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# Futurological orientations of students and fear of the future

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**Abstract:** In this research the author starts from the two hypotheses that rapid changes and contemporary reality bring fear of the future to which not even students are immune, and that among students we can recognize different value orientations in relation to the past, present and future. From a sample of 189 students of Pedagogy and Teacher Education Department, it is observed that over 80% of them show certain degree of fear, whereas a factor analysis has presented that the fear is latently generated by three components: contemplation of the future, global processes and taking over the responsibility for one's own long-term goals. Among the three orientations the students are mostly orientated towards the present, then towards the future, while a certain number of them are of mixed orientations, and only one student has had insufficient orientation towards the past. Regression analysis has shown that the orientation towards the present mostly predetermines success during the studies, that is to say academic achievements. In addition to the latest findings relating to fear of the future and future orientations of students, this work offers a range of problems for research, and especially it puts forward two new instruments calibrated within strict methodological frameworks.

**Keywords:** Fear of the Future, Future Orientations, Academic Achievements, Changes

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## 1. Each Man is a Master of his Own Destiny

Nowadays, science undoubtedly confirms the popular saying: 'Each man is a master of his own happiness'. We could classify papers that confirm this thesis into one teaching, which I will here refer to as MOD (Master of Destiny). The essence of this teaching is in a thesis that science indisputably proves that living creatures develop through history, and that the man, in contrast to other beings, is aware of his development and therefore can use this awareness to create his future and his progress [1; 2; 3; 4; 5]. Holland [2] supports the thesis that man has the ability of prediction that enables him to plan the future. This thesis is later elaborated by John Stewart and justified into three levels of creating the future: 1) linear modeling, 2) systematic modeling and 3) evolutionary modeling. "The third level, evolutionary modeling, is able to model the evolution of extremely complex systems over large scales of space and time. In particular, it can model the large-scale evolutionary processes that have formed us, and that will determine the future evolutionary success of humanity" [4, p

94]. Planning implies the selection of goals which we are able to achieve and that can also satisfy our needs and values [3]. Peter Hancock's thesis, that the evolution of humans and machines is becoming similar, that natural and artificial intelligence will merge, is peculiarly interesting[1]. I have no intention to go that far in this paper. This research is dedicated to the students' way of experiencing the future. Two questions are especially interesting: Do students prefer the past, present or the future? Is there a fear of the future, and if there is, what does it consist of?

## 2. Fear of Changes

Beside rapid changes on the global level, a great process of changes that they go through daily – transition – troubles people in the Balkans. The change of ownership caused numerous disputes, conflicts and frustrations. The majority of the capital and ownership of firms as well, was not grasped by the smartest, but the least responsible and less cautious, which happened to be the case with the USA once [6]. That brought frustrations to the intelligent, especially to the students who did not see any perspective and meaning in studying and toiling for education. Firms that had thousands

of employees nowadays have none, or they are modernized and less than a hundred people with the help of technology do the same job. These are the conditions in which the youth in Bosnia and Herzegovina are educating themselves. They study and prepare for their exams knowing that, after their graduation, eight out of ten graduates will not be able to find any employment.

Employment does not solve the mere existential question of a young man. It also means participating in the social division of labor or a social life. Therefore, this participation has a psychological significance. "That is why, for many people, a job is crucial psychologically, over and above the paycheck" [7, p 373]. Modern technology deprives people of employment and reduces their perspective of participating in the social division of labor. Besides, machines and sophisticated technology constantly face people with a demand for improving and learning. Peter Hancock points out that "...we have a collective and seemingly pathological fear of the machine as monster" [1, p 61]. Only a minority of young people sees this fear as a challenge and swims successfully among the waves of modern cognitions and technological innovations, while the majority remains at the margins of these trends, isolated and excluded. In this research we are concerned with the number of young people who do not feel the fear of modern technological and social changes, and the number of those who express fear of these changes.

