



# ECS Bulletin Social Sciences Group

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Geachte lezer,

Met plezier open ik de negende Jaargang van het ECS Bulletin met dit woord vooraf. Er zijn het afgelopen half jaar weer diverse ontwikkelingen geweest die het vermelden waard zijn. Zo is er landelijk discussie geweest over de Toekomst van de Onderwijswetenschappen en is er gepleit voor de oprichting van een soort Regieorgaan, zoals dat bestaat in het gezondheidsonderzoek, dat programmatische samenhang en wellicht middelenverdeling in het onderwijsonderzoek zou kunnen aanbrengen. Er is inmiddels een kwartiermaker voor dit thema werkzaam. Het Wageningse onderwijsonderzoek staat hier buiten aangezien het via het Ministerie van EL&I wordt gefinancierd en een geheel eigen doelgroep kent. De kennisketen binnen de groene onderwijskolom die samenkomt in de Groene Kennis Coöperatie is uniek te noemen in Nederland en kan als voorbeeld dienen voor onderwijsonderzoek in andere sectoren. In sommige sectoren is dat al het geval. Zo kent het medisch onderwijs de medische onderwijskunde met haar eigen medisch onderwijsonderzoek. Mijn ervaring is dat de verbinding van een bepaalde sector en de daarop gerichte onderwijswetenschap bijzonder effectief kan zijn. Binnen de groene sector, die ik beter kan overzien dan de medische sector, vind ik dat in ieder geval van toepassing. Er is constructieve samenwerking tussen de verschillende partijen die voor de groene sector werkzaam zijn. Maar laat ik verder ingaan op de zaken die de leerstoelgroep direct raken.

## **De minor Educatie - de tweedegraads lerarenopleiding**

Zoals ik in het vorig nummer van het ECS Bulletin heb aangegeven, heeft ECS via de Raad van Bestuur een aanvraag gedaan voor de uitbreiding van de Verwantschapstabel voor de minor Educatie. Deze tabel wordt vastgesteld door de Minister van OC&W en omvat de lijst bachelor-opleidingen en daaraan verwante schoolvakken in de onderbouw havo-vwo en de theoretische leerweg van het vmbo (de mavo). Studenten van de bachelor-opleidingen die in deze lijst staan kunnen de minor Educatie volgen en bij succesvol afronden van de bachelor en de minor worden zij tweedegraads bevoegd voor het aan de bachelor verwante schoolvak. In juni kwam het bericht dat nagenoeg alle aangevraagde verwantschappen waren goedgekeurd. Het overzicht van bachelor-opleidingen en verwante schoolvakken voor Wageningen is nu als volgt: voor het vak aardrijkskunde kunnen studenten van de bachelor-

opleidingen Bodem, Water, Atmosfeer, Internationaal Land- en Waterbeheer en Landschapsarchitectuur en -Planning een tweedegraads onderwijsbevoegdheid halen. Voor het vak biologie zijn de bachelor-opleidingen Biologie en specifiek ingevulde vrije programma's voor Dierwetenschappen en Plantenwetenschappen verwant. Voor het vak economie de bachelor Economie en Beleid. Voor het vak natuurkunde de bachelor Bodem, Water, Atmosfeer. Voor het vak scheikunde de bachelor Moleculaire Levenswetenschappen. Dat zijn in totaal negen verwantschappen. Wageningen Universiteit is in het eerste jaar begonnen met twee verwantschappen, dus dit is een forse uitbreiding.

In vorige nummers van het ECS Bulletin heeft het programma van de minor Educatie wel gestaan, maar om het geheugen op te frissen: het gaat om vijf vakken van zes credits, dus is het gehele minorprogramma dertig credits, ofwel een half jaar nominaal studeren. Studenten die op deze wijze de tweedegraads bevoegdheid hebben behaald kunnen bij bijna alle universiteiten een korting van dertig credits op het programma van de eerstegraads lerarenopleiding tegemoet zien. Dat is een aanzienlijke korting, want het programma van de eerstegraads lerarenopleiding duurt nominaal een heel jaar, en omvat dus zestig credits.

Voor studenten die zich willen oriënteren op het onderwijs, en die dus niet direct opteren voor een gehele minor met een daaraan verbonden tweedegraads bevoegdheid, blijft het Oriëntatieprogramma bestaan. Dat programma omvat twee vakken van zes credits en kan altijd binnen de vrije keuzeruimte worden gevolgd, zowel in het bachelor- als in het masterprogramma. In de praktijk blijkt er nog steeds belangstelling te bestaan voor deze oriëntatiemogelijkheid.

## **Minor Environmental Education**

Naast de minor Educatie biedt ECS inmiddels ook een minor Environmental Education aan. Deze minor is gericht op de natuur- en milieu-educatie en bevat alle leerprocessen in formeel, informeel en non-formeel onderwijs die burgers ongeacht hun leeftijd in staat stellen omgevingsvraagstukken te begrijpen, daaraan actief te werken, en om de implicaties van niet-duurzaam omgaan met natuurlijke hulpbronnen en het verlies aan natuur te doordenken. Wageningen Universiteit biedt al jaren lang vakken aan op dit terrein en trekt met deze minor ook studenten van andere universiteiten waar in veel gevallen



het vakgebied natuur- en milieu-educatie helaas is afgebouwd. Prof. dr. ir. Arjen Wals, de Wageningse pionier op het gebied van de natuur- en milieu-educatie, is coördinator van deze minor.

