

# **Contradictions in the Meaning of Qualifications When Applied in a Systems Change**

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## **Introduction and Purpose**

The recommendation to look broad and deep at educational change is aired often. Banathy (1989, p.12) about the U.S. approach of change: 'Piecemeal, incremental and disjointed efforts have characterised most educational improvement efforts of last decade. Reports and descriptions of improvement ideas and projects could fill whole libraries. We are reminded of warehouses filled with spare parts, parts that do not fit into a whole.' Fullan (1991, p. 45): 'It is mainly that each and every individual who is necessary for the effective implementation will experience some concerns about the meaning of new practices, goals, beliefs, and means of implementation...because it is at the individual level that change does occur or not occur.' And, teachers in their networks are connected with the context of their school and of a national policy (Van den Berg & Vandenberghe, 1995; p. 313).

The criteria focus on issues, roles and learning. To what extent do ambiguity and contradiction about the meaning of qualification occur in a systems change?

Change of Dutch agricultural education is a case of a systems change in VET to study the question. Failing projects in agricultural education from the 70s and 80s, teachers' experiences, experts' views and large-scale change in e.g. France and Scotland were utilised as a basis for change. A group of 40 teachers was involved in design and development in 89 and 90. 300 Teachers were involved in further development between 90 and 93. In 1990 the work-based component of full time courses in Dutch agricultural VET was extended to create a basis for reflection for the learner related to his practical experiences. In 1992 competence based objectives were introduced to improve the responsiveness<sup>1</sup> of the VET system and to increase the transferability<sup>2</sup> of students. 3000 Teachers in agricultural schools got a decade for implementation. The change in agricultural VET was a pilot for a new general law on Dutch VET in 1995 (Geerligs 1999).

This paper will analyse and comment the ambiguity and contradiction of key issues about the meaning of qualification at relevant levels in the new system of agricultural VET.

## **The Responsibilities, Issues and Learning Within Responsive VET**

In the Netherlands, VET at post compulsory school level (16+) is a combined responsibility of the Minister of Education<sup>3</sup> and the Minister of Agriculture<sup>4</sup> acting through various laws concerning education at this level. Senior Secondary Agricultural Vocational Education (SSAVE) is the responsibility of the Minister of Agriculture. He has the dual responsibility to provide for the needs of the individual and to meet the needs of the land-based<sup>5</sup> professional field.

The actual providers of SSAVE are the Institutes for Agricultural Education (IAE's, the alike of colleges of Further Education in the United Kingdom, Lycée Agricole in France, and Dual System and Fachschule in Germany). IAE's have a private foundation working under the authority of the minister.

A third important contributor to the Agricultural Education scene, again mainly government sponsored, are the Research and Development (for agriculture and for occupations), and the Advisory services plus various industrial organisations. Their role was to feed into the system information on developments in the industry, and thereby, the manpower needs of the industry.

Again, three operational levels can be identified and superimposed on the three roles. Government has an overall responsibility and operates at macro level. The information network may also operate at this level but may also be concerned with regional needs at meso level. This leaves the providers operating at meso and micro level making sure the provision matches local needs and students.

Prior to the mid 80s the provision was controlled by regulations of central government with national curricula and centrally decided minimum requirements on timetables and examination programs. In a fairly stable situation, where safeguarding food production was a prime objective, and where the employment market was also stable, this situation was probably adequate (Goudswaard, 1986).

The context of SSAVE has changed and continues to do so with considerable speed to the point where change is the norm. There was a need therefore, for a system of SSAVE that could respond rapidly to change in the environment in which it operated and the new needs of the rural population. It should be able to produce qualified leavers, who can meet the new demands being made upon them, while also being able to respond themselves to an ever changing context.

The Wagner Committee (1984)<sup>6</sup> proposed the responsibility for educational objectives to be shared between social partners (employers and employees),

education and government. What should be the tripartite responsibility of the government, schools and social partners for objectives?

Principles recommended by de Sitter (1994) for flexible production in industry may also apply in VET. Following the recommendation, there are two areas where *organisational* change is essential to encounter continuous contextual change:

an information system capable of detecting changes in the context of SSAVE and translating change into educational objectives through to qualifications;

a freedom for the schools to respond quickly and work to the requirements of the new qualifications - that have powers and freedom to be flexible.

