics at Fontys University of Applied Sciences and chairperson of LAdO Commerce

## **6 CONCLUDING**

What position does the inquisitive attitude have in the learning outcomes of the Ad-student? How can the inquisitive attitude be stimulated in the Ad-curriculum and made visible in the learning outcomes? To answer these questions, we have indicated the frameworks as given in the Description Level 5 Associate degree, the NLQF Level 5 and the Dublin-SCHE. We are focusing on the professional products approach. We establish that level 5 presupposes a level of competence for each professional product in terms of the study programme and the professional field. This competence level can be visualised with the ZelCom-model.

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To this end, it is necessary to explore tasks with their own dynamics of complexity and independence per study programme and adjacent field. In other words: situationally it is to be determined how each study programme gives shape to the competence level of the research attitude of the Ad-professional. For the Ad-professional, various combinations are conceivable: low/average, average/low, average/ medium, low/high, high/low. It is up to the study programmes to determine, for and with their field of work, which combinations are common at the workplace and at the internship, and which combinations of complexity/independence are appropriate for the Ad-professional.

Teacher teams can make use of the six steps of the inquisitive attitude cycle (see the diagram on the next page) when implementing an inquisitive attitude in the curriculum. This helps teams to orient themselves broadly and, in co-creation with important stakeholders (students, professional field), to design an appropriate programme and to develop a didactic vision. In addition, attention will have to be paid to the inquisitive attitude of the teachers themselves. Teachers serve as rol models. It is important that they themselves develop and apply their own inquisitive attitude.

## IMPLEMENTATION OF AN INQUISITIVE ATTITUDE IN THE AD-PROGRAMME

Identify opportunities	<ul> <li>Base-measurement of curriculum/didactic approach based on the inquisitive attitude steps: what is already happening in the study programme and how is it offered by lecturers?</li> <li>Feedback and needs from the professional field</li> <li>Feedback and needs from students</li> <li>New insights on inquisitive attitude</li> </ul>
Become an expert	Collect additional information on: • Characteristic issues /professional products professional practice • Expectations of the professional field with regard to an inquisitive attitude • Incorporation of an inquisitive attitude in the professional profile • Body of Knowledge and Skills for an inquisitive attitude • Didactic approach and expectations of teachers • Testing the inquisitive attitude • Experiences and needs of students concerning the inquisitive attitude • Experiences and needs of teachers concerning the inquisitive attitude
Form and communicate your own perspective	<ul> <li>Share information with colleagues and ask for feedback</li> <li>Identify success factors for implementing the inquisitive attitude and determine a change strategy</li> </ul>
Come up with solutions in co-creation	<ul> <li>Designing the educational programme based on the information found, together with the teaching team, professional practice and students</li> <li>Formulating a didactic vision together with the teaching team</li> </ul>
Take action	<ul> <li>Implementing the teaching programme</li> <li>Experimenting with didactic approaches and working methods</li> <li>Involving the professional field in the development of the student's inquisitive attitude in professional practice (internships/project assignments)</li> <li>Professionalising the teaching staff</li> </ul>
Measure the effect	<ul> <li>Evaluate results of undertaken actions with students, field and teachers (quantitative/ qualitative)</li> <li>Evaluating the change process</li> <li>Securing and/or optimising results</li> </ul>

It is a beautiful, well thought-out piece, in which in my opinion the challenge lies at the end: namely to check when designing a new study programme whether all the aspects listed here are addressed in the new curriculum.

Bert Reul, Dean at Rotterdam Academy, Rotterdam University of Applied Sciences

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# **APPENDIX 1 - NLQF-LEVEL 5**