The research has shown that the frustration at work is connected with antisocial behavior [8]. What can we expect from young people who do not have an employment and they are studying under the assumption that they will not have one even when they finish their education? One research gives a direct answer to this question. There are two possible reactions: to blame others and develop a feeling of anger [9]. When the question of employment is out of their power and control, the only thing left to do for the young people is to blame others, to seek answers in social crisis, injustice and weaknesses of the system which they live in. Also, powerless to gain control, young people spontaneously react with anger which is often hidden or latent. Suppression or jamming of anger is mostly a result of fear, since fear reduces the level of aggression [11]. This can result in joining people with similar feelings in negatively oriented social groups, which Alvin Toffler [5] warned about. The quote from his paper was exactly the one that served for the construction of the instrument by which futurological orientations of estimating are measured in this research (FOE-scaler).

We can anticipate the formation of subcults built around space activity, holography, mind-control, deep-sea diving, submarining, computer gaming and the like. We can even see on the horizon the creation of certain anti-social leisure cults—tightly organized groups of people who will disrupt the workings of society not for material gain, but for the sheer sport of 'beating the system'—a development foreshadowed in such films as *Duffy* and *The Thomas Crown Affair*" (p 288).

After this and other quotes, we set a series of claims for

students, to which they answered using the Likert scale. One of these claims says, *I like being idle, but I am not interested in 'destroying the system'*. In the test, there were also items that measured fear directly, as well as the tendency of young people either to react responsibly or to shift the responsibility to others. The main goal was to learn if the fear of changes existed and whether young people value the reality and the environment they live in, as well as how do they see theirs and the future of their community.

### 3. Method

#### 3.1. Initial Hypotheses

Two basic hypotheses represent the starting point in this research. The first: students of Pedagogy and Teacher Education Department express a dosage of fear related to their perception of the future, especially in the context of changes that rapidly arrive. The second: students orient differently towards the past, the present and the future. Some of them are focused on the present, some of them on the future, and the majority is primarily not interested in the past.

It is evident that modern civilization brings innovations that change human lives daily [7]. How do young people, awaiting the future, feel, flooded with the present changes that accelerate the flow of time and happen rapidly in front of their eyes? Are they afraid or do they feel comfortable with this? If we can distinguish young people who are afraid of these changes and others, who see these changes as challenges and enjoy in seizing them, then we can learn what motivates both of these groups. We can also transfer experiences from the successful ones to the others, and we can reduce the fears of the frightened ones and use these experiences to control their problems and worries.

In the Balkans there is a tradition according to which people are attached to their homeland, that is, to their past. This attachment to one's origins Oswald Spengler calls "plantlike in humans" [10, p 546]. Sometimes, glorification of the past and imposing our ancestors' way of life is actually an escape from the present, from the reality. If we neglect our past we will lose direction for the future. Nevertheless, the past must not be the final goal. Theoretically and virtually it is possible to restore the ancient way of life, but it would then mean denying modernization. Our eminent professor, Petar Mandić, once said: 'We cannot enter the future with our backs turned to it'. Alvin Toffler mentions three forms of future: a) probable future, b) possible and c) preferable future [5, p 458]. Which do our students prefer: the past, the present or the future? It is another research question I pose here and which I want to answer.

Two hypotheses set in this research contribute to the answer, but do not solve the problem completely: do students, who were recorded, think they are the masters of their destiny? In other words, will the answers to the posed questions in research hypotheses contribute to the teaching that each person is a master of his own destiny?

### 3.2. Research Design

For methodologically correct answers, we needed high-grade instruments that measure two key variables: fear of the future and preferences of orientation to the past, present and the future. Modern literature does not offer such instruments, therefore it was necessary to construct and calibrate: a) futurological orientation of estimating (FOE-scaler) and b) fear of the future (FF-scaler). Each student voluntarily gave answers to the posed questions circling his estimates of the tester's claims in the answering sheet. The rhythm of posing questions enabled students to give quick and honest answers, and if the examinees had problems understanding questions they could simply raise their hand and ask for the explanation during the test. These interruptions did not occur since all the ambiguities were eliminated in the previous calibration. Before filling in the answering sheet, students were introduced to scales of estimation that they would use, since they were familiar only with the Likert's scale but not with the Allport-Vernon scale. Students appreciated the latter scale quickly and its application was simple and without interruptions. Students were especially interested in quotes that served to focus on the questions that followed them. They expressed their interest by posing questions after filling in the instruments.

