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**THE USE OF THE SAFETY MOBILE APPLICATION IN THE ANALYSIS OF THREATS
TO SECURITY AND PUBLIC ORDER IN THE TEACHING PROCESS**
**WYKORZYSTANIE APLIKACJI MOBILNEJ SAFETY w ZAKRESIE ANALIZY ZAGROŻEŃ
BEZPIECZEŃSTWA I PORZĄDKU PUBLICZNEGO w PROCESIE DYDAKTYCZNYM**

ABSTRACT: The purpose of the study's research is to determine the functionality and usefulness in the teaching process of the SafeTy mobile application. The research problem was illustrated in the question, what elements of the collected data of this application are used in the didactic process, in terms of security risk analysis? In this context, its functionality was discussed. At the same time, the research hypothesis was verified, in which it was assumed that the Safety mobile application can be used in the didactic process through the depiction and visualization of geospatial local security threats. In order to determine the functionality and usefulness of the SafeTy mobile application in the didactic process, it was assumed that a focus group interview (FGI) and a survey study using a questionnaire questionnaire would be crucial for the realization of the goal, which would include students of the national security, second degree program at Pomeranian University in Slupsk. On the basis of the illustrated results, conclusions were drawn as a starting point for further induction of the problem at hand. In the preliminary assessment, it was assumed that the use of the SafeTy mobile application in the didactics of the university, in terms of the analysis of threats to security and public order, makes it possible to infer the possibility of enriching at the educational-cognitive level the diagnosis of community security, defined on the basis of the digital data obtained. Undoubtedly, this condition is fulfilled by SafeTy allowing the rapid transmission of messages, from local authorities and information about possible threats, or the identification by citizens of situations that are dangerous or of concern to them. In addition, its advantage is the possibility of using the data obtained, which is also a title for strengthening the role and importance of territorially assigned security institutions.

KEY WORDS: SafeTy application, community hazards, hazard analysis, didactics

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INTRODUCTION

Theoretical analyses, together with empirical studies of social risks show that the security of the individual in particular consists of two main components, the objective state and the subjective state. In this regard, the concept of a sense of security does not refer only to aspects related to the threat of crime, but also includes different dimensions. This assessment is most influenced by the bond with the social group. The sense of security is also determined by the degree of satisfaction of existing needs. A synthetic approach to the problem authorizes treating the sense of security as a confidence that the institutions established to provide it will be active and efficient. At the same time, it should be emphasized that in the modern view of prevention, it is assumed that the relevant state bodies guarantee only the necessary minimum of security. Anything beyond this acronym depends on the involvement, self-organization and activity of residents for the benefit of the neighborhood and local community. Also, in the criminological literature, the reference point of the changes taking place articulates the partnership of all actors working for local security. Through this composition, a revision of the division of responsibility for security at the local level, between public and private actors, has begun.

As Alexander Wallis points out, "the social space of a particular collectivity is the area used and shaped by it, to which it binds a system of knowledge, perceptions, values and rules of behavior."¹ Also, with this, it is necessary to refer to the concept of cohesion. In this case, Karolina Dukała rightly observes that the relationships linking the inhabitants of neighborhood spaces, village spaces, communal spaces, settlements and other users of a specific area, provide a title for the formation of a cohesive, involved society, whose members, through a natural sense of community and belonging to it, can be an important predictor of the level of a sense of security.² This is an important observation, prompting security and public order services to be active on a daily basis in preventing and uncovering criminal incidents and identifying their perpetrators. An element supporting this process is the appropriate applications shaping public security, thus referring to the idea of *neighborhood watch*. A slightly broader view of this process was given by Janusz Gierszewski, Jozef Pruchniak and Martyna Bluhm, stating that the development of information technology in the 21st century, has revolutionized the communication system, offering effective tools to know the nature and intensity of possible local threats. At the same time, they pointed out that mobile applications have become almost indispensable in social life, making it possible to access and reproduce information at any time, regardless of location.³ Also, as an example, they described the SafeTy application developed at the Institute of Security and Sociology at Pomeranian University.⁴

The purpose of the study's research is an attempt to determine the functionality and usefulness of the SafeTy mobile application in the didactic process. The main research problem is contained in the question, what elements of the collected data of this application are used in

¹ A. Wallis, *Sociology of Space*, Warsaw 1990, p. 26.

² K. Dukała, *CPTED - theory, practice, effectiveness*, [in:], *Preventing crime by shaping space*, edited by J. Czapska, Krakow 2012, p. 65.

³ J. Gierszewski, J. Pruchniak, M. Bluhm, *SafeTy as a source of knowledge about local threats*, [in:] *The role of local government in the system of internal security*, ed. K. Olszewska, K. Sidorkiewicz, K. Starańczak, P. Uziębło, Elbląg, pp. 206-207.