In national policy, a field of force ‘participants think and act from different starting points, values and facts. They have their own perceptions of a public problem, notably the difference they perceive between the present and the ideal situation’ (Dirven & Kusiak, 1998; p. 34). In industry, articulation of demand should be independent and separate from the steering structure and the production structure (De Sitter, 1994; pp. 101-105). Both the complexity of information supply and the division of responsibilities apply to VET.

That is why information on contextual changes, the articulation of the demand arising from it and transposing the demand into educational objectives, is vested in a new structure - the information structure. The design for a responsive system for SSAVE therefore identifies three areas of operation that demarcate the responsibilities of the participants (Geerligs, 1999; 47-48). They are

a steering structure responsible for deciding policy on educational objectives and acquiring resources to implement policy;

a new information structure with tripartite responsibility to articulate demand and recommend educational objectives for steering and application;

the production structure - the schools - responsible for the teaching and learning in response to national and regional demand.

The model for responsive SSAVE therefor, has one vital structure more than traditional SSAVE (Figure 1).

	Steering Structure	
Policy Development	Regional Policy	Implementation Policy
Information Structure <sup>7</sup>		Production Structure

*Figure 1.* The vital areas of activity of a responsive SSAVE.

The system structure of a responsive SSAVE gives a clear place to the information structure. A gateway is provided through which the question of contextual changes can be addressed. The tripartite responsibility for articulation of demand can be at the core of the information structure. A qualification structure<sup>8</sup> (QS) is the means to communicate between the three structures. What are the most relevant issues to communicate?

Vital issues within a flexible VET (Nijhof & Streumer, 1994a; p. 3), are

responsive articulation of educational objectives;

flexibility of organisation;

transferability of school leavers.

‘Who in the model should be responsible for each of these aspects?’

Dutch VET is a system with national objectives (Dercksen & Van Lieshout, 1993). Thus achievement of transfer potential of qualifications is an issue at the macro level of education, and has consequences for the meso and micro levels. National qualifications could result from the analysis of contextual changes and gain tripartite support as proposed by the Wagner Committee (1984).

The next issue is flexibility of organisation, for example in tuning educational programs to regional demands (Rauwenhoff Committee, 1990) and to meet the needs of target groups (Van Veen Committee, 1993). Flexible organisation of schools, for example by modularization, is a responsibility at meso level of the system with consequences for the macro and micro levels.

The third issue is the transferability of school leavers. Transferability is a result of the learning process at the micro level and a responsibility of teachers. National objectives, regional demands and individual needs influence education at micro level. The achievement of transferability requires skills of reflection. Reflection in workplace and school decontextualises personal experiences (Gielen, 1995). The efforts on reflection are stimulated when the national educational objectives are decontextualised (Nijhof & Streumer, 1994b, p. 137).

Issues at meso and micro levels are the concern of the production structure. Schools should note the requirements, and adjust educational goals to regional and individual needs and choose appropriate pathways and pedagogy to meet the objectives. The issues affect inputs, processes and results at all levels of a responsive SSAVE. The national objectives are essentially a common issue at all three levels and that is why a QS can be a means of developing and implementing the flexibility of the system (Table 1).

**Table 1**

**Dominant educational issues for a responsive SSAVE**

	<b>Inputs responding to</b>	<b>Process flexible approach of</b>	<b>Outcomes accountable with respect to</b>
<b>Macro level: system</b>	contextual changes i.e: employment market changes, changing patterns of work,	articulation of external demand and of public roles;	funding and control of qualifications with transfer potential;
<b>Meso level: schools</b>	diverse regional demand,  multiple target groups, and	school organisation;	pathways motivating and catering for different ability levels;
<b>Micro level: learning</b>	individual needs, add to heterogeneous demand.	competence based learning.	Transferability of qualified school leavers.

The input column of Table 1 shows the accumulation of constraints in schools; requirements/inputs accumulate at micro level in the learning process.

The central dilemma of a responsive SSAVE can be recognised - the balance between the generation of required qualifications at macro level and the creation of freedom at micro level to deal with a multiplicity of requirements. The supply of homogenous information through the system is one problem and accumulation of demands at micro level another (Geerligs, 1999; 47-48).