After filling in the instruments, all data were processed using the statistical program SPSS 15 Statistica for Windows. Various variables are crossed in this survey. These crossings brought useful cognitions and answers to the set hypotheses, as well as a series of specific questions that are related to the hypotheses. The questions are: Is there a connection between the social and educational status of one's family and his fear of the future or orientation to the past, the present or the future? Is the average achievement at university and fear of the future connected? Does one of these orientations, to the past, the present or the future, predetermine the students' success in the exams? Does the fear of the future differently affect a certain age; does it differ among students of the first, the second, the third or the fourth year? Gender difference was not included here since the sample was not balanced according to gender. It is one of the shortages of this study but also a problem for a new research. Therefore, according to the research hypotheses, statistics that gave reliable answers were derived. Besides, this research seized a series of tangent questions that contribute to clarification of the research phenomenon.

### 3.3. Instruments

In this research two instruments and one protocol were used: a) FOE-scaler (Futurological Orientation of Estimating), b) FF-scaler (Fear of the Future) and c) Protocol for collecting data about students.

*FOE-scaler* (Futurological Orientation of Estimating) has 28 items and it measures the students' inclination toward the past, the present and the future. It is based on two theoretical starting points: on the instrument 'A study of value' [12] and Spranger typology of value [13]. From Gordon William

Allport's instrument I borrowed the scale of involuntary choice which has three kinds of inclination: if the examinee agrees he gets three points for *yes* option; if the examinee disagrees he gets three points for *no*; if he agrees more than he disagrees he gets two points for answer *yes* and one for answer *no*; if the examinee disagrees more than he agrees he gets two points for answer *no* and one for answer *yes*. To conclude, the examinee had three available points for each question that he could arrange according to this criterion. It turned out that students easily master and gladly use this scale. I embedded Eduard Spranger's six types of value through quotes that I carefully chose from the work of famous authors, so that all values were represented in the examinees' inclination toward the past, the present or the future. FOE-scaler is an instrument of my own production created for the examinees to choose willingly the past, the present or the future. Calibration was done by testing the orthogonality of the subtests calculating Kendall's tau index and testing differences between the examinees' inclination toward the past, the present or the future (Table 1). The goal was to establish if the FOE-scaler distinguished properly these three orientations, although it was obvious that not all the examinees were inclined to choose only one orientation. Some of them chose both the past and the future. Since it was a test of compulsory choice, the FOE-scaler was expected to distinguish examinees concerning their inclination properly. This was confirmed by Pearson's chi-square test because all three differences are significant on level .001 (Table 1). Kendall's tau showed a significant orthogonality between the two subtests. However, between the past and the future there is a slight ( $\tau = .12$ , significant on the level .05; Table 1) correlation that indicates that a certain number of students connect their future to their past, that they value the future by considering the past. This is a normal relation, and the size of the correlation implies that we can keep the thesis that the FOE-scaler properly distinguishes the examinees' inclination toward the past, the present or the future.

**Table 1.** Congruences and differences in the students' inclination toward the past, the present and the future

Inclination	Past	Present	Future
Past	–	297.37***	533.88***
Present	–.43**	–	649.31***
Future	.12*	–.68**	–

Note: \* Correlation significant on level .05; \*\* Correlation significant on level .01; \*\*\* Correlation significant on level .001; Values under the diagonal represent Kendall's tau ( $\tau$ ); Values above the diagonal represent Pearson's chi-square ( $\chi^2$ ).

