

QUALITY OF LIFE ASSESSMENT IN TERMS OF RESIDENTS – EXAMPLE OF A LARGE CITY

Patrycja KWOSEK^{1*}, Mariusz J. LIGARSKI²

¹ Silesian University of Technology, Faculty of Organization and Management, Zabrze;
patrycja.kwosek@polsl.pl, ORCID 0000-0002-0326-3426

² Silesian University of Technology, Faculty of Organization and Management, Zabrze;
mariusz.ligarski@polsl.pl, ORCID 0000-0002-5747-2324

* Correspondence author

Purpose: The objective of the article is to present the quality of life in terms of residents in the example of a large city.

Design/methodology/approach: Research was carried out remotely using an online questionnaire. A diagnostic survey method was used with the residents. The research topics are related to the quality of life of the residents, based on the current state of life and factors influencing the quality of life.

Findings: The study found that the quality of life has a significant impact on the functioning of residents in their private and professional lives regarding living conditions in a large city. The conducted research shows that there are many problems related to the quality of life of the residents and that information on their existence may be valuable information for Municipal Office.

Social implications: Social implications of the research were indicated. Attention was paid to the benefits of research for improving the quality of life in the city.

Originality/value: The study highlights the need for comprehensive quality of life research conducted among residents. Methods of obtaining data from residents were proposed to Municipal Offices and the conditions for their use for the city's development were defined.

Keywords: Quality of life, smart city, research surveys, city residents.

Article category: Research paper.

1. Introduction

Quality of life is a concept widely understood by society, which is still an issue of a cognitive nature. Economic and social indicators regulating the quality of life let us learn about opinions, life satisfaction, and housing satisfaction, as well as aspects of functioning, financial situations and the development of both the residents and the cities in which they live. Quality of life is defined in various ways by many authors. The quality of life concept was

introduced in the United States after World War II and was initially associated with material well-being (Dziurawicz-Kozłowska, 2002). The World Health Organisation (WHO) defines quality of life as ‘an individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns’ (World Health Organisation, 1997). P. Dolan and R. Metcalfe tried to organise the aspects of a subjective assessment of the quality of life by assigning indicators used in the research (Dolan, Metcalfe, 2013). Thanks to this, they distinguished three categories of well-being, i.e.: evaluation studies, studies of personal experiences and studies of eudaemonia, i.e. rational contentment and satisfaction, of every reasonable person. Amartya Sen, in his book ‘Inequality Reexamined’, defines quality of life as follows: ‘A person's well-being can be understood in terms of their quality of life (a kind of good state of being). And life can be interpreted as a set of interrelated functions that consist of beings and actions’ (Sen, 2000, pp. 55-56). Thanks to the definitions and research carried out so far, showing the quality of life from various perspectives, one can be inspired by them and also improve them. Literature on the subject shows many studies and analyses concerning the quality of life in the city (Gliwice Municipal Office, Katowice Municipal Office, Zabrze Municipal Office). The city of Gliwice has conducted research on living conditions in the city. According to the research, the residents of Gliwice consider their city to be one of the most attractive in the region. (Information Bulletin of the Municipal Office in Gliwice, 2018). An analysis of the situation of large centres in Poland, including Katowice, was carried out in the city of Katowice. Capital research was carried out, including: institutions, infrastructure, quality of life, people, image, investments and finances (Report on major Polish cities – Katowice, 2007). The main direction of research in the city of Zabrze is customer satisfaction with the services provided by the Municipal Office. In addition, the city of Zabrze also conducted research on the development of urban space. M. Czepkiewicz and P. Jankowski present examples of spatial research on the quality of life, social, economic and geographic indicators, as well as research on residents’ satisfaction with their home surroundings (Czepkiewicz, Jankowski, 2015). In the article, Czepkiewicz and Jankowski formulated recommendations and showed how to properly conduct spatial research on quality of life in the city. Other research that makes it possible to assess quality of life are studies conducted by municipal offices, which check the city's potential in a simple and general way by creating a questionnaire aimed at finding out about the opinions of the residents. Research on quality of life is carried out in various perspectives and areas, such as studies of spa towns showing the advantages of a city for tourists. Such research was carried out in Ciechocinek, where the hierarchy of features according to the respondents influencing the quality was shown. As can be noticed, the context and the area of research have many possibilities of perceiving the quality of life. There are many reports in literature on the subject of a smart city and the role of the quality of life research at the city level (Albino et al., 2015; Caragliu et al., 2011; Desdemoustier et al., 2019; Papachristou and Rosas-Casals, 2019). For example, in 2015, research was carried out in European cities to determine the level of quality of life and the residents satisfaction with life (Publications Office of the European

Union, 2016). In Poland, various studies on the quality of life at the city level were carried out (Ranking of the quality of life in province cities, 2021). As already mentioned, research on the quality of life targets various social groups, including children and adolescents. Such research was carried out in Poland in 2021 by the Ombudsman for Children, aimed at assessing the quality of life of children and adolescents in Poland (Pawlak, 2021). Research carried out by the Ombudsman for Children focused on the dimension of the school environment and the author solely focused on this. The tool used for the study was the KIDSCREEN questionnaire (Ravens-Sieberer & Kidscreen Group Europe, 2016). Research was carried out on three levels of education: nursery, primary and secondary education. 5,800 students from different schools at different levels participated in the study. The aim of the study was to determine the level of education and then to determine how to help with low scores. It is worth emphasising that the research was carried out during the pandemic which meant remote learning difficulties for students.

This study aims to assess the living conditions of residents and their satisfaction, as well as to diagnose problems in a large city. Research aimed at city residents should make it possible to assess the city's potential, its needs, strengths and weaknesses. Opinions of residents are one of the most valuable comments that can be made by changes in cities. Only residents of a given area know what they need, what they want to change, so that they can live better in their city. For the purposes of the research, the following research questions were formulated:

1. How does a city resident perceive quality of life?
2. How does the resident assess the various aspects affecting quality of life?
3. What problems does a resident notice about their city?

2. Methods

The study was conducted in a city with a population of over 100,000 residents located in the south of Poland. The research sample was 1,000 people – one research questionnaire was sent to each of them. The study was aimed at assessing the quality of life within a selected city. Research was conducted in the period of March – June 2021. 186 responses were obtained from the conducted research. Research was conducted using a questionnaire created in Google Forms. A questionnaire was chosen for this due to the possibility of quantifying the results of the research. Quantitative research makes it possible to compare questions and answers using the cross method as well as to better visualise research results. As a research tool, the questionnaire enables the research to be carried out on a large number of respondents. This tool is convenient and easy for both parties, both for the sender and recipient of the questionnaire. There is also a Web survey platform in Poland. It is a tool that makes it possible to create a questionnaire that will let you examine the quality of life and send it to a defined group of respondent email addresses. Thanks to the ability to collect and analyse large amounts

of information, it is even possible to quickly explore numerous communities. Quality of life research can also be conducted by means of an interview, i.e. one to one contact between the consultant and the respondent. This is a more difficult method to carry out because of the interview and face-to-face time with the consultant. In 2009, Piotr Rogala from the Wrocław University of Economics presented a report on the implementation of works on the design and testing of a system for measuring the quality of life in communes (Rogala, 2019). In the report, he defined the order of conducting the research and indicated the stages which is known as a 'road map' of researching the quality of life in the commune. It is a presentation of the key stages that should be taken into account when examining the quality of life in the commune.

