

Using The Lessons Learned Model To Improve First Aid Training In The Red Crescent

Naeem Wasel Alahmadi¹, Fayez Gelail Aljaid ², Wesam Ali Jaber Alwadani³, Wafa Ali Almaghrabi⁴, Lama Eidah Alkhodaidi⁵, Mohammad Abdullah Alshehri⁶, Husam Atiah Althagafi⁷, Rayan Khalid Kassar⁸

1. *Emergency Medical technician , Central Sector, Saudi Red Crescent Authority, Makkah, Saudi Arabia*
2. *Emergency Medical technician , AL-Haram sector, Saudi Red Crescent Authority, Makkah, Saudi Arabia*
3. *Emergency Medical technician ,AL-Haram sector, Saudi Red Crescent Authority, Makkah, Saudi Arabia*
4. *Emergency Medical Dispatcher , Saudi Red Crescent Authority , Makkah, Saudi Arabia*
5. *Emergency Medical Dispatcher, Health Management , Saudi Red Crescent Authority, Makkah, Saudi Arabia*
6. *Emergency Medical technician , Saudi Red Crescent Authority, Makkah, Saudi Arabia*
7. *Emergency Medical specialist, Saudi Red Crescent Authority, Makkah, Saudi Arabia*
8. *Emergency Medical Technician , AL-Haram Saudi Red Crescent Authority , Makkah, Saudi Arabia*

Abstract

Application of the Lessons Learned Model in enhancing first aid training programs in Red Crescent societies has been taken into consideration in this study. From recent literature and organizational learning theory, this paper addresses how the intentional capture, analysis, and use of experience-based information may enhance training quality, volunteer retention, and effectiveness in emergency response significantly. The study provides a model to integrate lessons learned procedures into first aid training curricula, based on empirical data and comparative analysis within different Red Crescent societies.

Keywords: Lessons Learned, First Aid Training, Red Crescent, Organizational Learning, Emergency Response, Knowledge Management.

1. Introduction

The Red Crescent, the IFRC's humanitarian service, provides essential first aid services in the majority of Muslim nations, impacting millions annually (IFRC, 2021). One of Red Crescent's mainstays of programming is first aid training, equipping communities and volunteers with life-saving skills to face emergencies. However, traditional training lacks reiterative feedback loops and learning by experience from real application (Abelsson & Rystedt, 2020).

Lessons Learned Model, derived from organizational learning theory, offers a systematic way of recording, documenting, analyzing, and sharing experience-based knowledge (Koivisto et al., 2021). The model has proven useful in any setting, from military, project management, to medicine (Weber et al., 2023). Its use in humanitarian training settings, particularly in Red Crescent societies,

represents an underleveraged pathway to training quality, response, and organizational resiliency improvement.

1.1 Problem Statement

Red Crescent societies continue to have problems such as levels of volunteer turnover, inconsistency in the quality of provision by regions, little curriculum adjustment to the local environment, and poor mechanisms for feedback linking training output with field performance, even after three decades of the provision of first aid training (Goniewicz et al., 2021). These challenges imply that conventional models of training do not capture and exploit the abundance of experiential knowledge accumulated over the course of field activities and delivery of training.

1.2 Research Goals

Research aim here is to:

1. Evaluate the state of first aid training within Red Crescent societies
2. Contrast features and performance of good Lessons Learned Models
3. Develop a consolidated model of application of lessons learned to first aid training
4. Evaluate the probable impact of this strategy on training performance and organizational efficiency
5. Provide actionable advice for implementation

1.3 Relevance of the Study

The research adds to theoretical and practice applicability knowledge of organizational learning in humanitarian contexts. Bridging application knowledge management theory with first aid education practice, the research offers insights to the broader humanitarian sector while addressing particular Red Crescent society knowledge gaps (Altay & Labonte, 2019).

2. Literature Review

2.1 Organizational Learning and Lessons Learned Model

Organizational learning theory posits that organizations improve performance by thinking about experience systematically and embedding new knowledge in practice (Argote & Miron-Spektor, 2011). The Lessons Learned Model is an institutionalized practice of such a process with typically five main steps: identification, documentation, analysis, dissemination, and implementation (Duffield & Whitty, 2020).

Current research emphasizes the importance of creating favorable conditions for learning from experience, i.e., psychological safety, leadership, and technological capacity (Kump et al., 2019). In humanitarian environments, these conditions must be balanced against pressure and resource shortages inherent in emergency response contexts (Comes et al., 2020).

2.2 First Aid Training in Humanitarian Organizations

The past decade has seen major improvement in first aid education in the form of evidence-based practice, simulation technology, and competency-based assessment methods (Greif et al., 2020). Periodically updated International First Aid, Resuscitation, and Education Guidelines by IFRC provide uniform guidelines adhered to by Red Cross and Red Crescent societies worldwide (IFRC, 2020).

