

**Students' Perceptions of Learning and Teaching at
Lviv State Agricultural University in Ukraine**

Wilmara Correa Harder

Ph.D. Candidate

The Pennsylvania State University
415 Agricultural Administration Building
University Park, PA 16801
Phone: (814) 863 78 77
Fax: (814) 863-47 53
e-mail: wch117@psu.edu

Thomas H. Bruening

Associate Professor

The Pennsylvania State University

Anatoly Tmanov

Central-Eastern Europe Program Coordinator
The Pennsylvania State University

Abstract

A study was carried out to examine students' perceptions regarding teaching and learning methods at Lviv State Agricultural University in Ukraine (LSAU). The study establishes benchmarks to be used to improve teaching and learning within the university. The population for the study was composed of 300 undergraduate students at LSAU, Ukraine. The study used a Likert scale of 1 to 5 to prioritize needs and attitudes of respondents. Respondents agreed that they should practice more concepts taught in class ($m=4.4$) and teachers should experiment with new teaching methods ($m=4.1$). Respondents agreed that teachers at LSAU are concerned about their learning as students and the lack of government support for the university is lowering the quality of their education. Students perceived that the quality of education declined over the last three years ($m=4.4$) and that improving the quality of teaching at the university should be a higher priority ($m=4.3$). Regarding the use of technology, respondents agreed that teachers need to get additional training on using teaching models and equipment ($m = 4.1$). They strongly agreed more computers and computer applications should be used to teach ($m=4.5$). However respondents were not willing to pay a small amount of money for better computer equipment ($m=2.5$). Results from the study should encourage instructors and university administrators to explore new teaching methods to engage students in active learning strategies. This study shows agreement between students perceptions of their educational experience and teaching methods used. Results support more interactive learning.

Introduction

Throughout the 20th century, Ukrainian education was shaped and controlled by central authorities in Moscow, not Kiev, the capital of Ukraine (Stetar, 1995). During the Soviet era, teacher-centered educational systems developed strong basic education in science and math. Ukrainian universities prepared specialists not only for their own needs but also for other Soviet republics according to the dictates of the central planners in Moscow. In 1991, the country's independence provided the freedom to redefine education and to form a new system to educate Ukrainian citizens (Stetar, Panych & Berezina, 2003).

After having its educational system "Russificaded", this second revolution sought to recapture national history and identity. Furthermore it was important to expand institutional autonomy while rethinking and redefining the role of educational agencies. The policies that were being implemented, sought to ensure that Ukraine would not be overly dependent upon Russian higher education for the development of the leaders and talent needed for Ukraine's economic development (Stetar, 1995).

In the last few years, European Higher Education has initiated an educational reform known as the "Bologna Process." In 1999, 29 European higher education ministers signed a joint declaration (the Bologna Declaration) to establish a European area of higher education by 2010. The main objectives of the Bologna declaration are to increase the mobility and employability of graduates to ensure the competitiveness of European higher education in the world market (UNESCO, 2004).

The declaration involves six actions relating to the: 1) adoption of a system of easily readable and comparable degrees; 2) adoption of a system based on two main cycles, undergraduate and graduate education; 3) establishment of a credit system; 4) promotion of mobility by increasing students accessibility to study and training opportunities, and recognition of teachers, researchers and administrative staff regarding periods spent researching, teaching, and training; 5) promotion of European cooperation in quality assurance by developing comparable criteria and methodologies; and 6) promotion of the necessary European dimensions in higher education, by developing curricula, inter-institutional cooperation, mobility schemes and integrated programs of study, training, and research (Bologna Declaration, 2000).

Ukrainian higher education is considerably younger than the ancient universities of Western Europe. However some of its institutions have existed for more than 350 years. Recently, the higher education system is growing rapidly and becoming diversified. In the late 1980s, there were roughly 156 public post secondary institutions throughout the country and approximately 880,000 students enrolled (Stetar, 1995); 25 years later there are about 1000 institutions and approximately 2,500,000 students enrolled. In the 1990s, private education started to flourish. Today twelve percent of the universities in Ukraine are private (ECHE, 2005). In their brief existence, the private sector appears to be highly innovative and responsive to changing educational needs. While state universities are beset with financial problems, have a relatively inflexible curricula, and possess an entrenched staff and a widening deterioration of even basic university services, the privates are moving rapidly to meet changing market demands (Stetar, 1995).