*FF-scaler* (Fear of the Future) is another instrument constructed for this research. It has 32 items in its initial form and 17 in its final form. It measures fear of the future. Theoretical starting point for this instrument is Alvin Toffler's thesis (1970, 1981) that changes arrive rapidly and

that people are afraid of them. The instrument is constructed by selecting quotes about the latest scientific discoveries. Afterwards, claims were set for the examinees to which they answered with Likert's scale, from 1 = *I do not agree at all* to 5 = *I completely agree*. For instance, after a quotation about Oxford's researchers succeeding in aiming a brain of a fly with light signals and embedding them with the fear of certain scents, examinees were given four claims such as the following one: *Yes, we are also being bombed by TV news which make all people, including me, feel frustrated, because they do not bring a good vision of the future*. If the student agrees with this claim, it is clear that he is afraid of the future, no matter how true it is that TV does indeed transmit a large number of such news. Calibrating of the first version of the instrument with 32 items gave a high Cronbach-alpha coefficient ( $\alpha = .79$ ), and after the factorization and decreasing the number of the items to 17, the Cronbach-alpha increased to  $\alpha = .82$ . It is especially valuable that factorization of the fear of the future singled out three components that indicated the structure of the fear of the future: 1) meta-future or thinking about the future, 2) global processes and 3) goals-taking responsibility.

Protocol for collecting the data about the students was not calibrated since its goal was to file: name and last name, studying department, average mark, the year of studying, participation in free activities and their parents' degree and profession. These data served as neutral variables and were very useful for crossing with fear of the future and futurological orientations of students as measured or observed variables.

### 3.4. Sample

The sample included 200 students of the Pedagogy and Teacher Education Department, living in the region of Banja Luka. After filling in the instruments, 11 students were discarded because of incomplete answers, therefore, 189 students remained in the sample for processing, 14 male and 175 female. The sample was not balanced according to gender and statistical calculations according to this criterion were not done. Students were between 19 and 24 years old: 10 students were 19 years old, 58 students 20 years old, 37 students 21 years old, 32 students 22 years old, 27 students 23 years old and 24 students were 24 years old. All the examinees are the students of the Faculty of Philosophy in Banja Luka, Bosnia and Herzegovina. However, it should be noted that majority of them come from other towns and places, not all of them are from Banja Luka originally. With its size and age range, the sample represents the population of students in The Republic of Srpska, but not according to the gender criterion. The research was conducted in July, 2010.

## 4. Research Results

We registered the fear of the future in range from 1 = *fear of the future does not exist* to 5 = *absolute fear of the future*. The range of variation of the average scores was between 1.24 and 3.88, which meant that it was possible to register

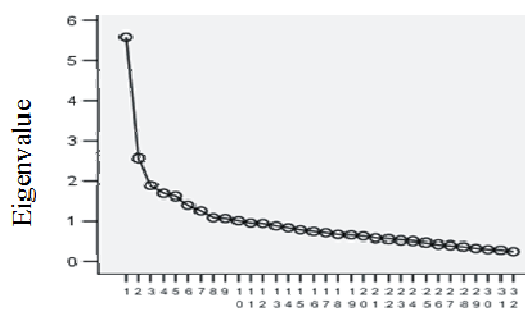
weak fear and the fear with the scale value *predominantly*. Inside that range I classified three groups of students: the ones who are slightly afraid of the future, the ones who are normally afraid and the ones who are unusually afraid of the future (Table 2).

Table 2. Three categories of the fear the future

Category	Criterion	N	%	M	SD
Slightly afraid of the future.	$\leq 2,01$	30	15.87	1.80	.20
Normally afraid of the future.	2,02–3,06	134	70.90	2.54	.29
Strong afraid of the future.	$\geq 3,07$	25	13.23	3.43	.23
Total		189	100	2.54	.52

Of all the 17 questions, that we processed after the second calibration of fear of the future, we found a certain number of students who answered to some questions using the scale item 5, which meant that they are strongly afraid of the future. Still, none of them had a scale value of 5 as the average. In Table 2, all average scores are entered and we can conclude that more than 13% of the students are afraid more than the average of the future according to the FF-scaler. This group of students should be subjected to advisory interviews and therapeutic treatment since we can assume that this kind of fear can have a damaging influence on them in the future. The average fear of the future oscillates between the scale values of *slight* and *moderate*, and it refers to more than 70% of the students. We can assume that the fear of the future is common, but we can also assume that a lower level of fear is more useful and that a higher level of fear produces disturbances in facing the challenges in the future. This is particularly true when we are certain that fear causes absence of motivation, withdrawal and avoiding activities [11].