⁴ *Ibidem*, p. 209.

the didactic process, in terms of security risk analysis? At the same time, the research hypothesis was verified, in which it was assumed that the Safety mobile application can be used in the didactic process by depicting and visualizing geospatial local security threats. In order to determine the functionality and usefulness of the SafeTy mobile application in the didactic process, it was assumed that a focus group interview (FGI) and survey research using a survey questionnaire would be crucial for the realization of the goal, which would include students of the national security, second degree program at Pomeranian University in Slupsk.

SPATIAL ANALYSIS OF CRIME- THE HISTORICAL ASPECT

The phenomenon of uneven distribution of crime over time and space is an important and inspiring element in the search for an answer to the question- why the intensity of crime, and thus the risk of victimization, is different and, among other things, dependent on the neighborhood, municipality, city quarter, district or street. As Magdalena Goldschneider rightly points out, the reasons for this phenomenon may vary, through the existence of a number of controversies in this regard.

Scientific explanation of the articulated phenomenon began in western Europe and in the United States of America, through geographic profiling. Well, crime maps and the analysis belonging to them were connected with the activities of representatives of the cartographic school going back to the 19th century.⁵ In this regard, André M. Guerry, in his work "Essai sur la Statistique Morlane de la France" of 1833, presented a pioneering cartographic method. He divided the area of France, basing the analysis on a comparison of the regions studied by aggregating categories of acts in relation to: gender, age of the perpetrators, education and wealth of the population or the number of suicidal incidents.⁶ Also, in 1842, Adolphe J. Quetelet in his work "A Treatise of man and the development of his faculties", on the basis of police statistics, showed that the distribution of crime in the study area in the United States of America was uneven, in terms of crime categorized as: violence and directed against property. At the same time, he proved that the distribution of these phenomena in space was relatively constant over time.⁷ Thus, he noted that the same numbers of crimes, occur in the same places, concluding that social life is regulated by natural laws. At the same time, he made the bold thesis that crime has always existed being a natural phenomenon. As Anna Kossowska points out, analogous research was conducted a little later in England by Henry Mayhew. However, it was with the rise of the Chicago school that theoretical concepts were formulated to explain the phenomenon of uneven distribution of crime. Comprehensive research in this area, among others, was conducted by Clifford R. Shaw and Henry H. McKay. The cited authors looked for patterns of distribution of juvenile crime in selected cities of the United States of America, noting on maps, the places of residence of the perpetrators of the criminal acts

⁵ M. Goldschneider, *The Geography of Crime. Notes on spatial analysis of crime using digital techniques*, vol. XXXII/2010, PAN Institute of Legal Sciences, Warsaw 2010, p. 24.

⁶ André M. Guerry, carrying out the study described in his work *Essai sur la Statistique Morlane de la France*, divided the French area into 5 regions, each consisting of 17 departments.

⁷ P. L. Brantingham, P. J. Brantingham, *Introduction: The Dimensions of crime*, [in] *Environmental criminology*, ed. by P. L. Brantingham, P. J. Brantingham, Sage Publications, California 1981, p. 10.

analysed.⁸ In addition, A. Kossowska emphasizes that in view of the manual creation of maps it was impossible to analyze crime on a larger scale, or to interpret it efficiently with the visualization of data of the committed torts and the characteristics of the space in which they were recorded.⁹ Underlining the importance of the problem, it is worth referring to the considerations of David Weisburd and Tom McEwen, who take the position that the revolution in this area is associated with the development of information technology. At the end of the 1960s, the first applications were developed in the United States of America, allowing the visualization of crime data using a computer gaining a new dimension in this regard.¹⁰ Thus, with the development of technical capabilities and the availability of software, crime maps have become an effective tool.

The modern technology used for spatial analysis is the *Geographic Information System* (GIS). Its task is to input, collect, process, manage and visualize geographic data used for multifaceted analysis.¹¹ A spatial information system, [hereinafter: GIS] combines data on the location of objects with their characteristics, which can come from various sources.¹² GIS data can be either topological or geometric in nature. On the other hand, non-spatial collections are satellite images, statistical yearbooks, address books. In this regard, there are no limitations, since already a basic map allows visualization of non-spatial information. Thus, simplifying this argument, it should be pointed out that a digital map is formed from the transformation of non-spatial data into information of a geographical nature by means of data coding.¹³ Also, an important part of the conclusion is the broad possibility of using digital maps in many fields of human activity. GIS is used in criminological analysis primarily in two areas: digital crime mapping and geographic profiling.

It is also important to note the significant phenomenon of digital exclusion, as it is now difficult to overestimate the importance of information. It is a critical element that determines the nature and level of civilization. Being an intangible commodity, it is used in almost all areas of life, from the public to the private sphere. Jan Van Dijk defines this phenomenon as stratification into those who have access to computers and the Internet and those who do not have this access.¹⁴ Digital exclusion thus generates the phenomenon of information exclusion. In this regard, one should agree with the position of Boguslaw Nierenberg, who, citing the words of management theorist Peter Drucker, points out that the civilizational and social reality that surrounds us should be described as an information age.¹⁵ Also, Denis McQuail, in his work "Theory of Mass Communication", emphasizes the role of the Internet in the processes of obtaining and transmitting information.¹⁶ Malwina Popiolek, on the other hand, believes that

⁸ A. Kossowska, *Crime in the Warsaw area. An ecological analysis*, "Archives of Criminology," vol. 7, 1976, s. 162.

