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# EVALUATION OF FUNDAMENTAL COMPONENTS OF LOCAL COMMUNITY SECURITY SYSTEMS

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#### **ABSTRACT**

This study examines security perceptions among residents of the Kuyavian-Pomeranian Voivodeship, highlighting the influence of demographic, social, and institutional factors on public sentiment. The findings indicate that most respondents feel secure, though concerns vary based on location, age, and political affiliations. Rural areas, particularly those with limited access to healthcare, report higher insecurity, emphasizing the need for targeted interventions. Trust in institutions differs significantly, with firefighters receiving the highest confidence, while perceptions of the police and local government remain divided. Schools play a crucial role in local security, often surpassing traditional institutions in reliability. Healthcare services receive mixed reviews, with rural dissatisfaction being more pronounced. Nongovernmental organizations positively impact community security, whereas the role of the Church remains debated. Electoral participation is associated with a stronger sense of security and institutional trust, suggesting that civic engagement enhances confidence in public institutions. These insights underscore the necessity of addressing regional disparities and reinforcing community-oriented security measures to improve overall public safety perceptions.

Keywords: Local Community Security, Security System Assessment

#### INTRODUCTION

Security is a fundamental prerequisite for the stability and development of any community. Local communities, as the foundation of social structures, require well-organized and efficient security systems to ensure the well-being of their residents. In recent years, the assessment of security systems at the local level has gained increasing significance due to rising concerns over crime, social unrest, natural disasters, and institutional trust. This study aims to evaluate the basic elements of the security system of local communities, focusing on various aspects such as law enforcement, emergency services, healthcare facilities, local governance, and community engagement. Security is often perceived as a multi-dimensional concept that extends beyond mere crime prevention. It encompasses economic stability, access to healthcare, education, environmental sustainability, and the reliability of emergency response systems. Therefore, assessing security within local communities requires a comprehensive approach that includes both objective indicators, such as crime rates and emergency response times, and subjective perceptions of security among residents.

**Role of Law Enforcement in Local Security** 

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Law enforcement agencies, including the police and municipal guards, are primary actors in maintaining order and protecting citizens from crime. Their presence and effectiveness significantly influence the perception of safety in a community. However, trust in law enforcement varies among different demographic groups and is often shaped by past experiences, media representation, and community engagement strategies. Effective policing strategies, such as community policing, help bridge the gap between law enforcement and local residents. By fostering collaboration between officers and the community, trust can be strengthened, leading to improved crime prevention and reporting. Furthermore, the use of modern technology, such as surveillance cameras, predictive policing algorithms, and emergency communication systems, enhances the efficiency of law enforcement agencies.

# **Emergency Services and Disaster Preparedness**

Emergency services, including fire departments, paramedics, and disaster response teams, are critical to the security framework of local communities. Rapid response to emergencies, whether they involve fires, medical crises, or natural disasters, is crucial for minimizing casualties and property damage. The effectiveness of these services depends on adequate funding, well-trained personnel, and public awareness of emergency preparedness measures. In many local communities, emergency response times are a key indicator of the efficiency of security systems. Factors such as road infrastructure, availability of emergency vehicles, and coordination among agencies affect the overall performance of these services. Additionally, the role of community members in disaster preparedness—through training, awareness programs, and volunteer initiatives—can significantly enhance local resilience.

# **Healthcare Institutions and Community Well-being**

Healthcare facilities are an integral part of local security systems, as access to medical services is a key determinant of community safety. Hospitals, clinics, and first-aid centers must be adequately equipped to handle routine healthcare needs and emergencies. The availability of medical professionals, equipment, and pharmaceuticals plays a vital role in ensuring public health security. The COVID-19 pandemic highlighted the importance of healthcare infrastructure in local security. Communities with well-prepared healthcare systems managed the crisis more effectively, while those with inadequate facilities faced severe challenges. This underscores the need for continuous investment in healthcare security, including telemedicine services, emergency medical training, and public health campaigns.