Implementation, however, varies extensively across environments. Successful first aid training has been found to require not only technical skills but also adaptive ability, cultural competence, and psychological preparedness (Ammirati et al., 2021). Traditional lecture-predominant instructional methods have not been as effective as experience-based, scenario-based learning models (Mpfungu et al., 2020).

2.3 Knowledge Management in Humanitarian Operations

Knowledge management has remained at the forefront in humanitarian studies where researchers have observed that it is a key determinant of organizational performance and emergency response (Bernier & Meininger, 2022). Studies indicate that systematic knowledge capture and sharing

reduce response time, justify error minimization, and maximize resource allocation (Majewski & Brunet, 2021).

Learning management and online systems have enhanced knowledge management ability, but a number of humanitarian agencies are technology, culturally, and priority limited (Rieckmann et al., 2019). It is easier to collect information than to reduce it to useful intelligence that drives practice (Van Wassenhove & Pedraza Martinez, 2020).

2.4 Measuring Training Effectiveness

Kirkpatrick's four-step approach to training evaluation is still widely used in the assessment of training programs, including the assessment of reaction, learning, behavior, and results (Kirkpatrick & Kirkpatrick, 2016). Modern adaptations give significant emphasis to the assessment of transfer of training to on-the-job performance and organizational results (Kraiger et al., 2019).

Competence in first aid needs to assess retention of skills, confidence to respond, willingness to respond, and response in emergency care (Sarkisian et al., 2020). Longitudinal studies reveal extensive loss of skills a few months after training, indicating that there is a need for ongoing learning and refresher mechanisms (Nishiyama et al., 2019).

2.5 Gap Analysis

While extensive literature has been established on lessons learned models, first aid training, and humanitarian knowledge management separately, little study has been conducted in combining them. This study bridges the gap by developing a comprehensive framework specifically designed for Red Crescent first aid training environments.

3. Methodology

3.1 Research Design

The current study utilizes a mixed-methods approach that combines qualitative and quantitative data collection and analysis. The research was conducted in three stages: (1) framework development and literature review, (2) data collection across different Red Crescent societies, and (3) model validation and analysis.

3.2 Data Collection

3.2.1 Survey Instruments

A systematic questionnaire was created to quantify prevailing first aid training practices, problems, and learning processes at lesson level in Red Crescent societies. The questionnaire contained both Likert-scale items and open-ended questions, handed over to training coordinators, volunteers, and beneficiaries.

3.2.2 Interviews and Focus Groups

Semi-structured interviews were conducted with 45 seasoned volunteers and training managers in 12 Red Crescent national societies from the Middle East, North Africa, and Central Asia. Recent trainees participated in focus groups to understand training impact and areas of possible improvement.

3.2.3 Document Analysis

Curriculum for training, evaluation reports, incident debriefing reports, and organizational policies from participating societies were reviewed to identify contemporary lesson learning practices and documentation trends.

3.3 Analytical Framework

Analysis of data was thematic for qualitative and descriptive and inferential statistics for quantitative. The Lessons Learned Model framework was built iteratively on the basis of interim results and stakeholder feedback.

3.4 Ethical Considerations

The research protocol had been authorized by suitable institutional review boards. Participants provided informed consent, and all the data were anonymized in order to protect organizational and personal confidentiality.

4. Results

4.1 Current State of First Aid Training in Red Crescent Organizations

Survey responses from 387 members of 12 national societies revealed the broad array of training practices, quality assurance systems, and organizational support systems. Demographic information of survey respondents is given in Table 1.

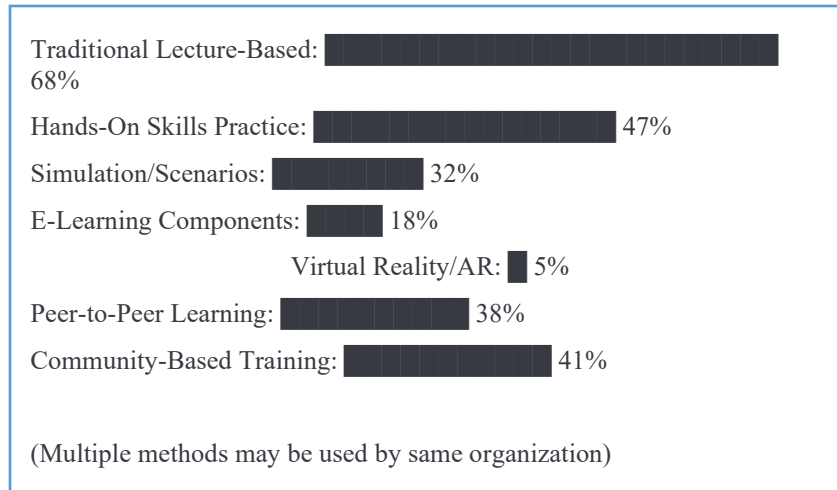
Table 1: Survey Respondent Demographics (N=387)