⁹ *Ibidem*, pp. 163-164.

¹⁰ D. Weisburd, T. McEwen, *Crime mapping and crime prevention*, "Crime Prevention Studies," vol. 8, Criminal Justice Press, Monsey- New York 1997, p. 8.

¹¹ M. F. Worboys, M. Duckham, *GIS: a computing perspective*, London- New York- Washington D.C. 2004, s. 2.

¹² E. Bielecka, *Geographic Information Systems. Theory and application*, Warsaw 2006, p. 1.

¹³ *Ibidem*, p. 94.

¹⁴ J. Van Dijk, *Social aspects of new media*, Warsaw 2010, p. 248.

¹⁵ B. Nierenberg, *Media management - a systemic approach*, Cracow 2011, p. 91.

¹⁶ D. McQuail, *Theory of mass communication*, Warsaw 2008, p. 519.

mass communities are transforming into an information society through information.¹⁷ This assertion is accurate while capturing the essence of the dynamically occurring transformations. Of course, the existence of information in circulation does not determine its universality, because the key issue is the ability to access it. As it turns out, this access is uneven and conditioned by various factors. This, in turn, significantly affects social inequality, leading to the phenomenon of digital exclusion, referred to in the literature as digital divide.¹⁸ Attention should be paid to the causes of unequal access to new media (digital technology). Recalled J. van Dijk, takes the position that these are not only material resources, but also: temporal, mental, social and cultural.¹⁹

SAFETY- APPLICATION IN THE FIELD OF VISUALIZATION OF SAFETY AND PUBLIC ORDER IN MUNICIPALITIES AND MEDIUM-SIZED CITIES

In 2021, within the framework of the project "Interdisciplinary Innovation Incubator 4.0",²⁰ a team of researchers from the Pomeranian University in Slupsk and the Higher School of Economy in Bydgoszcz developed an innovative mobile application SafeTy, based on the theory of social ecology, whose main goal is to study the mechanisms of people's impact on the environment and the transformations that result from their activities. SafeTy's area of operation refers to the field of crime geography, and thus to the achievements of the American school of social ecologists. By studying local threats, it was assumed that it is possible to explain, the concentration of undesirable behavior in certain areas of the municipal space with the monitoring of local threats and the impact resulting from the use of SafeTy applications on reducing the level of antisocial activities. It should be emphasized, following J. Gierszewski and M. Bluhm, that SafeTy is not a reporting application, being only a platform for anonymous information exchange and mutual warning between residents and communication with local government units, including institutions.²¹

Advances in GIS software allow the application in question to take advantage of spatial autocorrelation. This functionality makes it possible to visualize areas with concentrations of hazards or lack thereof in the local space. In addition, it allows analysis of the intensity of certain phenomena in a spatial unit, such as a municipality, by generating heat maps. The idea behind the application is to present markers that provide information on: location, type and time of specific situations, including, disruptions of security and public order or other undesirable incidents. The data collected in this way makes it possible to create statistics on specific categories of incidents,

¹⁷ M. Popiolek, *Digital exclusion in Poland*, "Social inequalities and economic growth," 2013, no. 32, s. 310-320.

¹⁸ T. Maszyk, *Citizen in an Information Society*, Krakow 2010, p. 36.

¹⁹ J. van Dijk, *Management...*, op. cit, p. 248.

²⁰ Grant application for pre-implementation work- raising the level of implementation readiness (trl) carried out by a consortium of WSG and AP (now UP) within the framework of the "Interdisciplinary Innovation Incubator 4.0" project.

²¹ J. Gierszewski, M. Bluhm, *The importance of the SafeTy mobile application in shaping the security of local community residents*, [in:] *Security of digital society in the modern world*, ed. A. Ważniewska, Siedlce 2022, p. 110.

through the "heat map" data identifying the areas where the excesses occurred. The cited authors take the position that it is not access to news that is the main problem in this case, but the amount of information and the possibility of aggregation. An undoubted advantage of the application is its simplicity of use. Residents of local communities through a few clicks can place information about an event, and the application will send a notification about it to the phones of other users. As already indirectly indicated, an important functionality of SafeTy is the ability to send messages directly from local authorities to app owners. These messages include the sender's designation along with other basic data.²² In addition, the app identifies the location of an incident on an interactive map by placing pins of different colors (purple, yellow, green, red, blue and orange) thus allowing users to distinguish between the information provided and its importance. In each of the categories listed, users were left with the option of choosing subcategories other, should the basic selection options not fall within the proposed limits of the message. Local government units have access to an administrative panel, where all data on messages from residents is collected.