**Significance for Development of VET**

This study aims to identify (hidden) constraints in a responsive VET because of ambiguities and contradictions in the meaning of qualifications. The focus is on the tension between the generation of required qualifications at macro level and the creation of freedom at the meso and micro level. From this identification may be generalised for reflection on constraints in other VET systems.

**Procedures and Methods**

Constraints in VET due to contradictions and ambiguities in the meaning of qualifications may occur within the system (not fitting spare parts) or show up in the course of time (learning does not happen at a flash). Constraints may appear at various levels of the system (macro, meso and micro), in different roles (in the steering structure, information structure, and production structure), and/or within specific issues. The perceptions of an issue may differ when looked upon from a political, scientific and/or organisational point of view. Three issues are analysed 1)

responsive articulation of educational objectives, 2) flexibility of organisation and 3) transferability of school leavers.

The study will describe an analysis of consistency of the aspects 1) problem definition, 2) field of force, 3) view & strategy and 4) policy target. The model to test and support the development of a consistent approach is depicted in Figure 2.

<p><u>Problem definition 1988:</u>  1. Responsive articulation of objectives  2. Flexibility of organisation  3. Transferability of school leavers</p> <p><u>Redefinition 1999:</u></p>	<p><u>View of minister:</u>  (the long term perspective)</p> <p><u>Strategy:</u> (alternative approaches to head towards the view)</p>	
<p><u>Field of force:</u>  (values, interests, and facts of relevant players)</p> <p>Steering structure:  - OCW: minister of education  - LNV: minister of agriculture</p> <p>Information structure:  - Stoas-Research: contextual information supplier  - LOBAS: national body for design of qualifications</p> <p>Production structure:  - IAE's: schools for SSAVE  - IAE-Council: the mutual IAE's</p>	<p><u>Policy target:</u>  (the first step towards view)</p>	

Figure 2. Model to support the development of a consistent policy.

## Findings and Conclusions

The definition of the systems change above provides a basis for the redefinition of the problems. The data in the field of force, views, strategy and policy targets are collected from official and oral statements, or in some cases, from observations by the authors.

### ***The Responsive Articulation of Objectives***

The dynamic changes in production and services cause a structural fast change of tasks, functions and occupations. This change impedes the communication about occupational choice, school choice, curriculum development, employment market

and work assignment in firms. In 1988, the minister of education adopts this problem as a whole. But then, as a contradiction, due to an institutional point of view the focus is on the transition from school to work. A QS should improve the transition from school to work (O&W, 1988a & 1988b). Within this narrow view on the function of a QS, the occupational segment of the employment market is chosen as a reference. And as a further reduction of the problem, in 1986 in the Netherlands the occupational segment is analysed with one specific method for the construction of occupational profiles (Van Rienen, 1983). Business uses the to motivate their demands for specific diploma courses and schools to claim specific niches within the educational demand (Figure 3). Now OCW stimulates the further development of a QS and learning skills (OCW, 1995 & 1998).

The minister of agriculture has used multiple sources and teacher experience for QS development in 1988 (Geerligs, 1999; p. 131-133). The QS is given a meaning for full time education, apprenticeship scheme and adult education. Attempts were made to communicate the connection with junior VET and higher education. In some divisions the QS is used for employment contracts.

<p><u>Problem definition at macro level 1988:</u> <i>The improvement of the transition from school to work requires the restoration of the 1:1 relation between diploma and occupation.</i></p> <p><u>Redefinition 1999:</u></p> <p>The structural fast change of tasks, functions and occupations impedes the communication about occupational choice, school choice, curriculum development, demand and supply of employment market and assignment of work in firms.</p>	<p><u>View of OCW 1986:</u></p> <p>A VET that contributes to economic recovery and innovation</p> <p><u>View of LNV 1986:</u></p> <p>A SSAVE that supports a knowledge policy to vest social and ecological awareness in agri-business</p> <p><u>Strategy OCW 1986:</u> encourage negotiations between social partners and schools about a QS</p> <p><u>Strategy LNV 1986:</u> co-ordinate the design and development of a QS.</p>
<p><u>Field of force:</u></p> <p><u>Steering structure:</u></p> <ul style="list-style-type: none"> <li>- OCW 1988: solve transition from school to work</li> <li>1996: make recognisable and transparent QS</li> <li>- LNV 1988: focus on entrepreneurship (Lavi, 1987)</li> <li>1996: gear to social and ecological needs</li> </ul> <p><u>Information structure:</u></p>	<p><u>Policy target 1988:</u></p> <p>Provide a QS to steer the schools (after they gained size by merger and degrees of freedom by deregulation, OCW &amp; LNV) and make the design future directed to deal with contextual change (LNV).</p>