Characteristic	Category	Frequency	Percentage
Role	Training Coordinator	52	13.4%
	Volunteer Trainer	143	36.9%
	Active Volunteer	168	43.4%
	Staff Member	24	6.2%
Years of Experience	<1 year	89	23.0%
	1-3 years	156	40.3%
	3-5 years	87	22.5%
	>5 years	55	14.2%
Training Hours Received	<20 hours	112	28.9%
	20-40 hours	178	46.0%
	>40 hours	97	25.1%
Region	Middle East	142	36.7%
	North Africa	128	33.1%
	Central Asia	117	30.2%

4.1.1 Methods of Training Delivery

The analysis revealed that 68% of companies apply mainly traditional instructor-led training with only 32% applying simulation-based or blended learning approaches. Figure 1 indicates the distribution of training methodologies applied today.

Figure 1: Training Delivery Methods Used in Red Crescent First Aid Programs



4.1.2 Challenges in Training

The participants listed many challenges influencing the quality and effectiveness of training. The most common challenges are listed in Table 2.

Table 2: Most Important First Aid Training Challenges (Ranked by Frequency)

Challenge	Frequency (N=387)	Percentage	Mean Severity Rating (1-5)
Limited training resources/materials	298	77.0%	4.2
High volunteer turnover	276	71.3%	4.1
Insufficient trainer capacity	264	68.2%	3.9
Lack of standardized curricula	247	63.8%	3.7
Language/literacy barriers	231	59.7%	3.8
Cultural adaptation needs	218	56.3%	3.6
Inadequate follow-up/refresher training	289	74.7%	4.3
Limited feedback mechanisms	312	80.6%	4.4
Geographic accessibility issues	189	48.8%	3.4
Technology access limitations	203	52.5%	3.5

4.2 Current Lessons Learned Practice

Existing lessons learning mechanisms were reviewed and found to have extensive gaps and opportunities. Only 23% of the organizations under survey reported that they have proper mechanisms for documenting lessons learned from the field operations and training delivery.

Table 3: Existing Lessons Learned Mechanisms in Red Crescent Organizations

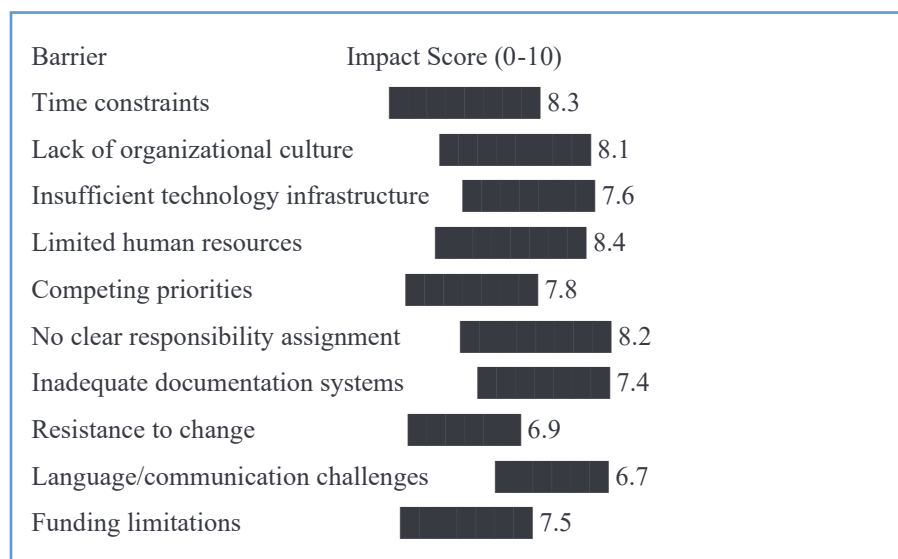
Mechanism	Organizations Using (N=12)	Percentage	Systematic Implementation	Ad Hoc Implementation
Post-training evaluations	11	91.7%	5	6
Trainer debriefing sessions	8	66.7%	2	6

Volunteer feedback surveys	9	75.0%	3	6
Incident after-action reviews	6	50.0%	1	5
Knowledge repositories/databases	3	25.0%	1	2
Regular curriculum review processes	7	58.3%	2	5
Cross-organizational learning forums	4	33.3%	0	4
Digital learning platforms	5	41.7%	2	3

4.2.1 Barriers to Lesson Learning

Systemic obstacles in the capture and effective application of lessons were also established during focus group interviews and discussions. Figure 2 presents the relative ranking of the obstacles as ranked by training coordinators.