As indicated, the added value of the SafeTy application is to simplify communication, and thereby engage with the community of its residents, by proactively involving the public and changing the conditions that contribute to the occurrence of adverse events. Digitization of services and new IT tools, including the app in question, should improve and make local communities safer. In doing so, the SafeTy project is multidimensional, considering the diverse content of the message. Implemented with a proper diagnosis of threats, it will contribute to reducing crime and antisocial behavior by activating efforts to cooperate with local administration and the local community. Security built in this way will be treated as a common good.

USE OF MOBILE SAFETY APPLICATION IN THE TEACHING PROCESS OF HIGHER EDUCATION

Modern higher education is increasingly seen as an important part of post-industrial society, and education is taking on a new meaning within it. In view of this position, one should ask, following Wojciech Cellary, whether knowledge should be given away? Does it constitute a special global good, or a commodity, an object to be bought and sold.²³ The cited author goes on to point out that knowledge should be valued, since the quality of personal and social life depends on its possession. There is a growing view that modern higher education means a lot, playing a crucial role for the future of countries and in the transition to a knowledge-based economy and knowledge-based society, striving to skillfully reconcile market logic and public mission. This means continuous improvement of scientific and teaching work, as well as openness to the needs of the environment as measured by capabilities.²⁴ The university, being a place for building social capital, influences the size and quality of human capital and the standard of living.²⁵ The university is called to carry out a mission, civic and cultural, which

²² *Ibidem*, p. 111.

²³ W. Cellary, *Good or commodity?* "Academic Forum" 2007, no. 12, pp. 42-43.

²⁴ B. Marciniak, *University beams with dignity*, "University Life" 2012, no. 10, p. 4.

²⁵ K. Denek, *University in the perspective of the knowledge society. Science and education in the university of the 21st century*, "Pedagogical Studies. Social, Educational and Artistic Problems," 21/2011, p. 187.

obliges it to care about universal values, and the central position in it falls to truth. The need to increase the quality of didactics no longer arises only from the responsibility of university teachers for their work, but also from its social co-responsibility for the development of human capital.²⁶ The mere transfer of knowledge by an academic teacher to a student is not enough to properly perform teaching duties. At the same time, it should be emphasized that the development of modern information and communication technologies and the Internet influence the increasing use of remote teaching methods: e-learning or blended learning. However, it still raises many doubts. On the other hand, however, the dynamic development of science requires constant updating of methods of transferring knowledge to students.²⁷

Analyzing ventures in the field of lectures on the etiology of crime and behaviors to protect oneself from this phenomenon, reference should be made to the perception of and evaluation of training courses discussing the SafeTy mobile application, including in non-academic circles. Precisely formulated objectives determined among the local community of the municipality of Kaliska (Pomeranian Voivodeship) in 2021, the level and quality of training on the use of the tool. It was primarily a matter of precisely indicating whether the trainees would achieve the ability to use the application in question.²⁸ Also, on the part of the students of the University of Pomerania in Slupsk, participating in the in cognitive classes and evaluating SafeTy, general goals were set indicating the direction of aspiration. This resulted in the need for a clear, unambiguous and very precise formulation of lesson plans, for well-formulated ones are critical to the effectiveness of the implemented faculty. It should also be pointed out that the intentions in the area of teaching the use of the SafeTy mobile application also concern the cognitive-emotional sphere. In the cognitive sphere, the goals were defined in four levels: passive knowledge, understanding, and application in typical and new situations. In the emotional sphere, on the other hand, the goals consisted of such issues as forming appropriate attitudes and behaviors, providing appropriate experiences, feelings and sensations, including practical sensations, forming emotional connections to the idea of safety and praxeological order.²⁹ Thus, conducting an effective SafeTy mobile application training requires the trainer to be efficiently organized, highly operational, methodical and substantive knowledge and substantive knowledge, as well as high commitment. For the proper conduct of the educational cycle, its preparation is of great importance. However, during the preparation of the entire didactic process, attention should be paid to those elements that determine the conduct of the and success of the classes. The essence of this problem boils down to a kind of programming of didactic activities, that is, striving to eliminate randomness from education in the proceedings, so as to ensure maximum efficient organization and, as a result, achieve the desired result.

When it comes to learning to use SafeTy, brief descriptions and demonstration and practical exercises dominate. One of the important concepts that explain and enrich the relationship of teaching with learning is the cognitive structure formed in the minds of learners. It is both an

²⁶ K. Twardowski, *On the dignity of the University*, Poznań 1933, pp. 22-23.

²⁷ L. Pokrzycka, *E-learning - the new face of education*, "Nowa Szkoła" 2012, no. 7, pp. 47-51.

²⁸ P. Tyrała, *Educating managers*, Torun 2006, pp. 161-162.

²⁹ *Ibidem*, pp. 156-157.

arrangement of concepts and a kind of mental potency that facilitates problem solving.³⁰ Thus, teaching in this case is an intentional activity, organized intentionally, in a planned and systematic manner. Trainees acquire knowledge given in a ready-to-remember form, as well as while solving the problems set before them on their own.³¹ The instructor is required to use clear language that describes the application being learned in a reliable and unambiguous manner.

