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MULTIDIMENSIONAL INVENTORY OF STUDENTS QUALITY OF LIFE – SHORT VERSION (MIS-QOL-S)

Abstract: *Most of the questionnaires used to measure quality of life are not covering most important areas for young people' in emerging adulthood stage. The aim of this paper is to present the creation procedure of a shortened version of the questionnaire for multidimensional examination of students' quality of life (MIS-QOL-S), its structural and theoretical validity as well as reliability. Within a three step quantitative approach, the MIS-QOL-S revealed a high reliability of 0.94 as measured by Cronbach's alfa, and 0.972 when measured by the split-half coefficient. The theoretical validity of a tool measured by a Pearson's coefficient revealed the results of 0,97 with MIS-QOL; 0,62 with SWLS and 0,693 with QOLS which proves reliability and validity of a crated tool. Based on its properties MIS-QOL-S may be used for research and diagnostic purposes in the fields of social sciences such as management, psychology or sociology as well as in medical science.*

Keywords: *Emerging adulthood; Generation Z; Measuring quality of life; Quality of life.*

1. Introduction

Quality of life (QOL) is a subject matter of research in various disciplines including medical, social and economic sciences. Although the first use of the term 'quality of life' is attributed to American President Johnson (1964), the usage of statistical data to assess the living conditions of members of society for the purpose of conducting the related analysis dates back to the 1930s. Nowadays the discussion on quality of life becomes more and more popular in the area of security, education as well as fulfilment of aesthetic and spiritual needs (Pajaziti, 2014; Rabe *et al.*, 2018). The QOL defines individual perception of position in life in the context of culture, hierarchy of values, that determine goals, expectations, standards, and concerns (WHO, 2012).

Studies on the related literature emphasise the diversity of the definitions of quality of life. According to Abrams (1973) quality of life is "the degree of satisfaction or dissatisfaction felt by people with various aspects of their lives". One of the broader definitions indicates that the quality of life is a comprehensive range of human experiences linked to one's overall well-being (Revicki *et al.*, 2000). The term quality of life is also understood as "an individual's satisfaction with his or her life dimensions compared with his or her ideal life" (Ruževičius, 2014).

Two different approaches toward quality of life are presented in the literature (Strózik, 2009). The first one, frequently called as American approach, was started by Gurin, Veroff and Field in 1957. They claim that quality of life assessment can be made by the individual himself by measuring various

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dimensions of their social life. The second approach comes from Scandinavia and was started by Johansson and co-workers in 1968 and continued by Erikson. Bothe were focusing on objective aspects of quality of life.

According to Skikiewicz and Blonski (2018), core elements (including happiness perceived as internal balance, eudaemony) of the concept addressed now as "quality of life" may be found in the works by ancient philosophers Aristotle and Hippocrates. Quality of life is determined by an individual's mental and physical health, the social relationship with the environment, the degree of independency, motivation, stress, job satisfaction, professional engagement, work load, safety and welfare at work, burn-out, and many other factors. It is worth emphasising that the assessment of quality of life depends on one's hierarchy of values (Ruževičius, 2014; Kazemi & Panahi, 2019; Shawkat *et al.*, 2019; Mohy-ud-din, 2020). The related literature indicates that quality of life has two constituents (Arsovski *et al.*, 2016):

- objective conditions which are explained as the resources that a person has, including the real opportunities to use those resources to satisfy one's needs,
- subjective experience of one's capabilities and fulfilment of those needs.

Perception of the quality of life by groups and individuals is influenced by a variety of factors. The most impactful are: personal and family beliefs and ambitions, social impact of communities, as well as regulations and policy context (Paunescu *et al.*, 2018).

According to Nowak (2018) quality of life may be divided into two separate yet necessary groups of constituents – the first is referred to as objective, collectivistic and measurable living standards (based on both material and immaterial factors), the second being individual satisfaction, experiences, and ambitions. The latter serve the basis for subjective evaluation (of internally perceived, non-measurable psychological and cultural aspects). Nowak (2018) stresses the complexity of Quality of life conceptual framework - as it is an indicator of fulfilment of collective of needs (material, spiritual, safety, ambition), that incorporates various aspects (culture, economy, space and environment), and may be described differently depending on individual and group perspective. That combined with diverse hierarchies of values, needs and priorities implies great diversity among factors that should be taken into consideration when defining and assessing quality of life. Furthermore, even if key dimensions may be agreed upon it is often their relative importance that may vary based on specific local context – that presents the challenge for researchers to compare the assessment and the opportunity to develop more context-oriented tools that will be more accurate for certain groups and applications.