#### Wageningen School of Social Sciences en BCC

In mei is de International Advisory Board (IAB) van de Wageningen School of Social Sciences (WASS) op bezoek geweest (de nieuwe Graduate School die is ontstaan uit een fusie van de Mansholt Graduate School en CERES). Nieuw voor de IAB, en voor ECS, was het overleg van de IAB met delegaties van de secties. Eerder heb ik aangegeven dat er sprake was van sectievorming, en deze heeft in het voorjaar zijn beslag gekregen. ECS maakt nu deel uit van de sectie Business, Consumer and Competence Studies (BCC), met de collega's Onno Omta (eerste voorzitter van deze sectie), Hans van Trijp en Bernd van der Meulen. Eerder dit jaar had de sectie een kennismakingsbijeenkomst georganiseerd met de staf waarin diverse mogelijkheden voor samenwerking zijn genoemd die momenteel verder worden uitgewerkt. Als sectiehoogleraren hebben we ons beraden op de kern wat ons als leerstoelgroepen verbindt, en dat is tot uitdrukking gebracht in een mooi schema, met cooperative learning als kernproces binnen multi-actor business processen, een voor ECS prachtig onderzoeksthema. De presentatie van de sectie voor de IAB is in heel goede aarde gevallen en dat doet ons uiteraard deugd. Volgend jaar zal al weer in het teken staan van de mid-term review. Die zien we met vertrouwen tegemoet, want ten aanzien van de vier beoordelingscriteria die in deze reviews worden gehanteerd hebben we goede vooruitgang geboekt. Op het punt van wetenschappelijke kwaliteit hebben we in kwantitatieve zin een enorme sprong gemaakt: van nul ISI-publicaties in de eerste drie jaren van de vorige beoordelingsperiode naar twintig van deze publicaties in de eerste drie jaren van de huidige beoordelingsperiode. We kijken inmiddels ook naar de H-factor van de trekkers van onze onderzoeksprogramma's, en weten inmiddels dat daar verdere groei mogelijk is. Ten aanzien van de productiviteit kunnen we melden dat in de vorige beoordelingsperiode 4.5 dissertaties zijn verdedigd (één promotie is gerealiseerd in samenwerking met een andere leerstoelgroep, vandaar 4.5); in de huidige beoordelingsperiode zullen er naar alle waarschijnlijkheid veertien dissertaties worden verdedigd. Wat betreft relevantie, daarbij kunnen we wijzen op de nieuwe onderzoeksprogramma's die we hebben verworven op het gebied van de professionele ontwikkeling van docenten en de stimulering van promovendi om kennis te maken met het onderwijs, samen goed voor een bedrag van 1.5 miljoen Euro. Tenslotte het punt van vitaliteit en haalbaarheid: de groep Researchmethodologie heeft zich aangesloten bij ECS en maakt daar nu integraal deel van uit, en zoals gezegd, heeft ECS een geaccrediteerd aantal tweedegraads lerarenopleidingen.

#### Personeelsmutaties

Er zijn deze keer weer diverse personeelsmutaties te melden. Allereerst kan ik meedelen dat Dr. Piety Runhaar in dienst is getreden als Tenure Track universitair docent. Het Tenure Track houdt in dat kandidaten die instromen vanaf de functie universitair docent zich in twaalf jaar kunnen kwalificeren voor een benoeming als persoonlijk hoogleraar. Er wordt momenteel veel gebruik gemaakt van deze mogelijkheid binnen Wageningen Universiteit. Een brede benoemingsadviescommissie van het

Departement Maatschappijwetenschappen beoordeelt de kandidaten en adviseert de Directie van de Social Sciences Group die een beslissing neemt over de voordracht door de leerstoelgroep. Piety Runhaar is organisatiepsycholoog en was werkzaam bij de Universiteit Twente en heeft zich gespecialiseerd in de professionele ontwikkeling van docenten in het beroeps-onderrwijs. Piety zal binnen ECS, zoals duidelijk zal zijn, gaan werken aan de lerarenopleiding en het onderzoek naar professionele ontwikkeling van docenten. Wellicht zal ze ook uitstapjes maken naar onderzoek binnen andere professies die vanuit Wageningen University van belang zijn, zoals bijvoorbeeld in de gezondheidszorg, de voedingsmiddelensector of de overheid.

Daarnaast kan ik meedelen dat Eghe Osagie bij ECS is gestart als promovenda. Eghe is afgestudeerd in een Research Master aan de Radboud Universiteit Nijmegen.

Worku Birru Tuffa start als promovendus bij ECS. Hij is afkomstig uit Ethiopië en werkte voorheen bij de Addis Ababa University en een duurzaamheidsorganisatie.

Eliane Metni is gestart met een promotie-onderzoek bij ECS. Eliane werkt en woont in Libanon en krijg begeleiding op afstand.

Jurian Meijering, die werkzaam is binnen Researchmethodologie is inmiddels gestart als promovendus op een project dat wordt gefinancierd door WASS.

Olivier Bello is tot februari 2012 aan de leerstoelgroep verbonden als onderzoeker ten behoeve van een HPBO project.

Nicolette Tavecchio tenslotte is een half jaar aan de leerstoelgroep verbonden als stagiaire.

Er is nog plaats voor enkele AIO's bij ECS en geïnteresseerde kandidaten worden uitgenodigd om hun belangstelling daarvoor kenbaar te maken.

Ik wens u veel leesplezier met dit nummer.