Summarizing the basic activities of the SafeTy mobile application training methodology, it is worth pointing out some recommendations to counteract schematism and routine of the teacher. Teaching activities are effective through the activity of the listener, which means that it is necessary to abandon the one-sided transmission of ready-to-remember knowledge in favor of dialogue methods, and to combine theory and practice. Referring to the problem raised on the subject of the use of SafeTy, and in order to obtain in-depth directional information on the desirability of implementing classes on the analysis of threats to security and public order in the didactic process, it was appropriate to conduct qualitative and quantitative research among students of the University of Pomerania [hereinafter: UP] in Slupsk.

EVALUATION OF THE USE OF THE SAFETY MOBILE APPLICATION IN THE DIDACTIC PROCESS OF THE UNIVERSITY IN THE PERCEPTION OF THE STUDENTS OF THE NATIONAL SECURITY FACULTY OF THE POMERANIAN UNIVERSITY IN SŁUPSK

In order to determine the functionality and usefulness of the SafeTy mobile application in the didactic process, it was assumed that a focus group interview (FGI) and a survey study using a questionnaire questionnaire would be crucial for the realization of the goal, which would include students of the national security, second-level studies at Pomeranian University in Slupsk.

The focus group interview allowed qualitative data to be obtained with regard to the SafeTy mobile application in terms of its use in the teaching process. The focus group study used group dynamics, and the indagation included open-ended questions that did not suggest answers and did not impose a way of thinking on the respondents. The group interview with purposive sampling and a proposed scenario with setting the general direction of the discussion had a free-form nature. The survey was implemented during a class (exercise) with a moderating lecturer. The premise remained to obtain a more in-depth insight into the issue and the ways of thinking of its participants than in a typical survey study. Participants' statements and interactions were subjected to detailed qualitative analysis, for its purpose was to reveal "what?" and "how?" That is, how do respondents perceive and what do they think about the SafeTy mobile application they are using? In this case, the focus group consisted of twelve students. The purpose of the survey was to understand how respondents evaluate the concept of the SafeTy mobile application and the factors that influence this evaluation in the context of its potential use. It was also about identifying respondents' perceived opportunities to increase the app's functionality. Twelve students participated in the focus, in addition to the moderator.

³⁰ W. Karpinski, *Cognitive structures of students and learning outcome*, Warsaw 1983, p. 17.

³¹ S. Gerstman, *Psychological basis of educational interventions*, Warsaw 1982, pp. 62-68.

For the most part, they were residents of Slupsk and nearby towns who use popular social media messengers on a daily basis, making their statements a natural point of reference. The interviewees had a university education (second-degree students), ranging in age from 22 to 51. Thus, their experience with the knowledge and functioning of instant messaging is common. Seven men and five women participated in the study.³² The meeting (preceded by application testing) lasted an hour and a half and was based on a set scenario. The discussion was held around the issues suggested by the interview questions. Some threads were eagerly taken up by the interviewees, on others it was possible to obtain only enigmatic statements that did not stimulate group discussion. The issue initiating the discussion and the main goal of the study was to determine whether the SafeTy application is a useful teaching tool in the field of security and public order threat analysis.

The initial phase of the discussion was introductory to the main part of the interview and at the same time served to reveal the subjective horizon in the description of the SafeTy application. This horizon as perceived by the participants in the discussion may shed light on the evaluation of SafeTy expressed by them in the later part of the interview. The first to emerge in the discussion was the point articulated by ten people [M-6, K-4] that "the SafeTy application is similar to the National Safety Hazard Map. At the same time, it is an alternative, which gives users a free choice of platform for reporting threats."³³ In addition, most of the interviewees [M-6, K-2], noted a distinguishing element of the SafeTy app: "some people may feel more comfortable using a social networking app not directly related to law enforcement." Specific and concrete remained indications from all individuals [M-7, K-5] that "the app allows users to check the community's opinion of its compactness and concern for the common good, as well as its understanding of public safety and various types of incidents. This is very important because each community may be differently sensitive to local security issues."

In the next part of the interview, its participants pointed out the lack of availability of applications for iOS mobile devices. In contrast, it was indifferent for half of them [M-4, K-2]. They also pointed out [M-3, K-1] the functionality of SafeTy, indicating that "difficulties arise, such as adding tags with threats. This limits the effectiveness and usability of the application. Because of this, the user may neglect to add a threat or abandon the use of the application." Those highlighting this problem stressed that it is problematic to move the marker around the map and would much prefer to add threats using the address list. Further reservations [M-6, K-3] were articulated about the smoothness of the application and the lack of a browser version: "the application's interface needs to be corrected and improved to provide a more intuitive user experience. Fixing imperfections, including improving the interface, and creating a web-based platform can significantly increase the usability and effectiveness of this application." Survey participants were almost unanimous [M-6, K-5] in pointing out the need for a browser-based version that includes features to analyze the data contained in the application, expressing opinions that "SafeTy is a useful application for use in the teaching process. The positive role of hazard maps and their creation and analysis contributes to the community's awareness of potential risks, which in turn enables faster and more effective responses. Interactive maps and

³² In order to anonymize the statements, the study participants were labeled with the symbols M (male) and respectively K (female).