Since many aspects and various priorities should be taken into consideration while describing and assessing quality of life Vargas-Hernández (2016) implies its index must compile objective and representative factors arising from various areas including life expectancy, public safety, education, recreation, well-being. Although those factors are essential, quality of life should not be reduced solely to quantitative indicators.

There is a wide range of assessment tools used for assessing quality of life but three of them are frequently used by professionals. *The Flanagan Quality of Life Scale (QOLS), the Satisfaction with Life Scale (SWLS)* and the Questionnaire from *the World Health Organisation Quality of Life tools (WHO-QOL).*

As a multidimensional phenomenon it should be described from psychological, social, political, environmental and economic perspective as in introduced in 1970 by Flanagan QOL Scale (1982). Two scales: Material and Physical Well-being as well as Social, Community and Civic categories

consist of two items. Three others such as Relations with Other People, Personal Development and Fulfilment as well as Recreation consist of 4 items each. The last item, number 16 – Independence, was added later on.

The Satisfaction with Life Scale (SWLS) is still another tool widely used when it comes to the quality of life assessment. It was published by Diener, Emmons, Larsen and Griffin in 1985. The questionnaire consists of only 5 items: In most ways my life is close to my ideal; The conditions of my life are excellent; I am satisfied with my life; So far, I have gotten the important things I want in life; If I could live my life over, I would change almost nothing. The SWLS includes answers on a seven-point-scale. The two tools mentioned above are being used for further research purposes.

The third tool used for assessing the quality of life is the one created by the World Health Organisation (1997). It consists of 100 items that are gathered around 6 factors such as Physical Health, Psychological, Independence, Social Relations, Environment and Spiritual (single items only).

The Brazilian study among nursing students showed higher results (WHOQOL-BREF) for quality of life and social relationships subscales in comparison to psychological, physical and environmental dimensions. The differences were explained as a result of excessive stress related to their studies (Faílde Garrido *et al.*, 2019). A study from China found out that adolescents who had a stressful life had lower satisfaction than adolescents without stressful situations. The increased stress among these adolescents was correlated with either the lack of coping strategies or the inability to use existing coping strategies(Felicilda-Reynaldo *et al.*, 2019). Alboliteeh (2020) states that although various quality of life assessments among nursing students are described (Graves *et al.*, 2017; Hosseini *et al.*, 2015; Labrague *et al.*, 2018; Leon-Larios *et al.*, 2019; Mak *et al.*, 2018), none of them considered academic aspects as relevant in assessing the QOL of students.

The above described tools are considered to be wide and general, that may be used for various groups of interest. And as it was mentioned before, there is a need of developing context-oriented tools that are more accurate for certain groups. The main group of interest of this study is the group of students. So a well developed questionnaire that covers the perspectives of students may be an appropriate response to the challenge of measuring their quality of life. There are two important factors that differentiate this unique group of students form teenagers and young adults. Those are Genreation Z and emerging adulthood concepts.

Generation Z is the one born in the age of the Internet. Therefore, most aspects of their lives are influenced or even centred around the use of the Web. Using modern technology is a necessity in daily life and for many tasks the only way generation Z is familiar with. The lack of digital resources and tools may cause stress and anxiety among people from generation Z. Although they use digital technology for almost every task including education, they have not mastered critical thinking and tend to have problems assessing and selecting information that Google supplies. Shift from books and classrooms to digital resources has become a challenge for modern teachers as they should not only update the content they teach but also modernize the methods they use (Poláková *et al.*, 2019). Another important fact is that generation Z is about to enter the global labour market and is expected to take a leadership role in the near future. Generation Z is widely defined to be born in 1995-1999 and raised within the framework of the Social Web and the "digital technology revolution" (Al Amiri *et al.*, 2019). Although this generation is now in the point of interest, another generations such as generation Alpha are to start studies in a near future. There is a also a need of more stable, developmental approach towards the topic. This approach is

presented by emerging adulthood context, that is no related to generations, but to the level of development of individuals.

According to the theory of emerging adulthood, people aged 18-25 significantly differ from people in other age groups not only in demographic terms but also in shaping identity and perceiving themselves (Chisholm & Hurrelmann, 1995; Arnett, 2000).