Due to the pandemic and a greater selection of recipients, electronic means of contact was chosen. Using electronic means, including city and social portals, groups of activists, social groups and groups of seniors, helped with accessibility to the recipient. Using electronic means was also a direct and convenient way of contacting the public. Questions in the research survey covered various aspects, therefore sections were created in the questionnaire indicating the issue to which the authors wanted to be answered and to know the opinion of the residents. Sections of the study were selected in such a way that research results could indicate positive and negative opinions of residents in the largest possible area in which they live. The respondent's opinion in several areas allows for a broader view and assessment of quality of life in a given city. It also makes it possible to assess the existing situation and the level at which the residents live in a given area. The questionnaire contained 30 questions, some of them had a rating scale from 0 to 5. The questionnaire contained closed questions – questions to assess the aspect, i.e. quality of life in the city, safety, education, housing economy, social infrastructure, business development, employment market, public transport, health service, culture, citizen (participatory) budget, administration, quality of life for elderly in the city and an information table on age, gender and education, as well as a question about the length of residence in the city. The survey made it possible to get to know opinions of the residents, their attitude, expectations and satisfaction with living in a large city. The research shows what problems large, modern cities have and what they can boast about. Researching quality of life with the use of a questionnaire allows for a broad look at the situation of the city and its residents.

3. Results

186 people took part in the conducted research on quality of life in the city. Thanks to answers provided by the respondents, it was possible to assess individual aspects that were included and to determine the impact of key factors on quality of life in the city. At the beginning of the survey, respondents were asked about quality of life, what it is associated with and what it is for the respondents. Respondents were also asked about the standard of living in the city and the assessment of individual aspects in the area of quality of

life. The study covers the following aspects: quality of life in the city, safety, education, housing economy, social infrastructure, business development, employment market, public transport, health care, culture, citizen (participatory) budget, administration, quality of life for the elderly.

For the first question, respondents were asked to answer what, in their opinion, quality of life is related to (Figure 1).

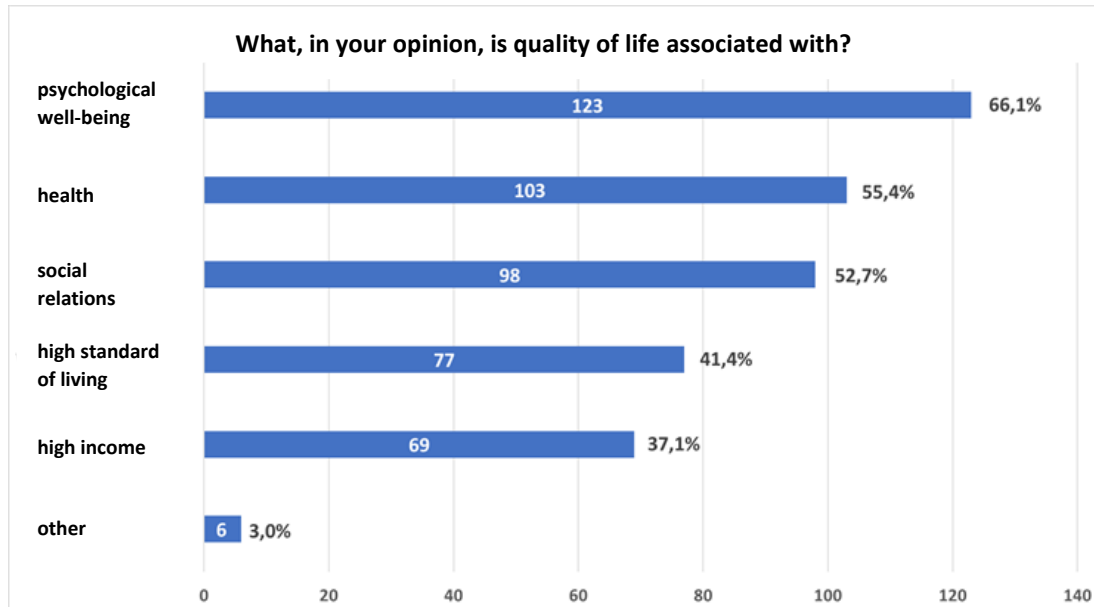


Figure 1. Summary of answers to the question: What, in your opinion, is quality of life associated with?

In the five areas given, respondents provided most answers relating to the sphere of life, mental well-being. As many as 66.1% of respondents pay special attention to mental well-being, i.e. the comfort in which they can live peacefully, implement their plans and intentions, take action both in the professional area and in a very important area of family life. Nevertheless, health and social relations are also important for the respondents, where more than half of the respondents in both cases answered in favour of the significance and, in their opinion, connection with quality of life in the city. Health in times of a pandemic and social relations that have been limited are for people a valuable aspect in the proper functioning in today's world. Lack of contact and relationship with another person can have a negative impact on quality of life. Thanks to the answers to health, it can be concluded that it is thanks to health, good mental and physical being that a person increases their ideas about quality of life and which constantly strives to achieve a level according to their own quality expectations. According to the respondents, to a lesser extent, quality of life is associated with a high standard of living and high income. Such a reaction may be caused by the situation we find ourselves in, i.e. the high impact of the pandemic and its changing priorities.

Another question and issue raised in the questionnaire was the standard of living in the city (Figure 2).