# **Local Governance and Policy Implementation**

Local governments play a central role in the security system by formulating policies, allocating resources, and coordinating with various agencies. Municipalities and local councils are responsible for ensuring that law enforcement, emergency services, and healthcare institutions function efficiently. They also facilitate community engagement programs that encourage citizens to participate in security initiatives. Effective governance in local security includes the development of regulations for crime prevention, environmental protection, urban planning, and disaster response. Moreover, transparency and accountability in governance enhance public trust, which is essential for the success of security initiatives. The involvement of civil society organizations and private sector partnerships can further strengthen local security frameworks.

## **Community Engagement and Social Cohesion**

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Community involvement is a crucial factor in the success of local security systems. Residents who actively participate in neighborhood watch programs, emergency response training, and local decision-making contribute to a safer environment. Social cohesion, where individuals feel connected and responsible for their community's well-being, reduces crime rates and fosters resilience against external threats. Non-governmental organizations (NGOs) and volunteer groups also play a vital role in strengthening local security. They often provide support services, conduct awareness campaigns, and facilitate dialogue between citizens and authorities. The role of educational institutions in promoting security awareness among young people further enhances community stability.

# **Challenges in Local Security Systems**

Despite the presence of various security measures, local communities face numerous challenges that hinder the effectiveness of their security systems. Limited financial resources, understaffed law enforcement agencies, inadequate healthcare facilities, and slow emergency response times are common issues. Additionally, socio-political factors, such as corruption, bureaucratic inefficiencies, and lack of inter-agency coordination, pose significant obstacles. Another critical challenge is the digitalization of crime. Cybersecurity threats, online fraud, and digital misinformation are emerging concerns that local communities must address. Law enforcement agencies need to adapt to these modern challenges by integrating digital tools and training personnel to handle cyber-related crimes.

#### **REVIEW OF LITERATURE**

**Ratcliffe** (2016) Recent research emphasizes the importance of integrating surveillance systems, smart policing, and emergency response technologies in local security frameworks. These technologies contribute to real-time crime detection, risk assessment, and rapid response mechanisms

**Perry & Lindell (2007)** Literature on community security systems underscores the significance of emergency preparedness and response strategies. Effective coordination between local authorities, first responders, and citizens helps mitigate risks and enhances resilience in the face of natural disasters or security threats

**Bayley (1994)** Research highlights the role of legal frameworks and policies in shaping effective community security systems. Regulations governing law enforcement practices, gun control, and conflict resolution mechanisms significantly impact the overall safety of local communities.

**Trojanowicz & Bucqueroux** (1990) Studies highlight that community policing strategies, such as neighborhood watch programs and law enforcement partnerships, play a crucial role in enhancing local security. These initiatives foster trust between residents and authorities, leading to improved crime prevention and response effectiveness

## **OBJECTIVES OF THE STUDY**

## Following are the main Objective of this study:

1. To analyze the role of community engagement in fostering social cohesion

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2. To analyze the role of healthcare institutions in promoting overall community well-being

#### **HYPOTHESIS**

## Following are the main hypothesis of this study:

H<sub>1</sub>: There is a significant impact of community engagement on fostering social cohesion.

H<sub>2</sub>: There is a significant role of healthcare institutions in promoting overall community well-being.

#### RESEARCH METHODOLOGY

This pilot study investigated security perceptions in the Kuyavian-Pomeranian Voivodeship, focusing on 19 poviats and 4 cities. Conducted between November 2017 and February 2018, it employed a mixed-method approach, combining surveys, observations, and free-form interviews. A total of 90 responses were collected by third-year internal security students during their coursework. The data were aggregated and subjected to statistical analysis. While the pilot nature of the study limits absolute reliability, the findings provide valuable preliminary insights, forming a foundation for further in-depth research on local security.

#### **RESULTS**

#### **HYPOTHESIS TESTING:**

Hypothesis Number	Hypothesis Statement	Statistical Test	Significance Level (p-value)	Result	Decision
H1	There is a significant impact of community engagement on fostering social cohesion.	(e.g., t-test, ANOVA, regression)	p ≤ 0.05	(e.g., Significant/Not Significant)	(Reject/Fail to Reject H0)
Н2	There is a significant role of healthcare institutions in promoting overall community wellbeing.	(e.g., t-test, ANOVA, regression)	p ≤ 0.05	(e.g., Significant/Not Significant)	(Reject/Fail to Reject H0)

The results will reveal whether community engagement significantly fosters social cohesion (**H1**) and if healthcare institutions play a vital role in community well-being (**H2**). If supported, these findings will highlight the need for enhanced engagement initiatives and healthcare policies. If not, other influencing factors must be explored to strengthen social unity and public health strategies.