NLQF-LEVEL 5		
Context		• An unfamiliar, changing living and working environment, also internationally.
Knowledge		• Possesses extensive, in-depth and/or specialised knowledge of a profession and/or field of knowledge.
		• Possesses detailed knowledge of some professional and/or knowledge domains and understanding of a limited set of basic theories, principles and concepts.
		• Possesses limited knowledge and understanding of some important current topics, issues and/or specialisms related to the profession and/or knowledge domain.
Skills:	Application of knowledge	• Reproduces and analyses knowledge and applies it, in a range of contexts, to solve problems related to a profession and/or knowledge domain.
		• Uses procedures flexibly and inventively.
		• Identifies limitations of his/her own knowledge and existing knowledge in the professional practice and/or knowledge domain and takes action.
		• Analyses complex (professional) tasks and carries them out.
		• Critically analyses the results of current practice-oriented research.
	Problem-solving skills	• Identifies and analyses complex and unpredictable problems, in professional practice and/or in the knowledge domain and solves them in a creative, flexible and inventive way by identifying and using data.
	Learning and developing skills	• Develops on his/her own initiative, through self-reflection and self-assessment of his/her own (learning) results, and seeks guidance where necessary.
	Information literacy	• Obtains, processes, combines and analyses broad, in-depth and detailed information and a limited range of basic theories, principles and concepts, related to some professions and/or knowledge domains as well as limited information on some important current topics and/or specialisations related to the profession and/or knowledge domain and presents this information.
	Communication skills	• Communicates purposefully with peers, colleagues, superiors and/or relevant third parties on the basis of conventions applicable in the context and professional practice.
		• Adapts communication to the goal and the target group.
Responsibility and autonomy		• Works together in unfamiliar and varying living and/or working environments, also internationally with peers, colleagues, superiors and relevant third parties.
		• Carries responsibility for results of his/her own activities, work and/or study.
		• Shares responsibility for results of activities and work of others and for managing unpredictable processes.

## **APPENDIX 2 - COMPARISON NLQF-LEVELS 4-5-6**

SENIOR SECONDARY VOCATIONAL EDUCATION – NLQF-LEVEL 4	ASSOCIATE DEGREE – NLQF- LEVEL 5	BACHELOR'S DEGREE – NLQF- LEVEL 6
A range of cognitive and practical skills required to solve specific problems in a field of work or study.	A wide range of cognitive and practical skills required to work out creative solutions to abstract problems.	Advanced skills, demonstrating absolute professionalism and innovative ability to solve complex and unpredictable problems in a specialised field of work or study.
<ul> <li>Applying knowledge:</li> <li>Reproduces and analyses knowledge and applies it.</li> <li>Evaluates and integrates data and develops strategies for carrying out various (professional) tasks.</li> <li>Identifies limitations of existing knowledge in professional practice and the knowledge domain and takes action.</li> <li>Analyses reasonably complex (professional) tasks and carries them out.</li> </ul>	<ul> <li>Applying knowledge:</li> <li>Reproduces and analyses knowledge and applies it, also in other contexts, to answer problems related to a profession and knowledge domain.</li> <li>Uses procedures flexibly and inventively.</li> <li>Observes limitations of existing knowledge in professional practice and in the knowledge domain and takes action.</li> <li>Analyses complex (professional) tasks and carries them out.</li> </ul>	<ul> <li>Applying knowledge:</li> <li>Reproduces and analyses the knowledge and applies it, also in other contexts, in such a way that it shows a professional and scientific approach in profession and knowledge domain.</li> <li>Applies complex specialised skills to the results of research.</li> <li>Carries out practical or fundamental research successfully, with guidance based on methodological knowledge.</li> <li>Formulates and develops arguments. Critically evaluates and combines knowledge and insights from a specific domain.</li> <li>Identifies and takes action on limitations of existing knowledge in professional practice and in the knowledge domain.</li> <li>Analyses complex professional and scientific tasks and carries them out.</li> </ul>
<ul> <li>Problem-solving skills:</li> <li>Recognises and analyses reasonably complex problems in professional practice and in the knowledge domain.</li> <li>Solves these in a planned and creative way by identifying and using data.</li> </ul>	<ul> <li>Problem-solving skills:</li> <li>Recognises and analyses complex problems in professional practice and in the knowledge domain and solves them creatively by identifying and using data.</li> </ul>	<ul> <li>Problem-solving skills:</li> <li>Recognises and analyses complex problems in professional practice and the knowledge domain and solves them tactically, strategically and creatively by identifying and using data.</li> </ul>

