

# Accounting for Non-Accounting Students: Case Study From Belarus

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## ABSTRACT

*One common problem associated with the teaching of accounting to university students who are studying management, marketing, law, or other area is their low level of motivation to study accounting. This paper introduced an analytical summary of the Belarusian methodological approach and teaching techniques that allow an educator to overcome this hazard. The case study revealed that the most effective educational results are achieved when a learning environment includes three components that are integrated into the content of an accounting course: (a) motivation models, (b) professional and interpersonal communication skills, and (c) a habit of interdisciplinary links construction.*

**Keywords:** *Motivation study model, learning curve, study cycle, course content, accounting*

## INTRODUCTION

Strategic priorities of national economic development are conditioned by quantitative and qualitative changes in the system of economic education. Motivation plays a crucial role in the quality of economic education and is especially important in resolving studying issues often experienced by students who have chosen a future professional career in management, marketing, law, or other area. One common problem associated with the teaching of accounting to university non-accounting students is their low level of motivation to study accounting subjects.

This paper contains a discussion of the three key components of the motivation model developed for non-accounting students and tested during 12 years of my work as a primary convener for accounting courses at the Belorussian State Economic University and the Belorussian University of Law. It provides an analytical summary of the Belarusian methodological approach and teaching techniques that allow an educator to overcome students' lack of motivation.

## FUNDAMENTALS OF THE DEVELOPED MOTIVATION MODEL

Three composite components determine the theoretical foundation and practical value of the developed motivation model: psycho-physiological, pedagogical, and socio-economic.

The psycho-physiological component encompasses concepts of:

- Russian classical reflexology, including:
  - The theory of cerebral inhibition (Sechenov, 1863) and the study of evaluation of cerebral inhibition impact on human learning activity (Sechenov, 1895)

- The association reflex theory (Pavlov, 1928), including study of respondent conditioning as a form of associative learning (Anokhin, 1968; 1971) and essentials of human goal reflex study (Pavlov, 1916)
- The theory of objective psychology and psycho-reflexology, including principles of anatomy-psychological conditions of combinative reflex, impressions influence on neuro-psychic processes, and inductive links between association behaviour and studying reflexes (Bekhterev, 1907; 2001)
- Selected results of laboratory experiments and theoretical studies abroad (e.g., fundamentals of physiological psychology and psychology of memory (Wundt, 1874), experimental study of memory (Ebbinghaus, 1913), the theory of human motivation (Maslow, 1943), study on limits of human brain capacity for processing information (Miller, 1956), and studies on physiology of motivation and self-motivation (Olds, 1958; 1975))

The pedagogical component is based on Russian classical pedagogy that was shaped by two complementary models created and tested in the late 19th and early 20th centuries. The first is the aesthetic-based education model; it emphasises the essentials of two key components: national cultural background and socio-physiological characteristics of a student (Ushinsky, 1868). The second, the study motivation model, stresses the system approach to all levels of Russian educational institutions and determines the importance of mutually coupled principles of continuity of each education level (from primary school to university), moral priorities in professional education, national self-consciousness, and civic responsibility (Pirogov, 1881; 1910). Although the main motivation suppressors (i.e., impact of social class limitations on educational content and consequential premature specialisation of school students) were identified by Pirogov more than 100 years ago and resolved in the Soviet education system, the tendency within the education environment since this transition has led to growing concern that the suppressors are re-emerging.

Pirogov's (1881) and Ushinsky's (1868) models were further extended in:

- Common pedagogy motivation theories, studies, methods, and techniques developed by means of:
  - Intellectual, manual, and creative work (Makarenko, 1935; Shatsky, 1980) tied to a student's self-control and self-discipline, essentials of a student's group characteristics, and personal characteristics of an educator (e.g., strong, attractive, and altruistic personality, whose personal and public life proves his or her dedication to declared values)
  - Identification of students' learning behaviour and complementary combinations of active/passive education methods (Golant, 1957)
  - Prioritisation of humanistic educational function over cognitive function (Iliin, 1988) and surpassing education based on the key signals learning techniques (Shatalov, 1979)
  - Encouraging students' creativity based on didactic goals priorities (Danilov & Esipov, 1960), cognition tasks method (Lerner, 1981; Skatkin, 1982), and typology of learning activities (Lerner, 1981; Skatkin, 1982)
  - Training students to develop a responsible attitude towards the studying process (Babinskiy, 1977)
  - Phased (gradual) knowledge perception (Lehachev, 1998) and students' self-expression, self-testing, and self-development (Shatsky, 1980; Lehachev, 1998)
- Precise studies in the area of accountancy education that encourage both the encyclopedic cognition approach (e.g., Scientific School of Academicians, S. K. Tatur and A. D. Sheremet at the Moscow State University; V. I. Strazev at the Belorussian State Economic University) and the utilitarian approach to post-university professional education (Volgin, 2003)

Due to the specifics of teaching accounting courses for non-accounting students, a combination of both common and precise pedagogy methods was used for the developed motivation model.

