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Elena Matvejeva

psychologist
Information Science Institute,
Tallinn, Estonia
e-mail: abigaile.jelena@gmail.com

Natalja Nekrassova

Chair of Communication and Culture, associate professor
Department of International Relations
Tallinn School of Economics and Business Administration
Tallinn University of Technology, Tallinn, Estonia
e- mail: nat.nekrassova@googlemail.com

Leon M. Miller

Chair of Communication and Culture, MA
Department of International Relations
Tallinn School of Economics and Business Administration
Tallinn University of Technology, Tallinn, Estonia
e- mail: leonmonroemiller@yahoo.com

Internationalization: Cultural Adjustment of Foreign Students in the Estonian Higher Educational Context

There are a growing number of research articles pointing out the challenges university systems face that are connected with the increasing internationalization of education. Estonia, for example, is pressed for several reasons (including its demographics) to plan an effective response to the need for the internationalization of its university programs. Accompanying the need for research on managing the challenges of the internationalization of university level education is also the need for research on the particular problems students have in adjusting to the internationalization of higher education in the Estonian context. The Estonian higher educational systems, are increasingly realizing that there is a need of adjusting to internationalization. This means altering the traditional institutional identity to fit the demands of a globalized world. This article explores the challenges connected with the internationalization of higher education in Estonia however the primary concern is for facilitating internationalization in a way that enhances the learning experience for students in international programs. This article is based on a quantitative measurement of the role of culture shock in the learning performance of students studying at Tallinn University of technology. In that respect the article examines the adjustments and adaptation necessary for students studying in the Estonian cultural context.

Keywords: Cultural Adjustment, Cultural Shock (GHS), Self-Identification, Cultural Fatigability.

Introduction: Understanding and Facilitating Cultural Shock

The concept university implies that the scope of the university community is itself international. This is based on the premise that reliable knowledge cannot be produced in local isolation but can only be obtained by an open and honest inquiry that is international

in its scope. That is, the nature of today's global reality necessitates structuring the higher learning experience so that it prepares the student to deal with the globalized world and with global interdependence. The main aspect of these modern developments as far as domestic centers of higher education are concerned is the internationalization of educational services and educational institutions. The internationalization of higher educational systems is driven by national, regional and global forces. This has pressured universities into engaging and attracting international scholars, plus engaging and attracting international students. It is only by keeping up with the demands of internationalization (by engaging in reliable knowledge exchange with international partners) that a university can raise its reputation to international standards.

There are a growing number of research articles pointing out the challenges university systems face that are connected with the increasing internationalization of education[1]. According to the Estonian Higher Education Strategy (2006–2015) the Estonian Ministry of Education, for example, acknowledges that for several reasons (including its demographics) it is necessary to plan an effective response to the demand for the internationalization of its university programs.[2] Accompanying the need for research on managing the challenges of the internationalization of university level education in Estonia is also the need for research on the particular problems students have in adjusting to the internationalization of higher education in the Estonian cultural context.

This article explores the challenges connected with the internationalization of higher education in Estonia however the primary concern is for facilitating internationalization in a way that enhances the learning experience for students in international programs. This article is based on a quantitative measurement of the existence of culture shock in the learning performance of students studying at Tallinn University of Technology. In that respect the article examines the adjustments and adaptations necessary because of the experience of culture shock that students experience in an unfamiliar cultural environment.

Loone Ots pointed out, that there is a growing interest amongst foreign students for studying in Estonia. Ots thought this could be due to "An attraction to what appears to be an exotic place, a general desire to become acquainted with former socialist countries and an interest in visiting as many other different universities/countries as possible."[3] However his article also highlighted the fact that almost all foreign students were reporting having cultural shock as a part of the adjustment to studying in Estonia.[4] Thus, because the Estonian higher educational system is increasingly finding itself in need of adjusting to internationalization it must alter its traditional institutional identity to fit the demands of a globalized world.

The internationalization of higher education has increased the challenge students face in adjusting to unknown cultures. These challenges have been studied by specialists analyzing different aspects of the educational process and the impact that internationalization has on the educational process. Their careful analysis reveals that one of the difficulties that stu-

[1] *Johnson L. & Tucker Ch.* (2008) Cultural Issues // Handbook of Clinical Psychology, Children and Adolescents / ed. by M. Hersen & A. Gross. Hoboken, New Jersey, Wiley and Sons Inc. 790 p.

[2] Estonian Higher Education Strategy 2006–2015 / Estonian Ministry of Education and Research. November 2006.

[3] *Ots L.* (1988). Some Notes on Teaching in a Multicultural Environment: the Estonian Literature Project at the University of Tartu // Higher Education in Europe. Vol. 23. № 3. P. 376.

[4] Ibid. P. 376.

dents face in adjusting to studying abroad is culture shock (when an unknown culture has a stressful influence on a person, sometimes described as cultural fatigability or just stress). An Australian research project analyzing the experience of international studying at an Australian university defined the students adjustment challenge as "The sudden loss of all familiar signs and symbols of everyday life, with consequent psychological stress and use of coping strategies to deal with the stresses encountered."[5] The notion of "culture shock'' was introduced by Kalervo Oberg in 1960 when he noticed that entrance into a new culture can be accompanied with a number of unpleasant feelings. Nowadays it is considered that the experience of culture shock is stressful because it is unexpected, on the one hand, and can lead to a negative evaluation of the new culture, on the other hand. The stressful impact of a new culture on a person is called culture shock, or stress, or marginal stress, or cultural stress fatigue by contemporary scholars. Everyone who enters an unfamiliar culture experiences it.

To some extent most people who have changed their place of living to a new culture suffer from some degree of culture shock. Culture shock has psychological and physical consequences that play a role in the adjustment to new situations. Today, with a vast increase in the number of foreign students in our domestic centers of higher education, if institutions of higher learning fail to take cultural competence into consideration, students can be left with various unpleasant emotions connected with adjusting to an unfamiliar culture-ranging from culture shock, on the one hand and on the other hand such unexpected experiences can lead to a negative appraisal of the culture and the educational experience.

