

# Traditional Education vs. E-learning in the vision of Romanian business students

M. Tutunea, R.V. Rus, V. Toader

**Abstract**— It is well-known that the globalization of the online environmental communication influenced all sectors of human activity; therefore education, as a personal and professional training has undergone the same trends. The development of e-learning, as an alternative to traditional education, has generated different perceptions among the main players of university education - teachers and students. To emphasize these different perceptions, in our study, we compare the traditional with online learning from two perspectives. Firstly, we made a literature review on e-learning studies showing different perceptions. Secondly, we considered useful and necessary to analyze the Faculty of Business students' perceptions regarding the e-learning and traditional learning. The study was conducted from the perspective of a software solutions implemented by our faculty, namely a platform for long distance education, developed on Microsoft Office SharePoint Server 2007.

**Keywords**— E-Learning, Internet, student survey, student perceptions, traditional learning, Web Platform.

## I. INTRODUCTION

### A. Evolution of Romanian online environment

THE Internet has registered the fastest growth among all means of communications known in the communications industry history – faster even than television and telephony. For example we know that, only in Europe, the number of households who have Internet access at home has doubled each year since 1997, while worldwide, the Internet user population has registered a spectacular and continuous growth. Also, the communication on the World Wide Web is very fast, allowing instant transfer and manipulation of large databases, text files, images, multimedia files all over the world. As a result, the consumers can purchase and obtain any digital product (software, e-books, video presentations, video-conference, etc.) instantly from the Web.

Romania is not an exception from this global trend. Statistically speaking, the number of Romanian Internet users exceeded 6 million in 2006. Traffic.ro, the Web analysis service offered by Netbridge Development, which monitors

over 21000 Romanian sites (21562 in 2006) has accounted in May 2006, 5798332 unique visitors from Romania and 17406730 unique visitors from abroad [11]. The number of the Romanian active Internet users (which access the Internet at least once a month) has increased in May 2006 with 11.22% compared to April (when it reached the value of 5213241) and with 22.39% as compared to the beginning of 2006 (when according to Traffic.ro [11], the monitored sites were accessed only by 4737426 active users from Romania). In addition, the international statistics revealed that the number of Internet users in Romania had a continuous upward trend, as we can see in the table below:

Table 1: The evolution of Internet users in Romania

Year	Users	Population	% Pop.	Usage Source
2000	800,000	22,217,700	3.6 %	ITU
2004	4,000,000	21,377,426	18.7 %	ITU
2006	4,940,000	21,154,226	23.4 %	C.I. Almanac
2008	12,000,000	22,246,862	53.9 %	ITU - Mar/08

Source: Internet World Stats [10]

According to the same statistical sources [5], Romania is situated between the first ten countries in Europe, by the number of Internet users:

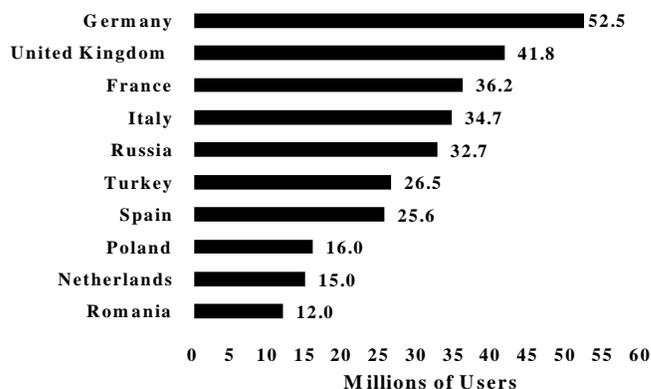


Fig. 1 Top Ten Internet Countries in Europe

Source: Internet World Stats [10]

Basis: 1,463,632,361 world Internet users for June 2008

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In TOP 47 countries with the highest Internet penetration rate, Romania is on the 41 place. [10]

### *B. E-learning activities in Romania*

Due to these developments, and also to the social structural changes that took place in Romania after 1995, generated mainly by increased mobility of people, there can be observed a migration of individuals to some education forms that were less approached before, or not at all, in Romania. As a consequence, the demand for Distance Learning forms grew more and more. These learning forms facilitated the access to education of the persons who could not attend daily classes (courses) organized by higher education institutions. As a result, based on the development of a more and more powerful IT&C infrastructure (hardware, software, communication, Internet) and taking into the consideration the Romanian Society trends, the prerequisite for the implementation and expansion of a new concept in learning – namely e-learning, could be created.