Martin Mulder ◀

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## Onderzoek

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### Multicultural Student Group Work in Higher Education: An Explorative Case Study on Challenges as Perceived by Students

Vitaliy Popov

One of the pillars of today's higher education system is group work, which may pose challenges for both national and international students. Knowledge of what challenges are inherent to learning groups in academia and how culturally diverse students perceive those challenges was still lacking. Therefore, our research study aimed to fill this gap by addressing the research questions. For this purpose, a survey was completed by 141 students (of which 66 Dutch and 75 international students) of the 9-EC (European Credits) Academic Consultancy Training (ACT) course of Wageningen University. The total number of countries represented in our study was forty.



The ACT course was chosen as a case study for this research because this course requires students to work in multicultural groups to complete a project. This course trains students at Master-level academic skills in a simulated professional setting of a small consultancy group. The small consultancy groups of 4–7 students are assigned a design type project for a client. This may be design of new technologies, policy papers, business plans, communication plans or draft research plans for integrated research programs.

To examine how the culturally diverse students differed with their perceptions of the challenges, a one-way analysis of variance (ANOVA) was conducted based on Hofstede's individualist–collectivist cultural dimension. Free-riding, insufficient English skills and poor communication were perceived by all participants of this explorative study to be the most important challenges in multicultural study groups (MCSG). The results suggest that a student's cultural background (the individualist–collectivist dimension) affects his/her perception of the importance of challenges in MCSG. The data conveyed that students from individualistic cultures found it more problematic to deal with challenges in multicultural group work (poor communication, free-riding, insufficient English skills, group conflicts, a low level of motivation) than students from collectivistic cultures.

One of the main conclusions of this study is that perceptions of challenges in multicultural student group work differ across cultures. It therefore contributes to a better understanding of the importance of cultural differences in student group work. Culturally diverse group members may have completely different expectations when learning in groups and anticipating the behavioral motives of others, which may result in misunderstandings and conflicts. If educators and instructional designers become more aware of the dynamics in multicultural group work, they can develop the ability to be more successful and productive as a result of the merger of cultures. ◀

#### Competence development for realizing and maintaining corporate social responsibility within organizations.

Eghe R. Osagie

The growing realization of the importance of a healthy, skilled, and adaptable workforce for (future) economic growth and corporate's survival, and international concerns about depletion of natural capital have led to a worldwide focus on sustainable living. Organizations, as one of the greatest users of natural and human resources, are being encouraged or sometimes even forced, to take up their responsibility and invest in sustainable development.

Corporate Social Responsibility (CSR) is one way through which organizations aim to realize sustainability. CSR is sometimes referred to as 'organizational commitment to philanthropy' or 'being a good citizen' (e.g., Joyner & Payne, 2002; Whitehouse et al., 2006), whereas others define CSR in activity-related behaviour such as, enhancing local community wellbeing and working transparently and honestly (Crowther & Rayman-Bacchus, 2004 as in Fenwick & Bierema, 2008; Hopkins, 2002). The ambiguity in defining CSR also affects the

effectuation of CSR in practice. Results from a first exploratory study, in which a series of interviews with HR-representatives from several organizations were conducted, indicated that most organizations did not fully understand the scope of CSR. Specifically the responsibility towards human and natural resources (i.e., People and Planet) was often underestimated; topics such as job conditions and protection of plants and water against pollution were not perceived as relevant for CSR, or organizations did not include them in their CSR-activities. Indeed, the results confirmed that most organizations limit their CSR-activities to government regulations and legal demands. Furthermore, perhaps not surprisingly, organizations did seem to grasp the full scope of their responsibility regarding the Profit-side of CSR, and could characterize which subjects are relevant in this respect.

As with every organizational performance, CSR-performance is highly dependent on the competencies of employees (i.e., the integrated performance-oriented ability of an individual to accomplish specific achievements; Mulder, 2001; Nijhof et al., 2005). Unfortunately, there are not many studies on competence development regarding CSR within organizations. A quick literature search, using 'sustainable competence' and 'sustainable development competence' as search terms, revealed that only a few studies have been conducted on this topic. These studies often concern the field of higher education (e.g., Wiek, Withycombe, & Redman, 2011) or address CSR from a managerial perspective which results in a list of competencies that are needed for implementing CSR-activities within organizations (e.g., Nijhof et al., 2005). One study that did address CSR-related competencies for employees was that of Willard et al. (2010). These researchers identified *hard* (i.e., strategic planning, systems thinking and project management) and *soft* competencies (i.e., communication with stakeholders, problem solving and inspiring and motivating others) as being most critical to the successful performance of professionals working in the field of sustainability.

However, a more thorough and systematic search is needed to get a comprehensive view of the competencies that are relevant for sustainable development within organizations. Hence, this will be the focus of the first study in a new PhD project, which I will conduct under supervision of Renate Wesselink and Martin Mulder. The first study will be a systematic literature study and will address the question of which CSR-related competencies employees need to develop to enhance organizational CSR-performance. Subsequently, in our second study, we will construct and validate a measurement tool to assess these competencies; as to our knowledge no such measurement is available yet.

Next, we will focus on organizational learning infrastructure. Organizations must enable workers to develop and strengthen their competencies in order to realize and maintain CSR. Employees acquire competencies through experience and through learning (including formal and informal learning), specifically through learning at the workplace (Cheetham & Chivers, 2001; Eraut, Alderton, Cole, & Senker, 1998). Therefore, 'learning' can be seen as the process through which individuals acquire and develop competencies (Doornbos, 2008), which signifies the importance of a good organizational learning infrastructure.