The first segment of the article describes culture shock and introduces why it is a factor in the adjustment process of foreign students. The second segment of the article quantitatively measures the impact of culture shock on the experience of foreign students studying in an English speaking International Program at Tallinn University of Technology. The third section of the article explains the method used for and the process of analyzing the research results. The fourth section of the article explains the conclusions drawn on the basis of the research.

1. Culture Shock as an Adjustment Factor for Foreign Students

Helen Spencer-Oatey and Peter Franklin (2009) explained that culture shock can occur in one or all of the following ways:
— pressure because of the efforts applied to an attempt at psychological adaptation;
— sense of loss in relation to friends, status, profession and possessions;
— feeling of isolation in new culture which can turn to the negation of the unknown culture;
— confusion of role expectations and the feeling of self-identification;
— anxiety passing into indignation after the comprehension of cultural differences;
— feeling of inadequacy because of the inability to cope with the situation.

The main reason for culture shock is that experiences and interactions in the new cultural setting do not conform to an individual's psychological expectations. Every culture has its own unique set of symbols and images, expected patterns of behavior and interactions

[5] *Thomson G., Rosenthal D. & Russell J.* Cultural Stress among International Students at an Australian University. Australian International Education Conference 2006, 3.

that are common to various situations within the culture. The environment of a new culture makes the individual's habitual system of orientation inadequate because it is based on a different representation of the world, different norms and values, plus different perceptions of behavior, and different behavioral expectations. Interacting in a culture that one is habituated in means that the person can behave without thinking about the existence of a majority of factors that lie beneath appearances ("cultural iceberg theory'' Trompenaars 1998). In other words, as Trompenaars points out, there is a whole realm of significant information about a culture that is not apparent, resulting in a hidden system controlling behavioral norms and values. Thus when a person has contacted with an unknown culture he or she can feel psychologically and sometimes physically uncomfortable. This feeling of discomfort is the result of culture shock.

1.1. The level of intensity, duration and need for adaptation to cross-cultural shock depend on many factors. All of these factors can be divided into two groups: internal (personal) and external (group). In the first group of factors the most important factors that need to be taken into consideration are the individual characteristics of a person-such as gender, age and personal traits.

Gender influences the process of adaptation and duration of culture shock (hereafter CSH). Research on what is involved in adapting to new cultural settings states that the process of adjustment to a new environment is more complicated for women than for men. However this is most common when women come from traditional cultures where their life is limited to activity around the home. As for women from developed countries these differences are blurred and research indicates that women can be as successful as men in adapting to new cultural settings.

The age of a person is considered to be a significant adjustment factor in the process of adapting to an unknown community. The older the person is the more difficult the adjustment to a new cultural system, it is harder and takes longer to overcome CSH and older people more slowly overcome the difficult challenges that patterns of an unknown culture pose for them.

Educational factors are more and more becoming a considerable adjustment factor. The more educated the person is the more successful his or her adaptation. Education, even without taking into account its cultural content, expands the internal resilience potential of a person. The more complex the inner world of a person is the faster and easier the time needed for creative innovation.

1.2. Among the external factors influencing adjustment and CSH cultural distance can be designated as a main one. The person`s perception of cultural distance depends on many factors: economic factors, emotional factors and the person's language skills. If the values of one's culture differ from those of another culture and cultural difference is huge adjustment can be long and painful.

Previous experience of living in an unknown cultural environment is conducive to better adjustment.

The peculiarities of one`s culture can be crucial to adjustment. Representatives of nationalities who are afraid to "lose face" or for those of ``the more powerful nations (G8 countries) the adjustment is mostly stressful.

The social and cultural conditions of the visiting country, such as the friendliness of locals to foreign students, their willingness to help foreign visitors and socialize with them, are very essential for aiding a healthy adjustment.

The circumstances of one's life experience (related to the internal factors of adjustment and the motivation to adjustment) are the most influential factors. This aspect of motivation is very high among students who are studying abroad. In order to reach their goals they try to adjust as quickly as possible.

CSH is a complex process for students but the results which can be reached (such as new perceptions of the world based on understanding and accepting cultural diversity) are worth the effort it takes to overcome it. The key advantage of effectively managing CSH is the priceless experience and acquired skills students can draw from while living and working in our rapidly changing world with reduced borders where competence in intercultural relations is becoming more important.

2. Measuring the Impact of Cultural Shock on the Experience of Foreign Students

The hypothesis is that students are experiencing culture shock when studying in this educational context. For that reason the research aims to analyze the adjustment of foreign students getting higher education in Estonia and the peculiarities of CSH manifestation in this context. In addition the research will analyze the existing connection between the factors of adjustment (both internal and external) and the components of CSH. The research-conducted at Tallinn University of Technology between 2010 and 2011-indicates the peculiar incidents of culture shock occurring among the foreign students who have come to study to Estonia.

The initial focus of the research was the academic assessment of the first year students (first and second terms), internal factors of adaptation-gender, age and the level of the ethnic "Self" of the students of the experimental group, plus the particular peculiarities and psychological conditions related to cultural shock occurring with foreign students studying at higher education centers in the Estonian culture.

The subject of the research was a group of the foreign students, studying in the English program at The Economic Department at Tallinn University of Technology. The sample size was 61, between the ages of 18-45.

2.1. Preliminary Pilot research

On the basis of comparing the academic assessment results of the first (fall) and second (spring) terms it can be vividly seen that students from the Economic Department of the International Program of TUT definitely had adjustment difficulties. This observation prompted the research team to construct the hypothesis that the first year students were initially suffering from cultural shock (CSH) that resulted in a decline in academic performance.