On the other hand, in accordance with the Commission's proposals on the framework for Competitiveness and Innovation 2007-2013 [12], the Romania specific objectives are: to increase the penetration of the Internet services (organizations/population) from 52%/9% in 2004 to 70%/55% in 2015, and to develop the knowledge-based economy, by promoting research, innovation and by accelerating the development of the information society. It is well known that services, including services in education, cannot exist, or cannot be developed, without rapid and secure ways to exchange information. On the other perspective, modern electronic public services (e-governance, e-education and e-health) should be developed and made more efficient. At least at the European level, the contribution made by Romania in e-governance development field is well known, and also, the expanding of e-learning catches the real contours. Therefore, according to an Intuitext study, one of the companies that provide educational services via the Internet, the Romanian Corporations spent, this year, more than 10 percent of the training budget especially for e-learning, which means double compared to last year. "The biggest interest for such kind of services, comes from companies with many employees and, especially, from those who have employees in the territory (in different regions, locations). Banks and telecommunications companies are the first who use e-learning. This is because through computer-base courses are transmitted information related to internal procedures, to work organization and protection that is mainly the huge amount of knowledge that an employee must have, but whose assimilation is generally pretty boring. Using checked methods for maintaining attention such information goes to a very large number of employees with cost that are not very high" [12]. It is very easy to realize that this segment, the Romanian corporate sector, is an important generator of demand for e-learning.

### *C. E-learning environment used by "Babeş-Bolyai" University*

In Romania, the most used platform for e-learning are:

- Blackboard [13];
- WebCT [14];
- Moodle [15];
- Microsoft Learning Gateway [16];
- AEL: Educational Assistant for Secondary Schools - MEC educational project of the Program for Information Society development.

To this strong trend of translation from traditional education (offline) to online learning environment joined also Babeş-Bolyai University, Cluj-Napoca, in order to adapt its educational supply to the newest trends of increasingly mobile demand. In consequence, in recent years, a form of e-learning has been implemented, based on a software solution using Microsoft Office SharePoint Server 2007. The platform has been thought to carry out teaching activities for distance learning education form. The Babeş-Bolyai University is an intercultural University, so the portal is active in several languages - Romanian, Hungarian, German and English. The user interface is common for all the faculties belonging to the Babeş-Bolyai University and the solution has been adopted by all of them. The main portal sections for each faculty, specialization, and year of study are grouped by category: administrative information, analytical programs, tutors list, course materials, forum with different teachers-students discussion topics and email.

The platform for e-learning used by "Babeş-Bolyai" University (Microsoft Learning Gateway) has the following characteristics:

- integrates facilities: on-line courses, task links, feed back, dedicated e-mail, chat, discussion lists, schedule;
- hosts pages of teachers and students, sharing of resources and various communication facilities;
- provides security - the access to the portal is made on different types of users and different levels of access, depending on the user's needs;
- provides an environment of cooperative learning where the student is the central point of the educational system;
- improve courses through the possibility to provide video distance courses;
- includes a system of dedicated video with colleges, university extensions.

Based on these particularities, our proposed objectives for the long-distance education portal were:

- to develop facilities for e-learning and educational system centered on the student;
- to increase the involvement of students in the educational process, setting a proper space for learning;
- to create a more efficient general framework, flexible programs for developing long distance, continuing and long time learning;
- to develop the number of academic extensions in the region and to raise the long distance students number;
- to reflect the multicultural nature of our academic programs.

The screenshot for the long distance learning homepages of “Babeş-Bolyai” University and of Faculty of Business are presented in Fig. 2 and Fig. 3.



Fig. 2 - The homepage of “Babeş-Bolyai” University’s long distance learning portal



Fig. 3 - The homepage of Faculty of Business’ long distance learning portal

## II. LITERATURE REVIEW

There are many studies that emphasize the differences and the similarities between the traditional and on-line learning, or describe the distance students’ perceptions regarding this new teaching methods. We selected some of these papers in order to highlight their contribution to literature.

J. Bilbao and collaborators concluded that although e-learning technologies and IT software platform are used as a relatively new environment for learning, the students had a positive perception regarding them. Also, he underlines that a very open and transparent platform for the E-learning (in the sense that can be accessed by a very diverse target audience) can be extended from the academic level to general public interested in offering academic courses for long-time learning [4].

Starting from the growing popularity of online tools like blog and wikis, J. Vrettaros and K. Argiri launched a reflection regarding the suitability of these instruments to generate in-depth learning and education [5]. Also, they presented a solution for web-platform tools and for e-learning.

A profile of distance students is clearly built up by S. Y. Tucker and E. Hodge. Their results revealed no significant difference between traditional and e-learning students [8]. Obtaining similar results, we sustain some of their conclusions regarding distance students type and preferences. We agree with their idea that students’ easiness in using information technologies has a significant influence on the students’ acceptance of an e-learning method [8]. But, studying the Romanian distance students’ profile, we have discovered also some differences, which will be presented later.