After learning that we can register fear of the future among students, an interesting question is what is the structure of that fear, in other words, what are students exactly afraid of in the future. We will answer this question by factorization of the fear of the future instrument, since that will help us to find out salience of certain variables grouped in factors according to their importance (Table 3). After the initial version of the fear of the future, with 32 items, it was subjected to rotation according to Kaiser's criterion, so that the number factors to be taken for processing could be decided. A convenient measure for that is Cattell's test of the scree plot [see more: 14, p. 201], according to which graphically presented factors are cut at the spot to prevent a landslide, vividly said, say to prevent rocks from rolling (Chart 1). Now we are interested in how variances can explain these three factors; 50.49% of variance is explained, which can fulfill the basic criteria of judging the phenomenon that we measure with the instrument. After removing 15 items, which were excluded by the Cattell's test, 17 remaining items were again subjected to rotation, and the Kaiser's varimax test of normalization kept three factors.



Number of components

Chart 1. Cattell's test of landslide for the extraction of factors

The first ten items in Table 3 represent primary factor that we could refer to as *meta-future* or *thinking about the future*. The second factor, which consists of three items, we could refer to as *global processes*, because fear originates from the process that one cannot control, and they come from a global level. The third factor, which consists of three questions or items, we can refer to as: *one's own goals and taking responsibility*. Each of these factors deserves special comment and analysis, but I will present here a short observation because of the limited space.

Table 3. Factors that primarily explain the fear of the future

Question (Item)	Component – factor
I am afraid when I think of the rapid changes in the future	.78
If I think of the future and the upcoming changes, I have trouble falling asleep.	.77
I become nervous and unsure when I think of the future.	.66
Other people are not afraid of the future, but I am not sure. These changes confuse and trouble me.	.66
When I think of the distant future, my head spins, and sometimes I get a headache.	.64
The velocity of changes that come makes me feel hopeless.	.64
I get goose pimples when I think of the future.	.58
I am confused and nervous when I need to make a long-term decision.	.57
I do not like thinking about my long-term goals because it disturbs and annoys me.	.47
When I realize how fast the future is coming I get scared.	.47
With new theories of evolution a man has attributed the title of the maker to himself. I am afraid it could lead to the destruction of mankind.	.75
Yes, mankind is as mature as a ten-year old and it has an atomic bomb! This fact concerns every normal human being, including me.	.70
I am annoyed by and afraid of this race for money.	.64
Avian and swine flu, new viruses, new bacteria – perhaps all people on the planet Earth will die of new diseases in the near future?	.57
I like to plan my future and I feel specially good when I think about long-term goals. ®	.73
When I think about the future I feel happy. ®	.66
If one creates one's own future, why should he be afraid of it ?®	.49

Note: Items marked with ® rotate in the final calculation. Method of extraction is analysis of the main components. Method of rotation is Varimax with Kaiser's normalization.

Why should students be afraid *to think about the future*? The main reason for this fear is that the changes, which occur rapidly, are out of their control. Modern technology demands permanent studying and specialization without leaving time for relaxation, since there is a danger that a person may become outdated and old-fashioned. New technological solutions, which were in the sphere of science fiction until yesterday, are reality today. Such solutions are: nanotechnology, holographic learning, biochips and biocomputers, new sources of energy, new solutions in transport and so on. Even today we can conclude that a large number of people use only a small percentage of possibilities which modern technology offers them. For instance, how many people use all options that their mobile phone offers them? All this can generate fear with a certain number of people, and the analysis of the major components, derived from factorization of 32 items of the FF-scaler, showed that in the forefront of that fear are students' thoughts about the future. If students are afraid to think about the future, we can expect them to be oriented toward the past or the present. If this is the case we will find out in

the statistical processing of the data related to the following hypothesis.

*Global processes* that bring new discoveries in genetics, new weapons for global destruction, new viruses and diseases as global epidemics and constant battle for money represent another factor that generates students' fear. These are components of fear for the intellectuals since it is most unlikely to be that of a man who does not read and is not informed about these global processes. It tells us about our students' responsibility, about their gaining awareness of the world and the reality around them.