As a means of testing the hypotheses, a pilot investigation was conducted. The goal of the pilot study was to clarify whether or not it is possible to improve the academic performance of students at higher educational institutions of Estonia by being more aware of and better facilitating their adjustment challenges.

For examining the hypotheses a sample group-of 41 students out of the total number of foreign students who came to study in the Economic Department of Tallinn University of Technology at the state capital, Tallinn, in international programs in the English language

were examined. These students have come to Estonia from the many different countries of Europe and Asia (Appendix 5). This is their first year of study and living in Estonia and English is not their mother-tongue.

The assessment of the student performance (from the Economic Department) during their first academic year was analyzed to provide an objective indicator of the academic progress for the fall and spring term. The results are presented in Table 1. It should be noted that individual students could have taken several different classes during the term so the total number of grades refers to total results of the 41 students.

Table 1

The changes of academic assessments of foreign students of Tallinn University of Technology (Economic Department) during the first academic year[6]

Assessments	Fall term		Spring term	
	Number of students	%	Number of students	%
5	26	10.20	48	17.78
4	68	26.67	80	29.63
3	51	20.00	72	26.67
2	39	15.29	43	15.93
1	29	11.37	13	4.81
0	42	16.47	14	5.19
Σ	255	100	270	100
χ^2			38.72**	

2.2. Arranging and carrying out the second stage of testing

Aim of research: research and single out the main components of the culture shock of the first year foreign students in the Estonian cultural environment.

Subject of research: peculiarities of culture shock in this context, the ethnic identity of foreign students of the Economic Department, and the connection between both internal and external factors of adjustment and components of CSH.

2.3. Hypothesis of research:

Hypothesis 1. It is supposed that during the first year of study in an unfamiliar culture students have acute ethnic self-identity awareness and feel cultural differences when communicating with representatives of other cultural and ethnic groups.

Hypothesis 2. It is supposed that during the first year of study in the Estonian culture (because students study in a language other than their mother tongue and in an unfamiliar cultural environment) CSH has specific features that are experienced by the students.

Hypothesis 3. It is supposed that there is a correlation between the factors of cultural adjustment and CSH.

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[6] As it can be seen from table 1 the percentage of high grades has increased in the spring term compared with the fall. The analysis by means of criterion χ2 shows that the level of distinctions in the percentage distribution of estimations is statistically significant (p <0.01). Thus, the academic progress of foreign students has definitely increased during their first year of living and studying in Estonia.

2.4. The objectives of the research:

1. Determine the ethnic identity of the students from different countries that are studying in Estonia.

2. Determine the peculiar features and components of the CSH for students studying in Estonia.

3. Determine whether or not there is a considerable connection between the ethnic identity of the students and components of CSH.

4. Determine the extent to which there is a connection between internal and external factors of adjustment and CSH that must be taken into consideration.

2.5. Methods and methodology of research

The basic method of research for this study is experiment. The basic method used for collecting empirical data is testing. The method used for statistical data handling is correlation analysis according to Spearman's rank correlation coefficient and qualitative analysis is carried out by content analysis.

2.6. Methodology of research:

1. Test for ethnic self-identity " The Who am I Test" (M. Cuhn and T. McPartland, modified by Z.V. Sinkevich in 1954)[7].

2. Test for research culture shock "Culture Shock Test" (Bardier G. L.).

2.7. Description of the methodology of the research:

1. "Who am I" test

The administering of the test to determine personal identity was developed by American sociologists and socio-psychologists M. Cuhn and T. McPartland

(1954)[8]. They included this self- attitude test into a sociological questionnaire.

There have been some modifications to "The Who am I" test. One such modification was reflected in the research of Z. V. Sinkevich where both the original version of "The Who am I" test and some variations were used.

For scrutinizing the level to which students felt or expressed their ethnic "I" Sinkevich asked a question and offered multiple choice answers.

For identifying stereotypes that can contribute to negative cross-cultural experiences the test offered the following multiple choice question: "Do you notice the nationality of people around you?"

The questionnaire contains multiple questions on Individual-personal ethnic self-identification, specifying the nature of the person's emotional-sensitivity (people often do not think about belonging to a particular ethnic group, it sometimes doesn't occur to a person whether or not they have such a feeling).

2. "Culture shock" test

The culture shock (CSH) methodology was developed by G. L. Bardier. Empirical research on culture shock was initially developed by Bardier as a method of qualitative research, where the respondents' answers were processed with content-analysis techniques. During a pilot research a method similar to "The Who am I" test by M Cuhn and T. McPartland was experimented with for the purpose of further developing " The Who am I" test. In the beginning the given instructions allowed the students to freely express themselves.

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[7] The Sinkevich version of the Who am I Test taken from: *Pochebyt L*. (2005). Vzaimoponimanie kultur // Metodologia i metody etnicheskoi i kross-kulturnoi psihologii. St Petersburg: St Petersburg University.

[8] Ibid.

The respondents were asked to describe situations in which they experienced or faced cultural shock. But later the instructions become more precise where a definite understanding of culture shock was called for. The final version of research methodic was developed on the base of the perception of culture shock as a reflection of cultural differences (Appendix 4).

2.8. The Handling of the Mathematical Data

The following criteria are proposed for selecting the categories of content analysis results of the CSH measurements.

The first criterion-components of the settings and most common ethnic traits dominant in a particular situation:
  • "Cognitive", connected mostly with presentation, beliefs and understanding;
  • "Affective", connected mostly with feelings, emotions and understanding;
  • "Connotative", connected mostly with behavioral activity.

The second criterion- the intensity of personal involvement in a situation:
  • Consciousness of the personal involvement in the situation;
  • Unconsciousness of a situation, when previous personal experience is used as a reference;
  • Unconsciousness of a situation, on the basis of national traditions and collective
  • experience.