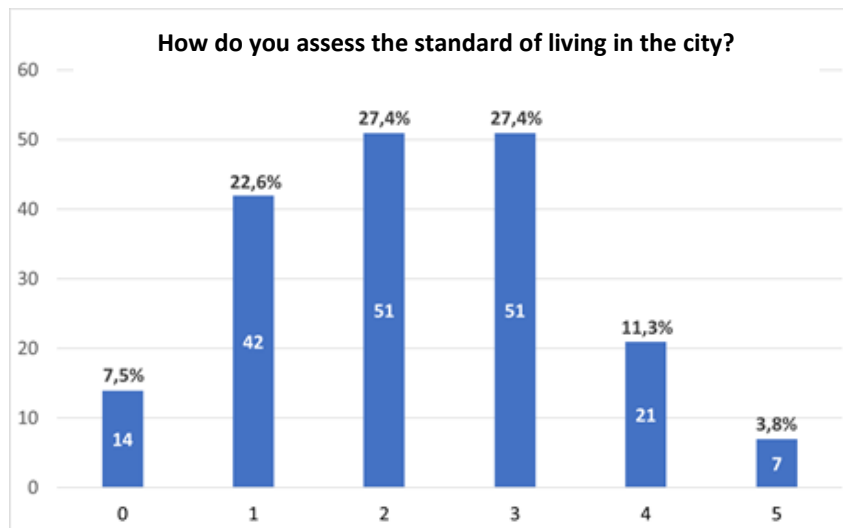


Figure 2. Summary of answers to the question: How do you assess the standard of living in the city?

The standard of living in the city has been rated moderately, which may be influenced by many factors, such as the housing economy, employment market or the surrounding social infrastructure. Many of the respondents rated the level at 1, which is not a favourable rating but shows the probable direction for improving quality of life in the city. Thanks to this question, residents showed that living conditions should be improved by referring to and analysing each aspect of life in turn. The city also received a rating of 4 and 5, but it was by a small group of respondents. Rating of the standard of living may depend on the length of residency or social class, but also on the preferences and expectations of each resident.

The next question included in the questionnaire for respondents was to specifically show what aspects have an impact on the rating of quality of life in the city (Figure 3).

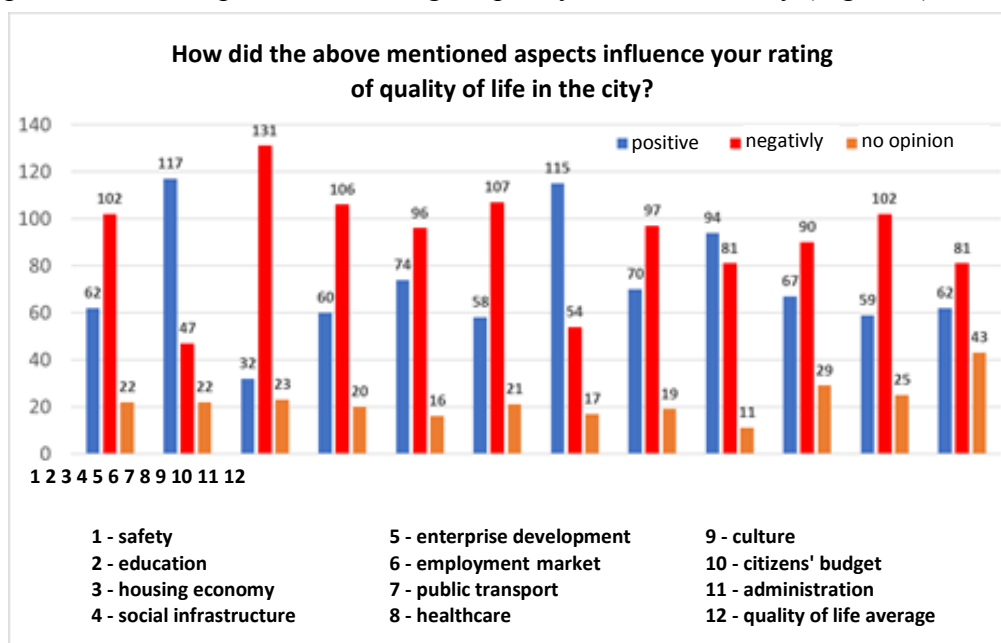


Figure 3. Summary of answers to the question: How did the above mentioned aspects influence your rating of quality of life in the city?

The following aspects were analysed: safety, education, housing economy, social infrastructure, business development, employment market, public transport, health care, culture, citizen budget, administration and quality of life of the elderly. Of all the above mentioned aspects, education was rated the best receiving 117 responses, then public transport, which was selected by 115 people, and culture by 94 people. Results of these three best rated aspects may indicate that today's world trends are being followed, in which education plays one of the most important roles. Transport was also rated positively and highly, which indicates modern public transport systems, as well as accessibility related to the purchase of tickets or checking timetables. The third best rated aspect is culture, which may indicate festivities and cultural events organised by the city. The housing economy was rated the most negatively, which may indicate a low standard, investments and renovation of flats in the city, and then the employment market and social infrastructure were also negatively rated. When assessing the employment market, it is possible that respondents suggested the lack of jobs or good salaries in the city, while infrastructure is an important cultural and social element, as well as influencing the image of the city itself.

Another question posed in the survey was satisfaction with the level of education in the city, which is shown on a 0 to 5 scale (Figure 4).

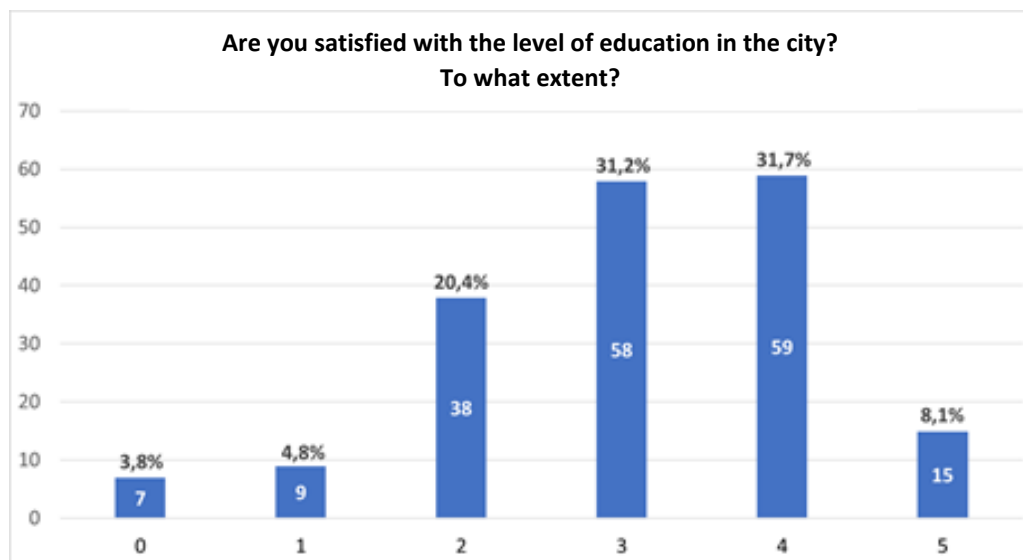


Figure 4. Summary of answers to the question: Are you satisfied with the level of education in the city? To what extent?

