



Skill gaps in formal higher agricultural education: A youth perspective

This is a summary and suggestions for moving forward based on the study "[Working towards a new generation of Young Professionals in ARD](#)", in 2011-2012 by YPARD commissioned consultants Alex Percy-Smith and Leonoor Akkermans. The study was undertaken to contribute to the debate on changes needed in tertiary level agricultural education.

Agriculture is changing, and with it, a revised set of skills is needed to address new challenges in agriculture. As attitudes, expectations and employment in agriculture have changed, there is evidence that the skills and competencies of graduates do not meet the needs of today's agricultural sector.¹ The 'new professional' should, for example, be better able to work across different disciplines and in partnership with different stakeholders, understand the value chain and potential for profit and entrepreneurship at different stages. With increased attention to holistic and multi-disciplinary approaches to addressing challenges, agricultural professionals are expected to be able to integrate knowledge and practices from outside of their discipline and work within the multi-functionality of agriculture². As we move away from 'business as usual' we must integrate this new way of thinking into educational institutions and agricultural curricula.

YPARD's niche is a committed global network of youth active in Agricultural Research for Development, who can contribute the youth viewpoint on different ideas and approaches. With the declining interest among young people to enter into ARD related subjects, it is important that future careers reflect the ideas and aspirations of the youth in order to generate and maintain their interest in a field that is quickly changing and evolving.

The Research

This study was commissioned by YPARD to contribute to the agricultural curriculum and policy reform discussion by highlighting those skill sets that are required in today and tomorrow's agricultural-related fields, which are not adequately being addressed in today's tertiary level agricultural education.

A number of prominent documents and current discussions point to professionals in ARD with different characteristics than the ones universities 'develop' at present. Broad themes that emerge from the literature are a lack of soft skills, such as communication, writing and other non-technical skills. This information, however, is largely from the perspective of experts. YPARD has contributed to this debate by bringing the voice of the youth from different stakeholder groups to the table, their views and their experience. This is in line with the [GCARD Road Map](#) which points to the importance of young people themselves expressing what changes are needed in agricultural education and the incentives needed to make careers more attractive and valued and better recognize the range of roles now required in ARD.

Results of the Study

Young professionals responded to questionnaires, rating competencies on their level of perceived importance now and in five years' time. Five general competence groups were identified and within each group, further competencies were identified.

¹ Blackie et al., 2009; Ekwamu et al., 2009; IBRD, 2007; Yaye and Madakadze, 2009.

² IAASTD, 2009

Responses were obtained from 140 young professionals from different stakeholder groups in agriculture around the world, specifically targeting those recently graduated or enrolled in graduate programs. A smaller group of responses were obtained from employers of young professionals for comparison purposes.

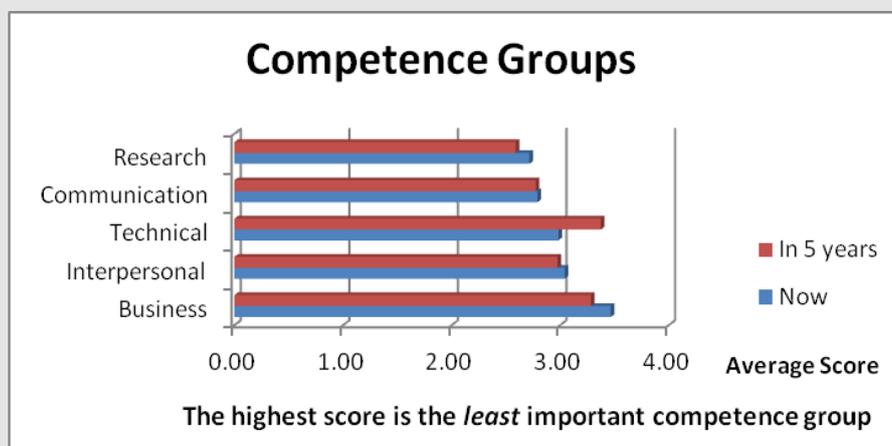
Results were analysed according to time (now and in 5 years) and region (India, Kenya, Nigeria, Europe, Australia and North America and Others) to see if there were statistically significant differences. Only a selection from the study has been included below to highlight some of the major differences and trends.

General Competence Groups

Communication and Research skills are considered more important than Business skills at present and more important than technical skills in 5 years' time.

Business skills are rated more important by young professionals than by employers, both now and in 5 years' time.

At present, respondents from "Western" countries perceived Technical skills as being significantly less important (3.88 out of 5.00 – 5 being least important) than as perceived by "Other" respondents (3.25).