*Taking responsibility and setting one's own goals* represent a challenge for the young people between 19 and 24 years old, as is the case with the sample of students in this research. This is the third factor that generates students' fear, and it is based on planning one's own future, setting long-term goals and taking responsibility for them. The connection between the offspring and the parents is the strongest and longest among the most developed mammals, and as far as humans are concerned, this connection is being prolonged from generation to generation. This is particularly

true for the people in the Balkans who have nurtured this strong attachment for the descendants of the family up until industrialization, which has come to these areas relatively late.

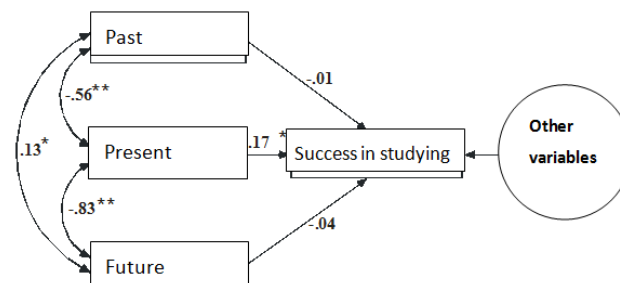
The second hypothesis in this research is that students are oriented differently toward the past, the present and the future. Some of them are inclined to the future, others to the present and the majority of them do not find the past as a primary orientation. Since the FOE-scaler properly distinguishes these three orientations, we are interested in which one of these orientations is the most salient and which one is remotely represented (Table 3).

**Table 4.** Futurological orientations of students

Category of inclination	$f_o$	%	$f_t$	$\chi^2$	$p$
Past	1	0.53	47.3		
Present	77	40.74	47.3		
Future	43	22.75	47.3		
Undecided	68	35.98	47.3		
Total	189	100		73.50	.001

Most of the students chose the present (40.74%), and each fifth student chose the future (22.75%). It is peculiar that 35.98% of students were undecided because they relate their values primarily to the present and the future or for the past and the future. The most interesting result was that we found only one student who was undoubtedly inclined to the past. Therefore, there exists a difference among the students in their inclination to the past, the present and the future ( $\chi^2 = 73.50$  which is, with three levels of freedom, significant on the level .001). This means that we accept the second hypothesis, and the consequences of the cognition are multiple. First, although the Balkans is famous for its traditionalism, young people are more inclined to modern life, to the present and the future. In other words, we cannot expect the young people to abandon modern technology and go back to the feudal tradition of their ancestors. Secondly, it is interesting that only slightly more than 1/5<sup>th</sup> of the young people choose the future (22.75%). We can expect that the students plan their future, gladly think about it, instead of expecting that more than 40% of them think only about the present and often do not even want to consider the future. It can be explained by the social situation in which the majority of educated people do not have an employment, and by a society in which expertise is not even appreciated. Thirdly, great percentage of young people are not inclined to one of the three orientations, the past, the present or the future (35.98%). It cannot be said that the confusion in students is the reason for such results, since it is possible that a sober reflection implies appreciation of all three orientations. Here, we need a new research that would more thoroughly seize this phenomenon and with which we would find methodologically correct answers to the question: is simultaneous inclination toward the past, the present and the future, for all three or two options, psychologically healthier and pedagogically more justified than the orientation to a single option.

Next interesting question is how do these orientations to the past, the present and the future, affect the students' success in studying. A multiple regression (Chart 2), with which we will learn which one of the three orientations mainly predetermines students' success, will give us the answer to this question.



Note: \* Correlations significant on level .05; \*\* Correlations significant on level .01; On straight arrows beta coefficients are entered.

