

THE IMPORTANCE OF ENGLISH LANGUAGE IN IMPLEMENTING NEW TRENDS IN AGRICULTURE AND CLIMATE CHANGES

Ligia Lavinia OLARIU¹, Laura Iosefina ȘMULEAC¹, R. PAȘCALĂU¹

¹ Banat's University of Agriculture Science and Veterinary Medicine "King Michael I of Romania" from Timisoara, 119 Calea Aradului, 300645, Timisoara, Romania.

Corresponding author: raul.pascalau@usab-tm.ro

Abstract. Agriculture and climate change are areas currently registering a very high evolution and progress, and in all the new trends in the last years, the English language has become imperative in developing all the activities, in the day by day activities, within all domains, from production, to research, to customer and providers, from where all the fertilizers, products, technologies, equipment, are brought into the local, national and regional market, but also regarding all the regulations and provisions issued by the European competent authorities in the fields. Consequently, the knowledge of an appropriate English language has become highly required at all levels, from private companies and employees to public ones, especially Higher education institutions and vocation centres for perfection within these areas. For the agricultural and food sector, the priority is therefore the agroecological transition to continue to feed people by taking into account climate change, fighting against the erosion of the biodiversity and meeting societal expectations. This transition will allow us to implement the new trends in agriculture and climate changes as possible solutions for a sustainable development in several related areas, but not without a higher level of English language, overpassing the basic one, a specific language also, even a B2 level for an ESP. To achieve these objectives, we need more knowledge and training more adapted to the needs of the students but also of the economic actors, from the qualified students in the specific fields, to the farmers that we may train and teach.

Keywords: English, agriculture, climate change, trends, language

INTRODUCTION

The dynamic of the education's evolution in the field of agriculture and climate changes allowed in the last years, within the organization of classes within HEIs and thanks to the mobilization of the educational community, an increase from the beginning of the 2019 school year in the number of students, thus breaking a downward trend that has been recorded for too long, in a pandemic context, rising the number of the students was a very good achievement of the entire local academic community (FRASER, 2001). The English language has a determinative role in these fields of environmental sciences and agriculture, and in areas related to nature protection (PAȘCALĂU ET ALL., 2020). While most of national HEIs registered a decrease in admission, we registered an increase, especially in the fields of agriculture, due to the new trends on the local and worldwide labour market, and also to the evolution in the field of environment and climate changes. We must continue on this path to reach the figure of more learners in 2022, especially with focus on the study programs in foreign languages, namely, English and French, in agriculture and environmental studies. Environmental new trends and agricultural ones help improving the quality of the provided education for the future decision makers or public policies issuers in the related fields, in an era with major impact of climate changes in the agricultural field (ȘMULEAC ET ALL., 2020).

We have also embarked on major teaching reforms, with high accent on online teaching and related tools, webinars and conferences highlighting the best teaching techniques and new vocabulary in the emerging areas of study (PAȘCALĂU ET ALL., 2021). We have done this with the concern to enhance our specificities while allowing our students to continue their studies in other fields if they wish, still keeping the specificity of the large area of

agricultural main trends (ŞMULEAC ET ALL., 2013). These reforms testify to the ability of our training and education system to adapt in order to maintain its excellent results in terms of success in examinations but namely targeting the insertion on the local and regional labour market. A very good knowledge of English notions, vocabulary for ESP, namely agriculture and environment enable new horizons and adopting the best practices while learning and studying new regulations or provisions of the European authorities, or research results with newest data or impact on the agriculture production, or climatic changes measures, for a better environmental protection and harmonization of land cultures, aligning them all at the new trends and visions (PAŞCALĂU ET ALL., 2021).

MATERIAL AND METHODS

Most of the material and methods that we used when conceiving this scientific paper were overtaken from own activity and research, comparison methods and exemplification ones, all based on experiencing them while teaching at several and different study programs within the Faculty of Agriculture, normal or low frequency ones.