In Arnett's opinion (2000), identity formation in the period of emerging adulthood takes place within three main areas: love, work, and views. Admittedly those processes already begin in adolescence but the main changes occur just as one turns 18 until 25 years of age. In addition to the three main areas listed above, which characterise the emerging adulthood, there are other areas related to the age-specific behaviour of young people such as a change in the relationship with parents, which consists in shifting from a relationship with them based on opposition typical to the adolescent age to more partner-like relationship.

For many young people, the end of adolescence - up to around the age of 25 is the key period of achievement, experimentation, and change (Chisholm & Hurrelmann, 1995). During that period there are many opportunities related to work, love or exploration of the world (Rindfuss, 1991).

Those important facts mentioned above and the analysis of the related literature concerning assessment of quality of life reveal a gap to the extent of research tools used for studying the quality of life of the so-called young adults or people becoming an adult, which is congruent with the period of studying at the university.

The aforementioned gap has become a motive for drawing up the *Multidimensional Inventory of Students Quality of Life (MIS-QOL)(*Szydło, Wiśniewska, Ćwiek, 2021), which is dedicated for measuring students' QOL who may be described by both Generation Z and Emerging Adulthood concepts. The Abram's definition within the American approach was the base for constructing the questionnaire. That tool in a very meticulous way examines students' quality of life in 15 aspects, including finance, health, family, partners friends, work, free time, flat/ apartment, hobby/ interests/ passion, university/ education, volunteering, technology, state of mind, philosophy/ ethics and perspectives. The dimensions of students' quality of life were extrapolated from the pilot study. The inventory shows very good psychometric properties, including the PCLOSE = 0.35, Cronbach's alpha 0.802, r_{sb} = 0.858. The validity of a tool was checked with Pearson's correlation coefficient (r) and was equal to r=0,52 with somatic subscale of WHO, r=0.631 with environmental subscale of WHO and r=0.703 with psychological subscale of WHO. In order to check the external validity of the *MIS-QOL* two other questionnaires were chosen due to their common use for the purpose of conducting research on quality of life. Those namely were *Quality of Life Scale* and the *SWLS.* Both of the questionnaires were characteristic of very high psychometric values. It is important to state that the reliability of the *QOL* Scale varied from 0.78 to 0.84 (Anderson, 1995; Neumann & Buskila, 1997) and the validity of the *QOL Scale* measured by the Spearman's coefficient with the *Life Satisfaction Index Z (LSI-Z)* (Wood *et al.*, 1969) varied from r=0.67 to r=0.75 (Burckhardt *et al.*, 2003). As far as the *SWLS* is concerned, its reliability varied from 0.79 (Blais *et al.*, 1989) to 0.89 (Alfonso *et al.*, 1996) and the validity of the *SWLS* measured by the Pearson's correlation coefficients with the *Life Satisfaction Index* (Neugarten *et al.*, 1961) ranged from 0.75 (Abdallah, 1998) to 0.81 (Pavot *et al.*, 1991), which also proved a stronger correlation coefficient between the *SWLS* and self-reported positive affect (r=0.62) than between the *SWLS* and self-reported negative affect (r=-0.30). Those statistics proves that the external validity check was performed by a comparison with valuable questionnaires. MIS-QOL revealed

the strong correlation r=0.786 with QOLS and r=0.657 with *SWLS*.

The questionnaire with such a psychometric stats allows to draw conclusions on 15 dimensions and a general score – that is beneficial during diagnostic processes. However, due to the relatively large number of questions (100), it has been decided to provide an shortened version. Questions have been selected for the short version by means of the exploratory factor analysis (EFA). The aim of the article is to present the procedure of creation of a shortened version of the multidimensional examination of students' quality of life *(MIS-QOL-S)*, its theoretical validity as well as reliability.

2. Methodology

The *MIS-QOL-S* questionnaire development process was based on the approach presented by Hornowska (2001) and expanded by other researchers. It consisted of the following steps:

1) Loadings for each item on the general dimension of the *MIS-QOL* check,
2) Recognition of dimensions significant for assessing quality of life,
3) External validity and reliability based on the correlation with the *MIS-QOL* check,
4) Draft questionnaire development,
5) Questionnaires selection for external validity testing (the Flanagan *Quality of Life Scale (QOLS)* and the *Satisfaction with Life Scale (SWLS)*,
6) Pilot survey,
7) Questionnaire reliability assessment,
8) External validity based on the correlation with: the Flanagan *Quality of Life Scale (QOLS)* and the *Satisfaction with Life Scale (SWLS)* check,
9) Approval of the final version of the questionnaire.