The third criteria — sources for the appearance of intolerance in a situation:
  • Active intolerance, when a subject of communication himself is the source of intolerance;
  • Reactive intolerance, when the object is another person, a communication partner;
  • Situational intolerance, sources which are occasional circumstances, which spontaneously and vividly reveal cross-cultural differences.

The fourth criterion — the further development of the situational criteria:
  • Obstacle-fixation of contradictions in cross-cultural communication and a number of negative ethnic stereotypes, which decelerate the further development of the interactions;
  • Vector-the changing of the content results in the changing of situation as a whole, the contradictions can either resolved or on the contrary can be exaggerated;
  • Fan- appearance of multi-dimensional situations, which include both ethnic stereotypes, the circumstances of their appearance and personnel traits of the interacting partners.

The firth criterion — positional symmetry-asymmetry of the installation of an object:
  • Open intolerance — pressure, aggression, hostility;
  • Hidden intolerance — adjustment, forced submission, abandonment of personnel national identity;
  • Tolerance-acceptance of the other's identity without damaging one's own personal identity.

The sixth criterion-interaction history of the cultures:
  • Assimilation experience (affiliation resulting from one culture assimilation another);
  • Irradiation experience (discrimination, colonization);
  • Integration experience (overcoming segregation and confrontation).

The seventh criterion-situation related to definite field of cultural expression:
  • Intolerance in the worldview sphere (values, world outlook, ethics, aesthetics);
  • Conventional intolerance (personal space, interpersonal distancing, ways emotions are expressed, common patterns of building relations, ways of thinking, problem solving, public behavior);
  • Everyday intolerance (food, clothes, manners, basic life demonstration).

3. The Analysis of Tests Results

3.1. The analysis of "Who am I?" test

The classical (original) version of "The Who am I?" test was used in this research. The extent or intensity of the ethnic "I" intensity was identified by the questions mentioned below. The results of the research demonstrated that for 80 % of the tested students their ethnic background is important, 16 % revealed an average accentuation of the status of ethnicity, 4 % did not show the status ethnicity but at the same time they feel a belonging to either the citizenship of the world or as European, 42 % of the tested demonstrate their national identification and simultaneously their belonging to Europeans.

Table 2

The extent of intensity of ethnic «I» n=61

	Not at all	To a certain degree	Most likely	(N/A)
Citizen of the world	3 %	62 %	30 %	5 %
European	5 %	30 %	42 %	23 %
Identification with your nationality	4 %	16 %	80 %	—

For identifying negative cross- cultural stereotypes the following multiple choice questions were offered.

Table 3

Fixation on the nationality of people

Possible answers	Percentage of responses
Usually, I do not	31 %
I do, if I dislike like them	16 %
I do regardless of my likes or dislikes	53 %

On the basis of the results received it can be seen that almost 53 % of respondents consciously or unconsciously fix their attention on the anthropological traits of ethnicity, 31 % do not do it at all and 16 % do it in cases where there is something unattractive in the appearance or behavior of those around them. This question reveals the existence of unconscious ethnic prejudices.

In addition, in the questionnaire there are multiple questions on an individual personal-ethnic identity.

Table 4

Specifying emotionally-sensitive nature of individually-personal ethnic self-identification

Possible answers	Percentage of responses
Yes, I do — ... to a certain nationality	58 %
I feel that I belong to several nationalities	35 %
No, I do not associate with any nationality	7 %

The types of answers given indicate the emotionally sensitive nature of ethnicity: people do not place the emphasis on their national identity (they either have strong feelings of identity or a very weak sense of national identity). According to the results of the respondents almost all of them feel a belonging to some nationality: **58 %** associate themselves with a certain nationality (feel it) and **35 %** feel a belonging to several nationalities. **7 %** do not identify themselves in terms of nationality.

3.2. The analysis of Cultural shock test

For culture shock research 61 students were questioned and questionnaires from 26 were returned. (Appendix 4) The students were asked to describe situations when they felt culture shock when meeting an unknown culture.

Study of peculiarities of CSH manifestation.
Criteria of CSH manifestation n = 26

Table 5

Affectifve	Cognitive	Conotative	Conscious	Unconscious	Traditions	Object	Case	Obstacle	Vector	Fan	Open	Hidden	Tolerance	Assimilation	Integration	Conventional	Every day life spheres
34%	10%	20%	11%	13%	42%	9%	65%	32%	31%	7%	5%	15%	61%	9%	17%	10%	20%

The largest number of responses was determined by the "Attitude Criterion" — on the affective component of Attitude Criteria — 50 % of all responses. By "Level of Personal Involvement Criterion" of CSH, 42 % of the respondents interpret the situations when they feel discomfort as a manifestation of traditionalism — as manifestation of traditions operating at an unconscious level.

In terms of "Source Criterion" the majority of those tested (65 % of responses) indicated casual manifestations-for example: natural circumstances and the differences in the understanding of a situation-were connected with how they experienced the situation. The situation is fixed as an obstacle by the "Forecast of the Shock Development Criterion" — 35 % responses — but there is a trend that in other circumstances the anxiety producing situations cannot happen ("Vector Component") — in the case of changing the context of a situation there is no feeling that this situation can happen again — 30 %.

Under the "Disposition Criterion" the personal disposition was revealed — 60 % tolerance reactions. As for intolerance (by the "Intolerance Component" — 13 % responses) — its manifestation mostly relates to every the day sphere without touching the deeper levels — the levels of persuasion, values and attitudes. By the CSH "Experience Criterion" — 20 responses, it demonstrates a forecasting development of CSH, so the revealed "Integration Component" shows more positive cultural experience, consequently as a strategy for acculturation is one of the most successful possible-the preservation of one's cultural identity along with acceptance of the other culture (integration).