As shown in the previous question, education enjoys high ratings from the respondents. Most of the respondents gave a positive rating of the aspect of education. There were also people with a negative opinion, also showing that there is a problem and that poor areas should be improved. Ratings 3 and 4 were indicated by the majority of respondents. This level of satisfaction may indicate the manner, quantity and quality of knowledge provided in schools in the city. An additional aspect indicating a positive reaction to education may be schools for

children with special needs, bilingual schools and those developing passions and interests of children and young people.

Another question with a high rating among the respondents concerns public transport (Figure 5).

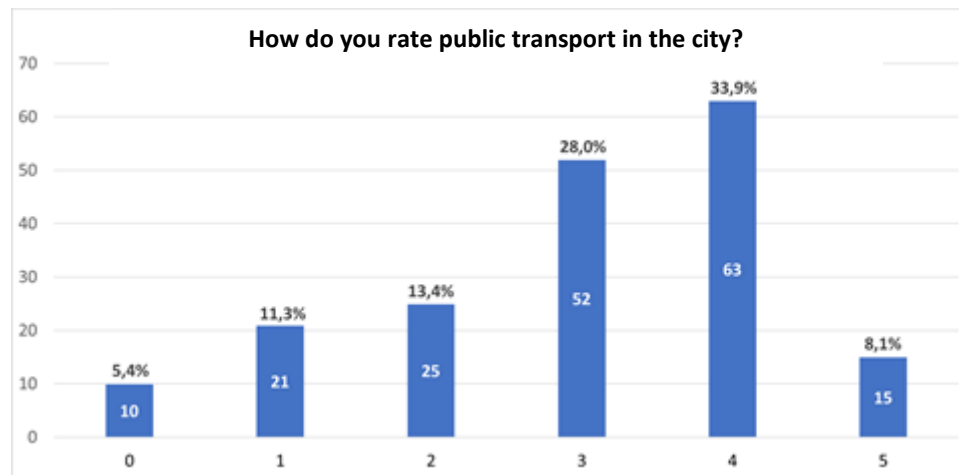


Figure 5. Summary of answers to the question: How do you rate public transport in the city?

Research has shown that city residents have a positive and high opinion of public transport. This rating may be influenced by modern transport, a payment system that lets you purchase a ticket via the Internet, digital timetables with information on when a particular means of public transport departs. Also, the comfort of travel and repairs carried out on roads and rail roads.

The respondents were also asked to answer a question on how they assess the increase in cultural potential in the city (Figure 6).

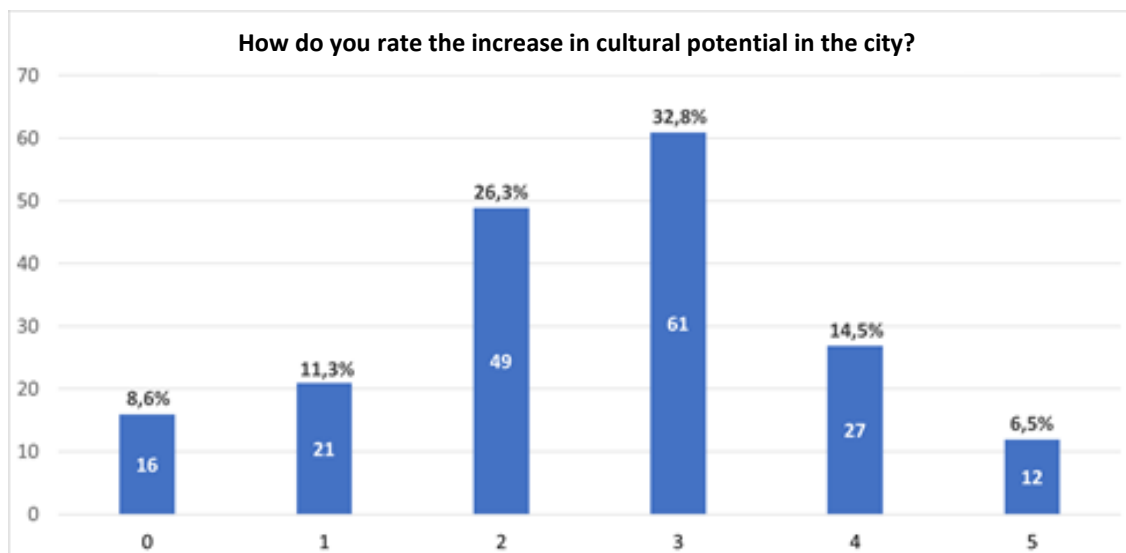


Figure 6. Summary of answers to the question: How do you rate the increase in cultural potential in the city?

Most of the respondents rated this area positively. The aspect of culture in the city is an important part of building tradition, encouraging residents to participate in city life, but also in ensuring that residents spend their free time in their city. Spending free time in your home city is a big advantage; thanks to festivities and cultural events, the city has a chance to promote its attractions and encourage people to use the services of local companies.

The next question shows the quality of available housing offered by the city (Figure 7).

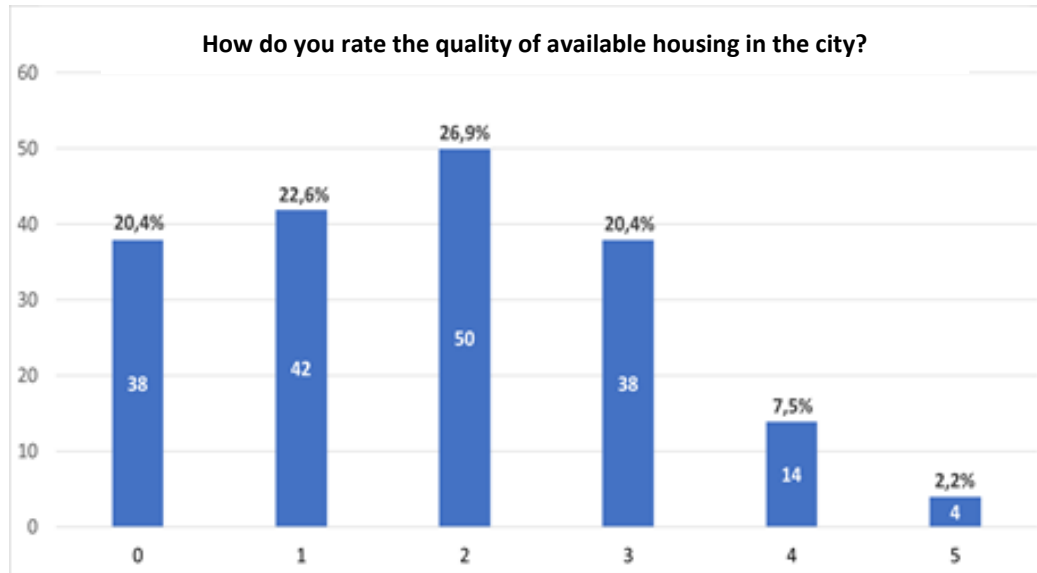


Figure 7. Summary of answers to the question: How do you rate the quality of available housing in the city?