On the other hand, there are comparative studies that emphasized the fact that e-learning has not a positive perception among students. Even if they obtained these conclusions, some of these studies [6] launched a suggestion for teachers to give increased attention to new technologies, to apply them in education and to permanently track their impact on the students’ efficiency.

Regarding the methods used in order to evaluate the efficiency of traditional and online learning methods there are studies which compare the exam results obtained by two groups of students: one group of students was the subject of a traditional learning method, while the other was the subject of an online learning method. More than that, they concluded that the exam grades of online students were higher [6]. We are not sustaining these conclusions. We consider that comparing the exam result obtained by traditional students and distance students does not represent a suitable approach. In our view, there are some consistent differences between these two categories of students that impede the implementation of this evaluation method. Firstly, distance students have one big advantage as reported to traditional students. They have practical experiences. Most of them will choose to study the same domain as they are employed, so they have a solid practical background to accumulate theoretical knowledge. In contrast, the traditional students have other advantages:

- they have more time to study;
- in general, they can gather many explanations during the traditional classes;
- they don’t have many other responsibilities then the study.

Other papers emphasize the cost effectiveness of online learning [7]. These authors show that even if the initial costs for an e-learning platform are high for many universities, the operational costs are lower. The online education does not require extensive travel cost or time (neither for teacher, nor for students), giving to distance students the possibility to obtain the courses and the necessary materials no matter where they are geographically located.

It is known that the subjects regarding the students’ perceptions about the differences between the traditional and online learning methods were the concern of many experts.

Therefore we want to emphasize the results of our study compared with the results and conclusions obtained by other professionals in the field.

Thus, we can notice that our study results are included in the overall vision of e-learning as a new alternative to traditional education.

To have a complete picture of e-learning effectiveness, perceptions of both major parties involved in the process of education - students and teachers, should be studied; so we have proposed further study of the teachers' perception on alternative e-learning. Also, online education as outsourcing, mass education in the open system, designed for long term learning outside the academic environment should not be omitted.

### III. PROBLEM FORMULATION AND METHODOLOGY

As a result of the distance learning platform's implementation we initiated a study related to the perceptions of the main pylons involved in learning activities – students as beneficiaries and teachers as education service providers – on e-learning. Due to the extension of the study initiated by us, in this paper we will expose only the results of our research related to the students' perceptions about this platform for distance learning.

Using statistical methods we identified a representative sample from our students. To collect the data, we applied a questionnaire on the selected population. The data were processed using statistical instruments.

#### A. The purpose of this study

The purpose of our study is to identify the students' perceptions regarding online learning using the portal implemented by our university. At the beginning of the distance learning platform implementation, the students reacted negatively. They were afraid that, with this new method, will not be able to gather so many knowledge as they obtained using the traditional method. So, our objective is to see if there are any changes in their perceptions after the first semester when they have been using distance platform.

#### B. Choosing information sources

The sources of information are primary and secondary: the primary came from the data gathered from questionnaires, and the secondary are obtained from the Internet, research studies, watch-sites, newsgroups, chat-rooms, etc.

#### C. Defining the Sampling Frame

Taking into consideration the field of our study, the studied population is composed by the distance learning students of our faculty, as representatives of demand for e-learning.

#### D. Data Collecting

For data collection we used a specific questionnaire, direct observation and traffic analysis on the portal.

#### E. Elaborating the Questionnaire

The questionnaire represents the data collection instrument upon which the success of the study depends. Starting from this fact and considering the purpose of this study and the nature of the investigated population we decided to use only closed questions when we elaborated the questionnaire.

The questionnaire applied by us had 13 questions and was structured in four sections:

- the first section identify the respondents - age, sex and residence;
- the second section contains questions referred to the availability of a computer, the existence and location of a permanent access to the Internet;
- the third section contains questions regarding the time available for study and the skills of respondents in terms of Information technology;
- the last section was dedicated to find the respondents' perception on online education in general, and on the platform dedicated to distance education, implemented and used by our faculty.

#### F. The sample

The sample was selected by random sampling.

Because the purpose of the study is to obtain data to be representative for the entire studied population, it was raised the problem to contact all the subjects.

#### G. Methods we used

The participants in the study, which are part of the random sample, responded to the questionnaire posted on a website specially created for this study.

Participants were chosen by automatic procedures, being contacted by announcements on the forum/discussion and by e-mail section via our portal for long distance learning.

#### H. Establishing the size and the structure of the sample

The overall population was of 320 students. The final sample, selected by random sampling and by the number of the correct and complete questionnaires, was 285; therefore a useful response rate of over 89%.

