



AUTHENTIC-COMPLEX LEARNING AT STOAS UNIVERSITY OF APPLIED SCIENCES AND GREEN TEACHER EDUCATION

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Abstract

Pupils of lower secondary, secondary and (students-teachers-to-be) higher vocational education need authentic and challenging working places during their learning period. That is necessary to become professionals who are "future-proof". The challenge is: can existing teachers provide in this demand?

Introduction

Stoas University distinguishes different professional profiles in the Teacher's Education and Knowledge Management Green Sector, two of them are relevant in this case.

- Teacher Lower Secondary Vocational Education (LSVE, pupils from 12-16 years old)
- Teacher Secondary Vocational Education (SVE, pupils from 16-22 years old)

Each profile is described in a number of professional situations (each 14 ECTS). We distinguish twenty professional situations and three basic units. To achieve the needed qualification, 16 professional situations are required, 12 of them are obliged.

Fifty percent of our curriculum exists of practical learning in the working field. The first year students start with two "simple" learning periods, 16 weeks each in a school. In that case a learning situation is mostly related to one of the professional situations (for instance being an instructor).

Further on in the study we want our students to be confronted with more complex practical learning situations, that can be related to three or more professional situations in a period of 16 or 32 weeks. We stimulate the students to work in groups with other students, we require them to cooperate with different partners in the region (schools, entrepreneurs, researchers, administration). These situations are realistic and related to innovative green situations.

This way of learning is directly related to the competence-based learning which, since 2000, is the fundament of the dutch vocational education system.

Competence based learning instead of subject based learning

Up till about the year 2000 the subject system was dominant in the dutch vocational education system. From lower till higher vocational education pupils/students followed theoretical and practical subjects and they did exams for each separate subject. More and more pupils were not capable to function in this system and they became drop-outs in this school system. At the same time the labour market was less content with the quality of the people who were delivered. The overall critic was that the theoretical subjects were too dominant while the pupils were more practical oriented and the labour market needed more practical and motivated workers.

The introduction of competence based learning should change this. Not only theory but far more attention for skills and for developing own views. The government decided to introduce the competence based learning first in 2000 in the secondary vocational education. Around 2005 this system was introduced in the Stoas University and in other higher vocational practical universities. Some people said that this introduction was a formal affirmation of what they already did in practice. The tempo of introduction diverge; it depends on the enthusiasm and expertise of schools and teachers. At this moment the lower secondary vocational schools work hard on the introduction of competence based learning. At the same time there is a growing criticism in society (not especially in the vocational education) on competence based learning: afraid that pupils and students do not learn enough theory.

Consequences for teachers in vocational education: our (ex) students (new teachers) learn that theoretical and practical subjects should be integrated, while many (existing, experienced) teachers are far more oriented on their own subject. Pupils in the lower secondary and secondary schools have to learn more and more on the working places, while there practical enterprise mentors are not (yet) used to it. Subjects (for instance horticulture, animal breeding or mathematics) have a long history and people have a certain representation of the content and purposes. This is far more complex for new created professional situations and there are always problems of overlap. Assessing was always done by the teachers at school; in the new situation it should be done by teachers and practical /enterprise mentors together. Both should be competed to teach, coach and assess.

Agrarian / green sector including education during the last 50 years

After the second world war a strong agrarian system – included agrarian vocational education - developed in the Netherlands. The production grew enormously, while the going on reconstruction of the sector was a cold one without big consequences. There grew a good cooperation between the representative organisations of the agrarians, agrarian researchers (Wageningen University), agrarian extension workers, and the agrarian educational organisations. In the period 1945 -1974 the system was stable. Everybody in the agrarian sector and in

society was content and happy (including the teachers working in the agrarian vocational education system).

This system eroded. The interests between different parts of the agrarian sector diverged and the critics on the sector grew in society. New parts of the green sector were developed: sustaining nature, keeping of recreation animals, agrarian recreation etc. The representative organisations lost their influence. At the same time the number of agrarian (lower) secondary schools diminished: the number of traditional pupils fell back. Only a 3 % of the total population now works directly in the agrarian sector. A change of focus in the agrarian vocational education is necessary to survive. Vocational green education has to provide new parts of the sector with "future-proof" professionals.

Consequences for teachers in vocational education: traditionally teachers of practical subjects had good relations with agrarian entrepreneurs and with representative organisations in their region. They often had college relations and they used these contacts for the organisation of their lessons and for the organisation of working places. Teachers now have less contacts with new green relevant organisations and entrepreneurs in their region. Problematic can be a sustaining potential conflict between (diminishing) traditional and (growing) new organisations in the agrarian/green sector who are both active in a region.

Authentic complex learning at Stoas University.

Normally our students search for and find their own working places. In general, during the first two years this is not problematic. They know where to look for (a working place at a school) and the mentors at the working places know what the students have to learn. During the third and fourth year the students diverge in their professional and personal development. Learning goals in a working place need to be increasingly individual established. Students do not always choose working places that are suitable for them in that period of the study and challenging enough. It is necessary that we, as teachers of the responsible university search for a better connection between the needs of the student and the character of the working place.

Because of the changes in the green/agrarian sector this is far more complicated to organise: we miss the right network and contacts

At the moment new regional initiatives are found between different (traditional and new) partners in the urban regions (agrarian entrepreneurs, agrarian touristic entrepreneurs, agrarian health organisations, nature protectors, educational organisations and administration). Educational institutions, including Stoas, can get temporary money to take the initiative for new kinds of cooperation. We stand at the beginning of that course.

An example: Eemland is a relatively small old agrarian area in the middle of the Netherlands next to a (growing) town. Locked by two high ways. Historically and in respect of nature it was/is an interesting area. Most of the inhabitants were dairy farmers. The number of farmers diminished, the remaining farms got bigger.

Some farmers develop different activities: tourism, horeca etc. Two of our students, interested in natural education, started some research to find out or secondary schools (and other partners) were interested in doing practical (natural) field work for their pupils in this agrarian / natural area. Teachers of 4 secondary schools and different kinds of nature organisations and entrepreneurs were enthusiastic. Stoas together with a lower secondary and secondary vocational green/agrarian school formulated a project and got some government money to organise. Stoas students work with teachers, pupils from lower secondary and secondary green schools, with some entrepreneurs in the region and with nature organisations on a project to plan, organise and carry out this fieldwork for a longer period. The task is formulated by the (teachers of) the four secondary schools.

Success cannot be guaranteed; we see the following challenges for the coming years:

- At Stoas we stimulate students (teachers-to-be) to work in groups in a working place; at the same time we as teachers are traditionally used to work more individual. Are we capable to work as a model?
- The agrarian/green sector is strongly divided. We as education workers cannot change that. The question is: is it possible to work for us and our students to operate in this divided world?
- In new forms of cooperation teamwork and coaching is just as relevant as expertise. Are we, as teachers capable to unfreeze as experts and find our way as teamplayers and coaches?
- More and more of our students have (part time) jobs to finance their study and work their way around. They calculate their study; can we keep them studying and learning at school, home and on their working places?