According to the results of the correlation analysis of the Cultural shock (CSH) test certain regularities have been revealed. When in an unfamiliar culture students described the

situation when they faced unfamiliar examples of behavior, which made them, feel uncomfortable. As a result of researching and analyzing the situations described as uncomfortable by the students the following data have been revealed, the following conclusions have been made, and the correlation analysis has been done.

3.3. The results of Correlation analysis

After the correlation analysis the ethnic identity correlation was researched and the following correlations have been revealed. For $n > 40$, assuming independence, ρ is approximately an observation from a normal distribution with mean 0 and variance $1/(n - 1)$. The critical values of the one-tailed tests using ρ. The entries in the table are the smallest values of ρ (to three decimal places) that correspond to one-tail probabilities ≤ 5% (or 1 %). The observed value is significant *if it is equal to*, *or greater than*, the value in the table[9]. The exact significance level never exceeds the nominal value (5 % or 1 %). At a level of significance r -0.05 at pcrit = 0.252[10] level of significance the following correlation has been found:

Age-Response to *My identification with an ethnic group, cultural group or with a national group* has the coefficient correlation of p = -0.307 (p > pcrit) which means that the older students are the less they identify with any ethnic group (Appendix 1, Table 1).

The following additional correlations have also been found:

The impact of an European Identity — How strong is the identity with your nationality has a inverse correlation with coefficient of correlation p = -0.29 it means that identification with a European status weakens one's sense of national identity.

Number of countries visited before — My identification of other people at coefficient of correlation p = 0.29 means the more countries one has visited the more one pays attention to anthropological behavioral features of people: because the person feels more ethnic prejudices.

During the research of correlations between components of cultural adjustment and component s of CSH considerable correlations have not been revealed (except the items mentioned below):

Tradition-Age p = -0.452
Tolerance-Gestures significant p = 0.342
Hidden intolerance — Citizen of the world p = 0.444
Open intolerance — Language p = 0.716
Case — Identification with your nationality p = 0.439

During research the correlations between components of CSH the following correlations can be figured out:

At a level of significance p = 0.001 at pcrit = 0.607[11] (Appendix 2, Table 2)
Tolerance — Case p = 0.725 (p > pcrit)
Tolerance — Traditions p = 0.646;
At a level of significance p = 0.05 at pcrit = 0.496[12] (Appendix 2, Table 2)
Tolerance – Obstacles p = 534; (p > pcrit)
Tolerance — Fan p = -0.458; ...

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[9] *Nasledov A. D.* (2004) Matematicheskije metodi psihologicheskihh issledovanij. Analiz i interpretacija dannihh. St Petersburg: Rech. P. 363–364.

[10] Ibid.

[11] Ibid.

[12] Ibid.

Tolerance — Affective comp. p = 0.5.

Thus we can draw the conclusion that the Tolerance Disposition in connection with another culture inversely fixes the differences in cultures, by describing other people's peculiar behavior as due to how one reacts to perceiving different cultural traditions and if to think about it from a point of predictability it does not influence the multiplication of uncomfortable situations (in reverse correlation *Tolerance — Fan)* it does not deepen contention and they are passively accepted as typical to the culture's traditions.

The additional correlations also have been found (Appendix 3, Table 3)

4. Conclusions Drawn on the Basis of the Research

4.1. Conclusion one

The results of ethnic status (Table 2) demonstrated that ethnic status is important for about **80 %** of respondents, **16 %** showed an average accentuation of ethnic status. **42 %** of respondents in addition to their national identification feel their identity as Europeans.

According to the results of ethnic self-identity (Table 3) mostly all respondents demonstrate the feeling of belonging to a certain nationality — **58 %** and **38 %** have a feeling of belonging to several nationalities.

53 % of respondents revealed unconscious ethnic prejudices (Table 3), thus they consciously or unconsciously pay attention to anthropological features. **16 %** of respondents revealed that if the behavior of the people around them seem unacceptable they are more likely to notice nationality and ethnicity.

A very significant percentage of the respondents 70 % indicated unconscious ethnic prejudices. On the basis of a quantitative analysis of the results it can be said that ethnic status is very significant for a large percentage of students — they feel their national identity and at the same time during interactions they feel and notice the differences of the other nationalities. Respondents revealed both consciously and unconsciously the existence of ethnic stereotypes and prejudices, which can lead to certain difficulties during adjustment.

Summing up the above it is becoming vivid that our first assumptions (that during the first year of study in an unfamiliar culture the students have the vivid ethnic self-identification and feel their cultural differences with other cultures) are true. Hypothesis 1 has been proved.

4.2. Conclusion two

During content analysis it was revealed that the CSH of first year foreign students possess the following peculiarities: situations which call forth some anxiety and misunderstanding, mainly affective component of adjustment, are mostly situational and unpredictable because they appear in uncertain circumstances, they are fixed but interpreted and explained in terms of cultural traditions. That is why they are characterized by the perception of students who are tolerant. The distinctive feature of foreign and local (Estonian) student perceptions of these uncomfortable situations is correlated with various sources of stress. As it was mentioned above foreign students consider them as occasional situations and do not fix on the sources.

Local students have immediate reactions to these situations which are projected to the party believed to have triggered the situation and they assign the cause to that party. They either easily project them to someone else or they can also accept that they are themselves

the cause of intolerance in this situation. Researching CSH of foreign students has revealed that the manifestation of intolerant behavior in mostly everyday situations and do not touch spiritual spheres and deeper aspects of personality. The further development of CSH keeps the path of integration directed in a way that is considered more positive.

During the analysis and interpretation of the described situations the components of ethnic settings, used in these situations, have been filtered out. The analysis highlighted that the affective component typically emphasized is associated with feelings, attitudes and anxieties.

The situations scrutinized mostly are connected with every-day life situations, in other words the respondents feel uncomfortable in circumstances related to food, clothes and satisfaction of basic necessities of life. Spiritual intolerance has not been displayed. There is no special stress or uncomfortable feelings in situations of public behavior, personal space, typical models of demonstration of attitudes and interrelations.