As a sovereign nation, Ukraine is one of the counties that declared its interest in the Bologna Process and asked for criteria and procedures for admission. As a new member of the Bologna process, the country is forced to modernize, up-date, and improve the quality of its higher education system. After being part of the Soviet Union for 70 years, Ukraine has started

to transform education from a top down and teacher-centered system to a student-centered approach (Nyborg, 2004).

Theoretical Framework

The scholarship of teaching has long been considered difficult to evaluate when accessing faculty performance. In a study conducted in the United States, provosts defined teaching as a variety of activities such as curriculum development, advising, and conducting instructional and classroom research (Glassick, Huber & Maeroff, 1997). In various institutions and countries to be a scholar means that first you are a researcher and publication is the primary benchmark by which scholarly productivity is measured. When scholars have a reward system in place that does not take into account the scholarship of teaching, many professors feel ambivalent about their roles. This conflict jeopardizes the quality of teaching and creates a negative impact on students (Boyer, 1990).

According to Glassick, Huber & Maeroff (1997) and Boyer (1990) in order to improve teaching competence, professors should be verified by rigorous peer review, self teaching reflections, and students' evaluations. Marsh (2001) noted that students' evaluations of teaching effectiveness are commonly used in U.S. and Canadian universities; however, this is not true in many other countries. Fortunately, evaluations are increasingly being applied in universities throughout the world and are becoming widely endorsed by teachers, students, and administrators. Teaching evaluations provide diagnostic feedback to faculty for improving teaching, a measure of teaching effectiveness for personnel decisions, information for students for the selection of courses and instructors; and an outcome or a process description for research on teaching.

In order to promote good teaching practices, programs should develop coherent, systematic plans for evaluating the scholarship of teaching. Some of the practices used to reward good teaching are travel funds for teaching improvement, special awards for teaching excellence, sabbaticals for teaching improvement, grants for course development, merit increases for teaching excellence, using distinguished teachers as mentors and the creation of a center for teaching improvement (Glassick, Huber & Maeroff, 1997).

Purpose and Objectives

The purpose of this study was to provide an overview of the perceived quality of education from the perspective of students by analyzing areas of instruction at Lviv State Agricultural University (LSAU).

1. Identify students' perceptions regarding strengths and weaknesses of instruction; and
2. Identify the use of modern technologies and devices in instruction.

Methods

To evaluate the quality of education in Ukraine, an instrument was adapted from one developed by Bruening, Boateng & Mollel (2005). The questionnaire was translated into Ukrainian by a Ukrainian native speaker. The instrument was validated by professors and students at LSAU; no changes were made to the instrument. In order to better describe the quality of education, Agricultural economics undergraduate students in their third year of study were purposefully selected to participate in the research. This group best represents the LSAU students because it is the largest group in the university and it has the most up-dated curricula.

For a population of 700 students the calculated sample size for a 95% confidence level is 248 students (Farmer & Rojewski, 2001). Ukrainian higher education students are not familiar with perception surveys. As a precaution, the sample was increased to 300 students and all students chose to participate in the study. Perceptions were measured using a Likert-type scale where 5=Strongly Agree, 4=Agree, 3= Uncertain, 2=Disagree, 1=Strongly Disagree and 1=Always, 2=Often, 3=Sometimes, 4=Seldom, 5=Rarely. The data were analyzed using SPSS 12 statistical software package.

Results

Perceptions about instruction at the LS AU

Students are not certain whether teachers at the university use old-fashioned teaching methods ($m=2.9$; Table 1) or whether teachers at the university use a variety of teaching methods ($m=3.4$), yet students perceive teachers are concerned about students' learning ($m=3.6$). One of the reasons for this uncertainty might be students' lack of comparative experiences to know the quality of their educational experience.