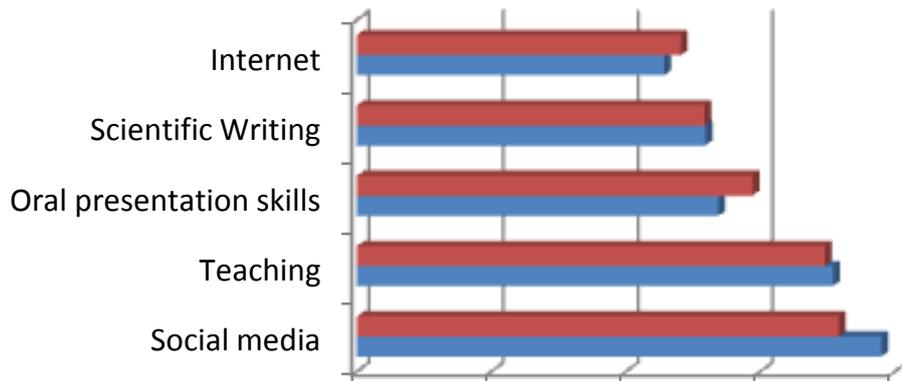


Communication Competencies

For young professionals, Social Media and Teaching are less important than Internet skills, Oral Presentation skills and Scientific Writing. Employers, however, do value Social Media skills in 5 years' time, ranking it number 2 (of the 5 competency groups).

At present, Teaching was valued as significantly less important by respondents from "Western" countries (4.17 out of 5.00 – 5 being least important) versus "Other" respondents (3.37). Oral Presentation skills are considered less important by respondents from Sub Saharan Africa (2.93) compared with "Other" respondents (2.44).

Communication Competencies

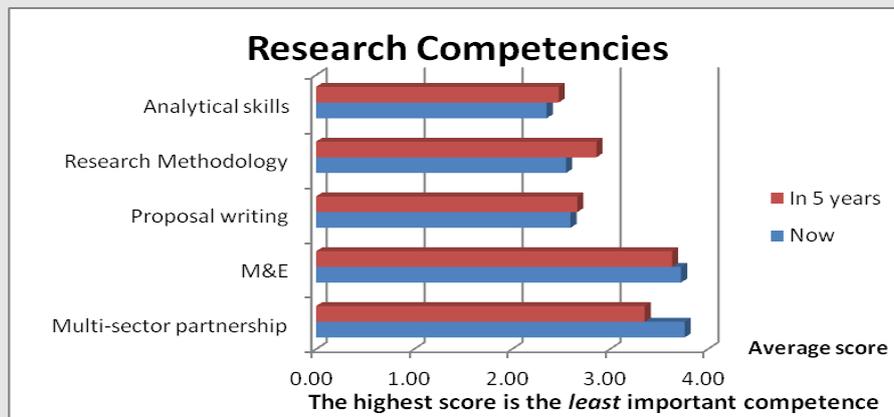


Research Competencies

At present, Analytical skills, Research Methodology and Proposal writing (in order of importance), are significantly more important than skills related to Multi-sectorial partnerships and Monitoring & Evaluation.

Multi-sectoral partnerships are considered significantly more important by employers than by young professionals, whereas employers do not consider Monitoring & Evaluation as being as important as young professionals do.

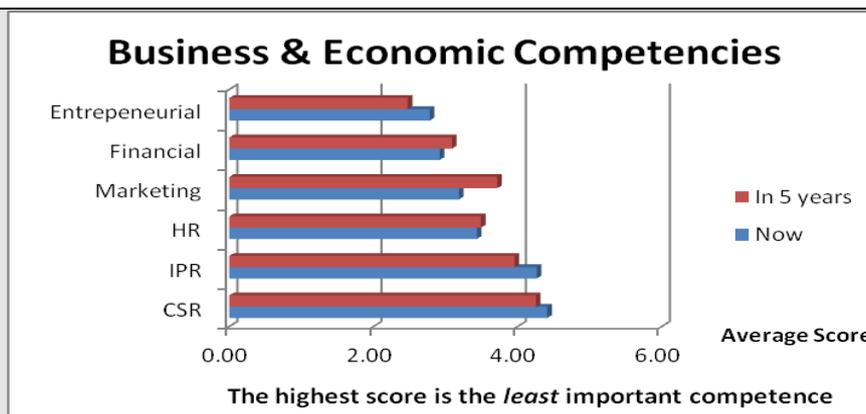
Respondents from Sub Saharan Africa scored Proposal writing skills significantly higher (2.31 out of 5.00 – 5 being least important) than “Other” respondents (2.89).



Business and Economic Competencies

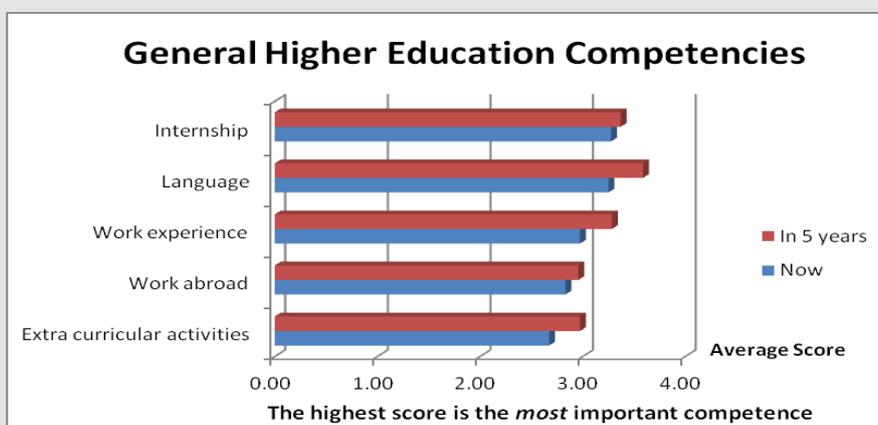
At present, Entrepreneurial, Financial and Marketing skills (in order of importance), are considered more important than CSR and IPR by young professionals.