In this question, the majority of respondents expressed a negative opinion, which is reflected in Figure 7. The respondents' opinions were very low, indicating the scale of the problem in the housing economy. Only 9.7% of responses were positive. A negative rating may indicate a low standard, small in size, not renovated or damage from previous tenants. Lack of care in the housing economy has a negative impact on the opinion of residents and their willingness to stay in the city. Negative ratings may also be reflected in the city's future, many people may move to other cities, improving their quality of life and housing.

The next question relates to the employment market and jobs in the city (Figure 8).

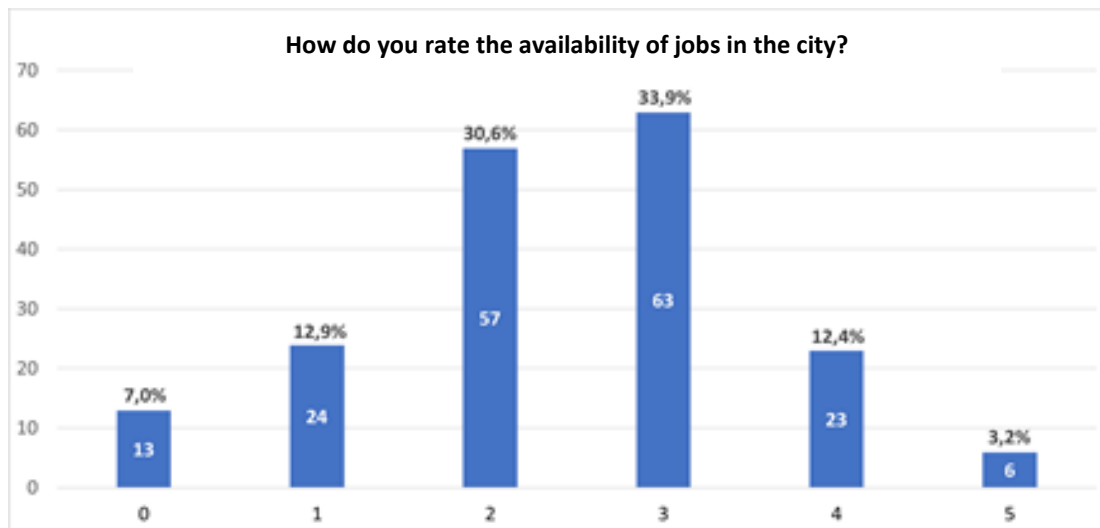


Figure 8. Summary of answers to the question: How do you rate the availability of jobs in the city?

Permanent employment and income is very important for people nowadays. In the midst of a pandemic and uncertainty in employment markets and the economy, employment is a priority for residents. The availability of jobs in the city was moderate. A rating of 2 was indicated by 30.6%, which indicates dissatisfaction with the number of jobs, while a rating of 3 was indicated by 33.9%. 15.6% of the respondents rated it positively. Research results show that the number of job positions should be increased. Positive and negative ratings of the respondents may also result from their qualifications and the lack of demand for a specific occupation, or in the case of a positive rating – the demand of the employment market in a given occupation, field of expertise.

In the next question, respondents were asked to provide answers about the state of the social infrastructure (Figure 9).

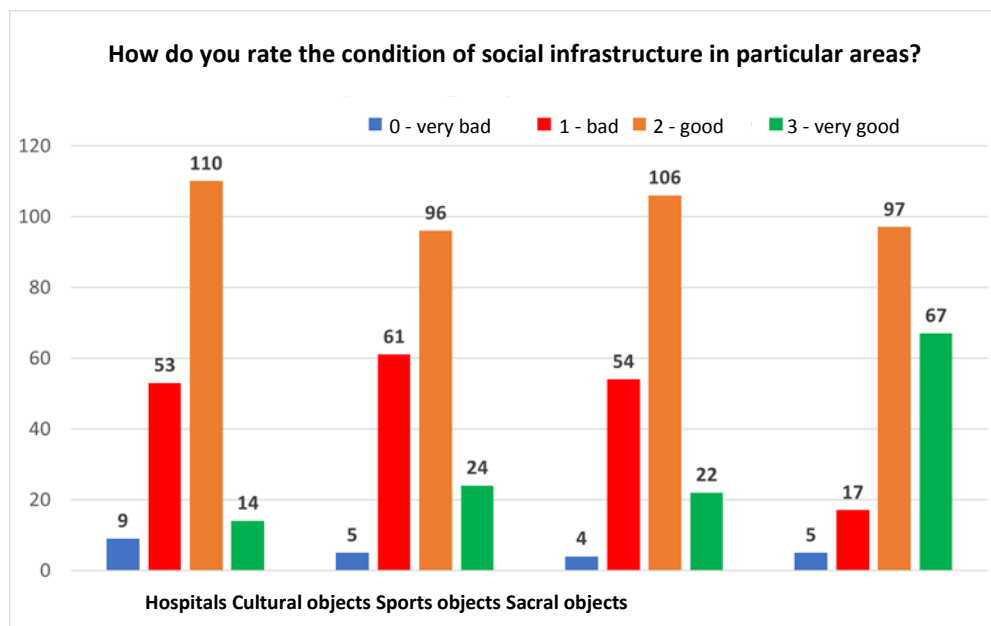


Figure 9. Summary of answers to the question: How do you rate the condition of social infrastructure in particular areas?

The listed facilities were given a good rating. The following facilities were given a good rating: hospitals were rated the best, then sports facilities, religious facilities and finally cultural facilities. There were also respondents who rated the infrastructure negatively, but only few cases. Answers to this question may indicate that the city cares about social infrastructure and thus the positive opinion of its residents.

Safety in the city is one of the most important aspects that a city should follow (Figure 10).