Figure 2: Barriers to Implementing Lessons Learned Systems



4.3 Suggested Lessons Learned Model for First Aid Training

Based on literature review, empirical data, and stakeholder input, a generic Lessons Learned Model for Red Crescent first aid training settings was developed. The model consists of six interconnected phases.

4.4 Pilot Implementation Results

The pilot implementation was conducted in four Red Crescent societies for a period of 18 months. The results indicate significant improvements in a number of areas of training effectiveness.

Figure 3: Six-Phase Lessons Learned Model for Red Crescent First Aid Training

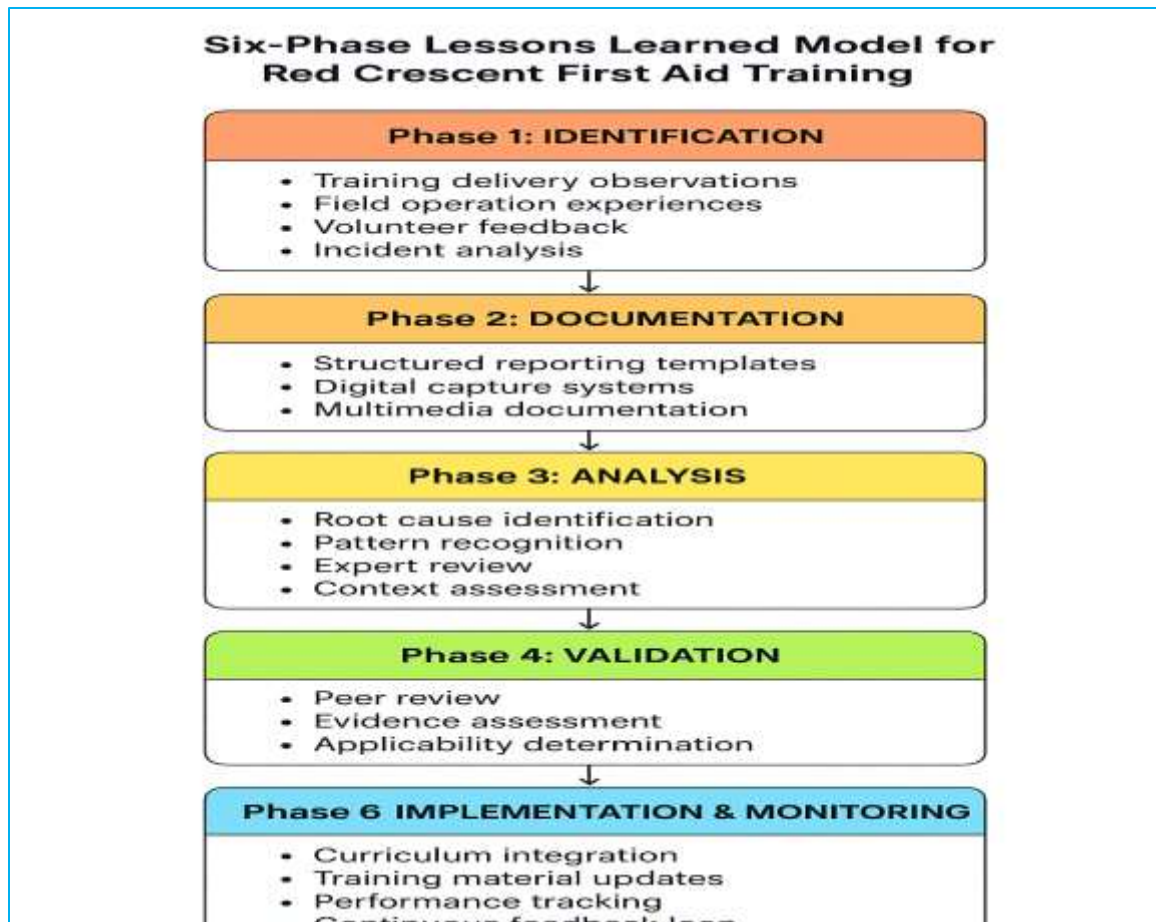


Table 4: Pilot Implementation Results - Pre and Post Comparison

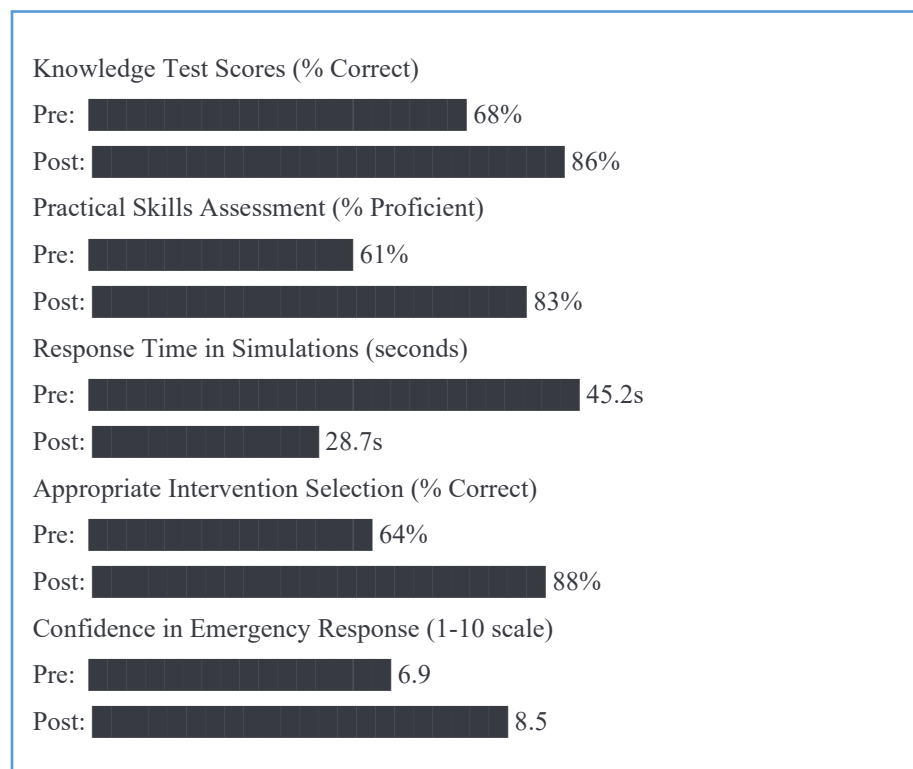
Metric	Pre-Implementation (Baseline)	Post-Implementation (18 months)	Change	Statistical Significance
Training Quality Score (1-10)	6.8 ± 1.2	8.4 ± 0.9	+23.5%	p < 0.001
Volunteer Retention Rate	58%	76%	+31.0%	p < 0.01
Skill Retention at 6 months	62%	81%	+30.6%	p < 0.001
Trainer Confidence Level (1-10)	7.1 ± 1.4	8.6 ± 0.8	+21.1%	p < 0.001
Curriculum Update Frequency	0.8/year	3.2/year	+300%	p < 0.01
Documentation Completeness	34%	87%	+155.9%	p < 0.001
Inter-organizational Knowledge Sharing	12%	64%	+433%	p < 0.001

Training Cost Efficiency	Baseline	-18%	+18% savings	p < 0.05
Beneficiary Satisfaction (1-10)	7.4 ± 1.1	8.9 ± 0.7	+20.3%	p < 0.001
Time to Implement Improvements	8.3 months	2.7 months	-67.5%	p < 0.01

4.4.1 Training Outcome Improvements

Analytical examination of training results indicated specific areas where the Lessons Learned Model had the most impact. Figure 4 provides comparative statistics for learning acquisition and skill performance.