Table 1

Statements	<i>N=300</i>	
	<i>M</i>	<i>SD</i>
Teachers at the University use old-fashioned teaching methods	2.9*	1.05
Teachers at the University use a variety of teaching methods	3.4	0.99
Teachers at the University are concerned about my learning	3.6	0.90
The lack of government financial support for the University is lowering the quality of education	4.1	0.90
More teaching resources (money) are needed to do an adequate job of teaching	4.2	0.74
Teachers need to learn new teaching methods	4.3	0.71
Improving the quality of teaching should be a higher priority at the University	4.3	0.93
Teachers need to improve the quality of their teaching methods	4.4	0.65
Quality teaching has declined over the last three years at the University	4.4	0.82
Teachers should use more computers and computer applications to teach	4.5	0.87

*Note: 5=Strongly Agree, 4=Agree, 3= Uncertain, 2=Disagree, 1=Strongly Disagree

Students agree that teaching resources (money) are needed to do an adequate job of teaching ($m=4.2$). They agree that improving the quality of teaching should have a higher priority at the University ($m=4.3$). Students also agree that teachers need to learn new teaching methods ($m=4.3$) and that the quality of teaching has declined over the last three years ($m=4.4$). Students agree teachers need to improve the quality of their teaching methods ($m=4.4$) and that

the lack of government financial support for the University is lowering the quality of education ($m=4.1$). In this study, students strongly agree that teachers should use more computers and computer applications to teach ($m=4.5$).

Equipment and technologies used to teach

Students did not express a willingness to pay a small amount of money to have better equipment to use ($m=2.5$, Table 2). Nor are they certain whether teachers at the university should learn how to incorporate the use of computers into their teaching ($m=2.8$) or if the teaching equipment used at the University gets in the way of learning ($m=2.8$). Students are again not certain if teaching equipment used at the University is adequate ($m=3.3$).

Table 2.

Students' perceptions regarding equipment used to teach at LSU

Statements	<i>N=300</i>	
	<i>M</i>	<i>SD</i>
I will be willing to pay a small amount of money if students had better equipment to use	2.5	1.20
Teachers at the University should learn how to incorporate the use of computers in their teaching	2.8	1.10
The teaching equipment used at the University gets in the way of learning	2.8	1.20
The teaching equipment used at University is adequate	3.3	1.10
There is not enough money in the University to adequately provide the equipment that teachers need	3.9	1.04
Teachers need to get more training on using teaching models and equipment	4.0	0.79
Teachers need to be trained to use new teaching equipment	4.1	0.78
Use of computers is stressed too much at the University	4.3	0.88
Teachers at the University should use the Internet (WWW) for more of their teaching	4.5	0.67
All students should use e-mail	4.5	0.63

Scale. 5=Strongly Agree, 4=Agree, 3= Uncertain, 2=Disagree, 1=Strongly Disagree

Students agree that there is not enough money at the University to adequately supply them with the equipment that they need ($m=3.9$) and teachers need to get more training on using teaching models and equipment ($m=4.0$). Students also agree that teachers need to be trained to use new teaching equipment ($m=4.1$). However, they agree that the use of computers is stressed too much at the University ($m=4.3$).

Students strongly agree that teachers at the University should use the Internet (WWW) for more of their teaching ($m=4.5$) and that all students should use e-mail ($m=4.5$).

Perceptions regarding methods used to teach

Students are not certain about whether their teachers use lectures too much ($m=2.8$, Table 3), nor are they certain that their teachers know how they learn best ($m=3.3$). They are not certain if their teachers do a good job of teaching them ($m=3.3$). Again they are neither certain whether they need more time for independent work ($m=3.4$) nor if their teaching methods prepare them adequately for real work settings, ($m=3.4$).

Students agree that their teachers lack effective teaching methods ($m=3.6$). They also agree that other universities use more progressive teaching methods ($m=3.7$). They agree that most teachers have a good background in technical skills but lack good teaching strategies ($m=3.9$) and that teachers should experiment with new teaching methods ($m=4.1$). Finally they agree that students should practice more concepts taught in class ($m=4.4$).

Table 3.