Entrepreneurial skills are considered as a top priority by young professionals. Employers rated Entrepreneurship at present at number 2, but in 5 years' time they consider it as more important than everything else as well, and score it significantly higher than the young professionals.



General High Education Competencies

Internship and Language abilities are considered to be significantly more important than Extra curricula activities and experience from work and study abroad



Recommendations and way ahead

Curricula must be revised to provide students training for a career in ARD to acquire soft skills rather than technical skills and theory only. YPARD suggests the following strategies in using the outcomes of this study for enhanced agricultural curriculum and preparation of young professionals for careers in ARD:

1. Curriculum developers must involve a range of stakeholders in rapid identification of relevant revision to curricula. The literature indicates that in most countries, there are weak linkages between the educational institution and the labour market and that employers are minimally involved (if at all) in defining the learning contents and quality standards.³

To encourage greater cross-fertilization of ideas, industry, alumni, students, teachers, farmers, extension workers, private sector, the ministry of education and ministry of agriculture, international donors and research organisations should join hands in order to develop labour market responsive curricula for high quality relevant ARD education, which can be a key to employability, economic growth, food security and agricultural development worldwide. A multi-faceted yet cohesive voice from different stakeholders is required make this happen.

2. Internships are crucial to building a cadre of well-prepared young professionals for careers in ARD. Educational institutes must support their students with connections to many different

³ Urutyan & Litzenberg, 2010; Blackie et al, 2009; Maredia, 2007

organisations in ARD to give them a better understanding of the range of opportunities in the agricultural sector and the realities of the work.

3. Entrepreneurship and links to the private sector are essential for the rejuvenation of the industry, making it more attractive, profitable and moving away from the perception of agriculture as a low prestige career. In the business and economic competence group, entrepreneurship skills were rated as the most important, both now and in five years time. While unemployment of adults in LDC countries has hovered around 4% for the past decade, unemployment among youth has consistently exceeded 10%⁴. The current economic situation and increased uncertainty in the workplace further strengthen the need of alternative sources of economic livelihood in the sector through entrepreneurial activities.

Educational institutions must include business skills and entrepreneurship into the agricultural curriculum and forge stronger links with the private sector. Educational institutions should stimulate potential entrepreneurs through networking opportunities, internship opportunities and business incubators.

“The ARD school curricula could become more relevant and of greater interest to young people by inclusion of entrepreneurship knowledge in the curriculum. This is important to at least arouse the desire for innovation, self-reliance and private practice of agricultural skills.” YPARD member, Julius Naligwu Ingweye, Nigeria

4. The information obtained through this study should be used to inform capacity development strategies for young professionals in ARD. Until curriculum is up to date and meets the needs of the employment sector, additional capacity development is required to fill these capacity gaps. Those highlighted in the study include trainings on proposal writing, ICTs and entrepreneurship skills. This will prepare young professionals to contribute to the creation of a more innovative ARD sector, taking advantage of all of the opportunities available.

“I am a research scientist who as part of my duties develops winning proposals to attract funds for research. With good skills in proposal writing I will be in a better position to execute my job. Unfortunately this lacked in my education both in first and second degree.” YPARD member, Michael Osei, Ghana

5. Use this document to take the discussion further, build on the research and stimulate the creation of agricultural curriculum working groups.

Youth are often ignored and undervalued when developing priorities in the agricultural sector, including curriculum development. Integrating the outcomes of this study into the university curriculum will allow the education sector to better reflect the needs expressed by the youth within the employment sector. This helps to ‘create’ graduates better attuned to the needs of the workplace. Prepared youths are better able to meet the needs of the sector and be more effective at integrating new ideas and innovation.

What is YPARD? *The Young Professionals’ Platform for Agricultural Research for Development (YPARD) is a global platform of young professionals under 40 years of age active in Agricultural Research for Development (ARD). YPARD serves as a medium for young professionals in ARD to voice their views, exchange perspectives and to contribute to sustainably improved livelihoods, worldwide, through a dynamic agricultural research for development.*

YPARD was created in response to the young generations’ increasing lack of interest in agriculture, insufficient participation of young professionals in dialogues addressing critical development issues and inadequate access to resources to address these problems. YPs bring innovation, fresh perspectives, new skills and knowledge to the sector. The movement intends to create a positive wind of change in ARD. Thus, YPARD’s mission is to serve as a global platform through which young professionals can express their ideas and realise their full potential towards dynamic agricultural research for development.

The founders of YPARD are convinced that a responsible agriculture, able to meet global needs without depleting its resources, can only become a reality if young professionals are actively engaged in shaping the sector’s future.

⁴ ILO, Fourth UN Conference on the Least Developed Countries, 2011