³³ The quotation marks include verbatim quoted statements of the interviewees.

the ability to report risks are features that allow the community to actively participate in the process of improving public safety, which undoubtedly applies to SafeTy and its use during practical classes."

Another scenario question asked about opinions on the SafeTy application as a tool for communicating threat information. During the discussion, the interviewees collegially agreed [M-7, K-5] that the use of modern means of communication is a most valid and appropriate part of the teaching process of security analysis: "it enhances the knowledge of the process of communication of local environments using mobile applications and provides a dynamic source for identifying potential security threats." Moreover: "most useful in analyzing categorized security threats are: the date and time of the report and the description of the threat added by the reporter. Through these categories, the innovative SafeTy platform can help improve overall public awareness and increase community safety cooperation. Such a comprehensive application aims to increase public and individual awareness, while promoting a culture of safety." The interlocutors justified this with the example that "using the app, one can, for example, change routes or pay more attention to dangerous situations. With the app, every resident can have an impact on improving safety, while reporting these events to the relevant authorities. The app is very similar to the National Safety Hazard Map, but works more locally."

One interviewee noted the danger of not being able to verify the data posted in the application. This issue aroused discussion about the validity of the thesis in question, assuming that there may be individual cases (at the level of statistical error), of deliberately manipulated messages. However, the students [M-7, K-5] reiterated their appreciation of the idea of informing each other about threats, while pointing out that: "residents are most likely to report in the app disturbing hazards occurring primarily at their place of residence. These include potholes in roadways, improper parking, speeding, drinking alcohol in prohibited places, inadequate road infrastructure, use of intoxicating substances and aggressive behavior afterwards. In this case, the app should have the ability to immediately notify the police to solve the problem."

In the end, the discussion led to a common conclusion that "with the help of the SafeTy app, its users have the opportunity to check if there is any threat in their surroundings. The app provides support, both for security institutions and citizens, enabling them to more effectively identify threats and indicate where they exist. Simply put, users can easily check on a map where specifically and what threats are present. The use of the application and analysis of the collected data, also allows the development of comprehensive crime prevention strategies. Undoubtedly, analytical work with the use of the application diversifies teaching activities, but most importantly, it broadens and improves our competence in this area." In general, the interviewees concluded that there should be no indication of which of the application's functionalities is more, or to the greatest extent, useful, for all of them together constitute the quality and functionality of SafeTy. When discussing the possibility of improving safety with the use of the application in question, the participants also pointed out that the right promotional conditions should be created in local communities, during which the values of SafeTy should be articulated. Local authorities and services responsible for security and public order should also

participate in this endeavor. In this way, "trust" in the indicated tool can be built complementarily.

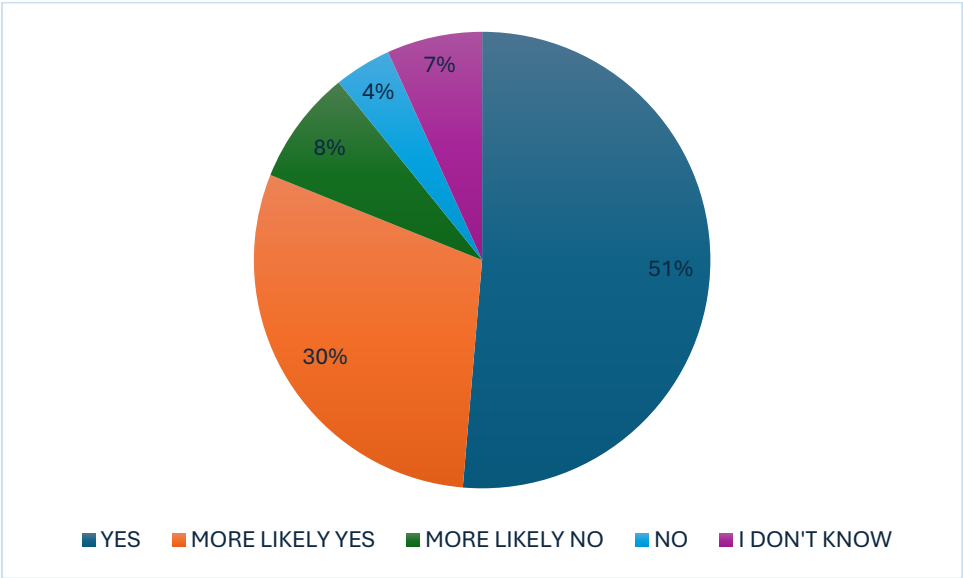
A lively discussion arose when discussing the functionality of the application on the subject of increasing the teaching potential of security threat analysis. It was pointed out that it is necessary to equip SafeTy with a browser-based version [M-6, K-5]. Also, according to interviewees, it would be incredibly important for the application to be compatible with iOS devices. Adapted in this way, it would be suitable for signaling specific categories of threats, and thus be available on all mobile devices. However, interviewees found it difficult to point out other functionalities (of specific categories) that would improve SafeTy's teaching potential, as they might not be useful. However, it was suggested to take advantage of usability that would expand its capabilities to inform about dangers by, among other things, adding dangers using a selection list or manually typing in addresses, and adding a search function for addresses, dates and notifications, which would make it much easier for users to quickly find specific information in the app. It is worth noting that from the perspective of the interviewees, SafeTy is a communication channel between the community and local government, and can be used to transmit information about worrisome situations, to entities responsible for security and public order. Also marked positively is the research potential of crime with a strategy for its prevention.