The socio-economic component was based on the unique Russian cultural and business environment, which includes high socio-economic status of economic education, social-community form of economic organization (Aksakov, 1857; Chireevskiy, 1861; Chomjakov, 1900), strong leadership and paternalism and a combination of collectivism and individualism, creativity, practicality, intelligence, and diligence (Kartaviy & Nechashkin, 1999), and transition tendencies of competitive collaboration (Tokorev, 2011).

A logic analysis of the study motivation core and interrelationship of its components (Figure 1) allows one to define the study motivation of a student who is enrolled in an accounting course as an emotionally steady individual condition, induced by his or her specified socio-physiological needs.

Where:

area of impact on student's  
motivation

direct links between components  
oblique links between components

**Figure 1: Core of a Student's Motivation Study Model.**

Physiological and psychological (mental) components in the study motivation model are mutually coupled. In this study, they were considered as an individual or a group set of physiological characteristics (e.g., health conditions) that describe students' ability to study and psychological characteristics that describe their readiness for various learning processes.

An educator has only minimal capability to change the physiological component of a student's group. However, per the theories of functional systems (Anokhin, 1971) and the theory of cerebral inhibition (Sechenov, 1863; 1895), the short-term teaching impact on students' emotional components leads to standard, temporary psychological reactions that link to the cerebral excitation/inhibition of their brain. Permanent changes in a student's brain are achievable due to the sequence of initial emotional involvement, then a repetitive impact on the rational components that are forming permanent/stable changes in neuronal connections, and, as a consequence, enduring qualitative changes in a student's mental condition (i.e., long-term motivation).

## APPLICATION TO TEACHING/STUDYING PRACTICE

Qualitative analysis of data collected from the Belorussian State Economic University (2001-2004) and the Belorussian University of Law (2001-2004) reveals volatility in the effectiveness of rational and emotional motivation components within students' temperament, age, gender, marital status, level of previous education, and level of professional experience (Table 1).

**Table 1: Susceptibility of Different Students' Groups to an Impact on Rational and Emotional Components of Studying Motivation Intensity**

Student's Group Parameter	Rational	Emotional
Temperament type	Sanguine temperament	+++++
	Choleric temperament	+ (+)
	Phlegmatic temperament	+++
	Melancholic temperament	+ (++)
Age (No data were available for the 46-55 age group.)	23 and younger	+++++
	24-32	++++(+)
	33-45	++++(+)
	56 and older	+++(+)
Gender	Males	+++++
	Females	+++
Level of previous education	High school certificate	+++
	College degree	++++
	University degree	++++
Level of professional experience	No experience	++
	Experience in casual positions	+++
	Experience in professional positions	+++++
Marital status	Single	+++
	Married	++++

Where:

- (+) shows intensity of student's gradual reaction
- + shows intensity of student's immediate reaction

The motivation environment for non-accounting students studying accounting includes internal and external elements. External elements are represented by a variety of sustaining and suppressing factors. The following sustaining external factors were identified:

- Cultural beliefs and study traditions of the population (e.g., weak knowledge and low marks by students' families, damage to students' reputation in a student/academic environment becoming an obstacle at the beginning of the students' professional career)
- Specific national legislation, when knowledge of accounting methodology becomes vital for personal and business security (e.g., strict legislative measures for accounting errors and fraud apply to a business entity and equally to both parties (e.g., chief accountant and director) who sign an entity's financial, statistical, and tax reports)

The main external suppressing factor (Figure 2) for students with no professional experience is based on prejudice against accounting disciplines, as they are considered complicated, boring, and of no professional use to people studying for non-accounting degrees. It follows, from a number of conducted experiments, that the most efficient way to resolve this issue within a first lecture is to apply both rational and emotional components (e.g., through appealing examples taken from a business environment, class

discussion on how accounting can help students in their professional and private life, guidance through simple examples of accounting matters that help to build up students' confidence).

As key motivators, the following internal instruments were used:

- Teaching and learning methods, information delivery-reception techniques, and interpersonal communication skills
- Set of course requirements (including communication rules)
- Control measures

Each of these instruments can act as an internal sustaining or suppressing factor. The best motivation approach was achieved through optimisation and balancing within the accounting course content of the following components: rewards and restrictions, reassurance and confidence, challenges and elementary tasks.

Where:

course edge

links between internal components

**Figure 2: Model of Motivation Study Environment for Non-Accounting Students**

Organisation forms for studying include in-class activities (i.e., lectures, tutorials, conferences) and out-of-class activities (i.e., routine homework preparation, individual and group research, individual and group consultations).