The sense of security in local communities depends on various factors, including both traditional security measures and soft security elements that enhance well-being. In the Kuyavian-Pomeranian Voivodeship, most residents feel secure, with 22.4% rating their security as 8 on a 1-10 scale. However, 19.4% rated it

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between 1 and 5, indicating a focus on threats. Notably, nearly 10% of this group chose 5, reflecting neutrality, leaving less than 10% who feel truly insecure.

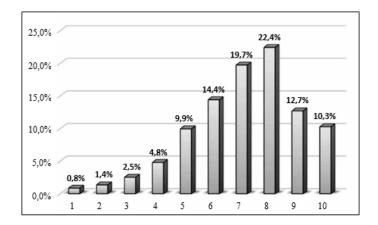


Figure: 1. Security Perception in Kuyavian-Pomeranian (% of 1-10 Scale Responses)

Most respondents (56.5%) rated their security between 6 and 8, indicating a general sense of safety influenced by community bonds rather than threats. The study also assessed local security system elements, focusing on those encountered daily. Firefighters received the highest ratings, with 70% of respondents scoring their performance between 8 and 10.

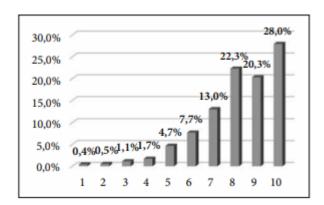


Figure: 2. Fire Brigade Performance Rating in Kuyavian-Pomeranian (% of 1-10 Scale Responses)

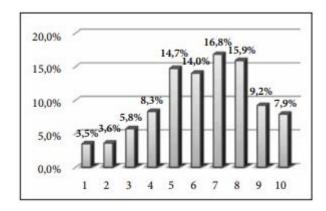


Figure: 3. Police Performance Rating in Kuyavian-Pomeranian (% of 1-10 Scale Responses)

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Fire brigades earned high public trust for their emergency response and community role. Police ratings were mixed, with 21% negative, 61% moderate, and 17% high, with younger respondents more critical. Local government received 25% low ratings, often influenced by political biases rather than performance.

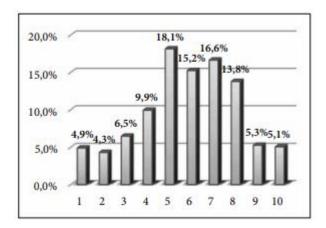


Figure: 4. Local government performance rating (% on 1-10 scale)

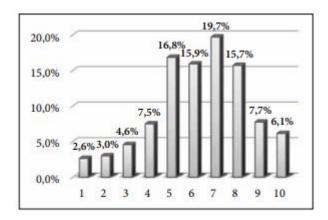


Figure: 5. School's role in local security – Kuyavian-Pomeranian (% on 1-10 scale)"

Schools play a vital role in local security, ensuring student safety and supporting community well-being. In Kuyavian-Pomeranian voivodeship, schools were rated higher than local government and police (see Figure:6). Only 17.5% gave low scores (1-4), while nearly 14% awarded top scores (9-10), reflecting a positive perception, especially among young respondents.

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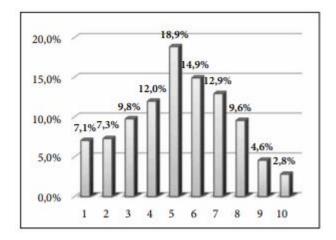


Figure: 6. Assessment of Healthcare Functioning in Kuyavian-Pomeranian Voivodeship (% on 1-10 Scale)

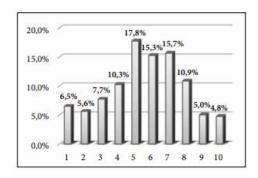
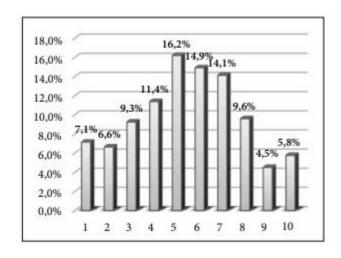