A Learning Infrastructure (LI) is not an observable tool or subsystem, but rather refers to the total configuration of learning and regulations activities, including the material and social support of these activities within organizations (Tjepkema, 2002). It can be conducive, which means that organizations promote and create learning opportunities in that employees can develop and maintain their competencies. However, it can also be restrictive, which means that organizations hardly create any learning opportunities for their employees (Fuller & Unwin, 2003). In the same exploratory research as mentioned before, results also showed that most organizations have a conducive infrastructure. However, having a conducive LI does not ensure workers to be aware of provided learning opportunities. Moreover, what is a 'good learning infrastructure', and could this not be different for distinctive (groups of) employees? So, perhaps it is more important to study workers' views on organizational LI, as it is their perspective that enables them to be aware and make use of these learning opportunities (i.e., personal agency, Billett, 2002). Therefore, in our third study we will assess whether differences in perception on organizational LI can be explained by individual factors such as worker's learning style (converger vs. diverger vs. assimilator vs. accommodator) and attribution style, and higher-level factors such as leadership style (autocratic vs. participative vs. laissez-faire vs. narcissistic) and organizational culture.

Finally, in our fourth and last study we aim to get more knowledge about the complex relation between CSR-related competencies, Organizational learning infrastructure, and Organizational CSR-performance. Do employees in organizations with a conducive LI have better CSR-related competencies than those with restrictive LI? What kind of LI (conductive vs. restrictive) is associated with better CSR-performance? Which variables of learning infrastructures (i.e., formal learning, informal learning, social support at work, and organizational structure) contribute most to the development and maintenance of CSR-related competencies? These are just a random selection of questions that still need scientific attention and that we intend to address in our final study.

In sum, with this PhD-project we aim to enhance scientific knowledge about (key) competencies that are important for organizational CSR-performance. Moreover, we aim at constructing a psychometrically strong measurement tool for CSR-related competencies, which organizations could use when assessing or selecting their work force on CSR-competencies.

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#### Knowledge Construction in a Digitally Supported Learning Environment

Omid Noroozi

This contribution is about the analysis of learning processes and outcomes in a Digitally Supported Learning Environment. The separate effects of Interactive Digital Learning Materials (IDLMS) and Computer-Supported Collaborative Learning (CSCL) on student learning are well researched, yet no empirical study has addressed the consecutive effects of these two learning arrangements on knowledge construction. This exploratory study thus used a sequential set-up to investigate the consecutive effects of timing of supportive information presentation (information before vs. information during the learning task clusters) in IDLM and type of collaboration (personal discussion vs. online discussion) in CSCL on student knowledge construction. This study took place at Wageningen University in a 168-hour course, titled 'Exposure assessment in nutrition and health research'. The students (N=87) were first



randomly assigned to two information presentation conditions i.e. supportive information presented before vs. during learning task clusters to work individually on a case-based assignment in IDLM. The students within the two separate information presentation conditions were then randomly assigned to pairs to discuss the outcomes of their assignments under either the personal discussion or online discussion condition in CSCL.

Specific topics which were taken up in the exploratory study were: 1. the effect of timing of supportive information presentation [information presentation before the learning task; information presentation during the learning task] on knowledge construction, 2. the effect of type of student collaboration [Online Discussion; Personal Discussion with a shared computer] on knowledge construction, 3. the possible carry-over effect of the timing of information presentation on type of collaboration in terms of quality of knowledge construction, 4. the differences in learning processes between successful and less successful pairs of students in terms of learning outcomes, and 5. the relationship between course exams and knowledge construction. Learning outcomes were analyzed by using a slightly revised version of an already available coding scheme developed by Veldhuis-Diermanse (2002), which had already been used in several other empirical studies. Furthermore, to analyze the students' learning processes, CSCL literature was reviewed and important aspects of learning processes (e.g. relevance, correctness, width and depth of discussion and justification and reasoning) were taken into account in developing a new coding scheme.

Regarding the first research question, students who received supportive information during individual learning task clusters tended to show better results on knowledge construction than those who received supportive information only before each cluster. The reason is that when the supportive information is presented during the learning task, cognitive load is reduced, so that knowledge acquisition and construction are less strained. Regarding the second research question, although the quality of knowledge construction of all students improved significantly from pre-test to post-test, the online and personal discussion conditions had no different effect. Both online and personal discussions supported with a CSCL-platform can improve quality of knowledge construction since CSCL with graphical knowledge maps provide students with a platform to discuss their ideas and conceptions from different perspectives in order to re-construct and co-construct (new) knowledge while solving authentic and complex problems.

Regarding the third research question, we found a carry-over effect of the timing of information presentation on type of collaboration in terms of quality of knowledge construction. When supportive information had been presented before each learning task cluster, students under the online discussion condition showed better results on knowledge construction than students under the personal discussion condition. When supportive information had been presented during the learning task clusters, however, the online and personal discussion conditions had no differential effect on knowledge construction. In other words, online discussion in CSCL appeared to compensate for suboptimal timing of presentation of supportive information before the learning task

clusters in IDLM. Based on this exploratory study, the conclusion can be drawn that the timing of supportive information presentation in a digitally supported learning environment and, under certain conditions, the type of collaboration tend to influence the quality of knowledge construction in a real academic course. Timing of supportive information presentation in IDLM has implications for the type of collaboration that should be used in a CSCL platform with graphical knowledge maps. When IDLM is embedded in an authentic educational setting as in our study, it seems to be preferable to present supportive information during the learning task. In this case, students can achieve the expected level of knowledge construction without further implementation of the CSCL platform. When designers of comparable courses have no other choice but to present the supportive information before the learning task starts, however, students can compensate for this through collaboration with peers on a CSCL discussion platform with graphical knowledge maps or comparable systems. In this case, online (written) discussions, in the form of chatting for example, are more effective than personal (spoken) discussions in front of a shared desktop computer.