In agricultural education, technical subjects represent an important part of the teaching provided. As far as part of the Public agricultural HEIs, the biggest concern related to the sustainable education in the most important fields, namely, biology-ecology, agronomic sciences and environmental ones, is to have the appropriate follow up, both in terms of practice and reliable traineeships, not only classes based on theory. For example, to alternate theory classes with practice ones, especially when speaking about inserting the foreign language competences and learned vocabulary or assimilated data basis related to the fields of expertise, into a topic from the main area of study, i.e. agriculture, environmental or climate changes area, one should be aware of the positive impact that it could have on the student, potential future manager or employee/employer, supplier or provider of agricultural products, interacting with foreign investors or clients, or part of the international labour market, in one-way or another, mastering appropriate technical vocabulary and formulas, using specific notions and matching the acquired knowledge with a suitable English language (PAŞCALĂU ET ALL., 2020).

This principle of alternation, which might be considered one of the pedagogical foundations, allows students to be in permanent contact with the professional sectors. In our establishment, committed to a sustainable development approach, each class is invested into a project of social utility and works in partnership with an association or profile public or private company of the region. This makes it possible to concretize learning and to make the link between the study programs of the university and the social and professional realities, and the implementation of the new trends in the above-mentioned fields will be much easier adopted (HILLMAN, 2007).

Together with the professionals of the sector, we realized that, even if the students had a very good technical level, their language level could unfortunately be a brake on hiring in European or international companies or institutions, or in better understanding the new trends in the fields, becoming one of the essential links between the provider of the education services and later on, the beneficiary of its human resources.

RESULTS AND DISCUSSIONS

To reinforce these results, we will continue to mobilize in 2022 to make the training even more attractive for young students from the first years of study but meanwhile very useful for their future insertion and integration into a very competitive society (PIKE & SELBY, 1988).

For this purpose, engagement with all the actors is required, because, providing a very useful and updated and current data basis with English vocabulary and phrases used by companies or by European institutions, will enable us to provide the perfect professional training offer in order to integrate the new skills that will be necessary for professionals given technological evolution and societal expectations (CALLICOTT JB. 2001).

Once finalized the process of integrating the English language for specific purposes into the teaching courses but especially in the training ones, and adapting the training tools, in particular with specific vocabulary for partner farms, companies within the environmental and climatic changes areas. This plan is one priority, because agricultural education must be pioneering and exemplary in this agroecological transition (DESCOLA P., 2013). Finally, we carry on all the actions in favour of the continuation of studies in superior cycles to the bachelor ones for the students who wish to do so, in accordance with all major objectives proposed to achieve the goal (LOPEZ, 1998, P. 132).

All these reforms have two aims which are, on the one hand, to meet the needs of companies and, on the other hand, to develop recognised and efficient diplomas in the context of the agroecological transition. Agricultural education is also part of the reform of the vocational path and enables the possibility to provide qualified graduates, professionals with a very high degree of knowledge in the field, internationally qualified, not only at a local level (ROMM, J.J., 2007). The purpose is to ensure access, maintenance or return to employment as well as to secure or diversify career paths.

In training, we always start with an assessment including English language, starting in the first periods with a basic level, for reaching in the end at a proficiency English level, from what has been done in the company, until the potential expectations in the market, creating this way a link between teaching and the professional activity and led to put into practice what has been learned during the teaching classes. Being able to apply the theory so quickly is really very formative. In this way it will be a greater individualization of courses, training to be built in response to the skills needs of professionals, it will be necessary to be able to manage entries and exits learning throughout the year and taking advantage of the opportunities offered. Today, learning is increasingly a real choice of the students. They know that it is a real added value both in their educational and professional career.

In addition to the education provided to the students, with focus on their internationalization professional competences and skills, and this also due to the use of specific English language, one of the missions of agricultural higher education institutions is to participate fully in the animation and development of territories in their social, economic, and environmental components. It is for institutions to act with and for their territory in connection with the actors of the agricultural world, local authorities, research organizations and specific profile companies.