The first step of drawing up the *Multidimensional Inventory Of Students Quality Of Life MIS-QOL (Szydło, Wiśniewska, Ćwiek, 2021)S* was to check the loadings for each question on each dimension and the final value of quality of life measured by the *MIS-QOL*. At the second stage, questions that proved the highest loadings (more than 0,8) on each dimension were chosen for the short version of the questionnaire.

In order to identify the questions that have the highest share in the variability of the studied dimension, the exploratory factor analysis (EFA) was used. The purpose of the EFA is to find a new group of variables, smaller than a group of original variables, which represent relationships between groups of many mutually correlated original variables (Hornowska, 2001).

The compilation of entry data matrices is the starting point of the analysis. Each of the entry variables after its standardisation is represented as a linear combination of the unobservable variables, known as the major factors, which carry the information common for the entry variables, and the unique factor, which carries the exclusive information for the entry variable, not present in any other entry variable. The common and unique factors are assumed not to correlate. In consequence, the variance of each entry variable may be represented by the variance explained by the common factors as well as by the unique factor (Panek & Zwierzchowski, 2013):

$$S^2(z_j) = h_j^2 + d_j^2 = \sum_{l=1}^{s} w_{jl}^2 + d_j^2 = 1, \quad j = 1,2,\dots,m$$

where: h_j^2 – resources of common variability for j-variable, d_j^2 – resources of unique variability. The factor analysis eliminates the influence of the unique factor in favour of the common factors, and concurrently minimises the influence on the values of the entry variables other than the common factors. The influence is successfully mitigated by replacing the R correlation matrix of the

diagonal coefficients of the correlation with the common variability resources. As a result, the reduced correlation matrix is obtained (Panek & Zwierzchowski, 2013):

$$\tilde{R} = \begin{cases} \tilde{r}_{jj'} = r_{jj'}, for j \neq j' \\ \tilde{r}_{jj} = h_j^2, for j = j' \end{cases}, \quad j, j' = 1,2, \ldots, m.$$

The reduced correlation matrix serves as the basis to determine the loadings in the subsequent model equations. The loadings were estimated by means of the principal axis method. The obtained results were subject to the rotation using a varimax rotation with Kaiser normalisation.

The last step before drawing up the draft questionnaire was to check the external validity and reliability of the short version. The statistical approach is defined below.

Cronbach's alpha coefficient and the Spearman-Brown split-half factor were used for validating the study. Cronbach's alpha coefficient defines which part of the variance of the total scale is the variance of the real value of that scale and is calculated by means of the following formula (Gatnar & Walesiak, 2004):

$$\alpha = \frac{k}{k-1}\left(1 - \frac{\sum_{j=1}^{k} S^2(x_j)}{S^2(x_s)}\right)$$

A zero value means that specific positions on the scale do not ensure the true result but generate a random error. In consequence, there is no correlation between the items on the summary scale. Cronbach's alpha of the tool is assumed to be at least 0.60, while that coefficient is preferred to approximate to 0.90.

An alternative way to calculate the reliability of the summary scale is to divide it into halves in a certain random manner. If the total scale is perfectly reliable, then the two halves are expected to be perfectly correlated (i.e., r = 1.0). Less than perfect honesty will lead to less than perfect correlation. The integrity of the summary scale may be estimated using the Spearman-Brown split-half factor published independently by Spearman (1910) and Brown (1910):

$$r_{sb} = \frac{2r_{xy}}{1 + r_{xy}}$$

where: r_{sb} – split-half factor, r_{xy} – correlation between halves of the scale.

The draft questionnaire consisted of 30 questions that represented each dimension from the MIS-QOL. It is important to note that some dimensions were represented by only one question whereas some of them were represented by three questions. The scale of answers was a Likert-type scale ranging from zero to seven, where zero represented – not applicable, 1 - strongly dissatisfied, 2 - dissatisfied, 3 - rather dissatisfied, 4 - difficult to say, 5 - rather satisfied, 6 - satisfied, 7 - very satisfied. For two questions the scale was slightly different, where zero represented – not applicable, , 1 - strongly disagree, 2 - disagree, 3 - rather disagree, 4 - difficult to say, 5 - rather agree, 6 - agree, 7 - strongly agree. It was drawn up in the form of the Computerised Self-Administered Questionnaire (CSAQ). It was a questionnaire in which the respondents could give their answers directly. The use of this technique properly excludes the problem of non-response because the computer does not allow to proceed to the next group of questions, if any of the mandatory questions has been omitted.