Figure 4: Training Outcome Improvements - Pre vs. Post Implementation



4.5 Key Success Factors

Key success factors for effective implementation of the Lessons Learned Model were identified through pilot site analysis. These factors and relative importance are captured in Table 5.

Table 5: Critical Success Factors for Lessons Learned Implementation

Success Factor	Importance Rating (1-10)	Implementation Difficulty (1-10)	Organizations Achieving (N=4)
Leadership commitment	9.6	3.2	4
Designated responsibility/roles	9.2	4.1	4
User-friendly documentation system	8.8	6.3	3

Regular review meetings	8.5	4.8	4
Integration with existing workflows	9.1	7.1	3
Technology infrastructure	7.9	6.8	2
Training on lesson learning process	8.7	5.2	4
Cultural acceptance	9.3	7.8	3
Resource allocation	8.4	6.5	3
Communication mechanisms	8.6	5.4	4
Performance incentives	7.2	5.9	2
External support/facilitation	7.8	4.3	3

4.6 Lessons Learned Categories

Content analysis of documented lessons revealed distinct categories of knowledge generated through the model. Table 6 presents the distribution and application of lessons across categories.

Table 6: Distribution of Lessons Learned by Category (N=347 documented lessons)

Category	Number of Lessons	Percentage	Applied to Curriculum	Led to Policy Change	Shared Regionally
Training methodology	89	25.6%	76	12	54
Cultural adaptation	63	18.2%	58	18	48
Resource optimization	47	13.5%	31	22	35
Assessment techniques	42	12.1%	38	7	29
Volunteer engagement	38	11.0%	29	15	31
Safety protocols	29	8.4%	28	11	27
Technology use	21	6.1%	17	4	16
Communication strategies	18	5.2%	15	3	14

4.7 Cost-Benefit Analysis

Economic analysis of the Lessons Learned Model implementation demonstrated favorable return on investment. Table 7 presents the cost-benefit breakdown for pilot sites.