## IV. DATA ANALYSIS

### A. Respondents profile

For the beginning, we will analyze the results of the first questions sections, namely:

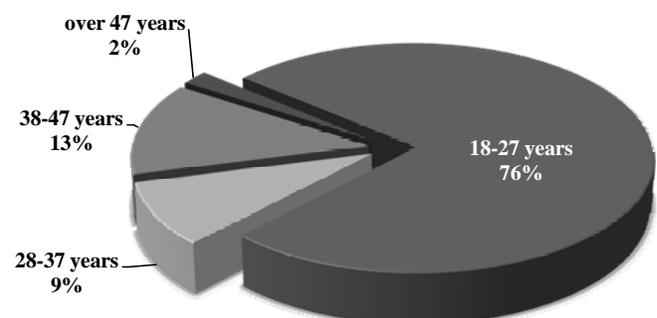


Fig. 4 – The structure by age categories

1. on the respondents age and gender. Depending on the age factor, we obtained the structure from the Fig. 4, the respondents being aged between 18 and 49 years, with an average of 25.7 years (standard deviation = 7,2). It is visible that the age category 18-27 years is predominant. We can

deduct that very young people are available for online study, compared with the age categories that exceed 47 years, which are very little represented. Depending on sex structure, we can observe (5) that the number of female respondents is greater than the number of male respondents;

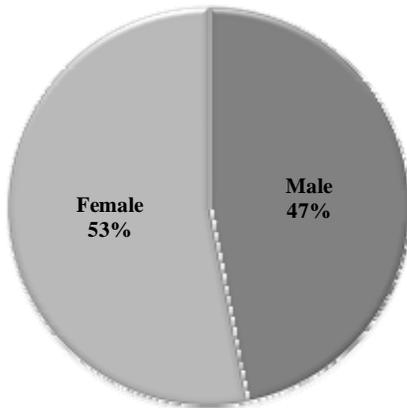


Fig. 5 - The structure by gender

2. from the perspective of distance between the place of respondents' residence and the location of our Faculty – Cluj-Napoca, the results reveal the fact that 67% of those who have chosen distance education live at a distance of less than 60 km from the faculty location (Fig. 6).

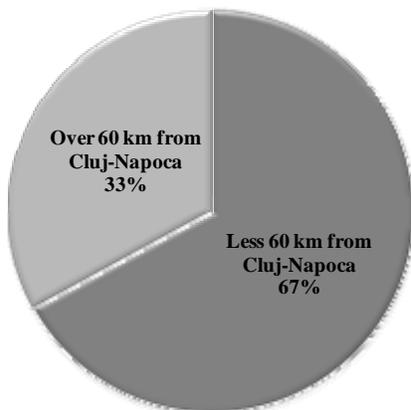


Fig. 6 - The structure by residence

The profile of Romanian distance student is a little bit different than the profile of distance students from other countries. In order to enhance these differences, we compare the Romanian distance student profile with the profile described by Tucker and Hodge [8].

Typically the distance students are older than the traditional students, being more than 25 years old and most of them are likely to be female [8]. In our case only 34.9% of the distance learning students are more than 25 years old. We believe that this difference is due to the fact that in Romania we have two different types of distance learning students. The first category (approximately 20-25% out of total distance learning students) is matching the profile presented in the literature [8]:

- the majority of them are married;
- they have higher incomes;

- they are mature and they have a high motivation to follow classes;
- they are disciplined and meet the dead-lines;
- usually, they need the business studies in order to develop their carrier.

The second category (the youngest one) has opted for distance studies due to the following facts:

- their revenues are lower and they could not afford to pay the study fee without having a job;
- the job responsibilities are more important than the studies. Most of them are willing to neglect studies when they have some job problems;
- they are not so disciplined like their older colleagues;
- they are more familiarized with IT&C facilities than the older distance students.

The number of female is greater in our case too, but the difference is not so significant like in the case of other studies (in our case 53% were female, while in Tucker and Hodge study 74% were female).

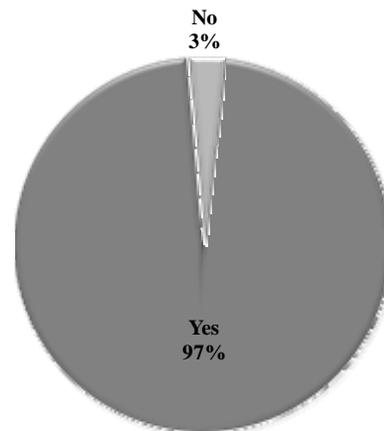


Fig. 7 - PC's ownership

Knowing that online learning requires an infrastructure of hardware, software and communication, we watched, on the one hand, which is the share of people who have a personal computer and on the other hand, if they have access to the Internet and which is its location (the place of Internet use).