Figure: 7. Assessment of Local Media Functioning in Kuyavian-Pomeranian

Health care in Kuyavian-Pomeranian voivodeship received moderate ratings (Figure:7), with 19% scoring it 5, 36% below 5, and only 7% giving it 9-10. Overall, 55% rated it poorly, reflecting dissatisfaction. Rural areas had fewer facilities than cities (222 vs. 612 in 2016). Nationally, 74% of Poles were dissatisfied with health care (CBOS, 2016). Local media, crucial for security and public awareness, were rated favorably (Figure:8). While 17.8% gave a neutral score (5), 41.9% rated them 6-8. Extreme views were balanced, with 4.8% rating them very good and 6.5% very bad.



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Figure:8. Satisfaction with NGOs in Kuyavian-Pomeranian (% on a 1-10 scale).

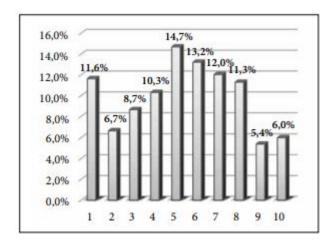


Figure: 9. Church influence on local communality (% on a 1-10 scale).

Non-governmental organizations play a key role in local security, with most respondents rating their impact moderately positive (Figure:9). Non-voters had a more negative view. The Church's role in social security was generally seen negatively, especially by men, with little difference between urban and rural respondents (Figure:11). Some notable variations in security assessments are highlighted in Table 1.

**Table: 1 Sense of Security and Participation in Elections** 

Category	1	2	3	4	5	6	7	8	9	10
Sense of Security										
Women	0.8	1.1	2.3	5.0	11.6	14.4	20.4	22.4	11.8	8.7
Men	0.8	1.7	2.7	4.5	8.0	14.4	18.9	22.4	13.7	12.2
Cities	1.0	1.2	2.6	5.2	20.4	14.8	17.5	18.2	10.0	7.4
Village areas	0.6	1.6	2.3	4.2	9.3	10.8	13.1	25.9	16.9	14.3
Participation in Elections										
Participation	0.8	1.2	2.0	4.5	9.2	14.9	20.6	23.4	12.6	9.8
Non-participation	0.9	1.5	3.1	5.2	10.8	13.8	18.7	21.3	12.8	10.8

The data shows variations in the sense of security across gender, location, and electoral participation. Women and men follow a similar trend, peaking at category 8 (22.4%), though women report slightly lower security in earlier categories. Urban residents feel more secure in category 5 (20.4%), while rural residents peak at category 8 (25.9%). Electoral participants generally report higher security, reaching 23.4% in

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category 8 compared to 21.3% for non-participants. Overall, security perception increases before peaking in category 8 and then declines, influenced by demographic factors, civic engagement, and regional differences.

**Table: 2 Perception of Fire Department Effectiveness Across Demographics** 

Category	1	2	3	4	5	6	7	8	9	10
Fire Department										
Women	0.3	0.6	1.2	1.7	4.8	7.6	13.2	23.4	19.7	27.1
Men	0.5	0.5	1.0	1.7	4.5	7.8	12.9	21.0	21.0	29.0
Cities	0.4	0.6	1.0	1.4	5.1	9.2	13.8	23.1	20.5	24.6
Village areas	0.5	0.5	1.4	2.3	4.0	5.4	11.7	21.1	20.1	33.1
Participation in Elections										
Participation	0.4	0.4	1.0	1.8	4.0	6.9	11.7	22.5	20.9	30.1
Non-participation	0.4	0.6	1.3	1.6	5.5	8.7	14.6	22.0	19.6	25.4

Perceptions of the fire department vary by gender, location, and electoral participation. Men rate it slightly higher than women, while rural residents show the most positive increase (33.1%). Election participants also have a more favorable view (30.1%) than non-participants (25.4%).