The course outline is a fundamental tool for planning teaching activity in a way that ensures ongoing support of students' study motivation. The selected teaching methods were scheduled with consideration for the study cycle stages (Table 2). At the introductory stage, applied monolog-explanatory and repetition methods with minor elements of communicative methods were used primarily. The intermediate stage allowed for a gradual increase in the role-imitation, communicative, and problem-

solving methods. A focus on students' attention within interdisciplinary links was found to stimulate their creative and cognitive approach to all courses they are studying or have studied. At the advanced stage, students were asked to prepare a group assessment that required their knowledge and active use of accounting, management, marketing, and legal skills. The results of their assessment were checked by teams of independent referees (i.e., other students enrolled in the same course), discussed, and later presented at faculty/student conferences. An invitation to the conferences for representatives of leading law and accounting entities (as future employers), academics, and students' families and friends contributed to the shaping of their professional and communication skills as well as a self-motivation system for the post-final stage.

As suggested by the case study data (Table 2), only the first three stages (i.e., introductory, intermediate, and advanced) might be directly controllable by an educator within the course duration. Although the post-final stage extends beyond the course time frame and cannot be directly managed by the educator, the level of application by students (e.g., continued use of selected accounting skills in post-university professional life) reflects upon the teaching and knowledge/skills obtained by the student during the course.

**Table 2: Schedule of Allocation of Different Teaching Methods at Different Stages of a Study Cycle**

Teaching Methods	Study Cycle Stages			
	Introductory	Intermediate	Advanced/ Final	Post- Final
1. Monolog-explanatory methods <ul style="list-style-type: none"> <li>• Instruction and step-by-step guidance</li> <li>• Illustration</li> <li>• Conspectus</li> <li>• Image signals for the theory fundamentals</li> </ul>	√ √ √ √	√ √ √ √	√ √ √	
2. Repetition and role-imitation methods <ul style="list-style-type: none"> <li>• Exercises</li> <li>• Queues</li> <li>• Role-plays</li> </ul>	√ √	√ √ √	√ √	
3. Communicative and problem-solving methods <ul style="list-style-type: none"> <li>• Dialogs</li> <li>• Discussions</li> <li>• Case studies</li> <li>• Projects and research</li> <li>• Presentations</li> <li>• Brainstorms</li> <li>• Self-education</li> </ul>	√     √	√ √ √  √ √	√ √ √ √ √ √ √	√   √  √

The step-up nature of a learning curve (Figure 3) aligns with four determined stages of the study cycle for accounting courses. *Flat intervals* represent a term duration of a student's routine work that leads to accumulation of knowledge and skills related to the accounting course (i.e., quantitative changes). The curved areas of the learning curve show a *qualitative jump* in the level of a student's knowledge and skills. It can be reliably measured by an educator as a quantitative shift from the introductory to the intermediate stage or from the intermediate stage to the advanced stage. This stage is identified by a rapid increase in students' confidence and awareness of their ability to deal with a logically completed block of

the course. Also, it becomes a strong motivational tool. The motivation effect from the quantitative shift lasts for a relatively short time (e.g., has dependencies). The most intensive motivation is required during the flat intervals at each stage of the studying cycle. Hence, the further out a study cycle stage on the time studying line, the less intense the external motivation methods required.

Where:

Learning curve

Intensity of students' external motivation methods

Intensity of students' self-motivation motivation methods

**Figure 3: Learning Curve Motivation**

*Source: Adapted from Sutherland & Kornwell (2005)*

The higher the level of students' achievements prior to commencing the course, the sharper the initial increase in their knowledge at the beginning of the introductory stage (Figure 4). Study motivation is required at the steady sections only. While moving from the introductory to the advanced stage, teaching strategies should ensure the gradual transition of students' external motivation to self-motivation.

**Figure 4: Trend of Grades Demonstrated by Non-Accounting Students in Accounting Courses**

*Note: At the selected period of time, students' performance evaluation used the five-mark system.*

As suggested by the results of the comparative analysis application discussed above, the motivation model allowed for significant improvement in non-accounting students' performance. The percentage of students who achieved high distinction in 2001-2002 rose by more than 3 times (from 15.1% under the

standard methodology to 48.2% under the developed methodology). The number of failed students decreased from 9.6% to 4.7% (2001-2002). The results remained stable during all 3 years of testing.

## CONCLUSION

This study demonstrated that students' motivation plays a crucial role in achieving qualitative changes in the accounting education of non-accounting students. Motivation of students' groups and individuals within these groups is a composite matter affected by students' physical, psychological, and social variables. Therefore, it is essential for an educator to apply a flexible combination of rational and emotional motivation components, individually tailored for all student groups.

The proposed motivation model steps up from the traditional physical and psychological approaches and highlights a trinity of physical, psychological, and social motivation components. Observation and analyses of pertinent sustaining and suppressing factors allowed for:

- Identification of the main elements of a motivation study environment relevant for non-accounting students
- Optimisation of content of accounting courses
- Increased effectiveness of traditional and innovative teaching methods
- Improved student performance

The universal nature of the developed approach makes it appropriate for international practice.

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