During the first year of studies cross-cultural shock can be seen or expressed at the surface level and doesn't have complicated forms because it concerns only their concentration of cognitive level and emotional level. Thus cultural shock at this stage does not take the form of deep stress or emotional disruption. According to M. Bennet's model this is one of the first stages of the development of the cultural shock syndrome[13]. Bennet says that the problem of culture shock is considered in the context of the so-called U-shaped curve of the process of adaptation, which includes three main stages: the first is characterized by enthusiasm and high spirits; the second by frustration, depression and confusion; and the third stage there gradually appears a sense of confidence and satisfaction. According to W. B. Gudykunst and Y. Y. Kim it is not possible for a person to enjoy an unending "honeymoon" period during a stay in a foreign country meaning that at some point feelings of uneasiness are unavoidable[14].

There is an important difference in the flow process adaptation and its length — from several months up to 4—5 years. But not all foreign students are beginning to stay in foreign country with ''honeymoon" and stage of depression is not versatile.

According to M. Bennet's model culture shock has specific features for first year students studying in the Estonian culture. The specific characteristics and features of foreign students as opposed to those of the new culture they are interacting in have a cohesive effect on adaptation. Individuals with similar cultures often come into contact with the locals, and, therefore, were less susceptible to culture shock (for example, Finnish students and students of post-Soviet countries).

This hypothesis (Hypothesis 2) was proven to be true by this research project.

4.3. Conclusion three

After the correlation analysis the ethnic identification was researched indicating a correlation between the age of students and definite identity with nationality or ethnic group (the older the student the less likely they are to identify themselves with any nationality). (Appendix 1, Table 1).

It was revealed that the one's national identification is weakened when the person's self-identification is European.

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[13] *Bennet M.* (ed.) (1998). Basic Concepts of Intercultural Communication: Selected Readings. Yarmouth, Maine, Intercultural Press, Inc.

[14] *Gudykunst W. B. and Kim Y. Y.* (2003). Communicating with Strangers: An approach to International Communication. 4th ed. New York: Mcgraw-Hill.

The more countries visited the higher the level of attention fixated on the anthropological features others: in other words there is a higher level of hidden ethnic prejudice.

Researching the correlations between the components of cultural adjustment and CSH components the vivid correlations have not been revealed, except the following: the influence of age on traditionalism, influence of ethnic self-identification on intercultural tolerance or different forms of intolerance, influence of language and manner differences on polar component tolerance/intolerance:

Tradition-Age p = -0.452

Tolerance-Gestures significant p = 0.342

Hiden intolerance — Citizen of the world p = 0.444

Open intolerance — Language p = 0.716

Case — Identification with your nationality p = 0.439

Thus we can draw the conclusion that the Tolerance Disposition in connection with another culture inversely fixes the differences in cultures, by describing other people`s peculiar behavior as due to how one reacts to perceiving different cultural traditions and if to think about it from a point of predictability it does not influence the multiplication of uncomfortable situations (in reverse correlation *Tolerance — Fan)* it does not deepen contention and they are passively accepted as typical to the culture's traditions. (Appendix 2, Table 2).

Intolerant attitude to other cultures influences the extend of CSH. The additionally revealed connections are attached in Appendix 3.4. Our supposition that there is correlation (Hypothesis 3) between components of cultural adjustment and CSH components has been proved but in the beginning of research it expected to be higher.

5. Recommendations

Culture shock can be considered as an unpleasant and extreme reaction during the common process of adaptation to new conditions. But in spite of the stress the person adjusting to new cultures is becoming enriched and more developed due to enhanced cultural knowledge and competence. Since the 1990s this common experience is typical to people and is often identified as 'acculturative stress' (Berry 2006: 43) rather than culture shock[15].

5.1. The enlargement of the European Union has influenced the ethnic diversity of students at Estonian educational institutions and the educational environment is becoming more and more multicultural. These changes have a great impact on both the teaching and studying processes. Thus, the aims of education have to reflect the current situation in the educational environment. In light of internationalization increasing cross-cultural competence has to be an integral part of the university's plan for effectively managing internationalization. This demands the training of future specialist in cross-cultural communication and the university must consider implementing procedures to manage the consequences of culture shock. The combination of didactic and empirical methods of teaching can be very effective if the teachers are familiarized with studies on building cross-cultural competence. In the curriculum of the Institute of International Relations (a part of the Economic Department) we have tried to put into practice cross-cultural communication strategies for combining didactic and empirical methods of teaching. The knowledge received by the stu-

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[15] *Berry J. W.* (2006). Stress perspectives on acculturation // The Cambridge Handbook of Acculturation Psychology. Cambridge: Cambridge University Press.

dents during the lectures has been transferred and practiced in practical trainings, where practical skills of communication, understanding cultural differences and avoiding conflict situations have been formed.

According to Ting-Toomey without appropriately facilitating the student's adjustment process to studying in a foreign cultural context students are more likely to experience a prolonged period of feeling confusion over values, norms, processes as well as over content, identity, relational and procedural issues[16]. On the other hand, as Ting-Toomey points out careful attention to the adjustment process of students studying in this culture helps them to have not only a better learning experience but helps them to grow (mature) as individuals as a result of an enriching cultural experience.

5.2. Improving the performance of students attending higher education programs in Estonia demands attending to the factors involved in their adjustment to the Estonian cultural context. Experts in intercultural communications point out that for the university system as a whole to be competent in facilitating the cultural shock of international students those responsible for the program must be able to "Foresee and calculate the adjustment needs of students, and make certain assumptions as to how students will both approach and understand this culture and this cultural context."[17]

5.3. Estonian institutions of higher education increase the effectiveness of their effort to appeal to international students and their ability to offer an enriching learning experience by carefully planning the internationalization of its programs. This includes taking culture shock as an adjustment factor in the learning experience into consideration.