The last stage before creating the final version of the questionnaire was to check the psychometric properties of the inventory. Those were checked in terms of reliability and validity using the following techniques and research methods:

1. the reliability of the questionnaire was estimated using Cronbach's alpha and the split-half reliability coefficient,
2. the Flanagan Quality of Life Scale (QOLS), Satisfaction with Life Scale

(SWLS) and were used for estimating the external validity of the questionnaire.

The study involved 238 people, including 63% of women and 37% of men. The majority of the respondents were from Poland (98.7%). The remaining 1.3% of the respondents were from Ukraine. The respondents were between 18 and 36 years old. The average age was 22.03 years old with a standard deviation of 2.03. The largest group of respondents were 22 years old. The respondents studied at various universities in 5 Polish cities: in Kraków, Kielce, Warsaw, Lublin, and Katowice. For the purposes of the analysis, the size of the academic center was adopted as the criterion: over 500,000 inhabitants (48.74%) and below 500,000 inhabitants (51.26%). The respondents studied a total of 20 fields, which for the purposes of the analysis were divided into three categories: economic sciences (63.87%), computer science or engineering sciences (31.93%) and others (4.2%).

The gathering data process was conducted in accordance with high ethical standards. Only volunteers were taking part in the research. It was conducted with CSAQ made with Google forms so in order to proceed, participant had to agree for taking part in a research by marking an appropriate answer. If they don't agree their participation in the research was terminated. The questionnaire was not collecting email addresses neither personal data that allow for identification of the respondent. People taking part in the research were also informed of the possibility of withdrawing from the research at any time without consequences. The questionnaire was based on secured G-SUIT drive, accessed only by the researchers, that is in accordance with Personal Data Protection Act.

3. Results

The final form of the *Multidimensional Inventory Of Students Quality Of Life – Short Version MIS-QOL-S* consists of 30 questions that are as follows:

I. How satisfied are You with:
1. the opportunity to gain scholarship?
2. the opportunity to spend money on pleasures?
3. the quality of medical services?
4. the quality of medical advice from your General Practitioner?
5. the time spent with your family?
6. the level of trust in your family?
7. the ways of making decisions in your family?
8. the time spent with your partner?
9. the level of respect towards your boundaries by your partner?
10. the frequency of meeting with friends?
11. the level of respect towards your rules and beliefs by your friends?
12. the suitability of your educational background for your job?
13. the atmosphere at work?
14. the access to cultural events?
15. the size of your room?
16. the equipment of your apartment?
17. the availability of places to perform your hobby?
18. the opportunity to share your hobby with others?
19. the didactic level of your University?
20. the opportunity to start a voluntary work?
21. the opportunity to realise own ideas as a volunteer?
22. the recognition of your involvement?
23. the level of your skills with mobile devices?
24. the level of your programming skills?
25. your network in social media?
26. the way you understand suffering?
27. socially recognised authorities?
28. prospects in terms of your health?

II. To which extent do you agree with the following sentences:
29. I am full of energy.
30. I feel loved.

After conducting the pilot research, it is important to state that the psychometric values of the *MIS-QOL-S,* such as validity and reliability are recognised to be at a very good level. The validity measured by the Spearman's coefficient in respect of the *QOLS* equals 0.693 and in respect of the *SWLS* - equals 0.62. The reliability of the *MIS-QOL* measured by Cronbach's alpha equals 0.944 and measured by the split-half coefficient - equals 0.972.

The relevance of MIS-QOL-S to MIS-QOL concerning dimensions is presented in table 1

Table 1. Relevance of questions to dimension

Dimension	Questions
Finance	Part I, question 1 and 2
Healt	Part I, question 3 and 4
Family	Part I, question 5, 6 and 7
Partners	Part I, question 8 and 9
Friends	Part I, question 10 and 11
Work	Part I, question 12 and 13
Free time	Part I, question 14
Flat/ apartment	Part I, question 15 and 16
Hobby/ Interests/ Passion	Part I, question 17 and 18
University/ Education	Part I, question 19
Volunteering	Part I, question 20, 21 and 22
Technology	Part I, question 23, 24 and 25
State of mind	Part II, questions 1 and 2
Philosophy/ Ethics	Part I, question 26 and 27
Perspective	Part I, question 28

It is important to state that during the creation process the inventory was translated from Polish into English using the procedure of back translation. It consists in making the translation into English by one person and then translating it back into Polish by another person not connected to the project. If there are no significant differences between the original version of the questionnaire and the inventory resulting from the back translation, that ensures that both language versions (Polish and English) are identical and that the English version may be used for both research and diagnostic purposes right after conducting the process of validation.