In summary, the tool in question has the characteristics of complementary use in didactics, including enhancing students' practical skills in identifying, interpreting and explaining phenomena, as well as processes related to threats to public safety.

The next stage of the established research, in order to gain an expanded knowledge of the application's teaching potential in hazard analysis, was to conduct a survey on a group of 74 students, sophomores at the University of Pomerania in Slupsk, who took part in practical classes using SafeTy. Analytical tools including an EXCEL spreadsheet were used to compile the results of the study, which allowed for statistical analysis. The surveyed community included 38 men and 36 women between the ages of 22 and 53. The first survey question was designed to verify whether SafeTy is a useful teaching tool for analyzing threats to security and public order. Its results are visualized in Figure 1 below.

Figure 1.

Usefulness of the SafeTy application as a teaching tool for security and public order threat analysis



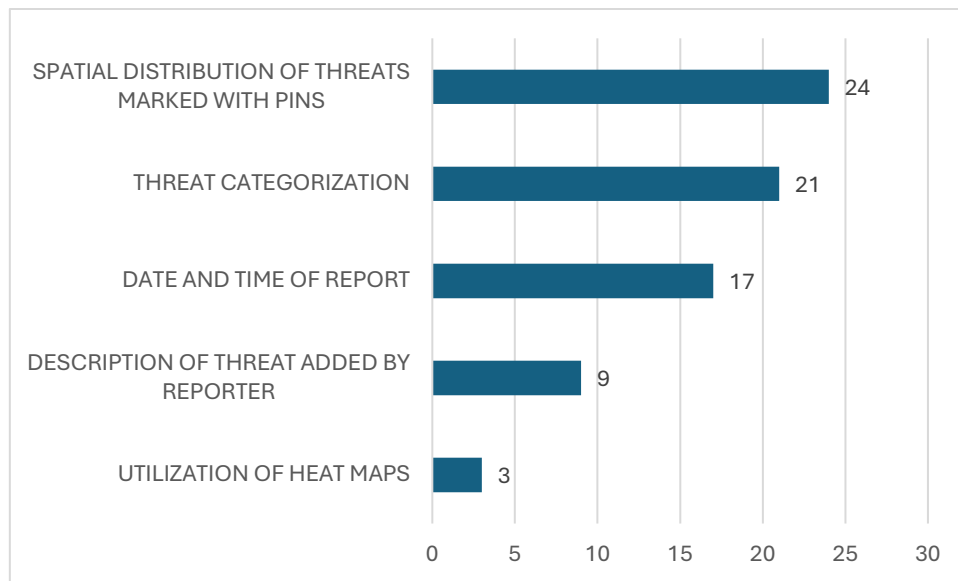
Source: compiled on the basis of a survey conducted.

The data presented shows that respondents are positive about the use of the SafeTy interactive tool during practical classes on security risk analysis. This position was confirmed by more than 81% of respondents, and the categorical belief in the advantages of using the application in didactics was determined by 51%. Doubts in this regard were manifested by 12% of opinion leaders, who indicated answers of rather not (8%) or not (4%). The answer "don't know" was declared by 7% of respondents.

These results build a favorable picture of the tool in question and its potential. Therefore, it was important to reveal which of the SafeTy application's functionalities respondents believe is most useful in analyzing security threats. The answers to this question are included in the graphic below (Figure 2).

Figure 2.