Summary

The research project revealed that foreign students studying at this university are experiencing adjustment challenges during the early periods of studying in Estonia that have some features of culture shock. This finding corresponds with the results of similar research analyzing the adjustment challenges of international students[18]. The thriving of education for foreign students at TUT is based on its ability to effectively manage the internationalization of its higher educational systems. This means that to be competitive in the higher education market, where internationalization is a priority for most universities, the quality of the international program must be increased. In this respect, to enhance the learning experience of international students the university administration must be mindful of helping international students by facilitating their adjustment to studying in a new cultural context.

The challenge students face in adjusting to the new cultural context is defined as cultural shock. Cultural shock can result in any number of unpleasant feelings and emotions causing unpleasant interactions and experiences. This all leads to poorer results in the learning experience, on the one hand, and perhaps a bad reputation for the university on the other.

The research team used a very sophisticated tool for measuring the extent of culture shock and found evidence that by taking certain factors (that would contribute to improving

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[16] *Ting-Toomey S.* (1999). Intercultural Conflict Management: A Mindful Approach. Communicating Accross Cultures. New York: Guilford Press. 194 p.

[17] *Lewis R.* (1996) When Cultures Collide. London: Nicholas Brealey, 2.

[18] *Thomson G. Rosenthal D. & Russell J.* Cultural Stress among International Students at an Australian University. Australian International Education Conference 2006, 7.

the university's overall intercultural competence) into consideration cultural shock can be reduced and the student will have a better adjustment to studying in the international program at Tallinn University of Technology. In this respect the test responses can be regarded as an indication that the university must pay more attention to the needs of the international students by better managing the internationalization of its programs. In other words university administrators cannot just assume that it is the responsibility of the student to manage the adjustment process. Effectively managing the internationalization of higher education means that the university must share in this responsibility and in addition the international program must be better integrated with the overall university program.

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Appendix 1

Table 1

The results of correlation analysis of researching the student's ethnic self-identification according to Spearman's rho

		Number of countries visited	Citizen of the world	European	With your nationality	With a cultural group (nation)	Who you identify yourself with?	Feeling of belonging to any nationality	My identification of other people
Age	Correlation Coefficient	0.194	0.003	0.012	-0.143	-0.307	-0.115	0.153	0.12
	Sig. (2-tailed)	0.135	0.981	0.928	0.272	0.016	0.378	0.238	0.357
Number of countries visited	**Correlation Coefficient**	**1**	**0.038**	**0.126**	**0.034**	**-0.173**	**-0.258**	**-0.109**	**0.254**
	Sig. (2-tailed)		0.769	0.334	0.796	0.184	0.045	0.405	0.049
Citizen of the world	Correlation Coefficient		1	0.06	-0.137	-0.089	0.029	0.195	0.114
	Sig. (2-tailed)			0.646	0.291	0.496	0.822	0.132	0.383
European	**Correlation Coefficient**			1	-0.29	-0.107	-0.099	0.124	-0.115
	Sig. (2-tailed)				0.024	0.41	0.45	0.341	0.379
With your nationality	Correlation Coefficient				1	0.024	-0.118	-0.236	0.001
	Sig. (2-tailed)					0.857	0.365	0.067	0.996
With cultural group (nation)	**Correlation Coefficient**					1	0.206	-0.002	0.048
	Sig. (2-tailed)						0.112	0.985	0.715
Who you identify yourself with?	**Correlation Coefficient**						1	0.033	-0.182
	Sig. (2-tailed)							0.8	0.159
Feeling of belonging to any nationality	Correlation Coefficient							1	-0.119
	Sig. (2-tailed)								0.359

Appendix 2

Table 2
Correlation Analyze 2

	Affective	Cognitive	Conotative	Counters	Uncounsens	Traditions	Subject	Object	Case	Obctace	Vector	Fan	Open intolerance
Traditions	0,514	0,267	0,099	-0,379	-0,527	1	-0,25	0,029	0,719	0,347	0,411	-0,198	.
	0,009	0,178	0,601	0,036	0,005	.	0,168	0,878	0	0,096	0,037	0,304	.
Subject	-0,322	-0,101	0,366	0,236	0,297	-0,25	1	-0,091	-0,221	0,093	-0,025	0,271	0,358
	0,089	0,588	0,026	0,16	0,093	0,168	.	0,608	0,202	0,63	0,889	0,116	0,025
Obctace	0,335	-0,067	0,266	0,071	-0,002	0,347	0,093	-0,223	0,4	1	-0,58	-0,263	-0,234
	0,148	0,756	0,18	0,724	0,994	0,096	0,63	0,285	0,035	.	0,004	0,203	0,222
Vector	0,344	0,035	-0,05	-0,04	0,089	0,411	-0,025	0,107	0,482	-0,58	1	-0,258	-0,01
	0,092	0,861	0,79	0,832	0,64	0,037	0,889	0,581	0,008	0,004	.	0,177	0,957
Fan	-0,323	-0,125	0,33	0,195	0,042	-0,198	0,271	0,358	-0,213	-0,263	-0,258	1	0,56
	0,101	0,534	0,053	0,276	0,827	0,34	0,116	0,048	0,243	0,203	0,177	.	0
Open intolerance	.	-0,101	0,272	0,623	-0,1	.	0,358	.	-0,093	-0,234	-0,01	0,56	1
	.	0,589	0,103	0	0,581	.	0,025	.	0,594	0,222	0,957	0	
Hiden intolerance	-0,236	0,253	0,207	-0,107	-0,208	0,045	-0,058	0,28	0,051	0,068	-0,237	0,386	-0,058
	0,267	0,234	0,255	0,567	0,299	0,826	0,754	0,15	0,79	0,753	0,243	0,035	0,754
Tolerance	0,5	0,328	-0,086	-0,156	0,126	0,646	-0,168	-0,212	0,725	0,534	0,437	-0,458	-0,38
	0,006	0,077	0,625	0,372	0,501	0	0,321	0,243	0	0,004	0,012	0,007	0,02
Spirit sfear	-0,223	-0,07	0,322	-0,066	0,299	-0,052	-0,047	0,477	.	.	0,117	-0,053	-0,038
	0,244	0,707	0,052	0,699	0,091	0,777	0,777	0,004	.	.	0,518	0,764	0,82
Conventional	0,199	0,483	-0,134	0,336	-0,266	0,079	0,092	-0,169	0,233	0,152	0,013	0,076	0,162
	0,3	0,006	0,429	0,042	0,135	0,668	0,579	0,339	0,177	0,43	0,941	0,663	0,323