Regarding the fourth research question, in terms of learning processes of successful and less successful students in the CSCL environment, it appeared that they differed in terms of relevance, width and depth of discussion and justification and reasoning. Successful pairs constructed talk that was more relevant, wider and deeper, more convincing and more logical than less successful pairs (i.e. systematic differences between successful and less successful students in the combination of learning process variables).

Regarding the fifth research question, we found that the scores on knowledge construction as obtained by the Veldhuis-Diermanse coding scheme were consistent with exam results as obtained by teachers' regular evaluations. There was thus a relationship between students' course exam results and knowledge construction. If this had not been the case, and the psychometric properties of the exams passed the minimum quality thresholds, further calibration of the coding scheme for knowledge construction would have been necessary.

For further detail about this research see the following publications.

Noroozi, O., Busstra, M. C., Mulder, M., Biemans, H.J.A., Geelen, M.M.E.E., van't Veer, P. & Chizari, M. (in press). Online discussion compensates for suboptimal timing of supportive information presentation in a digitally supported learning environment. *Educational Technology Research & Development*. doi: 10.1007/s11423-011-9217-2

Noroozi, O., Biemans, H.J.A., Busstra, M.C., Mulder, M., & Chizari, M. (2011). Differences in learning processes between successful and less successful students in computer-supported collaborative learning in the field of human nutrition and health. *Computers in Human Behavior*, 27(1), 309-318. doi:10.1016/j.chb.2010.08.009 ◀



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## Projecten

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### Learning from each other: Achievements, challenges and ways forward – Second evaluation report of the United Nations Economic Commission for Europe Strategy for Education for Sustainable Development

Arjen Wals and Natalia Ernstman

Recognizing the global importance of Education for Sustainable Development (ESD), Environment and Education Ministers of the UNECE member States adopted the UNECE Strategy for ESD in 2005 (See UNECE Strategy for ESD; UNECE, 2005; CEP/AC.13/2005/3/Rev.1) and Guidance for Reporting on the Implementation of the UNECE Strategy for Education for Sustainable Development (UNECE, 2009; ECE/CEP/AC.13/2009/10).

A first evaluation report was prepared in 2009. ECS was commissioned by UNECE to conduct the second evaluation having also carried out the first evaluation successfully. In the second evaluation report presented in Geneva in May 2011 the progress made is described by taking stock of existing ESD activities, comparing them with achievements made during the first implementation phase. The report also looks ahead by generating recommendations for the closing phase of this strategy based on the analysis of the data provided by the member states.

#### The UNECE ESD Strategy

The aim of the Strategy is to encourage UNECE member States to develop and incorporate ESD into their formal education systems, in all relevant subjects, and in non-formal and informal education. It is believed that successful implementation of the strategy will equip people with knowledge of and skills in sustainable development, making them more competent and confident while at the same time increasing their opportunities for acting for a healthy and productive lifestyle in harmony with nature and with concern for social values, gender equity and cultural diversity.

The following six objectives were set to contribute to the achievement of this aim:

- (a) Ensure that policy, regulatory and operational frameworks support ESD;
- (b) Promote Sustainable Development through formal, non-formal and informal learning;
- (c) Develop the competence within the education sector to engage in ESD;
- (d) Ensure that adequate tools and materials for ESD are accessible;
- (e) Promote research on and development of ESD; and
- (f) Strengthen cooperation on ESD at all levels within the UNECE region.

To assess the progress in the implementation of the Strategy an evaluation tool was developed. This reporting mechanism follows the objectives as listed above, with corresponding indicators and sub-indicators structured in a grid to allow nations to answer the posed questions in a yes/no section and tick boxes, as well as provide explanations and examples in a descriptive part. The completed evaluation format is named a

*National Implementation Report (NIR).*

The indicators and the reporting mechanism are meant not to compare but rather to enable countries of the region to learn and develop in the area of ESD, so that the region becomes a 'learning region'. The data are to provide a mirror which can help countries and regions in moving forward.

#### The data

The evaluation is entirely based on the National Implementation Reports (NIR) submitted to the UNECE secretariat by UNECE member states. Of the total 56 UNECE countries, 55 support the Strategy.

#### Conclusions and recommendations

Thirty-six countries submitted a National Implementation Report. This figure was the same as in the previous evaluation phase completed two years ago. We can conclude that the same high percentage of countries as two years ago is actively engaged in the implementation of the UNECE strategy. Furthermore, the quality of the reports was notably higher: the NIRs are more complete and contain more descriptive data such as examples and explanations. This does seem to indicate that ESD has gained more prominence.

As there is a continued call for 'evidence' that ESD works in terms of changing learning behavior, lifestyles and the way institutions and (business) organization work, continued attention for the development of appropriate monitoring, evaluation and indicator schemes will be needed as will be the support of related ESD-research. When such schemes are in place and evidence becomes available that ESD indeed leads to more sustainable ways of living, working and doing business, then this is likely to propel ESD further.