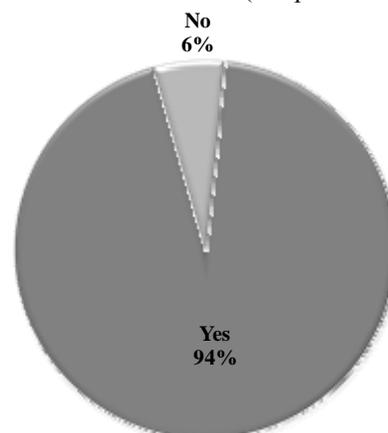


Fig. 8 - The situation of the Internet access

Although most of them have a computer (Fig. 7), and have Internet access (Fig. 8) only 79% access the Internet from home while 11% use the internet at work and 10% from different locations (Internet café, friends, etc.).

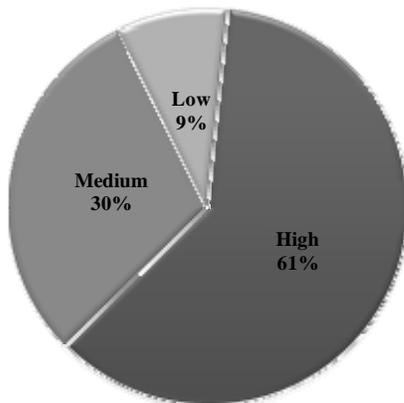


Fig. 9 – Individuals' level of computer skills

To find the respondents' level of basic computer and Internet skills were placed two questions, namely:

1. Mention which of the following operations you can do without any help:

- Launch programs on your computer (e.g. Microsoft Word, Internet Explorer, Windows Explorer, etc.);
- Work with (handle) files and folders (copy, save, move, rename, delete);
- Use Copy-Paste options in the applications (e.g. Text editors);
- Use formulas in a spreadsheet (e.g. Microsoft Excel);
- Compress files (Archiving / Extracting);
- Use programming languages.

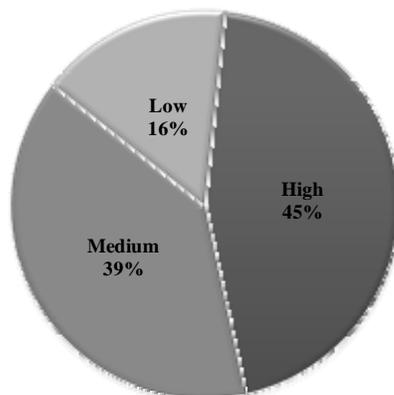


Fig. 10 - Individuals' level of Internet skills

2. Mention which of the following operations on the Internet you can do without any help:

- Use search engines to find information (Google, Yahoo, AltaVista, MSN etc.);
- Send e-mail with attachments;
- Communicate with other people using chat, forum, newsgroups;

- Use the Internet to make phone calls;
- Use local networks for exchanging multimedia resources (DC ++, torrents, etc.);
- Create a Web page.

The answers to this questions were processed in order to determine the respondents' levels of IT knowledge: persons who ticked 1 or 2 of the computer-related items were coded as 'low level', persons who ticked 3 or 4 items were coded as 'medium level' while those who ticked 5 or all activities were labeled as 'high level'. In the classification of these answers we have adopted the levels set out in the Eurostat statistics [12]. The results for the individuals' level of basic computer skills and Internet skills are presented in Fig. 9 and Fig. 10.

### B. Determinants for e-learning choose

Considering that one of the factors that might lead individuals to opt for a distance and online learning form may be the lack of time required to follow the classes, we placed a question related to this factor. The conclusion was that the investigated population has very little time for study. Most of them have time for study just in the weekend (44%), 23% can dedicate at least 2 hours per week for study, while 33% can study only occasionally (Fig. 11).

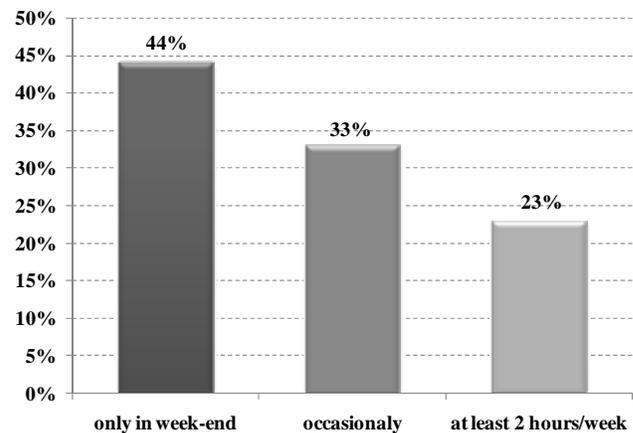


Fig. 11 – Distance students' available time for study

Another factor that can influence their decision to choose online learning can be the previous experience in online courses and we placed the following question: Have you participated in courses on-line? The results were pretty surprising; a great majority (86%) did not have previous experience related to online courses.