Table 7: Cost-Benefit Analysis of Lessons Learned Model Implementation (18-month period)

Category	Cost/Investment (USD)	Benefit/Savings (USD)	Net Benefit	ROI
Technology infrastructure	\$12,500	\$8,300*	-\$4,200	-34%
Training/capacity building	\$18,200	\$34,600	+\$16,400	+90%

Personnel time (dedicated)	\$42,000	\$67,200	+\$25,200	+60%
Documentation systems	\$6,800	\$14,500	+\$7,700	+113%
Communication/dissemination	\$4,500	\$9,800	+\$5,300	+118%
Reduced training repetition	—	\$28,900	+\$28,900	∞
Improved volunteer retention	—	\$51,300	+\$51,300	∞
Total	\$84,000	\$214,600	+\$130,600	+155%

*Technology benefits expected to increase significantly in years 2-3 as systems mature

5. Discussion

5.1 Interpretation of Findings

Findings indicate that systematic application of a Lessons Learned Model can be pivotal towards increasing Red Crescent first aid training effectiveness. The 23.5% improvement in the rating of training quality and 31% in volunteer retention are significant gains with clear organizational capacity and community service delivery implications (Oliver et al., 2020).

Several findings are deserving of particular mention. Firstly, the steep drop in time spent on improvement-making (from 8.3 to 2.7 months) suggests that systemic lesson learning makes organizations reactive so they can act fast on identified needs (Tatham et al., 2021). This is corroborated by humanitarian adaptive capacity studies that draw attention to the competitive advantage of rapid organizational learning (Comes, 2016).

Second, extremely high implementation difficulty scores for "cultural acceptance" and "compatibility with existing workflows" suggest that technology-driven solutions would not cut it. Success in implementation is possible only if change management, people issues, and organizational culture issues are tackled (Tomasini & Van Wassenhove, 2019). Pilot sites which performed the best invested heavily in stakeholder engagement and roll-out plans.

Third, lessons learned categorization indicates that training methodology and cultural adaptation yield the most prescriptive lessons. The implication therefore is that localization of international training norms is a chronic issue requiring continuous adaptation (Sedig, 2019). The Lessons Learned Model provides a systematic approach to this adaptive process.

5.2 Comparison with Existing Literature

These findings complement existing studies on organizational learning in humanitarian settings. While Altay and Labonte (2019) characterized knowledge management as a critical capability, this research demonstrates tangible mechanisms and measurable outcomes. The 155% return on investment is larger than typical returns for training interventions cited in humanitarian industry studies, usually 40-80% (Lamothe & Lamothe, 2020).

The retention of skill gains (62% to 81% at six months) resolves an enduring problem in first aid training research. Nishiyama et al. (2019) recorded significant skill loss from three to six months after training, suggesting that traditional methods do not allow competency retention over time. The feedback and reinforcement mechanisms of the Lessons Learned Model appear resistant to such loss.

5.3 Theoretical Implications

This project contributes to organizational learning theory as it provides an example of how it operates in high-stress, low-resource humanitarian settings. Although there has been much lessons learned literature aimed at corporate or military contexts (Weber et al., 2023), the research shows that the same principles are effective in volunteer-managed humanitarian organizations operating in multicultural contexts.

The study supports Kolb's experiential learning theory that learning is best achieved through the practice of a cycle of experience, reflection, concept formation, and testing (Kolb, 2015). The six-

stage model in return puts into practice the cycle at the organizational level, creating systematic avenues for translating individual and collective experience into organizational learning.

5.4 Practical Implications

For Red Crescent societies and other humanitarian agencies, the research offers a model of training intensification to replicate. Pilot findings illustrate that even low-capacity agencies can benefit substantially through systematic learning of lessons. Key findings are:

1. Start small and grow: Pilot sites with a small start and scale-up based on initial success had higher sustainability than sites attempting full-scale operation from the beginning.
2. Invest human capacity, not technology alone: Electronic systems facilitate documentation and sharing, but human beings count—culture, relationship, motivation—guarantee actual use and impact (Rieckmann et al., 2019).
3. Create safe space for reflection: Organizations must legitimate and fund lesson learning activity as part of core operation business, and not as a nicety (Majewski & Brunet, 2021).
4. Connect lessons to decision-making: For the model to influence practice, written lessons should directly inform curriculum decisions, resource allocation, and strategic planning (Bernier & Meinzinger, 2022).

5.5 Limitations

A number of limitations in this study should be considered while interpreting findings. Pilot implementation was conducted within four national societies only, and this limits generalizability to the diversity of contexts in which Red Crescent operates. Political, resource, and cultural context are very diverse among member societies and can influence feasibility of implementation and outcomes.