<ul style="list-style-type: none"> <li>- Stoas-Research 1986: occupational profiles</li> <li>1998: occupation. &amp; career profiles</li> <li>- LOBAS (LNV 1988: transparency of QS)</li> <li>1994: compromise schools &amp; business (business: recognisable qualifications)</li> <li><i>Production structure:</i></li> <li>- IAE's 1994: privileges for market niches</li> <li>- IAE-Council 1994: compromise between schools</li> </ul>	
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*Figure 3.* Analysis of policy to articulate competence based objectives.

Expectations about a valid basis, relevant taxonomy and shaping of a QS differ highly between the players and interests change in the course of time. LOBAS is not able to bridge the differences between the players in a learning process and she compromises the claims. She does not communicate the absence of a 1:1 relationship between diploma's and functions/occupations; she allows the number of diploma's to increase. The spitting makes qualifications more recognisable (but with regard to content less transparent). The QS got no broader social meaning.

A confusing discussion, with scientific, political and practical motives, starts about a QS with 'its detailed behaviourist attainment targets and endless testing', where the principles and operational forms are confused. A discussion about the preference of competence<sup>910</sup> above qualifications adds to this. The same accounts for opinions about broad skills, key qualifications and central acts, which appear to be forms of transfer and probably all the same.

This confusion is likely to affect the consistency of a policy that is needed to give teachers the time of learning and to develop clear view on aims and means.

### ***The Flexibility of Organisation***

Regional differences and different individual needs make central regulation less effective. The central administration asks the schools to reduce unqualified school leaving and loss of time when students stream within the system. The flexibility of organisation (or internal flexibility) needs to be improved.

The Dutch national policy is that schools can solve this for themselves once they are big enough. That is why the policy target is merger of schools. To avoid self-



referential educational change, a QS should not have characteristics that have to do with regulation of the provision. The ministry of agriculture is the only player with a proactive policy with respect to internal flexibility (Figure 4).

<p><u>Problem definition at meso level 1988:</u> <i>Schools cannot cope with the overwhelming load of regulations and the are too small to act.</i></p> <p><u>Redefinition 1999:</u> Schools have difficulties in responding to the diversity of regional demand and individual needs and they fail to limit unqualified school leaving and loss of time at change of pathways or course.</p>	<p><u>View of OCW 1988:</u> Large multi-sectoral schools will have a flexible organisation</p> <p><u>View of LNV 1988:</u> Enlarged sectoral schools for junior and senior VET will realise flexibility given national provisions (Lavi, 1987)</p> <p><u>Strategy:</u> enlarge schools (OCW &amp; LNV) and support with QS (LNV)</p>
<p><u>Field of force:</u></p> <p><i>Steering structure:</i></p> <ul style="list-style-type: none"> <li>- OCW 1988: reduce unqualified school leaving &amp; increase participation (minorities)</li> <li>1994: increase flexibility</li> <li>1998: schools do not develop</li> <li>- LNV 1988: incorporate efficiency aims in QS</li> </ul> <p><i>Information structure:</i></p> <ul style="list-style-type: none"> <li>- LOBAS 1994: enhance quality of work based learning</li> </ul> <p><i>Production structure:</i></p> <ul style="list-style-type: none"> <li>- IAE's 1994: growth is the first objective</li> <li>- IAE-Council: regional needs in a quality plan</li> </ul>	<p><u>Policy target:</u></p> <p>1988: increase the flexibility by merger of schools (OCW &amp; LNV) and by specific provisions in the QS – e.g. commonality to improve qualified school leaving and similarity of units in improve internal steaming (LNV).</p>

Figure 4. Analysis of policy to realise flexible organisation in VET.