Parallel and in sync with the implementation processes taking place in the context of the UNESCO coordinated UN Decade of ESD, countries endorsing the UNECE Strategy appear to be progressing in their efforts to implement ESD in formal, non-formal and informal learning contexts. The majority of countries has accomplished or is close to accomplishing objective A which focuses on the creation of policy, regulatory and operational frameworks that support ESD. Over the past years governments have evidently put effort in installing the necessary frameworks. The topic of ESD is said to receive increasing attention, but is often still not regarded as a top priority among administrators (at political, and formal/ informal/ non-formal education level). The turn in economic times in some, if not all, member states, has put some strain on the implementation process but even though the priorities may have shifted somewhat, ESD implementation has not come to a grinding halt but appears to move forward. Nonetheless there is a continuous need for further strengthening and securing political commitment on national and international level. To help governments adopt a long term perspective and to assure successful implementation of ESD beyond 2014, the UNECE might want to develop an ESD 2020 strategy that expands the horizons and shows an inspiring long-term commitment to ESD.

Nations are clearly shifting their attention from the political to the practical: i.e. they are putting the Strategy into action. That



is: ESD is increasingly addressed in formal, non-formal and informal learning by means of whole school approaches, workplace learning, sustainability-oriented community events, the formation of new networks and so.

However, many countries also contend that although increasing, activities are still sporadic and do not usually move beyond the grass-root level to affect and inspire others in other contexts. More synergy, networking and coordination is needed to achieve the up scaling of ESD from the margins to the mainstream. Such up scaling likely requires additional financial and human support. Despite the focus on the development of ESD competence, tools and materials in the education section, various countries indicate that they are facing difficulties in realizing this objective. There is a need for distinction between SD-competence (e.g. citizen's capacities to contribute to sustainable living both professionally and personally) and ESD-competence (e.g. an educator's capacity to help people develop SD-competence through a range of innovative teaching and learning practices). Better articulation of such competencies is likely to help in designing and supporting professional development strategies that could strengthen such competencies. The work of the UNECE expert group on ESD competence could prove to be quite crucial in this respect. ESD-related teacher training programs should take advantage of the new insights obtained in relation to ESD competence.

Serious attempts are being made to integrate ESD in formal education, resulting in a considerable coverage of ESD related key themes, learning outcomes, methods and strategies. However, many countries say to face difficulties in this respect; as well as with developing and disseminating ESD teaching methodologies and materials.

The adoption of a whole-institution approach advanced remarkably in the EU/West sub-region. Although there are different interpretations of such an approach most countries that provide description tend to emphasize a broad interpretation of SD (to include as a minimum the ecological, environmental, socio-economic), focus on both the culture of the institution in terms of addressing sustainability in the educational processes taking place in the institution, and, finally, in emphasizing the reduction of the ecological footprint of an institution and of the community of which the institution is part. Some of the member states call for mechanism that help in ensuring and coordinating successful dissemination of teaching methods, materials, campaigns and experiences in the field of SD. In the same vein the international exchange of teaching materials, ideas, experiences, quality assessment systems and indicators in the field of ESD should be encouraged.

Generally speaking ESD activities in informal and non-formal learning are expanding successfully. It should be noted in this respect that many of the reported initiatives are 'cross-boundary' in nature as they blend formal, informal and non-formal learning and tend to involve multiple actors, groups, organisations and networks. This cross-boundary nature poses new challenges for facilitators of ESD as they will have to play an important mediating, linking and catalysing role within such cross-boundary ESD learning configurations. Governments can

support ESD educators by stimulating the creation of 'learning environments' at the societal level: creating spaces where ESD practitioners meet, learn from each other, join forces and strengthen their individual activities. Along this, mechanisms need to be in place that ensure the effective involvement of stakeholders from all levels and fields of society in the decision-making process. At the same time the mapping and sharing of existing practices in informal and non-formal education needs to be continued and expanded.

In the light of the achieved progress that governments committed to during Phase II ('Start integrating SD into learning programmes and curricula, review progress made in the implementation of the national strategies and revise these strategies if necessary.') it can be concluded that the fulfilment of the Strategy is well on the way in respect of the first two points but that there is no evidence that strategies are being revised in light of on-going societal changes.

In order to further advance the execution of the Strategy, there is a need to *connect* the considerable amount of effort and number of initiatives that are taking effect on both political and grass-root level. Focusing too much on the first will limit the potential of the Strategy as it will lead to a gap between policy and practice. Leaving the emergence of ESD to societal actors at the grassroots level alone will not allow for the synergy, coordination and structural anchoring of ESD. The challenge for Phase III therefore lies in securing intersectoral (e.g. different Ministries working together) political frameworks, while at the same time not neglecting the currently 'booming' attention for the topic in society, which is taking form through the many small-scale and separated activities from teachers, schools, NGOs, youth, citizens, museums, newspapers, companies, parents, celebrities and researchers. In short, countries should seize the momentum to anchor ESD in their society.

The continued articulation of the meaning of ESD competence will be helpful in strengthening ESD professional development. Some elements of such competence have already been identified (e.g. forward thinking, systems thinking, interdisciplinary thinking, empathic thinking, the ability to switch perspective temporally, spatially and culturally, etc.) but will now need to be operationalized in ESD competence development programs in the years to come. ◀

#### Does the place or the client make the difference in authentic assessments in prevocational education?

Judith Gulikers

Authentic assessments are expected to have motivational and learning benefits when students *perceive* the assessments as authentic (Cummings & Maxwell, 1999). However, developing an effective authentic assessment that positively effects student learning is not that straightforward (e.g. Cummings & Maxwell, 1999).