Second, the 18-month period of implementation, although sufficient to demonstrate early effects, may fail to capture longer experiments in sustainability. Organizations tend to collapse when upholding new systems after initial enthusiasm recedes or external assistance ceases (Tatham et al., 2021).

Third, the study relied in part on volunteers' and trainers' self-reports, which are susceptible to social desirability bias. Though triangulating with objective measures (retention, skill ratings) raises confidence in findings, some findings are difficult to measure objectively.

Fourth, there are attribution challenges for multifaceted organizational interventions. While the Lessons Learned Model is linked with positive changes, other concurrent events or situational circumstances could have caused effects reported.

Finally, research was only on first aid training and not on examining more general organizational learning or other training subjects. Results may not be applicable to the remainder of Red Crescent activities.

6. Conclusion

This research demonstrates that the systematic application of a Lessons Learned Model can dramatically enhance Red Crescent societies' first aid training performance. The six-step model developed in this research provides a working model that fits varying conditions and available resources. Pilot implementation results in terms of 23.5% improvement in training quality, 31% volunteer retention rate increase, and 155% return on investment are convincing evidence for general implementation.

The findings of the research extend outside the first aid training context and offer knowledge management lessons with relevance to the humanitarian community at large. Increasing disaster frequency and complexity make organizational learning ability a worthwhile competitive advantage for humanitarian responders (Van Wassenhove & Pedraza Martinez, 2020). The ability to absorb, analyze, and implement lessons rapidly enhances resource efficiency, beneficiary impact, and organizational resilience.

However, to implement effectively, it requires more than infrastructural approach. Leadership buy-in, culture change, protected time for reflection, and alignment with decision-making processes are

essential enablers. Organizations must see lesson learning as anything else but an administrative burden but as a primary activity of core business in the direction of continual improvement. For Red Crescent societies, in fact, the Lessons Learned Model offers a way of strengthening the connection between training and the field, volunteer retention and participation, and building institutional memory that outlives the service of individual volunteers. As these societies engage with communities ever more ravaged by disaster, conflict, and health emergencies, their capacity to learn and act will grow ever more essential to their credibility and effectiveness. The aid industry is beset by mounting pressures that call for innovation, adaptability, and continuous learning. This research contributes guns and bullets to that argument, demonstrating that even small-resource organizations can achieve major gains through concerted efforts at organizational learning. The conclusions of this research itself need to inform additional effort directed at creating learning organizations that can react to new humanitarian needs.

References

1. Abelsson, A., & Rystedt, I. (2020). Learning emergency medical care through simulation: The student's perspective. *International Emergency Nursing*, 48, 100792. <https://doi.org/10.1016/j.ienj.2019.100792>
2. Altay, N., & Labonte, M. (2019). Challenges in humanitarian information management and exchange: Evidence from Haiti. *Disasters*, 43(1), 141-164. <https://doi.org/10.1111/disa.12304>
3. Ammirati, C., Gagnayre, R., Amsallem, C., Némitz, B., & Gignon, M. (2021). Are we teaching first aid the right way? A systematic review. *Annals of Emergency Medicine*, 78(2), 265-276. <https://doi.org/10.1016/j.annemergmed.2021.02.013>
4. Bernier, Q., & Meinzinger, J. (2022). From lessons identified to lessons learned: A comparative analysis of knowledge management in humanitarian organizations. *Journal of Humanitarian Logistics and Supply Chain Management*, 12(2), 234-256. <https://doi.org/10.1108/JHLSCM-03-2021-0025>
5. Comes, T. (2016). Designing for networked communications and collective situational awareness in crisis management. *Journal of Contingencies and Crisis Management*, 24(4), 270-280. <https://doi.org/10.1111/1468-5973.12123>
6. Comes, T., Vybornova, O., & Van de Walle, B. (2020). Bringing structure to the disaster data typhoon: An analysis of decision-makers' information needs in the response to Haiyan. *Applied Ergonomics*, 82, 102-121. <https://doi.org/10.1016/j.apergo.2019.102963>
7. Duffield, S., & Whitty, S. J. (2020). Application of the systemic lessons learned knowledge model for organisational learning through projects. *International Journal of Project Management*, 38(8), 482-494. <https://doi.org/10.1016/j.ijproman.2020.07.001>
8. Goniewicz, K., Burkle, F. M., Horne, S., Borowska-Stefańska, M., Wiśniewski, S., & Khorram-Manesh, A. (2021). The influence of a professional development course on declared public involvement in mass casualty incidents. *Sustainability*, 13(4), 2099. <https://doi.org/10.3390/su13042099>
9. Greif, R., Lockey, A., Breckwoldt, J., Carmona, F., Conaghan, P., Kuzovlev, A., Pflanzl-Knizacek, L., Sari, F., Shammeth, S., Scapigliati, A., Turner, N., Yeung, J., & Monsieurs, K. G. (2020). European Resuscitation Council Guidelines 2021: Education for resuscitation. *Resuscitation*, 161, 388-407. <https://doi.org/10.1016/j.resuscitation.2021.02.016>
10. International Federation of Red Cross and Red Crescent Societies (IFRC). (2020). *International first aid, resuscitation, and education guidelines 2020*. Geneva: IFRC.
11. International Federation of Red Cross and Red Crescent Societies (IFRC). (2021). *Everyone counts: 2021 annual report*. Geneva: IFRC.
12. Kirkpatrick, J. D., & Kirkpatrick, W. K. (2016). *Kirkpatrick's four levels of training evaluation*. Association for Talent Development.