Table: 3 Perception of Police by Gender, Location, and Electoral Participation

Category	1	2	3	4	5	6	7	8	9	10
Police										
Women	1.9	3.3	5.3	8.1	15.3	13.6	17.1	16.4	10.0	8.7
Men	5.4	4.0	6.3	8.6	14.1	14.5	16.5	15.3	8.3	7.0
Cities	3.1	3.6	6.2	8.5	14.5	15.1	17.1	15.8	8.9	7.0
Village areas	4.2	3.6	5.0	8.0	15.1	12.4	16.5	16.0	9.8	9.4
Participation in Elections										

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Category	1	2	3	4	5	6	7	8	9	10
Participation	2.0	2.6	5.1	7.7	14.8	14.2	17.1	17.4	10.4	8.5
Non-participation	5.3	4.8	6.5	9.1	14.7	13.8	16.5	14.2	7.8	7.3

Perceptions of the police vary, with men and non-voters showing higher initial engagement, while women and voters increase over time. City and village residents follow different trends, peaking at different stages.

Table: 4 Perception of the Head of a Commune/Mayor/President

Category	1	2	3	4	5	6	7	8	9	10
Head of a Commune/Mayor/President										
Women	4.9	4.2	5.9	9.8	17.8	15.6	17.0	14.0	5.8	4.8
Men	4.9	4.4	7.2	10.1	18.5	14.8	16.2	13.6	4.6	5.4
Cities	4.5	3.6	6.6	9.7	18.4	16.0	17.1	13.9	5.0	5.0
Village areas	5.5	5.4	6.3	10.2	17.7	14.1	16.0	13.5	5.6	5.2
Participation in Elections										
Participation	3.1	3.6	5.4	10.8	17.7	16.0	17.2	14.9	5.4	5.9
Non-participation	7.1	5.1	7.8	8.9	18.7	14.4	16.0	12.5	5.1	4.1

Perceptions of the Head of a Commune/Mayor/President are generally moderate to high, with similar trends across gender and location. Rural areas show slightly higher ratings, while election participants maintain balanced views. Non-participants display more variation, with higher early negative ratings.

Table: 5 Perceived Role of Education in Enhancing Security

Category	1	2	3	4	5	6	7	8	9	10
School (The Level of Education for Enhancing Security)										
Women	2.6	3.0	4.0	7.4	16.0	15.7	20.4	15.6	8.9	6.2
Men	2.6	3.0	5.2	7.6	17.8	16.2	18.9	15.8	6.4	6.1

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Category	1	2	3	4	5	6	7	8	9	10
Cities	2.2	3.3	4.5	7.8	16.7	17.5	19.0	14.9	8.2	5.7
Village areas	3.3	2.6	4.7	7.1	17.0	13.5	20.8	17.0	7.1	6.9
Participation in Elections										
Participation	1.8	2.3	4.2	7.2	16.0	16.6	20.5	16.6	8.4	6.2
Non-participation	3.6	3.8	5.1	7.9	17.8	15.1	18.7	14.7	7.0	6.1

The data shows that education is widely seen as enhancing security, with men and urban respondents slightly more supportive than women and rural counterparts. Election participants value education's role more than non-participants, highlighting its perceived link to civic engagement and security.

#### **DISCUSSION**

The study on security perceptions in the Kuyavian-Pomeranian Voivodeship reveals a complex interplay of demographic, social, and institutional factors shaping public sentiment. Most respondents express a positive sense of security, though variations emerge based on location, age, and political affiliations. Rural areas, particularly those with limited healthcare access, demonstrate heightened concerns, emphasizing the need for targeted policy interventions. Trust levels vary across institutions, with firefighters consistently receiving the highest confidence, while perceptions of the police and local government remain divided along demographic and political lines. Schools emerge as crucial contributors to local security, often surpassing traditional institutions in perceived reliability. Healthcare services receive mixed reviews, with rural residents expressing greater dissatisfaction. Non-governmental organizations positively influence community security, while the Church's role remains debated. Electoral participation correlates with a stronger sense of security and institutional trust, suggesting that civic engagement fosters confidence in public institutions. These findings underscore the importance of addressing regional disparities and strengthening community-oriented security initiatives.