**Chart 2.** Regression analysis of the influences of futurological orientations to students' success in studying

For a graphic presentation of this regression it is best to use AMOS [15], with which we can graphically present the relation of the predictor toward the dependent variable. As we can see on the Chart 2, the orientation of students to the present mainly predetermines the students' success in studying. This influence is not great but it is statistically significant ( $\beta = .17$ ; significant on level .05). This is a new discovery since there is no research until now that deals with the question as to what extent that the students' orientation to the past, the present or the future, affected their academic achievement. We could expect that the orientation to the present would significantly affect the students' success in studying, but it would also be possible to expect that the orientation to the future would more significantly predetermine success in studying, because the purpose of attending the university is to gain competence that the students would apply in their future employments.

Scientific caution and research classification as well, made me to cross the neutral variables with the fear of the future as a dependent variable. It appeared that the second year students had the lowest level of fear of the future ( $M = 2.20$ ).

This can only be explained in the way that the second year students are more relaxed since they have mastered the initial worries related to studying. They have realized that they could achieve success, and they were not concerned about their employment because they had two or three years of studying left. There is a difference in the level of fear of the future among the students depending on the year in which they are studying ( $F_{(3)} = 8.31$ ; significant on level .001; Table 4), but that difference cannot be explained by age, because for the age as a criterion, we would need longitudinal research and observation of the examinees through all four years of studying. Therefore, it is more convenient to explain this difference by the variation inside the sample, that is, by the fact that the second year of studying is a period of consolidation and relaxation for



students. However, it would be interesting to have a new research with which we would learn if the same phenomenon can be registered repeatedly.

In this research it has been proven that there is no difference in the fear of the future among the students involved in sections or free activities and those who are not involved in such activities ( $F_{(1)} = 3.06$ ; not statistically significant; Table 4). Here, we expected those who were involved in sports, choir or any kind of activities, to be less worried about the future, but that was not the case. Parents' degree, however, appeared to affect the students' fear of the future, since there was a difference between the students related to this issue ( $F_{(3)} = 3.571$ ; significant on level .05; Table 4). By examining arithmetic means in Table 4, we can see that the fear of the future is stronger among the students whose parents have only finished elementary or high school. This can be explained by family incomes, since it is common that people who have lower qualifications have lower salaries in Bosnia. That is probably the reason why parents' expectations are greater and it also enhances the students' responsibility.

## 5. Concluding Discussion

Studying represents the end of education, a crown of one's perennial effort, a result of devotion, hope, aspirations and plans that one accomplishes by himself or with the support of others. Common idea is that a degree represents the end of suffering and exertion, that, in a certain way, it brings liberation from studying since it implies the end of education. In traditional education, it is mostly true, but since we live in a learning civilization of the XXI century, in which a lifetime of education is a precondition for happiness, it becomes clear that the process of learning must be connected to the present and the future of those who learn pupils and students. "Clearly, happiness is best viewed as a process rather than a goal or thing in and of itself" [1, p 138]. Learning and studying should bring joy, not fear and worries. In this research, on the sample of 189 students, the opposite was proven. Our students are more concerned with the future than they are happy about learning and knowledge. The future is ahead of symhedonian civilizations [16], but the research has shown that students can be motivated to learn even meaningless contents with joy [17]. The future already holds outlines of a new school, new way of studying and improving people. Our schools and universities are still more inclined to the past than to the future.

I began this research with two hypotheses: rapid changes originate fear of the future among students, and it is possible to distinguish students who are inclined to the present and the future, without the past being their predominant concern. Both hypotheses are confirmed, and these cognitions significantly contribute to social sciences and pedagogical practices. First, this phenomenon is so far unexplored and new cognitions, which open a series of new research problems, are gained, as I have hereby suggested. Secondly, the fact that more than 80% of the students are more or less

afraid of the future, should concern parents and education staff at the university. Because what better way of preparing young people for a happy life is there than in a university? In my opinion, workshops and forums in which students would discuss their future, their expectations and fears, could give result in reducing their fear of the future. It is also a subject for a new research, and an experimental design would be the most convenient as a method.

Another issue included in this research is the cognition that young people are not turned toward the past and that past is not primary to them (Table 3). This does not mean a lack of respect for their past. They simply do not connect their goals and aspirations, as well as fears, to the past. This is useful knowledge for those who want to insinuate young people, to win their affection or to convince them to participate in elections. It is questionable to what extent a pedagogy college's programs contain futurological visions, and to what extent they are inclined to traditionalism and the past. This is also a subject for new research because, if it appears that students of pedagogy study more about and for the past than for the future, it would seem as absurd that, it should be solved immediately.

