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Academic Consultancy Training - The experiences of Wageningen University

Authors: Bas Scheepers, Josette Jacobs, Christos Kavvouris, Gerda Casimir, Boudwijn Verkooijen, Karen Heuvelmans, Marije Blok

Approximately ten years ago Wageningen University (WU) introduced the 'Academic Consultancy Training' (ACT) course to suit professional work field demands in terms of competencies. In ten years, ACT has evolved into a six week full-time (9ECTS) obligatory master's level course; according to the ACT study guide the course "trains the application of master level academic skills in an almost professional setting of a small consultancy team working for a true client on a real work assignment".

Students work in multidisciplinary and multicultural teams. Multiple stakeholders are directly involved in this 'real-life' project:

- Students: the participating master level students;
- Commissioners: companies, organizations, and institutions providing the projects, represented by one or two contact people;
- Support staff: content coaches (also called 'experts', belonging to university staff) who guide the content side of the project; and process coaches (both university staff and external professional coaches) who guide the process side during the project for teams and individual students.

ACT is a form of project education, that is, education about both learning and working within a project setting. ACT is in line with real life; there is a direct link between knowledge and its application in society. University students commonly obtain, develop, and apply knowledge. ACT enhances this knowledge by presenting complex problems that require both interdisciplinary and intercultural collaboration (Jacobs, 2001) and self-reflection to solve them. Self-reflection provides the opportunity to describe and explore both personal and team qualities. This approach relates to the design of ACT, which connects competencies through scientific research, projects, and collaboration.

Community Based Learning

The ACT course is a variant of Community Based Learning (CBL). This didactical approach encompasses “partnerships between students and communal organizations in order to meet community goals” (Dallimore et al., 2010). According to this approach, students learn both in the classroom and in the community.

The three key factors of the CBL approach are the engagement of the student within the community; learning by doing; and guided reflection. In ACT, the first factor is addressed on the one hand by the attention to the alignment between university education and working life, and on the other hand by the community-based supply of projects. The second key factor is reflected in the product-focused way of working and the formal division of team roles (e.g. team manager, financial controller, secretary, etc.). The final key factor is operationalized by setting up learning goals and reflecting on these (and those of other team members) during the course and afterwards, supported by a process coach.

Research Project

In order to evaluate the impact of ACT on the main stakeholders - students on the one hand and commissioners on the other – an ACT team was formed. The project resulted in recommendations to improve the course for its (future) participants. The remainder of this article is a summary of this project. Extra information considering this project will be provided during the 5th *Living Knowledge Conference 2012* poster presentation (Heuvelmans et al., 2012) on Friday 11th of May 2012.

Problem Statement

The main issue in this project is measuring the effects and the impact of ACT.

The gap between competencies and professional demands is a problem for students since they lack professional competencies required in the workplace. Among others, these competencies include interdisciplinary and intercultural team working, communication, awareness of own competencies, and reflection of self and others. This gap is also a problem for Wageningen University in the sense that it is held responsible for the lack of professional competencies of its graduates. Moreover, since the University is a competing institution, the more competent its graduates are

the higher its competitive advantage in market terms and contacts with external parties. Benefits for commissioners were also taken into account in this research.

The impact of the ACT course on its student participants was assessed using the well-known model for evaluating learning interventions (e.g. trainings) in the field of Human Resource Development practice (HRD): Kirkpatrick's four-level framework (Kirkpatrick, 1994; Holton, 1996). According to this model, learning events can be evaluated on four levels. The first level of impact concerns the participants' reaction to ACT: was it enjoyable, was it relevant, were the facilities satisfactory? The second level addresses learning outcomes in terms of knowledge, skills, and attitude: it measures the increase in knowledge or intellectual capability as a result of ACT. The third level assesses the application of learning in the participants' jobs: the extent to which students applied their learning and changed their behavior. Finally, the fourth level addresses the effect on the business or environment as a result of the improved performance of the learner. Due to time and resources constraints, the fourth level was omitted in this research project. The research was conducted using three research methods: a literature review, interviews with various groups of stakeholders, and online surveys among various stakeholder groups.

The sub-questions of this research project were the following:

- 1) *Level 1*: How do the students and the commissioners react to the experience of ACT?
- 2) *Level 2*:
 - a) What are the learning outcomes in terms of competencies for the students?
 - b) To what extent have the commissioners acquired knowledge and skills as a result of ACT?
- 3) *Level 3*: What is the added value of ACT for work performance according to graduates and commissioners?