4. Conclusions and limitations

Based on the research and the design procedure, presented in this article, and the result obtained by using the *MIS-QOL-S,* certain conclusions may be drawn.

The *MIS-QOL-S* is filling the gap in the case of conducting research among people in the emerging adulthood stage. The currently used questionnaires *(QOLS, SWLS)* are created as general tools (Diener *et al.*, 1985; Hinz *et al.*, 2018), without any specific reference to the generation, age, etc. The *MIS-QOL-S* was created based on two pilot studies and the questions used in the inventory were carefully selected adequately to the group of students or people in the emerging adulthood stage. It contains questions about the most important issues as far as this age is concerned, such as: family, relationships, love, work, and self-esteem (Arnett, 2000).

The *MIS-QOL-S* as an inventory is strict and widely comprehensible by the study participants. In the course of conducting pilot research projects, none of the participant reported any unusual language or impossibility to understand questions. Every question was unambiguously interpreted by the participants. It is due to the process of

creating the *MIS-QOL* inventory questions, in which people in the emerging adulthood stage were included.

The psychometric characteristics of the *MIS-QOL-S* are very high. The theoretical validity of the *SWLS* (0.62) and the *QOLS* (0.693) measured by a Pearson's coefficient shows that the *MIS-QOL-S* is an appropriate tool for assessing Quality of Life. The reliability of the tool is remarkable. It equals 0.944 as measured by Cronbach's alfa, and is equivalent to 0.972 when measured by the split-half coefficient.

Based on the complexity of questions as well as very high psychometric values it is reasonable to use the *MIS-QOL-S* as a tool in both psychological and medical research projects. The *SWLS* and *QOLS* tools are widely used in medical studies (Burckhardt, & Anderson, 2003; Bicholkar et. al., 2019; Seva *et al.*, 2019; Uchmanowicz *et al.*, 2019), so could be the *MIS-QOL-S* as a tool with better reliability. It may be used as a tool for both research and diagnostic purposes.

The Multidimensional Inventory of Students' Quality of Life - Short Version consists of 30 questions, which makes it quick to complete. It is important to note that completing it one can only assume about quality of life in general, without the need to go into a greater detail of respective domains. To do this, one must reach for a much longer and more time-consuming *Multidimensional Inventory of Students' Quality of Life*.

The properties of the questionnaire are very good but please keep in mind that those are the results of the survey conducted in the Polish language among Polish (or Polish-speaking) students. The use of the inventory in other countries requires not only translating the questionnaire according to the procedure of back translation but also its re-validation. It may turn out that the psychometric properties of the inventory will be different from the above-presented, e.g. due to cultural differences.

The results of the study presented in the text concerning students' quality of life in Poland may not be assessed properly at the moment because they have not yet been normalised. Therefore, it is not possible at the moment to use the *Multidimensional Inventory of Students' Quality of Life - Short Version* for diagnostic purposes. It is important to remember that normalisation should be performed separately for each country in which the study will be conducted with the use of this questionnaire. Each time, one should also consider whether it should be developed as one standard version (the same for all students) or whether there are particular local conditionalities differentiating students' situation therefore implying that in such a case it should be based on separate standards, e.g. according to gender or type of study.

5. Future Research

There are wide plans of future research concerning the *MIS-QOL-S.* In terms of a back translation, the subsequent steps to be taken may be as follows:

1. Translation into other native languages and validation of the tool for the purpose of each country. As for the current partnerships, the first languages are to be English, German, Russian, Serbian and Spanish.
2. Implementation of norms for Polish and other national versions of the tool.
3. Comparative studies with international partners.
4. Creation of a network of researchers using the *MIS-QOL* and *MIS-QOL-S* for studying and describing students' quality of life and people in the emerging adulthood stage.

Those goals are to be achieved only due to the strong cooperation with specialists in the field of economics, management, medical sciences, psychology and sociology, as well as with international institutions such as Eurostat.

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