Statements	<i>N=300</i>	
	<i>M</i>	<i>SD</i>
Teachers use lectures too much	2.8	1.01
Teachers know how students learn best	3.3	0.95
Teachers do a good job of teaching	3.3	0.83
Students need more time for independent work	3.4	0.99
Teaching methods used don't prepare me for real work settings	3.4	1.10
Teachers lack effective teaching methods	3.6	0.92
I have heard that other universities use more progressive teaching methods	3.7	1.00
Most teachers have a good background in technical skills but lack good teaching methods	3.9	0.83
Teachers should to experiment with new teaching methods	4.1	0.77
Students should practice more of the concepts taught in class	4.4	0.70

Scale. 5=Strongly Agree, 4=Agree, 3= Uncertain, 2=Disagree, 1=Strongly Disagree

Perceptions regarding methods, strategies and devices used to teach

Students agree that teachers most frequently use test and examinations ($m=1.5$, Table 4), lectures ($m=1.6$), student papers ($m=1.7$) and drill and practice ($m=1.8$) to teach. But laboratory work, chalk board/white board and independent study are often used ($m= 2.3$, $m= 2.4$, and $m=2.4$, respectively).

Table 4.

Students' perceptions regarding frequency that teachers use different instructional strategies.

Instructional strategies	<i>N=300</i>	
	<i>M</i>	<i>SD</i>
Test and exams	1.5	0.78
Lecture	1.6	0.65
Student papers	1.7	0.72
Drill and practice	1.8	0.82
Laboratory work	2.3	1.10
Independent study	2.4	0.90
Chalkboard/white board	2.4	1.11
Problems	2.6	1.02
Learning groups (students assigned group projects)	2.6	1.20
Student presentations	2.8	1.01
Examples	2.9	1.10
Group or team report	3.0	1.09
Case Study/decision cases	3.0	0.96
Reading text books	3.2	1.21
Models	3.8	1.16
Simulations	3.9	1.01
Computers	4.0	1.02
Computer programs	4.1	0.98
Transparencies	4.3	0.94
Field trips	4.5	0.89
Videotapes	4.8	0.76
Internet (WWW)	4.9	0.59

Scale. 1=Always, 2=Often, 3=Sometimes, 4=Seldom, 5=Rarely

Sometimes teachers use textbooks ($m=3.2$), group or team reports ($m=3.0$), problems ($m=2.6$), student presentations ($m=2.8$), examples ($m=2.9$), case study ($m=2.6$), and learning groups ($m=2.6$) to teach. Seldom, did teachers use transparencies ($m=4.3$), computer programs ($m=4.1$), computers ($m=4.0$) simulations ($m=3.9$), and models ($m=3.8$). More engaging strategies such as problems ($m=2.6$), team reports ($m=3.0$), case studies ($m=3.0$), and simulations ($m=3.9$) are less common. Field trips ($m=4.5$), videotapes ($m=4.8$) and the Internet ($m=4.9$) were rarely used.

Conclusions and Recommendations

In order to increase the quality of their teaching the data suggest that LSAU teachers should increase the variety of instructional materials and technologies, and structure learning in ways that learners would be actively involved. LSAU teachers currently use little technology in their instruction; and teachers need technology training. School administration and professors should increase the variety of methods in order to stimulate students learning and increase students' preparation to compete in the workforce. Case studies, panel discussions, and

collaborative learning methods are among the options to increase the variety of methods without increasing the cost of teaching. These methods will allow students to reflect from a number of viewpoints and to strengthen their problem-solving skills.

Students strongly agree that teachers should use more computers and computer applications to teach. Society has high expectations of computer literacy in recent college graduates. In United States, more than 80% of the employers rated computer skills as either an “important” or “very important” factor considered in making employment decisions (Johnson & Wardlow, p.53, 2004). Although the high demand on computer skills by employers, most agricultural students fairly often experience word processing throughout their academic program (Johnson, Ferguson, & Lester, 2000). Even though LSAU students are not willing to pay for technology, they want computers and the Internet to be part of their learning environment. The university should encourage professors to compete for technology grants and should gradually introduce technology fees so students would have greater access to better equipment.

Students at LSAU perceived that the quality of teaching has declined in the last three years and teachers need more resources to teach. There is a lack of certainty whether teachers use old-fashioned teaching methods and whether teachers use a variety of teaching methods indicate students might have never participated in rich learning environments therefore, they do not have sufficient experience to evaluate their current education.