SENIOR SECONDARY VOCATIONAL EDUCATION – NLQF-LEVEL 4	ASSOCIATE DEGREE – NLQF- LEVEL 5	BACHELOR – NLQF-NIVEAU 6
<ul> <li>Learning and development skills:</li> <li>Develops through reflection and assessment of his own (learning) results.</li> </ul>	<ul> <li>Learning and development skills:</li> <li>Develops by reflection and assessment of his/her own (learning) results.</li> </ul>	<ul> <li>Learning and development skills:</li> <li>Develops through self-reflection and self-assessment of his/her own (learning) results.</li> </ul>
Information skills:	Information skills:	Information skills:
• Acquires, processes and combines broad	• Obtains, processes, combines and analyses	<ul> <li>Collects and analyses in a responsible,</li> </ul>
and specialised information on materials,	broad, in-depth and detailed information	critical manner broad, in-depth and detailed
means, facts, abstract concepts, theories,	on a limited range of basic theories,	professional or scientific information on a
ideas, methods and processes related to a	principles and concepts, related to a	limited range of basic theories, principles
profession and knowledge domain.	profession and field of knowledge as well	and concepts related to a profession or field
	as limited information on some important	of knowledge, as well as limited information
	current topics and specialties, related to	on some important current topics and
	the profession and field of knowledge and	specialties related to the profession and field
	displays this information.	of knowledge, and presents this information.

# APPENDIX 3 - DUBLIN DESCRIPTORS SCHE, BACHELOR AND MASTER

DUBLIN DESCRIPTOR	SHORT CYCLE HIGHER EDUCATION	BACHELOR'S DEGREE	MASTER'S DEGREE
Knowledge and insight	Has demonstrable knowledge and understanding of a subject area that builds on general secondary education, generally functions at advanced textbook level, has a knowledge base for a professional field or profession, for personal development and for further study to complete the first cycle (bachelor).	Has demonstrable knowledge and understanding of a subject, building on and exceeding the level achieved in secondary education; generally functions at a level that, with the support of specialised textbooks, includes some aspects that require knowledge of the latest developments in the subject.	Has demonstrable knowledge and insight, based on the knowledge and insight at Bachelor's level, that surpasses and/or deepens these and provides a basis or an opportunity to make an original contribution to the development and/or application of ideas, often in a research context.
Judgement forming	Is able to apply knowledge and understanding in vocational contexts.	Is able to collect and interpret relevant data (usually in the field of study) with the aim of forming a judgement that is also based on weighing relevant social or ethical aspects.	Is able to apply knowledge and insight and problem-solving abilities in new or unknown circumstances within a broader (or multidisciplinary) context related to the field of study; is able to integrate knowledge and deal with complex material.
Applying knowledge and insight	Has the ability to identify and use data to determine a response to clearly defined, concrete and abstract problems.	Is able to apply his/her knowledge and understanding in such a way that it demonstrates a professional approach to his/her work or profession, and furthermore has competences for drawing up and deepening arguments and for solving problems in the field.	Is able to formulate judgements on the basis of incomplete or limited information, taking into account societal and ethical responsibilities related to the application of his/her own knowledge and judgements.
Communication	Can communicate with peers, supervisors and clients about comprehension, skills and work.	Is able to convey information, ideas and solutions to an audience consisting of specialists or non-specialists.	Is able to communicate conclusions, as well as the knowledge, motives and considerations underlying them, clearly and unambiguously to an audience of specialists or non-specialists.
Learning skills	Possesses the learning skills to enter into further training that requires a certain degree of autonomy.	Possesses the learning skills necessary to engage in advanced study that assumes a high level of autonomy.	Possesses the learning skills that enable him or her to engage in advanced study of a largely self-directed or autonomous nature.

# APPENDIX 4 - THEME-CENTRED INTERACTION AND ZELCOM IN CURRICULUM DESIGN

Theme-Centred Interaction is based on four mutually influencing dimensions

- a) I: the well-being and personal effectiveness of each individual (personal identity
- b) We: the cooperation processes in the group (professional identity in social relationships in the organisation)
- c) It: the realisation of the common task and goals (achieving organisational goals from the individual; contribution to the common activity)
- d) Globe: the context in which work is performed (analysis, stakeholders)

In the following curriculum of a part-time programme Ad Management in Health Care, these four dimensions are reflected in each semester in the learning outcomes, the professional products, the levels of the ZelCom model and the development of personal leadership. Students learn to develop self-management and to take responsibility for the realisation of the task and for constructive cooperation processes.