Appendix 3

Table 3. Correlation Analyze 3

	Affective	Traditions	Subject	Case	Obstacle	Vector	Fan	Open intolerance	Hiden intolerance
Fan	-0,323	-0,198	0,271	-0,213	-0,263	-0,258	1	0,56	0,386
	0,101	0,304	0,116	0,243	0,203	0,177	.	0	0,035
Obstacle	0,335	0,347	0,093	0,4	1	-0,58	-0,263	-0,234	0,068
	0,148	0,096	0,63	0,035	.	0,004	0,203	0,222	0,753
Case	0,642	0,719	-0,221	1	0,4	0,482	-0,213	-0,093	0,051
	0	0	0,202	.	0,035	0,008	0,243	0,594	0,79
Object	-0,145	0,029	-0,091	-0,234	-0,223	0,107	0,358		0,28
	0,462	0,878	0,608	0,206	0,285	0,581	0,048		0,15
Subject	-0,322	-0,25	1	-0,221	0,093	-0,025	0,271	0,358	-0,058
	0,089	0,168	.	0,202	0,63	0,889	0,116	0,025	0,754
Traditions	0,514	1	-0,25	0,719	0,347	0,411	-0,198		0,045
	0,009	.	0,168	0	0,096	0,037	0,304		0,826
Unconsens	-0,256	-0,527	0,297	-0,314	-0,002	0,089	0,042	-0,1	-0,208
	0,228	0,005	0,093	0,097	0,994	0,64	0,827	0,581	0,299
conotative	-0,667	0,099	0,366	0,023	0,266	-0,05	0,33	0,272	0,207
	0	0,601	0,026	0,898	0,18	0,79	0,053	0,103	0,255
Customs	-0,223	-0,052	-0,047	.	.	-0,138	0,56	-0,038	0,596
	0,244	0,777	0,777	.	.	0,444	0	0,82	0
Language	.	.	-0,047	-0,093	-0,234	0,117	.	0,716	-0,058
	.	.	0,777	0,594	0,222	0,518	.	0	0,754
Gesture signifies	0,159	0,424	-0,123	0,396	0,117	0,248	-0,139	-0,099	0,111
	0,41	0,015	0,455	0,018	0,544	0,163	0,425	0,548	0,544
My identification of other people	0,491	0,422	-0,179	0,236	0,264	0,101	-0,19	0,166	-0,318
	0,007	0,016	0,276	0,172	0,166	0,576	0,275	0,312	0,076
Who you identify yourself with?	-0,113	-0,088	-0,386	0,039	0,111	-0,121	-0,013	-0,311	0,233
	0,56	0,633	0,015	0,823	0,568	0,503	0,943	0,054	0,2
With your nationality	0,175	0,344	-0,064	0,439	0,054	0,116	-0,047	0,127	-0,022
	0,365	0,054	0,698	0,008	0,782	0,521	0,791	0,442	0,903
Citizen of the world	0,053	0,051	0,016	-0,062	-0,175	-0,112	0,424	0,09	0,444
	0,786	0,782	0,923	0,724	0,364	0,536	0,011	0,584	0,011
Age	-0,229	-0,451	-0,052	-0,286	0,185	-0,37	0,056	-0,218	0,11
	0,231	0,01	0,753	0,096	0,338	0,034	0,748	0,183	0,548

Appendix 4

Test 1. "WHO AM I?"
(check which level you identity with the following

	Most likely	To a certain degree	Not at all
citizen of the world			
European,			
With your nationality			
With an ethnic or cultural group with your nation (subnational)			
Who you identify yourself with?			

Underline the correct answer:
1. Do you notice the nationality of people around you?
Usually, I do not
I do, if I dislike like them
I do regardless of my likes or dislikes

2. Do you feel that you belong to any nationality, with the language, customs and traditions?
No, I do not associate with any nationality
I feel that I belong to several nationalities
Yes, I do — to a certain nationality

Test 2. "CULTURE SHOCK" (CSH)
Cultures all have different ways of looking at reality. By this we mean that each culture has its own worldview which determines its values. There is sometimes the problem of judging another culture by one's own worldview thus being what is called ethnocentric. At worst different can mean wrong and at best the different can make a person uncomfortable. But invariably individuals have so much trouble adjusting to another culture that seems strange that we use the term CULTURE SHOCK to describe the phenomena. To transcend the differences and improve on our cultural interactions, we must find ways to become more culturally competent.
PLEASE, would you like to volunteer three or more examples of your own experiences of CULTURE SHOCK, occasions (in Estonia), when you were surprised or embarrassed to discover that people « don't do that here» or do things differently in a new setting. All possible topics are: food and dress preferences, gesture signifies, manners, personal space, expressions distance, most types of mind, problem solving styles, funny life events or confuses, basic life things, and so on
Answer Sheet
Your name_____date_____
Age_____sex_____country_____(state)_____
Countries you visited before_____
_____
Topic 1. (Title)_____
Topic 2. (Title)_____
Topic 3. (Title)_____

Appendix 5