In 1988, the minister of agriculture took the stand that larger schools are a condition for increased internal flexibility but not an incentive. The same counts for a lump sum based on registered students. The LNV presupposition is that the actual incentive is the possibility students (and parents) utilise to make short cuts or means of effective early school leaving. Students will only see the possibilities when they are integrated in the QS (for -second presupposition- schools will not develop these structural provisions).

The structural provisions in the QS for agriculture are the following. Each five attainment targets yield one credit. The number of credits a student can attain depends from own ability (entry qualifications) and pathways. Similar courses in different pathways share common content, and different levels within on division share common content. The provision of commonality and assignment of loads in conformity with possibilities has made the 1992 cohort 10% more effective than the 1989 cohort. Due to shortening of the length of stay, the efficiency gain may decrease the costs per diploma 20%. The change of success rate will be discussed in the next point.

In 1999, it is likely that the ministry of agriculture gives up her (unique and very successful) policy. The reason is that the ministry creates the provision for the articulation of objectives: LOBAS. The ministry does not interfere with the work of LOBAS, since all responsible parties are represented in LOBAS.

### ***The Transferability of School Leavers***

In 1988, attainment targets were introduced to describe ‘qualities of students’ and to formulate the ‘minimum of what schools should realise’ (O&W, 1988b; p. 10). The questions in the Parliament about attainment targets focussed on freedom of education (Geerligs, 1999; p. 83). Attainment targets played an important role in an experiment on short-VET and should be copied for the whole VET system (ARVO, 1988). This latter policy was only realised in agricultural education. Transferability as such was not an issue in 1988.

In 1986, unemployment set the general agenda; a QS should restore (if not: improve) the transition from school to work, and the QS should leave room for tailor made local arrangements. In 1996, the situation in the employment market had changed dramatically and new requirements became important. In this period matters like mobility and employability became urgent (OCW, 1995 & 1998).

For agriculture the situation was different. There was not employment market problem and there was no problem with the transition from school to work. The educational problem was that projects to introduce learning through participation (LTP) and problem solving had not been successful. A long lasting bottom-up process had failed. And a well-structured -but small- project missed critical mass. The advantage was that a large group of teachers with experience in educational change was available. The policy problem was to do something similar to the ministry of education. A more important policy problem was that that agricultural business needed a transition and nobody knew about ‘what and how’. That is why transferability and systems change was on the agenda in an early stage. The theoretical problem was that no theoretical model for any of the two was available. In 1988 LNV advocated a holistic and problem-solving approach. In 1998 the focus was on decontextualisation and transfer potential of targets.

In the policy analysis (Figure 5) can be observed that in 1996 concepts about transferability were perceived and communicated in different ways: holistic approach, triple qualification, description of transfer and entrepreneurship. Today there may be a consensus possible on the issue, but it has not been formulated yet. The actual changes in the QS (preparations for 2000) focus on performance of operational skills rather than broad ability and capacity.

<p><u>Problem definition at micro level 1988:</u> <i>'They cannot hold a hammer' (transferability of school leavers is not yet a national item)</i></p> <p><u>Redefinition 1999:</u> The requirement that students qualify 1) for a first job, 2) for mobility on the employment market, and 3) for growth of ability in the course of a career does not match with the poor and short-lived fit between diploma and function.</p>	<p><u>View of OCW 1988:</u></p> <p>With a QS the large schools will tune to the regional need of business</p> <p><u>View of LNV 1988:</u></p> <p>Transferability and other long term aims require engagement of the state</p> <p><u>Strategy OCW 1988:</u> realise large institutions and a QS and wait ...</p> <p><u>Strategy LNV 1988:</u> participate in the development of a QS</p>
<p><u>Field of force:</u></p> <p><u>Steering structure:</u></p> <ul style="list-style-type: none"> <li>- OCW 1988: attainment targets to steer schools;</li> </ul> <p>1996: realise triple qualification personal, social and occupational targets;</p> <ul style="list-style-type: none"> <li>- LNV 1988: develop a holistic approach to targets</li> <li>1998: improve description of transfer in QS</li> </ul> <p><u>Information structure:</u></p> <ul style="list-style-type: none"> <li>- Stoas-Research 1986: broaden occupational analysis</li> <li>1998: limit number of full qualifications</li> <li>- LOBAS 1996: adapt the QS to the format of OCW (business: focus on entrepreneurship)</li> </ul> <p><u>Production structure:</u></p> <ul style="list-style-type: none"> <li>- IAE's 1994: problem solving is important issue</li> <li>1998: broaden definition of agricultural VET</li> <li>- IAE-Council 1994: realise triple qualification</li> </ul>	<p><u>Policy target OCW 1988:</u></p> <p>Start negotiations about required qualifications to restore (if not: improve) the 1:1 relation between diploma and occupation.</p> <p><u>Policy target LNV 1988:</u></p> <p>Create a QS in which principles of LTP (learning by participation) are interwoven; create provisions at a macro level because a sole bottom-up process can not work.</p>

Figure 5. Analysis of policy to realise transferability in VET.