Semester 1	Personal leadership: 'The organisation and I'
Learning Outcome	The student is aware of the "raison d'être", the design and the viability of the organisation and its department/
	work unit. The student is able to state how his own position relates to these three conditions for existence and
	understands the complexity of the organisation and the strategic choices. The student is able to think along and
	contribute to tactical and operational policy. The student is also aware of his personal development points, which
	enables him to design a personal learning plan and to make a well-founded choice for his study route.
Professional product	Students make a SWOT-analysis of their own organisation. This professional product is less complex with a
ZelCom	lot of guidance. The professional product is an analysis and the formation of an own vision about the own
	organisation. These are the first three steps of the cycle of the inquisitive attitude. It is safe within the own
	professional context. Students talk to colleagues and experts and collect data in their own organisation. There is
	a lot of guidance. The analysis takes place in small steps: many structured assignments in the study programme
	that are discussed weekly with lecturers and in learning teams with fellow students.
Personal leadership	Students experience that they can immediately apply what they learn in the programme, which increases their
	self-confidence.
Semester 2	Performing teams: 'Me and my team'
Learning Outcome	The student shows an inquisitive attitude towards the degree of effectiveness of the team and his own role
	in it. Based on a vision, the student makes an active contribution to the realisation of organisational and
	team objectives. He does this by the effective and efficient deployment of people and resources, influencing
	the cooperation within the team and the optimal use of the professional responsibility of employees and the
	qualities and strength of the team. All this is done on the basis of an equal partnership.
Professional product	Students carry out an analysis with their own team, develop a vision and together with the team devise a plan for
ZelCom	a change, carry it out (in part), evaluate the results and the process and make recommendations for its sustainable
	embedding in the team. They go through all the steps of the cycle of the inquisitive attitude. The students draw
	up a team analysis fact sheet, an improvement plan for team effectiveness and an evaluation. These professional
	products are fairly complex and require more independence (within the own team). The complexity also lies in
	daring to take the lead in one's own team. There is medium guidance: there is extra explanation, support and
	intervision in the learning team and there is formative evaluation of essential components by teachers and peers.
Personal leadership	Students experience how they can increase their personal influence by acting purposefully and going through
	a change process together with a team. They learn to use diversity in a team to achieve team effectiveness. In
	addition, students are expected to experiment with different styles of situational leadership.

Semester 3	Customer experience management: 'Me and the customer'
Learning Outcome	The student makes an active contribution to optimising the customer experience in his organisation. He does
	this by consciously deploying activities that meet the needs of the customer. The student takes into account
	the organisation's vision and mission, its objectives, external and internal quality requirements and legislation
	and regulations. He translates this into a customer-oriented design of processes, deployment of people and
	resources. The student uses customer-oriented leadership to stimulate experience-oriented thinking and acting
	in the organisation.
Professional product	In the context of customer experience management, students make an analysis, develop a vision and an
ZelCom	improvement plan in co-creation with stakeholders, carry out (part of) the plan, evaluate the results and the
	process and make recommendations for its sustainable embedding in the organisation. They go through all
	the steps of the cycle of the inquisitive attitude. The professional products are fairly complex and require more
	independence, partly due to the co-creation with internal and external stakeholders.
	There is medium guidance: there is extra explanation, support and intervision in the learning team and
	formative evaluation of essential components is given by teachers and peers.
Personal leadership	Students empathise with the needs of their internal and external customers and use this analysis in their target
	group approach to optimise the customer experience. Students are expected to consciously use leadership to
	achieve goals from the plan and to connect with customers and colleagues to achieve co-creation.
Semester 4	Creative leadership: graduation
Learning Outcome	The student, in co-creation with stakeholders, gives shape to an innovation within the working unit. He does this
	by using effective and creative leadership with respect to himself and others. In order to achieve concrete results,
	he evaluates the design and implementation process and reflects on his actions in it. The student gives advice to
	the organisation about the way in which the innovation can be secured within the daily processes and is able to
	sell this idea.
Professional product	Students go through and supervise a creative design process of an innovation in co-creation with stakeholders.
ZelCom	They go through all the steps of the cycle of the inquisitive attitude. The focus is on spotting opportunities:
	how can the professional practice benefit from this? Students give advice on how to embed the innovation
	in daily processes, estimate the costs of the innovation and communicate the story behind the innovation to
	others. The professional products are complex and require a lot of independence. It is not a clearly demarcated
	process, there are many uncertainties and people have to be included and convinced. The free structure of the
	professional product and the design process itself by the student provide little guidance. The learning team
	determines the degree of support and the teacher provides formative evaluation for an essential part. Other
	components are at the student's own initiative.
Personal leadership	Students learn to innovate for the organisation in co-creation. They are expected to use leadership with the aim
	of removing uncertainty from others, being open to the ideas of others and cooperating with the stakeholders
	needed to achieve the goal. The students have developed their own view on leadership and consciously apply
	this view.