The most appealing and perhaps the most important secondary discovery of this research is that among orientations to the past, the present and the future, the orientation to the present mainly predetermines the students' academic achievement (Chart 2;  $\beta = .17$ ; significant on level .05). It means that students focus on current obligations and that they do not want to think about the future or connect their future to daily obligations. On the other hand, it could mean that fulfilling other people's expectations is more important for them than accomplishing projection of their own role and profession that they gain by studying. It could also mean that a certain number of students occupy themselves with current obligations because they are afraid to think about the future, aware that they will not find an employment. This is another problem for a new research.

Generally, this paper introduced several new cognitions, precious for social sciences and pedagogical practices, but it has also opened a series of questions that should be solved and explored. Besides, its greatest methodological limitations are size and structure of the sample, which can easily be solved in a repeated research. It is commonly known that a scientific value of a research lies in the possibility of its renewal, so that newly found cognitions can be either confirmed or denied. In principle, research always introduces new problems and phenomena for a new research. Here, I tried to fulfill these exact criteria.

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## References

- [1] P. A. Hancock, "Mind, machine and morality: Toward a philosophy of human-technology symbols," Farnham, GB: Ashgate, 2009.
- [2] J. H. Holland, "Adaptation in natural and artificial Systems," Cambridge: MIT Press, 1992.

- [3] G. Klein, "Flexecution as a paradigm for replanning," IEEE Intelligent Systems, September/October, 2007, pp. 79–83.
- [4] J. Stewart, "Evolution's arrow: The direction of evolution and the future of humanity," Canberra, Australia: The Chapman Press, 2000.
- [5] A. Toffler, "Future shock," New York: Bantam Books, 1970.
- [6] J. J. Servan-Schreiber, "American challenge," New York: Atheneum, 1968.
- [7] A. Toffler, "Future shock: The third wave," New York: Bantam Books, 1981.
- [8] P. E. Spector, "The role of frustration in antisocial behavior at work," in *Anti-Social Behavior in Organizations*. R. A. Giacalone & J. Greenberg, Eds. Thousand Oaks, CA: Sage. 1997, pp. 1–17.
- [9] B. M. Quigley, and J. T. Tedeschi, "Mediating effects of blame attributions on feelings of anger," *Personality and Social Psychology Bulletin*, Vol. 22, 1996, pp. 1280–1288.
- [10] O. Spengler, „Der Untergang des Abendlandes: Umriss einer Morphologie der Weltgeschichte,“ München: C. H. Beck'sche Verlagsbuchhandlung, 1922.
- [11] G. W. Ladd, and S. M. Profilet, "The Child Behavior Scale: A teacher-report measure of young children's aggressive, withdrawn, and prosocial behaviors." *Developmental Psychology*, Vol. 32, 1996, pp. 1008–1024.
- [12] G. W. Allport, , P. E. Vernon, and G. Lindzey, "A study of values," Boston: Houghton and Mifflin, 1960.
- [13] E. Spranger, "Lebensformen," Halle: Niemeyer, 1922
- [14] N. Suzić, "Educational methodology in use," Banja Luka: XBS, 2007.
- [15] Bacon, L. and associates, "Using AMOS™ for structural equation modeling in market research," [www.spss.com/-worldwide](http://www.spss.com/-worldwide), Read on August 13, 2010.
- [16] N. Suzić, "Symhedonia a la diagnosi della qualità dell'insegnante in rapporto all'inclusione," *L'integrazione scolastica e sociale (Trento)* – Vol 7, 2008a, pp. 57–69.
- [17] N. Suzić, "Can we motivate students to memorize senseless contents." in A. Kozłowska, R. Kahn, B. Kožuh, A. Kingston, J. Mažgon, Eds. *The role of theory and research in educational practice*, Grand Foks: University of North Dakota, 2008b, pp. 113–133.