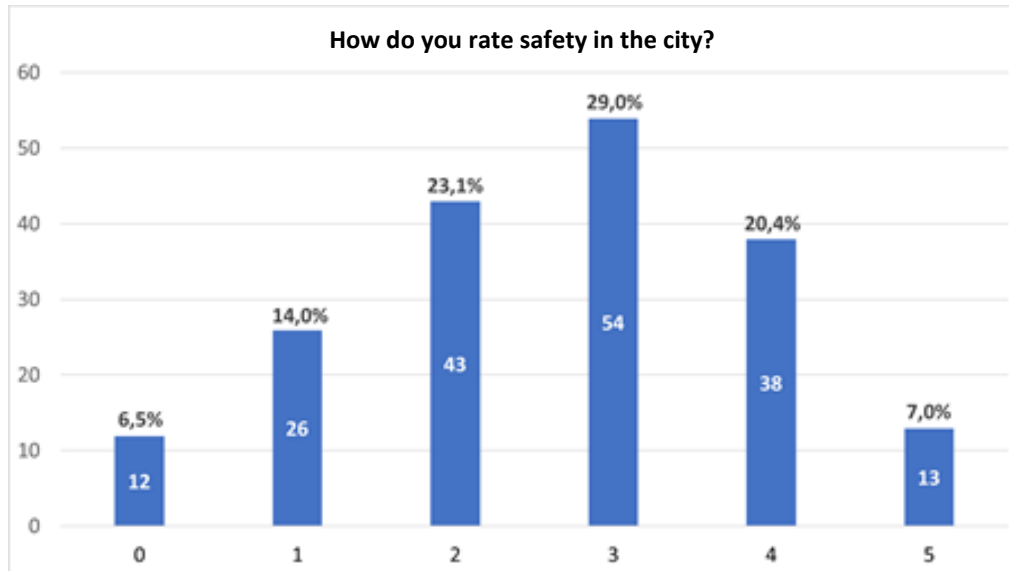


Figure 10. Summary of answers to the question: How do you rate safety in the city?

Residents rated the level of safety at a moderate level. In this way, they reveal that they feel moderately safe and expect greater safety in the city. It may also result from the number of interventions, the level of response by local forces or the manner of conducting interventions. Safety is an important part of the area and which the city should pay particular attention to.

In the conducted research, the aspect of public administration was analysed (Figure 11).

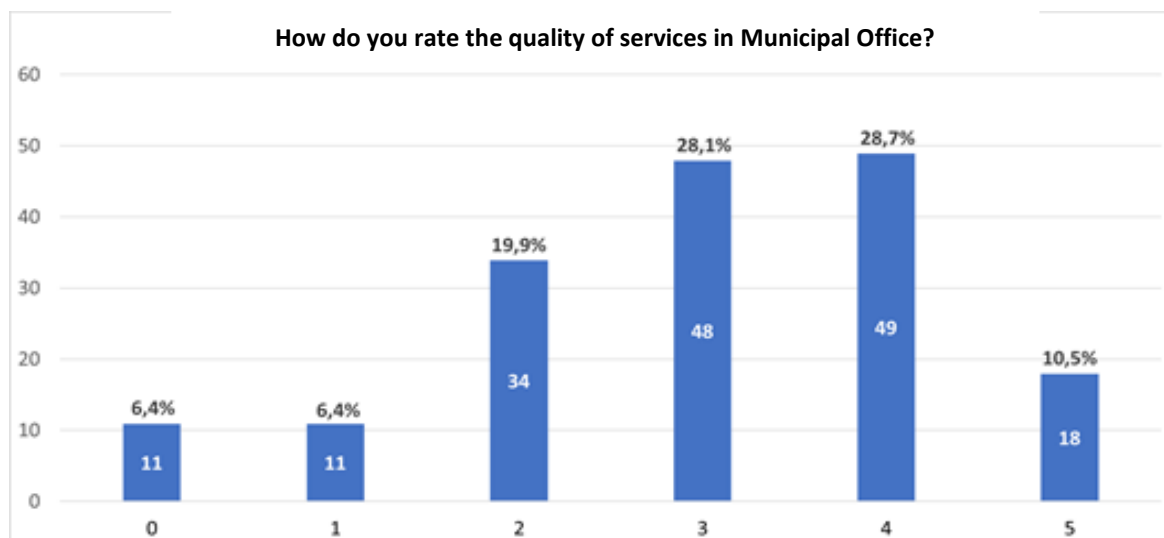


Figure 11. Summary of answers to the question: How do you rate the quality of services in Municipal Office?

Respondents were asked to rate the quality of services provided by Municipal Office. The quality of services in Municipal Office was rated as good, as shown in Figure 11 which shows the scale of responses. The residents rating on public administration is positive, which shows care for the image of the office, competences, increasing the qualifications of officials, personal culture as well as commitment to work and willingness to help in administrative matters. The city, in order to ensure the level of provided services, conducts systematic trainings and surveys among employees, as well as residents using the services.

In the survey, respondents were asked to comment on quality of life of the elderly in the city (Figure 12).

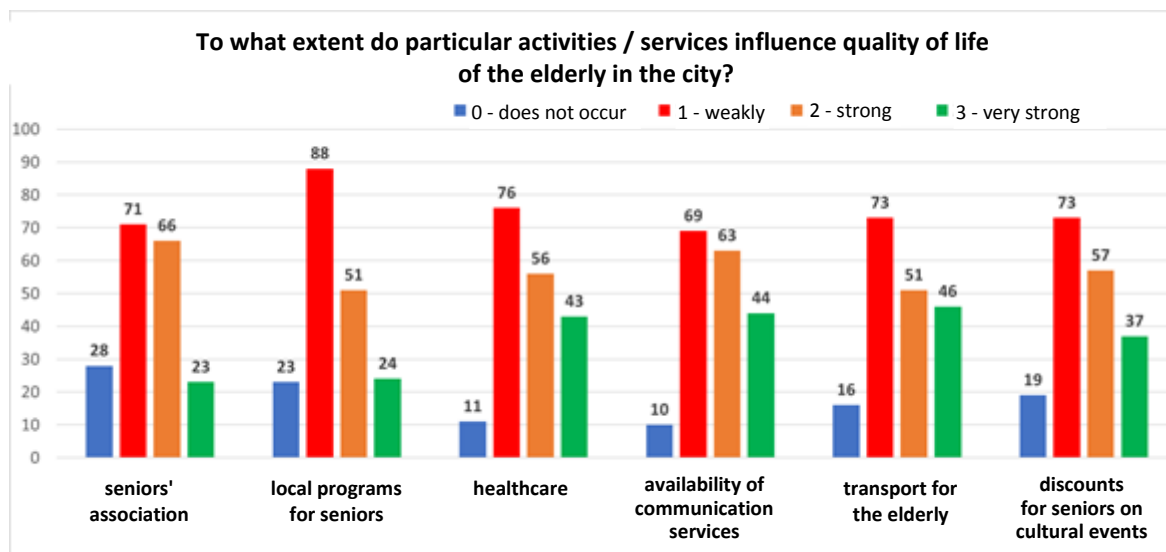


Figure 12. Summary of answers to the question: To what extent do particular activities/services influence quality of life of the elderly in the city?

The question posed in the survey was to what extent individual activities/services affect quality of life of the elderly in the city? 46 people voted 'very strongly', with the highest number of votes in favour of adapting transport for the elderly. Respondents believe that this has the greatest impact on quality of life of the elderly. According to respondents, social clubs in the city have the smallest impact on quality of life of the elderly.