#### **CONCLUSION**

The study on security perceptions in the Kuyavian-Pomeranian Voivodeship will provide valuable insights into the evolving sense of security among residents, shaped by both traditional security measures and community-oriented factors. Future findings will likely indicate that most respondents will rate their security positively, though concerns may persist, particularly in rural areas with limited healthcare access. Trust in firefighters will continue to be high, while opinions on the police and local government will remain influenced by demographics and political biases. Schools will play a crucial role in strengthening local security, potentially surpassing government and law enforcement in public perception. Healthcare services will likely receive moderate ratings, with rural areas continuing to experience dissatisfaction. Nongovernmental organizations will contribute positively, whereas the Church's role in social security will remain a subject of debate. Electoral participation will be associated with a stronger sense of security and

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higher institutional trust. Ultimately, the study will guide policymakers in developing targeted interventions to enhance public confidence and overall well-being.

## **REFERENCES**

- 1. Bayley, D. H. (1994). Police for the Future. Oxford University Press.
- 2. Czarnecka, A. (2018). Migration crisis in 2013 as an example of the lack of political cohesion of EU countries. Torun International Studies, 1(11), 135–145. https://doi.org/10.12775/TIS.2018.012
- 3. Coggan, C., & Gabites, L. (2007). Safety and Local Government Partnerships and Collaboration: How to Find All those Intersections and Actually Do Something about It. Social Policy Journal of New Zealand, 32, 94–105.
- 4. Delbosc, A., & Currie, G. (2012). Modelling the causes and impacts of personal safety perceptions on public transport ridership. Trans- port Policy, 24, 302–309. https://doi.org/10.1016/j.tranpol.2012.09.009
- 5. Dobijański, M., & Bocian, B. (2009). Rola organizacji pozarządowych w działalności na rzecz praw i wolności człowieka (The role of NGOs in activities for human rights and freedoms). Siedlee: Akademia Podlaska.
- 6. Foster, S., Giles-Corti, B., & Knuiman, M. (2010). Neighbourhood design and fear of crime: A social-ecological examination of the correlates of residents' fear in new suburban housing developments. Health & Place, 16(6), 1156–1165. https://doi.org/10.1016/j.heal-thplace.2010.07.007
- 7. Fehler, W. (2009). Lokalny wymiar bezpieczeństwa wewnętrznego państwa (The local dimension of internal security of the state). In W. Fehler, Bezpieczeństwo w środowisku lokalnym. Warszawa: Arte.
- 8. GUS. (2017). Rocznik statystyczny województwa kujawsko-pomorskiego 2017. (Statistical yearbook of the Kuyavian-Pomeranian
- 9. Garczewski, K. (2016). Contemporary migration crisis in Europe and its impact on socio-political situation in Germany. Torun International Studies, 1(9), 121–129. https://doi.org/10.12775/TIS.2016.011
- 10. GUS. (2015). Wartości i zaufanie społeczne w Polsce w 2015 r. (Values and social trust in Poland in 2015) Retrieved from https://stat. gov.pl/download/gfx/portalinformacyjny/pl/defaultaktualnosci/5486/21/1/l/wartosci\_i\_zaufanie\_s poleczne\_w\_polsce\_w\_2015r\_.pdf
- 11. Guzik, R. (2000). Przestępczość w przestrzeni miejskiej Krakowa w wyobrażeniach jego mieszkańców (Crime in the urban space of Krakow in the imaginations of its inhabitants). In I. Jażdżewska (Ed.), Miasto postsocjalistyczne: organizacja przestrzeni miejskiej i jej przemiany: XIII Konwersatorium Wiedzy o Mieście. Katedra Geografii Miast i Turyzmu Uniwersytetu Łódzkiego.

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www.ijermt.org

ISSN: 2348-4039

- 12. Perry, R. W., & Lindell, M. K. (2007). Emergency Planning: Integrating Contingency Planning and Crisis Management. Wiley.
- 13. Ratcliffe, J. H. (2016). Intelligence-Led Policing. Routledge.
- 14. Sampson, R. J., Raudenbush, S. W., & Earls, F. (1997). Neighborhoods and violent crime: A multilevel study of collective efficacy. Science, 277(5328), 918-924. https://doi.org/10.1126/science.277.5328.918
- 15. Trojanowicz, R., & Bucqueroux, B. (1990). Community Policing: A Contemporary Perspective. Anderson Publishing.