Information society development and IT & C industry growth generated big changes, including at the individual level; so, we considered as being very useful to see which is our respondents' perception regarding the relationship between IT and education. The results revealed that 46% of respondents consider the link between information technology and education as being a strong one, while 49% believe that this relationship is moderate and only a very small percentage of respondents (5%) consider that there is a poor connection between these two factors (Fig. 12).

According to these results, we consider the fact that the majority of the distance learning students did not have previous experiences in online courses represented the main reason for their reticence at the beginning. But, during the first semester when they use the e-learning platform their reticence decreased.



Fig. 12 – Distance students' perceptions regarding the link between IT and education

The facts that, generally, the distance students have little time for study and that 95% out of them perceive that between IT&C facilities and education exist at least a moderate correlation determine us to affirm that we have good premises in developing this type of study.

#### C. Distance students' perceptions regarding the teaching method

Analyzing the students' preferences regarding the teaching method, we observe that 55% out of the respondents prefer to combine the traditional with the online method. The students' skills in using computers and Internet influence their preferences regarding the study method: the majority of the students that prefer the traditionally method have low skills in using computers, while the students that have good and very good skills in using computers prefer the online method. In the Fig. 13 we have the students' preferences regarding the teaching method.

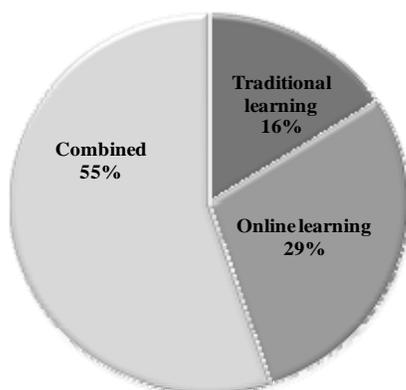


Fig. 13- Students' preferences regarding the teaching method

Previously we conclude that the youngest distance learning students have more IT abilities. In our view, this is the reason why we have so many students preferring the online and combined teaching method. Observing the distance students activity on the e-learning platform, we observed that the persons who manifested the highest reticence at the beginning were the most active persons on the platform. They demanded a lot of questions and launched discussions. We consider their attitude as being normal: sustaining the traditional education, they needed additionally explanations. For them the combined method (e-learning facilities and some traditional meetings) represented the best method.

The results are similar with other studies [8]. Tucker and Hodge showed that the majority of distance students preferred web-based learning, being satisfied by this type of education.

#### D. Distance students' perceptions regarding the online platform

The students' perceptions regarding the accessibility to the distance learning platform highlight the easiness and the accessibility of this facility. As we can see in the Fig. 14, only 5% out of the respondents sustained that they do not understand what to do.

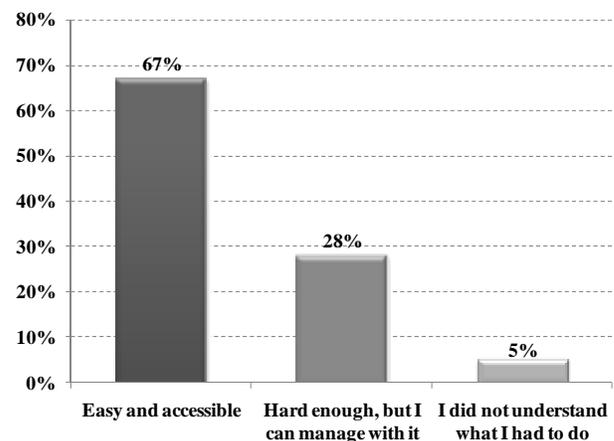


Fig. 14 - Students' perceptions regarding the accessibility to the platform

The levels of computer and Internet skills have an important impact on the accessibility perceptions. In order to verify this assumption, using the statistical software Statgraphics Plus for Windows version 3.0, we applied the  $\chi^2$  test. Since the P-value is less than 0.01 in both cases (for basic computer skills  $p = 0.006$  and for basic Internet skills  $p = 0.006$ ), we can reject the hypothesis that computer and the Internet skills does not influence the students' perception regarding the accessibility of the distance learning platform. Computing the Kendall tau and Pearson coefficients, we verified the correlations between these variables. The results proved the existence of a significant correlation between the students' computer and Internet skills and their perceptions regarding the accessibility to the distance learning platform. In both cases, the correlation is direct, with medium intensity:

- the students with higher computer skills consider the

distance learning platform as being more accessible (Kendall's tau value is 0.4329, while Pearson's value is 0.5067);

- the students with higher Internet skills consider the distance learning platform as being more accessible (Kendall's tau value is 0.4249, while Pearson's value is 0.5025).