In order increase the quality of teaching and promote student-centered initiatives LSAU needs to develop programs and strategies to evaluate the scholarship of teaching. To demonstrate its commitment to the scholarship of teaching, the university could establish a reward system by providing travel funds for teaching improvement, teaching awards, grants for course development and technology, merit salary for teaching excellence, and teacher training.

Educational implications

Students were consistent in their perceptions regarding the weaknesses and strengths of teaching at LSAU. These findings are supported by Bruening, Boateng & Mollé (2005) which discussed inadequacies in curricula, methods and technologies used to teach in the College of Agriculture at the University of the North (UNIN) in South Africa.

Colleges and universities that flourish help faculty build on their strengths sustaining faculty’s creative energies in turn will ultimately increase the quality of teaching scholarship (Boyer, 1990, p.43). In a country that is aiming to be part of European Higher Education, it is important to note that students tend to agree that the overall quality of teaching needs to be improved. LSAU has multiple challenges to overcome regarding the quality of teaching and the use of technology if it is to effectively participate in the Bologna Process. As universities seek funds to up-date equipment and for human resources, studies like this document the need to develop student-centered education which is at the heart of the Bologna Declaration.

References

- Bologna Declaration (2000). Retrieved December 1, 2005 from Gateway to the European Union at http://europa.eu.int/comm/education/policies/educ/bologna/bologna_en.html
- Boyer, L. E. (1990). *Scholarship reconsidered: priorities of the professoriate*. The Carnegie Foundation for the Advancement of Teaching p.147.
- Bruening, T. H; Boateng, J.K. & Mollé, N. (2005). Reinventing the Teaching Learning Process: Lessons from the University of the North. *Association of International Agricultural*

- Education and Extension Proceedings of the 21st Annual Conference*, San Antonio, TX, 402-410.
- ECHE - European Centre for Higher Education (2005). Retrieved December 18, 2005 from http://www.cepes.ro/information_services/statistics.htm
- Farmer, E. I. & Rojewski, J.W. (2001) *Research Pathways: writing professional papers, theses, and dissertations in workforce education*. University Press of America p.406.
- Glassick, C.E., Huber, M.T. & Maeroff, G.I. (1997) *Scholarship assessed: evaluation of the professoriate*. The Carnegie Foundation for the Advancement of Teaching p.130.
- Johnson, D. M., Ferguson, J. A., & Lester, M. L. (2000). Students enrolled in selected upper-division agriculture courses: An examination of their computer experiences, self-efficacy and knowledge. *Journal of Agricultural Education*, 41 (4), 62-72.
- Johnson, D. M. & Wardlow, G. W. (2004). Computer Experiences, Self-efficacy, and knowledge of Undergraduate Students entering a Land-Grant College of Agriculture by year and gender. *Journal of Agricultural Education*, 45 (3) 53-64.
- Marsh, H. W. (2001) *Students' Evaluations of University Teaching University of Western Sydney* Retrieved December 18, 2005 from http://apps.uws.edu.au/uws/edc/seeq/SETs_HerbMarsh_presentation_2001.pdf
- Nyborg, P. (2004). *Head, Secretariat of the Bologna Follow-up Group, Higher Education in Ukraine and the Bologna Process*. International seminar, Kiev 13-14 May 2004. Retrieved September 25, 2005 from http://www.bologna-bergen2005.no/Docs/03-PNY/040514Ukraine_and_Bologna.pdf.
- Stetar, J. E. (1995). *Ukrainian Private Higher Education*. U.S. Department of Education, Office of Educational Research and Improvement, Educational Resources Information Center (ERIC). Retrieved from <http://www.eric.ed.gov> September 22, 2005.
- Stetar, J., Panych, O. & Berezina, E. (2003). *Evolution of Ukrainian Private Higher Education: 191-2003*. U.S. Department of Education, Office of Educational Research and Improvement, Educational Resources Information Center (ERIC). Retrieved from <http://www.eric.ed.gov> September 22, 2005.
- UNESCO (2004) *International Seminar on Higher Education in Ukraine and the Bologna Process 13-14 May 2004, Kyiv, Ukraine*. Retrieved September 23, 2005 from http://www.bologna-bergen2005.no/EN/Bol_sem/Other_sem/040513-14Kiev/040513-14Kiev_Recommendations.pdf