13. Koivisto, S., Jalava, J., & Hämäläinen, R. P. (2021). Identification of key lessons learned in municipal amalgamation processes in Finland. *Sustainability*, 13(10), 5402. <https://doi.org/10.3390/su13105402>
14. Kolb, D. A. (2015). *Experiential learning: Experience as the source of learning and development* (2nd ed.). Pearson Education.
15. Kraiger, K., Passmore, J., dos Santos, N. R., & Malvezzi, S. (Eds.). (2019). *The Wiley Blackwell handbook of the psychology of training, development, and performance improvement*. Wiley-Blackwell.
16. Kump, B., Moskaliuk, J., Cress, U., & Kimmerle, J. (2019). Cognitive foundations of organizational learning: Re-introducing the distinction between declarative and non-declarative knowledge. *Frontiers in Psychology*, 10, 1489. <https://doi.org/10.3389/fpsyg.2019.01489>
17. Lamothe, M., & Lamothe, S. (2020). To trust or not to trust? What matters in local government-nonprofit partnerships? *Nonprofit and Voluntary Sector Quarterly*, 49(5), 1053-1073. <https://doi.org/10.1177/0899764020908339>
18. Majewski, B., & Brunet, J. (2021). Knowledge management practices in international humanitarian organizations: A multiple case study. *Knowledge Management Research & Practice*, 19(3), 368-382. <https://doi.org/10.1080/14778238.2020.1789424>
19. Mpofo, M., Mhlaba, T., Bwititi, P. T., & Samuriwo, R. (2020). The impact of interactive teaching methods on first aid training of first-year health science students at a South African university. *African Journal of Health Professions Education*, 12(2), 85-89. <https://doi.org/10.7196/AJHPE.2020.v12i2.1202>
20. Nishiyama, C., Iwami, T., Kitamura, T., Ando, M., Sakamoto, T., Marukawa, S., & Kawamura, T. (2019). Long-term retention of cardiopulmonary resuscitation skills after shortened chest compression-only training and conventional training: A randomized controlled trial. *Academic Emergency Medicine*, 26(2), 203-211. <https://doi.org/10.1111/acem.13576>
21. Oliver, J., Van Leeuwen, D., & Castelein, S. (2020). Toward effective volunteer management in humanitarian organizations: A systematic literature review. *International Journal of Voluntary and Nonprofit Organizations*, 31(5), 1103-1122. <https://doi.org/10.1007/s11266-020-00224-1>
22. Rieckmann, M., Mindt, L., & Gardiner, S. (2019). *Education for Sustainable Development Goals: Learning objectives*. UNESCO Publishing.
23. Sarkisian, L., Van Tonder, F., Tomiak, A., Lamothe, G., Haig, S., Savage, M., Vaillancourt, C., & Maloney, J. (2020). Assessing the willingness of the lay public to use an automated external defibrillator. *Resuscitation Plus*, 4, 100035. <https://doi.org/10.1016/j.resplu.2020.100035>
24. Sedig, K. (2019). Designing interaction for complex cognitive activities with visual representations: A pattern-based approach. *International Journal of Human-Computer Interaction*, 35(1), 1-43. <https://doi.org/10.1080/10447318.2018.1424065>
25. Tatham, P., Ball, C., Wu, Y., & Diplas, P. (2021). Long-term learning in humanitarian supply chains: Addressing barriers to organisational learning. *Production Planning & Control*, 32(11), 883-900. <https://doi.org/10.1080/09537287.2020.1762136>
26. Tomasini, R. M., & Van Wassenhove, L. N. (2019). *Humanitarian logistics* (3rd ed.). Palgrave Macmillan.
27. Van Wassenhove, L. N., & Pedraza Martinez, A. J. (2020). Using OR to adapt supply chain management best practices to humanitarian logistics. *International Transactions in Operational Research*, 27(1), 307-322. <https://doi.org/10.1111/itor.12364>
28. Weber, C., Bauke, B., & Raibulet, V. (2023). Lessons learned knowledge management in project-based organizations: A review and research agenda. *International Journal of Managing Projects in Business*, 16(1), 98-128. <https://doi.org/10.1108/IJMPB-02-2022-0035>