Seven categories out of Bartrams' Great Eight competency set (2005) were used to categorize all competencies in ACT. These include:

1. Analyzing and interpreting
2. Organizing and executing
3. Enterprising and performing
4. Creating and conceptualizing

5. Supporting and cooperating
6. Interacting and presenting
7. Adapting and coping

As mentioned, the research focused on the main stakeholder groups of ACT: students and commissioners. To assess its impact on these groups, process coaches, content coaches, and graduates were also included in the research.

Table 1: General overview of the study design (all stakeholders participated in the last 2 years).

Level	Respondents	Control group
1 (Attitude) Students	Students	
Commissioners	Commissioners	
2 (Learning outcomes) Students	Students, Process and Content Coaches, Commissioners	
Commissioners	Commissioners	
3 (Impact on work performance) Students	ACT Graduates (within 2 years of graduation)	Non-ACT Graduates (within 2 years of graduation)
Commissioners	Commissioners	

The entire research for both stakeholder groups contained two stages. The first stage was preliminary research consisting of a literature study and 11 interviews. The outcomes of this preliminary research were used to examine which factors should be measured with surveys in the second stage. In the second stage, information about the different levels was gathered by surveys (1,028 respondents). The response rate varied between 27% (students) and 68% (process coaches) (Blok et al., 2012). For most questions in the surveys a 5-point Likert scale was used. Before distributing the surveys, a pilot survey was conducted. All statistical analyses were performed in SPSS version 19. Level 1 was analyzed using descriptives, Level 2 with ANOVA and Post-Hoc LSD, and Level 3 with ANOVA and Paired-Samples T-Test.