Another question asked to the respondents was the impact of the citizen budget on quality of life in the city (Figure 13).

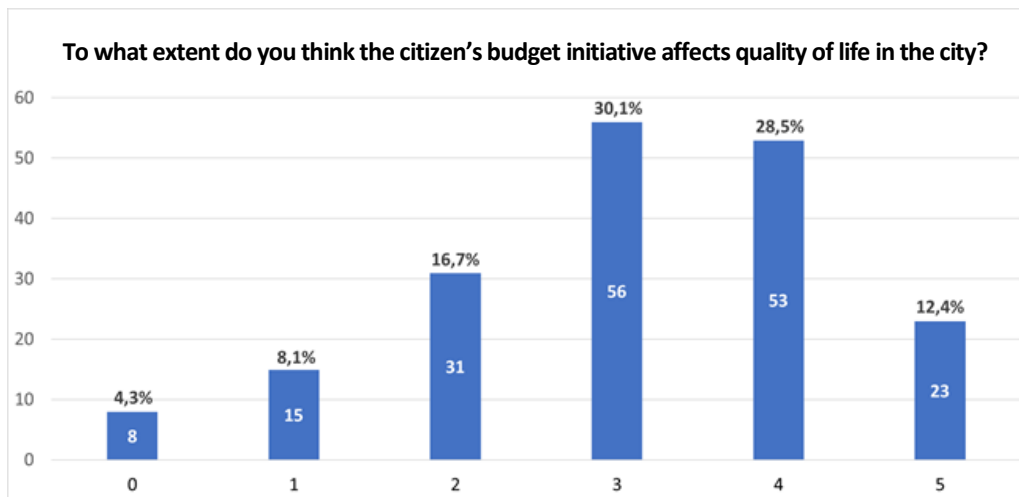


Figure 13. Summary of answers to the question: To what extent do you think the citizen's budget initiative affects quality of life in the city?

In recent years, citizen budgets have become more and more popular among residents. Thanks to the citizen's budget, residents have a real influence on the activities and initiatives undertaken in the city. They themselves can coordinate and get involved in the city's life and its development. Research results show that the majority of respondents support the idea of a citizen's budget and believe that it has an impact on quality of life in the city.

4. Discussion

Residents understand quality of life as a component of functioning in their everyday lives. The conducted research made it possible to identify factors influencing quality of life of the residents. All research questions were answered. The study identified the following factors influencing quality of life in the city: quality of life in the city, safety, education, housing economy, social infrastructure, business development, employment market, public transport, health service, culture, citizen's budget, administration, quality of life of the elderly. According to residents, the most important part of quality of life is mental well-being, i.e. mental comfort and stability. Health and social relations are also important for the residents. Some respondents believe that a high standard of living and a high income also affect quality of life. On the basis of further analysis, residents positively rated the areas of education and public transport – in their opinion, these elements function well in the city and they are satisfied with the level that the city maintains in terms of education, development and proper operation of transport. The introduction of modern solutions related to the payment system, modern transport, digital information (Radomska, 2019) on timetables, as well as renovations have had a very positive response from society. Residents rated negatively and indicated the need to strengthen the following areas: safety, housing economy, social infrastructure, employment market and

administration. The negatively rated areas have a significant impact on quality of life in the city. A negative rating may result from an inappropriate approach to the problem, trivialisation, financial situation or not making the most of available solutions. Strengthening safety is a fundamental element of mental well-being highlighted in the study. Safety has a strong influence on city life and mental well-being. Each group of society should feel safe and be safe in the city. This should be influenced by the local forces (Municipal Police, Fire Brigade, Police) and, according to the research, this is what residents indicated. Another element affecting residents is the housing economy, i.e. flats and buildings in which they run their households. A negative rating may result from the standard offered by the city, the availability of flats and insufficient renovations. Long-term neglect of the housing economy may have negative effects on the number of residents, which results in migration to other cities with more favourable housing conditions. With another aspect of social infrastructure in mind, public facilities such as hospitals, schools, and religious buildings were considered, which are the image of the city for both residents and tourists. The employment market also received a negative opinion from respondents. An unfavourable opinion on the employment market may result from the lack of jobs, the lack of appropriate qualifications and the inability to raise or change qualifications if it is impossible to practice one's profession. Work in life plays one of the most important roles, ensuring our existence as well as the use of skills, accomplishment of dreams and self-fulfilment. The last element negatively rated in this study is public administration. Public administration should meet the needs of society. Residents meet with their local administration in various situations, when their matter needs to be dealt with in municipal offices. Negative assessment of this sector may result from the quality of services provided by the municipal office. In dealing with administrative matters, the competence, knowledge, commitment and personal culture of an employee and office clerk should be at a high level. The study also touched on quality of life of the elderly, where residents expressed their approval for activities undertaken by the city. The elderly are just as important a social group as any other. Residents could also express their opinion on the subject of the citizen's budget. This issue was rated positively, and residents are satisfied that they can decide for themselves and have the opportunity to participate in the development and changes taking place in their city. Comprehensive quality of life surveys carried out in municipal offices provide the opportunity to obtain information needed to create the living conditions expected by residents themselves. Often, research on quality of life is incomplete. They focus on the aspect they want to investigate and therefore have plans. Qualitative research is carried out in various cities of the Śląskie Province. In the city of Gliwice, in 2017 (CBOS research report, 2017), a survey was carried out by the Public Opinion Research Centre, in which residents were asked about living conditions in the city. The study was of a cognitive nature, residents were asked about individual areas of life, thanks to which answers were obtained in most aspects of quality of life in the city of Gliwice. In the city of Zabrze, surveys are carried out on the satisfaction of residents with quality of services and customer satisfaction. Additionally, research has been

carried out in the field of spatial development under the name 'City as a space of development'. The presented examples show that such studies are too small for large cities with over 100,000 residents. As mentioned before, comprehensive quality of life surveys should be carried out once a year, aimed at obtaining information and opinions of residents about the actual state of the city and the needs of residents, as well as proposals for intensifying activities in individual areas in cities. The quality of life survey should provide as much information as possible and give a broad view of the perception of various areas of life by residents. This data can be used to make decisions by the city on the directions of further development and activities for the future. The scope of the research should be as wide as possible, therefore the research should be conducted face-to-face and by electronic means. Not every group the sender wants to reach will be able to use the Internet communication channel, such as, for example, the elderly for whom the contact method is more convenient and easier. Two ways of conducting research result in a greater reach with recipients. An additional proposal for information gained through the survey is to create teams in municipal offices aimed at analysing the obtained responses and referring them to the relevant departments dealing with specific issues. Such a method will make it easier to diagnose the problem, solve it, and also intensify and speed up activities. By referring the matter to the relevant department in the municipal offices, the information can be quickly analysed and used for implementation.