Much work on authentic learning stresses that authentic learning requires learning in real world *contexts*, while other research emphasizes the *authentic task* that should require students to perform professional activities and thinking processes (Newmann & Wehlage, 1993). In a review on authentic assessment, Gulikers et al (2004) developed a five-dimensional theoretical framework describing five assessment



characteristics defining assessment authenticity: (1) the assessment task, (2) physical context, (3) social context, (4) form, and (5) criteria. The rationale behind this framework is that an assessment can be made more authentic by increasing the resemblance of one or more of these dimensions to students' future (professional) practice. This offers educators various opportunities for making their assessments more authentic.

This framework was initially validated for senior secondary vocational education (MBO) students with more or less professional practice experience, where the authentic task seemed important for both groups, while the authentic context (i.e., in the workplace) was less important for inexperienced students (Gulikers et al., 2008). This study examines the relative importance of task authenticity versus context authenticity for students in prevocational education (VMBO). In response to the transition towards competence-based education in Dutch agricultural prevocational education, schools collaboratively developed authentic performance assessments. The format of these assessments is the same for all students, but schools can decide to conduct the assessment in a school simulation or in a company (physical context variable), and decide whether the authentic assignment is provided on a piece of paper or in interaction with a client (task variable), resulting in four conditions for this study. It examines the effects on students' perception of authenticity, their perceived generic skill development, and final grade. Elaborating on the findings with inexperienced VET students, it is hypothesised that for VMBO-students both the authenticity of the task and context positively influence the dependent variables, but that the effects of the task will be stronger.

### Methodology

36 assessments from 11 VMBO schools were monitored, including 453 students and 76 teachers. In the school simulations, the client role could be played by a teacher or an external (for the students unfamiliar) person. Within a company, only an external client was used.

All pilots were monitored through a for this project developed procedure (Gulikers et al., 2010): structured intake, observations, and evaluation afterwards, resulting in qualitative data sources. Perceived authenticity and perceived generic skills development (PGSD: collaboration, independent decision-making, solving new problems, and planning; Wilson et al. 1997) were measured through 4-point Likert scales, and deepened in evaluation interviews. Two assessors graded student performance using a 10-point scale.

### Results/discussion

Students' authenticity perceptions differed significantly between conditions. As expected, the school/no client condition scored lowest and the company/client condition highest. More importantly, the effects of a client were stronger than of the context. In the absence of a client, the context (school/company) did not have an effect, while within one context, the addition of a client significantly increased authenticity perception.

Also students' PGSD differed significantly between conditions. This effect was fully determined by the school/client condition that *negatively* influenced students' PGSD. Subsequent analysis showed that this effect arose when the teacher played the client.

Observations and interviews showed that teachers were inclined to help students, compared to students' more independent performance in other conditions. The effects on grades were not significant, but showed the same trend as for PGSD.

Thus, while using a client in school leads to an authentic experience for prevocational students, this can hamper competence development when this client prevents students' independent performance.

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## Onderwijs

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### Experiences in the Intercultural Communication Day of the AID 2011

Vitaliy Popov and Omid Noroozi

Being postgraduate students of ECS, we took part in the Intercultural Communication (ICC) day of the introduction of Wageningen University (AID) 2011. It was already the third time that we participated in this culturally rich workshop as facilitators. This year more than 350 domestic and international students participated in this workshop. We are very grateful to the university and all associated organizations for providing us with the opportunity to share our cultural perspectives during this ICC day. We believe that in this way every year at the start of new academic year the new students of Wageningen University and Van Hall Larenstein can get to know the university setting and smoothly immerse into the intercultural environment. In Wageningen, people from all over the world get the chance to meet each other: at the university, at student and sports associations, in classes and just in town. Everyone with his/her own cultural background and with his/her own expectations of this new phase in life. At our university inclusion is the norm and





we are proud of our international community and the enrichment it brings. This workshop focuses on The Netherlands and the Dutch, on the characteristics of Dutch / Wageningen education and on becoming aware of the different cultural background of Wageningen fellow students. It offers students an opportunity to meet and learn from each other and feel welcome.

ICC programme leaders and facilitators use various teaching and training methods, such as: lectures, group discussions, case studies, role plays, games and icebreakers. Thus, the AID participants can gain some knowledge about intercultural communication by following only one day programme.

### ICC programme

The ICC programme is designed in a way that the first half is more about theoretical and practical aspects with respect to the intercultural communication and the second half is more interactive and consists of group discussions, role plays and icebreakers. In the first half of the program, the Director of Education Institute at Wageningen gave some information about the Wageningen University and its culturally diverse atmosphere. This was followed by a very exciting presentation by students from different cultures who shared some personal stories about three themes: The Netherlands and Dutch habits, Wageningen Education and Wageningen social life. We were fortunate to be a part of this presentation. We had an opportunity to share our three years experiences of living and studying in the Netherlands with the new students. We told students that they will face certain life related and education-wise challenges while studying at the university. For example, food habits in the Netherlands, rules and regulations, international student organizations, multicultural student group work etc. Both Dutch and international students need to be aware of those possible challenges, preferably the sooner the better.