Over 80% out of the students consider that the distance learning platform increased the flexibility of the study program (see Fig. 15). Due to the permanent access to materials and to the possibility to have quick feed-back from teachers, the students are able to manage better their study time.

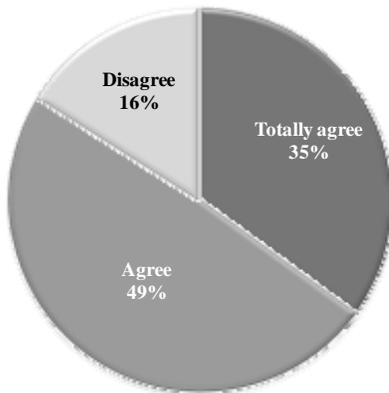


Fig. 15 - Students' perceptions on increasing the flexibility of study program

The correlation analysis, demonstrated that the students' preferences regarding the study method has a direct, but low (Kendall's tau coefficient = 0.1527, Pearson's coefficient = 0.0546), influence on their perceptions regarding the ability of the platform to increase the flexibility of study program. The  $\chi^2$  test confirmed that we can reject the null hypothesis, according with which there is no correlation between these two variables, with a 99% confidence degree (P-value = 0.006). In conclusion, some of the students that prefer the online and combined teaching methods agree that the distance learning platform increase their study program flexibility.

97% out of the questioned students (as we can see in the Fig. 16) sustain that the distance learning platform increased the accessibility to the study materials. Before the implementation of the distance learning platform, the students used to receive a CD with all the courses' materials. But, in order to obtain the CD, they had to come at faculty (in Cluj-Napoca). Now, they have the courses on the platform and they can download them anytime they want.

The students' perception regarding the easiness of obtaining courses is directly influenced by their perception regarding the accessibility to the distance learning platform. The great value obtained for the  $\chi^2$  test (44.24, while the reference value is 13.97 for a 99% confidence level, P-value = 0.0001) confirms that we can reject the null hypothesis with a 99% confidence degree. Even if the intensity of the correlation is low to medium (Kendall's tau coefficient =

0.2715, Pearson's coefficient = 0.3631) we consider that the students that believe the platform is easy to use and accessible agree that the access to the course is more facile.

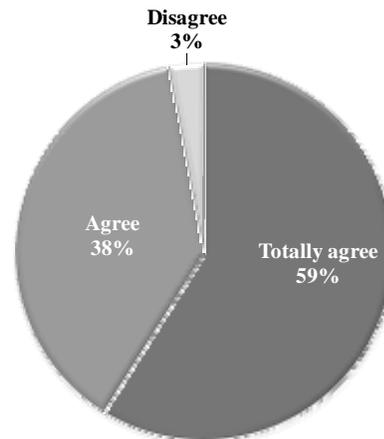


Fig. 16 – Students' perceptions on the increased accessibility to study materials

83% out of the questioned students consider that the distance learning platform is suitable for the distance students (see Fig. 17). Using the  $\chi^2$  test we deduced that this perception is influenced by the level of computer and Internet skills, by the students' preferences regarding the teaching method and by students' perceptions regarding the accessibility to the distance learning platform.

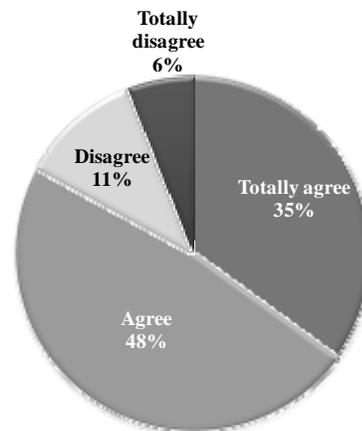


Fig. 17 – Distance students' perceptions on platform suitability

The  $\chi^2$  tests demonstrated the existence of correlations between the students' perception regarding the platform suitability for distance learning and the variables mentioned above:

- correlation with students' PC skills:* Since the P-value is less than 0.05 (P-value = 0.0304), we can reject with a 95% confidence degree the hypothesis that PC skills does not influence the students' perception regarding the platform suitability for distance learning. The Kendall's tau coefficient (0.1051) or the Pearson's coefficient (0.0983) confirms the existence of a direct, but low, influence.