Results

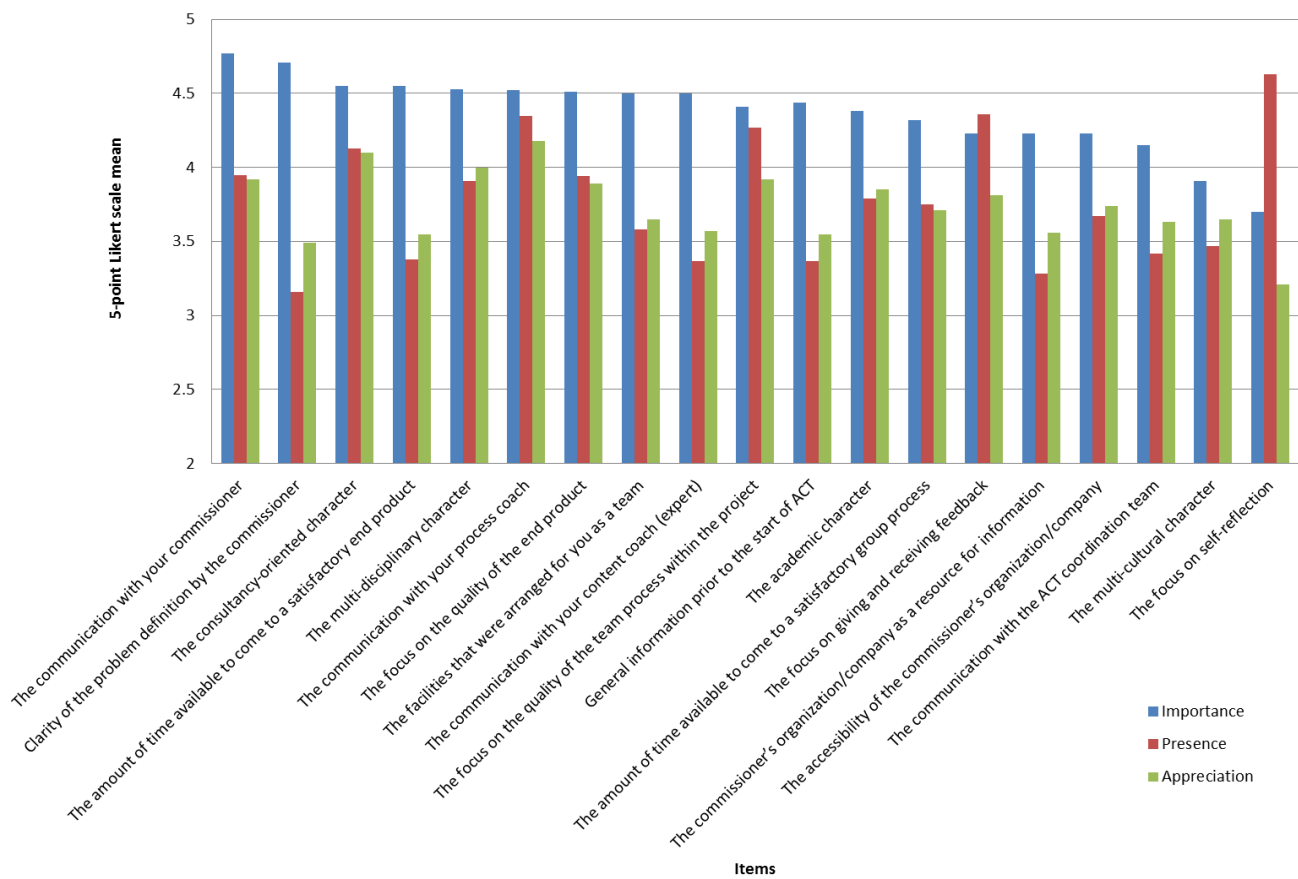


Figure 1: Mean Likert scores for importance, presence, and appreciation by students.

Students

For Level 1 the respondents were asked to what extent (on a 5-point Likert scale) several items were important, present, and appreciated. The results are summarized in Figure 1. All scores were well above average. However, students considered the focus on self-reflection to be less important than the extent to which it is present in the course; it should henceforth be decreased, according to the students. A clear definition of the problem by commissioners, general information prior to the start of ACT, and time available to come to a satisfactory end product should all be more present according to the students, in addition to increased communication with content coaches and the commissioners.

For the second level the mean scores on the seven competency domains were above 3.7 on a 5-point Likert scale; ACT hence contributes to the development of

these competencies. Furthermore, in all seven domains students rated themselves lower than process and content coaches and commissioners did. These differences are in line with the findings of Mulder et al. (2007), which state that employees tend to rate themselves lower than others (such as their colleagues) rate them.

Graduates' responses for Level 3 indicate that the ACT course contributes to both mastery and use of the competencies investigated. In comparison with the control group, no significant higher grades for mastery of competencies were measured, with the exception of the fifth domain of Supporting and cooperating. In this domain the control group reported higher scores for mastery than the target group.

Graduates in both the target and the control groups reported a lower actual use of the competencies in comparison to their respective mastery. This might indicate that the competencies addressed in the ACT course either do not fully cover the set of competencies graduates need in their jobs, or their jobs are not at a relevant academic level. Further research is needed to investigate which competencies are necessary for improved job performance among graduates.

Commissioners

Level 1 revealed that the majority of commissioners participate in ACT for its multidisciplinary character, its relatively cheap labor, and its quick results. The ACT characteristics that were considered most important (i.e., students' motivation, students' commitment towards the commissioner, the focus on the quality of the end product) were also present and appreciated positively. Furthermore, the focus on self-reflection and the multicultural character were more present than important; these items were also considered least important. Moreover, commissioners felt they did not have enough influence on team composition. Several commissioners indicated a need for more information and communication. This is in line with one of Kirkpatrick's principles (1994): "If more attention is paid to pre- and post- training events, the results in level three (and four) will be amplified".

For Level 2, commissioners indicated that ACT contributed to their knowledge base to a high extent and to the development of relevant professional skills to a lower extent.

On the third level commissioners did not indicate a change in their professional practice as a result of participating in ACT. Participating in ACT mainly provided concrete answers to specific problems and served as a starting point for future research. The whole ACT experience, both end product and the research process, was evaluated positively (4.3/5).

Discussion

In Level 2 of this research, students' learning outcomes were measured using the assessment tool of the ACT course itself. For dependency arguments, it is recommended that further research revisit this strategy. Another methodological pitfall in Level 2 was the different level of analysis between students and content and process coaches: students were asked to assess themselves, whereas coaches were asked to assess the last group they coached. Also, the use of self-assessment as a measurement tool can be subjective. Using a 360° feedback system, similar to the research design for Level 2, is a common approach to this problem. For the same reason, future research for Level 3 should also include colleagues and other peers of the graduates. Furthermore, for both Level 2 and Level 3, the categorization of measured competencies into seven of Bartram's Great Eight (2005) has not been statistically tested.

A final remark needs to be made about the lower scores of the learners themselves compared to peer scores for Level 2. The assumption is that a higher awareness of competency development leads to a lower self-rating; this assumption could also explain the lack of significant difference between the target group and the control group for Level 3.

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