5. Summary

The article presents the opinion of residents on quality of life, using the example of a large city. Research conducted among residents was aimed at finding out opinions on quality of life in their city. The questionnaire covered various areas of quality of life related to living conditions, satisfaction, contentment as well as problems and negative aspects taking place in a large city. Research shows that residents have divided opinions about living conditions. The areas of education and public transport were rated positively, while safety, housing economy, social infrastructure, the employment market and administration – negatively. The research is an aspiration to undertake further research related to quality of life. Results of the conducted research indicate the need for changes. A comprehensive assessment of residents' quality of life should be introduced once a year, which would give a faster response to existing problems. Before conducting research in the city, an appropriate team should be appointed to develop the survey results. This method will facilitate a good and effective analysis. The team should collect responses and then forward them to the relevant departments. This would give a faster reaction to problems. As for the method of conducting research, two methods should be used - face-to-face and by electronic means. The face-to-face method is better suited to the elderly, whose opinions are very valuable for assessing quality of life. Electronic means allows

to reach every individual, the possibilities of social networking sites are endless and it is worth using them. The benefit that the city can obtain from conducting such research is the improvement of its situation and solving the problems noticed by its residents.

6. References

1. Albino, V., Berardi, U. and Dangelico, R.M. (2015). Smart cities: Definitions, dimensions, performance, and initiatives. *Journal of Urban Technology*, 22(1), 3-21.
2. Caragliu, A., Del Bo, Ch. and Nijkamp, P. (2011). Smart Cities in Europe. *Journal of Urban Technology*, 18(2), 65-82.
3. Centrum Badania Opinii Publicznej (2017). *Gliwice na 5+*. Retrieved from <https://gliwice.eu/newsletters/biuletyn-informacyjny-urzedu-miejskiego-w-gliwicach-22-marca-2018>, 10.03.2022.
4. Cieřlik, B., Podbielska, H. (2015). Przegląd wybranych kwestionariuszy oceny jakości życia. *Acta Bio-Optica et Informatica Medica Inżynieria Biomedyczna*, 21(2), 102-135.
5. Czepkiewicz, M., Jankowski, P. (2015). Analizy przestrzenne w badaniach nad jakością życia w miastach. *Ruch Prawniczy, Ekonomiczny i Socjologiczny*. 1, 101-118.
6. Desdemoustier, J., Crutzen, N. and Giffinger, R. (2019). Municipalities' understanding of the smart city concept: An exploratory analysis in Belgium. *Technological Forecasting and Social Change*, 142, 129-141.
7. Dolan, P., Metcalfe, R. (2012). *Measuring Subjective Wellbeing: Recommendations on Measures for use by National Governments*, 409-427.
8. Dziurawicz-Kozłowska, A. (2002). Wokół pojęcia jakości życia. *Psychologia Jakości Życia*, 77-99.
9. Europejskie badanie dochodów i warunków życia (EU SILC) (2015). Urząd Statystyczny.
10. Grzeszczyk, T. (2009). *Ocena Projektów Europejskich 2007-2013*. Warszawa.
11. Janasz, K., Wińniewska, J. (2013). *Innowacje i jakość w zarządzaniu organizacjami*. Warszawa: CeDeWu.
12. Nowakowska, A., Przygodzki, Z., Rzeńcy, A. (2016). *EkoMiasto#Społeczeństwo Zrównoważony, inteligentny i partycypacyjny rozwój miast*. Łódź: Wydawnictwo Uniwersytetu Łódzkiego, 30-35.
13. Papachristou, I.A., and Rosas-Casals, M. (2019). Cities and quality of life. Quantitative modeling of the emergence of the happiness field in urban studies. *Cities*, 88, 191-208.
14. Pawlak, M. (2021). Raport Rzecznika Praw Dziecka. *Ogólnopolskie badanie jakości życia dzieci i młodzieży w Polsce. Warszawa Obszar nr 1 – środowisko szkolne*. Retrieved from <http://www.brpd.gov.pl>, 01.03.2022.
15. Projekt *Miasto przestrzenią rozwoju* (2020). Urząd Miejski w Zabrzu.

16. Publications Office of the European Union. Retrieved from https://ec.europa.eu/regional_policy/sources/docgener/studies/pdf/urban/survey2015_en.pdf, 10.03.2022.
17. Radomska, E. (2019). Rozwój gospodarki cyfrowej i społeczeństwa cyfrowego w aspekcie dynamicznych zmian w otoczeniu zewnętrznym na przykładzie Wielkiej Brytanii. *Mysł Ekonomiczna i Polityczna*, 1(64), 113-146.
18. *Ranking jakości życia w miastach wojewódzkich. Projekt badawczo-mediowy zrealizowany przez IBRiR i „Rzeczpospolitą”*. Retrieved from <https://ibris.pl/2021/09/ranking-jakosci-zycia-w-miastach-wojewodzkich/>, 10.03.2022.
19. *Raport na temat wielkich miast Polski*. Retrieved from https://www.pwc.pl/pl/sector-publiczny/raporty_katowice-pol.pdf, 01.03.2022.
20. Rogala, P. (2009). *Zaprojektowanie i przetestowanie systemu mierzenia jakości życia w gminach. Etap 2 (Raport z realizacji prac)*. Jelenia Góra-Poznań. Retrieved from <https://systemanaliz.pl/>, 02.03.2022.
21. Rokicka, E. *Jakość życia – konteksty, koncepcje, interpretacje*. Retrieved from <http://dx.doi.org/10.18778/7525-967-4.10>, 01.03.2022.
22. Sen, A. (2000). *Nierówności. Dalsze rozważania*. Kraków.
23. Stempień, J.R., Woszczyk, P. (2018). *Skrypt do przedmiotu Badania jakości życia seniorów realizowanego na kierunku: Koordynowana Opieka Senioralna*. Retrieved from <http://edumedsenior.umed.pl>, 24.02.2022.
24. Szulc, A. (2015). *Sytuacja na rynku pracy jako istotna determinanta jakości życia*. Częstochowa: Wydawnictwo im. Stanisława Podobińskiego Akademii im. Jana Długosza.
25. Trzepiot, G., Szoltysek, J. (2015). *Analiza preferencji jakości życia seniorów w miastach*. 2083-8611, 248.
26. WHO: WHOQOL (1997). *Measuring Quality of Life. Division of mental health and prevention of substance abuse*, 2-7.
27. Zadrozniak, M. Nowakowska, A. (eds.) (2016). *Jakość życia w mieście. EkoMiasto#Społeczeństwo. Zrównoważony, inteligentny i partycypacyjny rozwój miasta*. Łódź: Wydawnictwo Uniwersytetu Łódzkiego, 21-38.