## **Implications and Recommendations**

The issues discussed above touch essential aspects of qualification: the frame for description of content, the frame for organisational degrees of freedom and the frame for agog degrees of freedom. These will be discussed below. But first the perception of roles at the system level of responsive VET will be discussed.

### ***Roles Within a Qualification Based Responsive System***

At all three issues is observed that perceptions of roles differ; sometimes the other party does not act as expected and sometimes the communication is difficult. This is not strange because the new roles have never been discussed at depth and are subject of ambiguity and contradiction. The model of a responsive VET (Geerligs, 1999) is a reconstruction of how a responsive system could work. The model may also help to understand the present confusion.

How can new the roles be learned and how can the learning be understood? To answer this question we tentatively presume an analogy between the Trias Politica and the model for responsive VET (Figure 1) in the sense of a Trias Cognita. The Trias Politica is a generalisation of the power structure in democracies of which Montesquieu is the spiritual father. The legislature, the executive and the judiciary are the corner stones. The actual power structure is very complex and it is different in every democracy. Countervailing power, free press, elections, and independence of the three powers controls the Trias Politica. The difficulty to ‘apply democracy’ can be observed in young democracies.

We may look in the same way at a Trias Cognita in countries with the young experience that that VET needs to be organised without hard and fast definitions of occupations. In such a situation a qualification is much more a means to communicate a quality (a judgement) than a description of an analytic outcome (a truth). Compare a qualification with a judgement. And, the information structure (at present made up by representatives fighting for their share) compares to the judiciary with judges as it is positioned in the Trias Politica.

Geerligs (1999, p. 281) proposes to give a real tripartite representation to the information structure, comparable to the Dutch Social Economic Council (SER), the keeper of the Dutch ‘poldermodel’ negotiating social economic issues. A representation with ‘crown nominated experts’ could be a first step to increase the independence of the structure<sup>11</sup>.

### ***Qualifications as a Frame for Description of Content***

The confusion about the content of qualification seems to focus on methods for the collection of information, shaping of descriptions and particular aspects of

competence rather than holistic ability and required potential. It is likely that the taxonomies in use are inadequate for handling competence and cause ambiguity.

The common taxonomies (Bloom, 1956; Simpson, 1967; Guilford, 1967; De Block, 1973; Gagné and Briggs, 1974) conceptually separate cognition, affection and psycho motor. In competence based targets, these three are connected and a division would not support the description of transfer potential.

The analysis of knowledge and skills by Romiszowsky (1981; pp. 241 – 260) which is commonly used in the Netherlands applies to competence, but it analyses the pedagogy sequence of learning a competence rather than the content of a competence (comparable to the analysis of learning styles by Kolb, 1976).

The taxonomy of Olbrich and Pfeiffer (1980) is a possible alternative, because it scores performance (indicator of occupational skill) and cognition (indicator of capacities). In both domains are aspects of social skills (Geerligs, 1999, p. 339; Geerligs & Nijhof, not published).

### ***Qualifications as a Frame for Description of Organisational Degrees of Freedom***

A ground for ambiguity is the expectations one has about the possibilities of schools to develop themselves in fields that are of no direct short term interest for the institution, e.g. diversity of target groups, unqualified school leaving and loss of time when students switch. And when one assumes that external incentives are desirable a second ambiguity turns up. In order to prevent self-referential change, one can take the stand that the process incentives should not be linked with description of educational content. Is it impossible to combine aim and means, and treat them in their own kind? Anyway, the linkage was made in Dutch agricultural education and it has increased the efficiency significantly. The question in this context is how can flexibility be linked with description of qualifications?