Consequently it is highly important to master the appropriate English language and targeted vocabulary in order to implement the new trends in agriculture and environment with an accent on the climatic changes, the evolution of agricultural and livestock practices with schemes in favour of agroecological transition, animal welfare, reduction of synthetic and fossil inputs, food, with reflections on local and sustainable food systems, food education actions, evolution of processing and marketing methods, biodiversity, with landscape ecology projects, domestic biodiversity, energy, with implementation of energy diagnostic actions, carbon footprints, energy savings and energy production, development between territorial anchoring and international openness agricultural establishments, an asset for sustainable territories, regarding climate change, waste, water, educational practices and citizenship education and international cooperation.

Within the public agricultural education and vocational training establishments, agricultural holdings and technological workshops play a very special role, giving the opportunity to practice, at all levels and all study cycles, the most appropriate form of the language (SELBY, 2007). These pedagogical units perform three inseparable and complementary functions in the methodology of foreign language acquisition: a function of training the students, apprentices and trainees; a function of production and marketing and a function of demonstration, agricultural experimentation and more broadly of development of territories, an environmental function. Farms and technology workshops in English and with English speakers are privileged places for the acquisition of professional skills, teamwork and personal development.

Mini-internships, practical work, follow-up of experiments and implementation of projects are all activities that allow the construction of knowledge and know-how. More than 3 million hours of training are delivered each year in connection with agricultural farms, climatic changes and technological workshops, all in English language (LOTZ– SISITKA, 2010). Why? Because all the data related to the new trends in all these fields mentioned above are provided or issued by EU authorities, or worldwide organisations within the main stated fields.

Students are thus encouraged to go abroad at least once during a cycle of study, and it may be possible with the grants offered by the Erasmus+ program, either for training or for studies, in order to bring an international dimension to their training and develop new perspectives and horizon. Being confronted with another culture it is also an enrichment from a human, cultural and linguistic point of view. In addition, these mobilities allow the acquisition or strengthening of professional skills for better employability.

CONCLUSIONS

In conclusion, I would like to insist on the importance of the performance linked by the English language in such important fields from the large area called agriculture and climate changes, two areas relying each on another, but also the importance of the quality of the training, which leads to a profession in the end, or might do it, leading however to the creation of a professional profile, mastering a technical vocabulary into the specific field of activity.

Agricultural education trains future professionals who are open to Europe and the world, and aware of international issues, mastering a very important tool, the English language. Agricultural education is involved in agricultural and agri-food development, experimentation and innovation activities.

In partnership with national research organizations, technical institutes and universities, higher education, agronomic, veterinary and landscape institutions conduct research with the aim of identifying the major current challenges such as the sustainable management of resources, adaptation to climate change, the search for dual economic and environmental performance, the fight against new infectious diseases and the control food safety and quality. In addition, this work makes it possible to develop the teachings as close as possible to the professional reality

In order to support and enhance the agriculture and food of tomorrow, in an healthier and protected climate, our agricultural higher education system must adapt and put an accent on the English language for specific purposes and implement it as compulsory not only in the first and last years of studies, but during all study years from a cycle, including master degree programs.