SafeTy application functionality most useful in security threat analysis



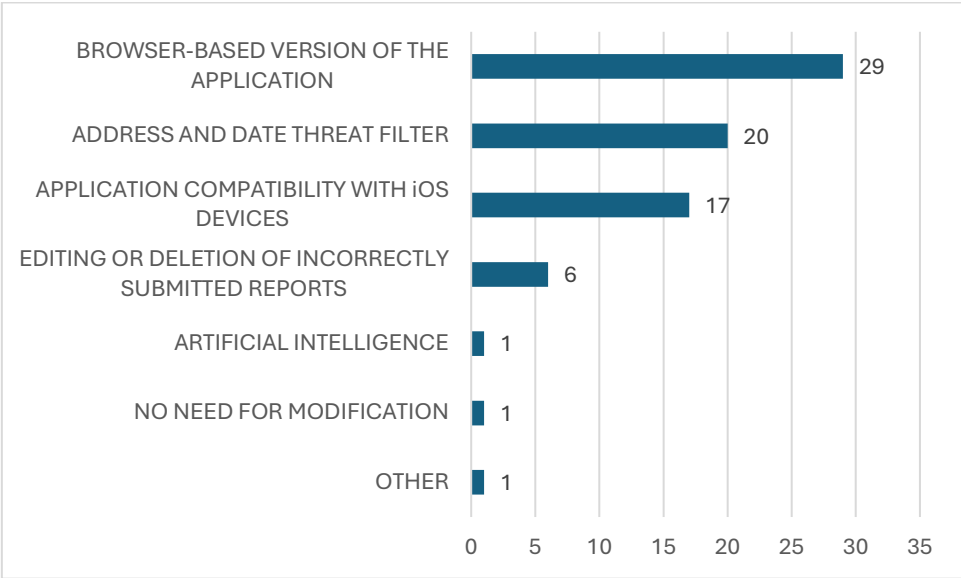
Source: compiled on the basis of a survey conducted.

In the one-choice question, SafeTy, which are pins indicating the location of the incident and the spatial distribution of hazards, received the most indications. This answer was indicated by almost one in three respondents. The subordination of threats to selected categories is considered extremely useful by 28.38% of respondents. The indication of the date and time of the report was also highly popular (22.97%). Description of the situation recorded in the tool in question was indicated as useful by more than 12% of respondents, which may seem surprising. The high-tech function of imaging with colors, places of concentration of dangers received 3 votes, accounting for only 4% of all declarations.

Undoubtedly, the appreciation of the current functionality of the application, as well as its positive evaluation, indicate that in its current form it fulfills its appropriateness in the field of threat analysis. Nevertheless, it was important for the author of the study to ask the question about the possibility of expanding the tool to increase its teaching potential. Thus, the respondents were asked to choose the proposed options for modifying SafeTy, with the question extended to indicate their own proposal (Figure 3).

Figure 3.

Functionality to enhance the teaching potential of SafeTy application for security threat analysis



Source: compiled on the basis of a survey conducted.

This question resulted in numerous responses with suggestions to create a browser-based version of the application (39.19%). This result confirmed the position also articulated by those who participated in the focus interview. More than 27% of respondents replicated another of the needs revealed in the survey (FGI), which is the ability to filter addresses, dates and threat categories. Some 23% of the responses collected indicated the need to adapt SafeTy to iOS devices. For 8.11% of respondents, the ability to edit or delete a defectively added ticket would be important. One person noted the need to implement artificial intelligence in the tool. The same value of indications was recorded for the answer "no need for modification." Also given the opportunity to provide their own answer was one person (1.35%), who raised the need to increase the number of categories and types of threats.

The survey study conducted substantiated the need for new features in the SafeTy app. The needs raised both in the focus interview and in the survey for a browser-based version of the app, address, date and threat filters, or compatibility of the app with iOS devices are valuable knowledge that should be used in designing improvements. This is all the more advisable, as respondents undoubtedly see the potential of using SafeTy in teaching.

SUMMARY

In conclusion, it should be articulated that the purpose of the conducted research (focus and survey) was to find out how students evaluate the idea of the project, the SafeTy mobile

application, and the determinants of this evaluation, in the context of its use in the teaching process of higher education. It was also about identifying the respondents' perceived opportunities to increase its functionality. The suggestions were concrete and specific, suggesting that the community, using this tool, has the opportunity to effectively pursue the common good. The survey also highlighted that SafeTy is similar to the National Safety Hazard Map, but operates at a more local level. However, it was pointed out that the app is not available for mobile devices running the iOS operating system. It was also suggested that a more intuitive interface should be developed, imperfections should be addressed, and a browser-based version should be added, with features that enable data analysis. The indicated improvements should significantly increase the usability and effectiveness of the application. In addition, opinions were expressed that SafeTy is a useful application for use in the teaching process. First of all, the option to visualize threats and analyze the data recorded in the application, contribute to increased awareness of potential dangers, which in turn allows faster and more effective response. In addition, it was emphasized that interactive maps and the possibility of reporting threats are features that allow those interested to actively participate in the process of improving security in the inhabited local environment.

With regard to the application, too, it was shown that the use of modern means of communication is a most legitimate and appropriate part of the didactic process and is a dynamic source of identifying potential risks. It was emphasized, that the innovative SafeTy platform creates the right civic attitudes, promoting a culture of safety. The conducted research confirmed the assumed hypothesis that the SafeTy application is a communication channel for transmitting information about worrying situations to entities responsible for security and public order. Also, that it has the potential for complementary use in didactics, including enhancing students' practical skills in identifying, interpreting and explaining phenomena, as well as processes related to threats to public safety.

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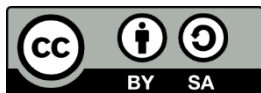
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