Flexibility and qualification can be linked in several ways. First the linkage of content and target group characteristics<sup>12</sup>. A differentiation of time assignment to credits -the time a student gets to attain a credit- dependent from the learning ability and the size of the school based program increase efficiency. Commonality of units between courses, levels and pathways is a means to make streaming and school leaving more efficient.

A second way is the decontextualisation of targets. This makes diploma's and certificates applicable in many contexts (and allows the school to make larger groups of students) and it prepares students for a wide range of functions (external flexibility). This was done in the concept of the QS 1994. It makes the QS transparent (the same content gets the same label), but it makes the QS difficult to recognise. Transparency and recognisability are contradictions.

A third way to increase the flexibility of qualification is to enhance the value of certificates (as building stones of diploma's). Certificates qualify possibly good for the complex segment of the employment market (Høvels, 1990 & 1998) where diploma's qualify poor for the traditional (and decreasing) occupational segment of the employment market. This view has not been the Dutch policy. Nevertheless students seem to utilise the possibility in the QS 1994. Here we see an ambiguity: the government policy is to enhance tailor made arrangements, it is not communicated how this can be materialised, students find a suitable way out and the government discourages utilisation by (light means of) diploma funding. This latter measure is to enhance qualified school leaving. It means that leaving school with a set of certificates is not regarded as qualified school leaving, which can be seen as a contradiction.

### ***Qualifications as a Frame for Agog Degrees of Freedom***

The policy of the minister of agriculture from 1988 onwards has been to develop broad competence based objectives; the examples were the program for short SSAVE and a study about learning of entrepreneurship in agricultural education (Van de Lagemaat, 1986). The QS 1994 had attainment targets that met the requirement (although the communication on the issue was difficult with teachers in schools and with representatives from business and industry).

The reform of the QS in other sectors stimulated by the minister of education is the occasion for the new workers and new representatives in LOBAS to focus the remodelled QS 2000 for agriculture on skills rather than broad abilities.

Assessors were confused about the meaning of attainment targets in the QS '94. We conclude that attainment targets do not steer precisely and act as points of consideration for (preferably groups of) teachers drawing up a curriculum.

Finally, the reasoning in this discussion on its turn is based on a chosen points of departure and these will be subject of contradiction and ambiguity on their own.

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## Footnotes

1 Responsiveness is the ability of VET to respond quickly to changes in the demand for its services.

2 Transferability is the ability of qualified school leavers to utilise prior learning in a new context.

3 The Minister of Education is a short notation for the Minister of Education and Sciences (O&W), and from 1994 onward the Minister of Education, Culture and Sciences (OCW).

4 The Minister of Agriculture is a short notation for the Minister of Agriculture and Fisheries (Lavi); and from November 1988 onward to the Minister of Agriculture, Nature Management and Fisheries (LNV).

5 In this paper, agriculture implies all land-based industries, including handling of food and flowers, production and amenity horticulture, arboriculture, agricultural engineering, fish farming, forestry, and horsemanship.

6 Several committees advised on improvement of the public function of Dutch VET: the Wagner Committee (1984), the Rauwenhoff Committee (1990), and the Van Veen Committee (1993).

7 The present information structure of Dutch agricultural education implies 'old actors' (e.g. the Inspectorate and the National Council for Agricultural Research) and 'new actors' (e.g. the research on employment market development and the National Body for Agricultural Education - LOBAS).

8 A qualification structure is a coherent architecture of structure, taxonomy and educational content which provides information about required competencies for a responsive educational system.

9 A competence is what somebody is able to do and a qualification is a formal description of what somebody is required to do. Someone is qualified when competence and qualification match.

10 A Trias Cognita is possibly necessary to guard the human capital at a national level in a knowledge society. In volume of national expenditure the Trias Cognita is larger than the Trias Politica. Financial data may indicate the relative interest of the Trias Cognita and Trias Politica. The Dutch budget for education is about 20 billion ecu, of which 5 billion for VET, the private sector may spend another 5 billion ecu in training and development. The Dutch budgets for Home Affairs (3.8 billion ecu) and Justice (3.7 billion ecu) are smaller.

11 A differentiated assignment of study loads to credits (representing similar volumes of ability) dependent from abilities of students (e.g. based on entry qualifications) makes the educational content independent of the pathway!