BIBLIOGRAPHY

- BENAYAS JMR, NEWTON AC, DIAZ A, BULLOCK JM. 2009. Enhancement of biodiversity and ecosystem services by ecological restoration: a meta-analysis.
- CALLICOTT, J. BAIRD, Science, and the Unstable Foundation of Environmental Ethics, (2001), State University of New York Press, US
- DESCOLA PH, The Ecology of others, Prickly Paradigm Press, (2013). Chicago,
- FRASER DJ, BERNATCHEZ L. 2001, Adaptive evolutionary conservation: towards a unified concept for defining conservation units. *Molecular Ecology* 10:2741–2752.
- HAMILTON, C. (2010). *Requiem for a Species: Why We Resist the Truth About Climate Change*. Londres: Earthscan.
- HILL R, ET AL. 2017, Weaving knowledge systems in IPBES, CBD and beyond—lessons learned for sustainability. *Current Opinion in Environmental Sustainability*.
- HILLMAN, M., FAWCETT, T & RAJAN, S.C. (2007). *The Suicidal Planet: How to Prevent Global Climate Catastrophe*. New York: Thomas Dunne.
- KAGAWA, F. & SELBY, D. (Eds) (2010). *Education and Climate Change: Living and Learning in Interesting Times*. New York: Routledge.
- LÆSSØE, J. SCHNACK, K., BREITING, S. & ROLLS, S. (2009). *Climate Change and Sustainable Development: The Response from Education*. IALEI.
- LOPEZ, B. (1998). *About this Life: Journeys on the Threshold of Memory*. New York: Knopf.
- LOTZ-SISITKA, H. (2010). *Climate Injustice: How Should Education Respond?* Dans Kagawa, F. & Selby, D. *Education and Climate Change: Living and Learning in Interesting Times*. New York: Routledge.
- PAȘCALĂU R., S. STANCIU, LAURA ȘMULEAC, A. ȘMULEAC, C. SĂLĂȘAN, ALINA ANDREEA URLICĂ, (2021), Protecting nature through languages, *Research Journal of Agricultural Science*, 53 (2)
- PAȘCALĂU R., S. STANCIU, LAURA ȘMULEAC, A. ȘMULEAC, C. SĂLĂȘAN, ALINA ANDREEA URLICĂ, M. BAKLI (2021), Teaching Climate Change In Class, A Must And A Challenge, *Research Journal of Agricultural Science*, 53 (2)
- PAȘCALĂU R., S. STANCIU, LAURA ȘMULEAC, A. ȘMULEAC, MIRELA AHMADI KHOE, M. DANCI, ANDREA FEHER, IASMINA IOSIM, C. SĂLĂȘAN, M. BAKLI, M. AMARA, (2020), The importance of English language in attracting foreign tourists in the mures valley region, namely in the wine road area, county of Arad, Western Romania, *Research Journal of Agricultural Science*, ISSN: 2668-926X, Vol. 52(2)
- PAȘCALĂU R., S. STANCIU, LAURA ȘMULEAC, A. ȘMULEAC, MIRELA AHMADI KHOE, ANDREA FEHER, C. SĂLĂȘAN, M. DANCI, M. BAKLI, M. AMARA, (2020), Academic vocabulary in teaching english for agriculture, *Research Journal of Agricultural Science*, ISSN: 2668-926X, Vol. 52(2)
- PIKE, G. & SELBY, D. (1988). *Global Teacher, Global Learner*. Londres: Hodder & Stoughton.
- ROMM, J.J. (2007). *Hell and High Water: Global warming – The Solution and the Politics – and What We Should Do*. New York: William Morrow.
- SELBY, D. (2007). *Von der Notwendigkeit eines Klimawandels im Bildungswesen (The need for climate change in education)*, Portail Internet : *Bildung für nachhaltige Entwicklung (Education en vue du développement durable)*, Portail URL: www.bne-portal.de
- ȘMULEAC LAURA, SILVICA ONCIA, ANISOARA IENCIU, R BERTICI, A ȘMULEAC, C PIȚIGA (2013) A study on the possibilities of using groundwater in rural communities in south-western Banat Plain, *Research Journal of Agricultural Science*, Vol 45, No 2
- ȘMULEAC LAURA, CIPRIAN RUJESCU, ADRIAN ȘMULEAC, FLORIN ÎMBREA, ISIDORA RADULOV, DAN MANEA, ANISOARA IENCIU, TABITA ADAMOV, RAUL PAȘCALĂU (2020), Impact of Climate Change in the Banat Plain, Western Romania, on the Accessibility of Water for Crop Production in Agriculture, *Agriculture*, Vol 10