Our presentation was followed by a lecture of Geert-Jan Hofstede about the Netherlands from a historical perspective. In the second half of the program, we served as facilitators to guide students through exercises in groups. More specifically, we facilitated the Merry Go Round exercise and we helped students to become aware of their own and others' educational expectations, common behaviour in the classroom etc. Observing students' engagement and enthusiasm as well as personal communication with them revealed that they really enjoyed participating in this exercise. Then we asked students to compose smaller groups and discuss various cultural behaviour, values and norms that are valued at Wageningen University in terms of group work, relation with teachers, assignments, teaching and learning styles, student activities etc. This was a helpful activity which was followed by a very exciting role play by students to manifest culturally determined values and norms at Wageningen University. The ICC day concluded with an interactive presentation of Mr. Toni Kofi, an experienced trainer from Ghana, highlighting again the diversity of WU student body and emphasizing that WU offers an excellent opportunity to learn from each other. ◀

### Environmental Education Minor approved

Arjen Wals, Anne Remmerswaal and Minny Kop

The Education Board of Wageningen University (OWI) has recently approved an ECS-coordinated Minor in Environmental Education (EE). EE comprises all learning processes in formal, informal and non-formal education that enable citizens, young and old, to understand and actively engage in environmental issues, and to consider the implications of unsustainable natural resource management and the loss of nature. Around the globe environmental educators for decades have developed and implemented educational activities designed to meet this overall goal. ECS and its predecessors have played a key role in the development of EE both nationally and internationally for over 20 years now.

This Minor – a combination of four inter-related courses - provides a foundation for those students with a background in life sciences who are considering a professional career in EE. The Minor provides a background in teaching and learning, worldviews with regards to nature, environment and sustainability, and an opportunity to engage in the hands-on design of concrete EE-activities for an audience of the students own choice.

The Minor consists of the following courses:

- ECS 20806 *Didactic skills*
- YSD 50306 *Sustainable Development: Integrating worldviews, Disciplines and Practices*
- COM 20806 *Environmental Communication*
- ECS 31806 *Applied Environmental Education*

EE has consistently drawn about 20-30 students annually since 1990 from a range of Bachelors and Masters programmes (most notably Environmental Sciences, Biology, Forestry and Nature Conservation, Applied Communication Science & Tourism, Leisure and Environment). We suspect that bachelor students from other (Dutch as well as international) universities and HBO's will be drawn to this Minor as well.

Since the faculty of Biology at University of Utrecht recently eliminated its EE programme as a part of a major budget overhaul, Wageningen now has become the only place in The Netherlands where students can specialize in Environmental Education at the university level. For this reason, the Minor is welcomed also by the Ministry of ELI which is the key ministry promoting EE in The Netherlands. ◀

### Recent publications

Sturing, L., Biemans, H.J.A., Mulder, M. & De Bruijn, E. (2011). The Nature of Study Programmes in Vocational Education: Evaluation of the Model for Comprehensive Competence-Based Vocational Education in the Netherlands. *Vocations and Learning*, 4, 3, 191-2010.

In a previous series of studies, a model of comprehensive competence-based vocational education (CCBE model) was



developed, consisting of eight principles of competence-based vocational education (CBE) that were elaborated for four implementation levels (Wesselink et al. European journal of vocational training 40:38–51 2007a). The model thus consisted of 32 cells, all defined by text. It was developed to provide study programme teams working in vocational education with an instrument to assess the actual and desired “competitiveness” of their study programmes. “Competitiveness” refers to the extent to which study programmes are based on the principles of CBE that we formulated. The model is an instrument for analysing the alignment of study programmes with the defining principles of CBE and clarifying programme teams’ intentions, i.e. the extent to which they wish to achieve higher levels of implementation of the different principles. This article presents the results of two studies, the aim of which was to identify adjustments the teachers felt were necessary to make the CCBE model a valid instrument for assessing the actual and desired “competitiveness” of their study programmes. In study A, 57 teachers evaluated the model during focus group discussions, resulting in a revised CCBE model consisting of ten principles for five levels of implementation. In study B, 151 teachers completed a questionnaire to evaluate the comprehensibility of the revised model. The study showed that teachers understood and interpreted the revised model as intended, were able to position their study programmes by using the revised model and that the content validity of the revised model was good. ◀

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## Even voorstellen

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### **Eghe R. Osagie**

After graduating for her Bachelor degree in ‘Social Work’ (2007) and ‘Pedagogical Science and Educational Science’ (2009; with a focus on Educational Science), Eghe Rice Osagie started and successfully completed the research master ‘Behavioral Science’ course at the Radboud University in Nijmegen. As of the first of September 2011 Eghe started with her PhD project ‘Competence development for realizing and maintaining corporate social responsibility within organizations’ at the Chair Group Education and Competence Studies, Wageningen University. In this project, she will examine the (potential) role of organizational learning infrastructure in realizing and maintain Corporate Social Responsibility in (small) organizations. More specifically, her study will elaborate on competence development among the workforce (for example through formal and informal learning) for the benefit of sustainable development of employees and organizations. Eghe is supervised by Martin Mulder and Renate Wesselink.

### **Piety Runhaar**

In September 2011 Piety Runhaar started as Assistant Professor at ECS. Her main research interests are the promotion of professional development of teachers within (agricultural) vocational education and training; HRM and HRD research within schools and other organisations within the agri-food context. Piety graduated at Utrecht University as social & organisational psychologist. After that she worked as a communication skills trainer at the education centre of the Dutch Military Police.

From 2000 till 2009 she worked as a consultant at KPC Group, a consultancy firm which focuses on the educational sector. In that period, Piety conducted her PhD research on professional development of VET teachers, as an external PhD at the University of Twente. After she finished her PhD project in 2008 she worked as Assistant Professor at the department of Organisational Psychology and HRD at the UT until August 2011.

### **Nicolette Tauecchio**

Nicolette Tauecchio studeert aan het ROC A12 te Ede. Zij volgt daar de opleiding directiesecretaresse en managementassistente. Voor deze opleiding loopt zij vijf maanden stage op het secretariaat van ECS. Ze is begonnen op 22 augustus en blijft tot eind januari.

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