- correlation with students' Internet skills:* Since the P-

value is less than 0.1 (P-value = 0.0569), we can reject with a 90% confidence degree the hypothesis that Internet skills does not influence the students' perception regarding the platform suitability for distance learning. The Kendall's tau coefficient (0.2918) or the Pearson's coefficient (0.3100) confirms the existence of a direct, with a low to medium influence. So, we sustain that the students with a higher PC and Internet skills are more prone to consider the distance learning platform as being more proper for the distance students.

- *correlation with students' preferences regarding the teaching method:* the students that prefer the traditional teaching tend to disagree that the distance learning platform represents a suitable method for distance students. Since the P-value is less than 0.01 (P-value = 0.0001), we can reject with a 99% confidence degree the hypothesis that the students' preferences regarding teaching methods does not influence the students' perception regarding the platform appropriateness for distance learning. The Kendall's tau coefficient (0.0839) or the Pearson's coefficient (0.3357) confirms the existence of a direct, with a low to medium influence. So, we consider that the students who enjoy the new teaching techniques sustain the suitability of the distance learning platform.

- *correlation with students' perceptions regarding the accessibility to the distance learning platform:* Since the P-value is less than 0.01 (P-value = 0.0072), we can reject with a 99% confidence degree the hypothesis that the students' preferences regarding the accessibility to the distance learning platform does not influence the students' perception regarding the platform appropriateness for distance learning. The Kendall's tau coefficient (0.1527) or the Pearson's coefficient (0.2524) confirms the existence of a direct, with a low to medium influence. We deduce that the persons who consider the platform as being easy to use tend to affirm that it is very suitable for distance learning.

Analyzing the students' perception regarding the distance learning platform, we observed other aspects, too:

- 84% out of the respondents consider that the platform improve the communication between students and teachers. Some papers show that face-to-face teaching could be more beneficial for the development of teacher-student relationships [6]. We agree that, but, as we can see from our study, the e-learning method may have the same effects. Moreover, we consider that the e-learning method helps the shy students to clarify the aspects that they did not understand. Due to their introverted personality, often, these students do not have the courage to ask the teacher in a face-to-face meeting.
- 91% out of the students consider that they can obtain more rapidly the answers from teachers;
- only 62% out of the interviewed persons agree that the platform improve the communication with their colleagues;
- 95% out of the respondents agree that they can post anytime questions or discussion topics;
- 92% out of the students consider that using the platform they have a better access to the administrative information.

#### E. Identified problems in the use of e-learning platform

In spite of these advantages, in the use of the distance learning platform has counted some problems. Looking at the Fig. 18 we observe that the most common are the problems regarding the connection and the too many steps that the students have to do to find what they wanted.

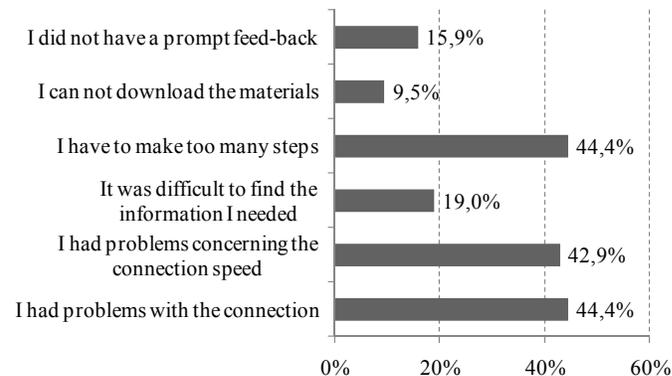


Fig. 18 – Problems in using distance learning platform

It is obvious that the biggest problems in evaluation of platform for e-learning using are related to hardware, software and communications infrastructure. Although over 97% of the students have personal computers and over 94% have Internet connection at home, it is very likely that the hardware and communication platforms do not have sufficient capacity to ensure a fast, constant and optimal connection. At the national level, these infrastructure communication problems can be solved by eliminating low speed dial-up connections and by developing the high-speed networks.

On the other hand, the problems created by too many steps to follow when connect to platform can be solved through the reorganization and redesign of connection phases without disregarding portal security.

#### V. CONCLUSION

The distance learning platform increases the flexibility of students' study program. The permanent access to courses and the possibility to have quick feed-back from teachers, on one hand, and their reduced time for study, on the other hand, determine the positive influence of the platform on the students' study time.

The students with better basic computer and Internet skills prefer the online learning methods, find more accessible the distance learning platform and consider the access to courses as being more facile.

All the students which prefer the online teaching method and which have better level of computer and Internet skills consider the platform as being suitable for the distance learning.

Moreover, the majority of the students see the platform like an environment which improves the communication between students and teachers, with their colleagues and with the administrative department.

We will continue our study on students' perceptions regarding the utility of the distance learning platform. We will

emphasize the evolution of our students' acceptance degree for using distance learning platform.

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