2~7 October, 2016 • Sheraton Grande Walkerhill • Seoul, Korea • www.psam13.org

AN INNOVATIVE INTEGRATED MODEL FOR SAFETY PRACTITIONER PRACTICE IN ORGANIZATIONAL CONTEXT

NJF van Loggerenberg ¹, E Esterhuyzen ²

 $^1\,University\ of\ South\ Africa,\ 1\ Preller\ Street,\ Pretoria,\ 0001,\ South\ Africa,\ fvlogger@unisa.ac.za$

This paper sets out to expose listeners to the innovative practices of safety practitioners (SPs) in addressing changes in modern industry, with due consideration of the competencies that effective practice requires. Modern societies, especially third world focus, set particular issues in this regard.

Elements of focus will be the scope and functions of the SP in innovatively dealing with changing challenges. Attention will be given to the roles and role outputs of an SP to effectively accommodate the safety challenges that arise from modern society. Particular roles are relationship building, SHE-advice, the exposure control program and measures, control/measurement compliance/evaluation), network resourcing, and so forth. Competence-wise the SP needs to (i) master specific thinking skills, focused on different fields of knowledge; (ii) demonstrate various values and attitudes; (iii) functional, interpersonal, relationship building; and (iv) use performance excellence skills to address novice challenges and associated requirements on an innovative basis.

The model will be depicted graphically to demonstrate the interrelatedness and integrated nature of the elements of the model. Finally, specific guidelines will be provided to assist SPs to master the necessary applicable innovative competencies.

Keywords

Integrated model, role outputs, basic competencies, organizational context, cross functional teams, cross boundary liaison, excellence orientation, client orientation, interpersonal learning, inter-dependence.

I. INTRODUCTION

Challenges pertaining to achieving and maintaining the competitive edge within specific industries and lines of business require adjustment of organizational strategy, structure and functioning. Such organizational changes demand a different role and appropriate expertise from the occupational health, hygiene, safety and environmental protection professions. This explanation will focus on the role of the safety practitioner (SP).

In the past, the SP was primarily utilized in an assistive and "policing" role. This proved to be ineffective. It would be equally ineffective be to pose as an expert, leaving implementation of safety functions entirely to line management.

The emphasis on change and new challenges calls for an innovative and joined problem-solving role. This means that both the organization as employer and the safety practitioner, as a change agent, take an integrated responsibility, analyze problems and seek solutions jointly. This approach guarantees more effective solutions to problems, as well as developing a long-term relationship between SPs and line management.

II. FOCUS OF A SAFETY PRACTITIONER

A professional safety practitioner focuses on safety measures in the workplace in order to ensure optimum safety of employees and (non-employees) at all times (Goetsch, 2010:563). The SP should authoritively and independently advise organizational management and employees on health and safety matters (Hughes & Ferrett, 2010:50). It is important to state that issues in this explanation with regard to the SP also apply to the occupational health, hygiene, safety and environmental protection professionals. All SPs will not necessarily perform similar types of functions. Notice that specialist functions will be addressed in the individual performance contracts, based on the appropriate competencies that particular businesses/ organizations require.

² University of South Africa, 1 Preller Street, Pretoria, 0001, South Africa, estere@unisa.ac.za

2~7 October, 2016 • Sheraton Grande Walkerhill • Seoul, Korea • www.psam13.org

III. MISSION OF A SAFETY PRACTITIONER

The mission of the SP is to provide a comprehensive, specialized service to assist the Business Units (BUs) of organizations to reach primary business objectives, and to ensure a safe, healthy and environmental friendly workplace. The SP can achieve this target only via integrative functioning with the occupational health, hygiene, safety, as well as environmental protection professionals.

IV. SCOPE AND FUNCTIONS OF SAFETY PRACTITIONERS

Safety practitioners must possess the capability and expertise to anticipate and recognize health and safety risks, evaluate the importance and severity thereof and then recommend measures in controlling it.

The scope and functions relating to SPs adhere to the responsibilities specified in the appropriate health and safety legislation applicable to specific countries. Being familiar with the nature, structure and functioning characteristics of safety hazards and the origins of safety risk, is crucial in this regard (Smit & Esterhuyzen, 2014:47vv). A functional level of knowledge is required, focusing on hazards and risks associated with a specific endeavor. SPs need to interact with technical specialists to contribute to health and safety aspects requiring technical specification (McManus, 2013: Preface).

SPs need to become competent in the following major areas relating to the safety of people, property and the environment in the workplace:

Major areas of competency of the SP

- Anticipate, identify and evaluate hazardous conditions
 Develop hazard control designs, methods, procedures and practices.
- Implement, administer and advise others on hazard control programs.
- Analyze incidents with the purpose of identifying deficiencies in the management systems that contributed to the incident.
- and programs.
- Measure, audit and evaluate the effectiveness of hazard control programs.
- Furnish clear directives for preventing reoccurrences of investigated incidents and ensure that directives are implemented.

These functions are performed by practitioners to assist organization management, employees, as well as other non-employees in a collaborative problem-solving relationship through processes such as facilitation, guidance and coaching. Dealing with safety hazards and safety risk in the context of business operations forms the crux of the SP functions (Smit & Esterhuyzen, 2014:35-36).

V. ROLES OF THE SAFETY PRACTITIONER

The SP has to play an innovative safety role in an organization (Smit & Esterhuyzen, 2014:3). Such a role is performed on an integrated basis within systems of interlocking roles (Stranks, 2010:165). The SP's role and responsibilities need to be reinforced through innovative processes, procedures and standards resorting within the framework of staff functions. The SP provides support to the organization's management and employees and in contrast to this, the safety practitioner has no positional authority. The safety practitioner's authority is mainly derived from his/her expertise specifically in the field of health and safety (expert authority) and his/her ability to influence (personal authority). The SP can therefore influence (but not prescribe to) organization management to make decisions with regard to safety functions and cannot make decisions on his/her own. This authority can change when functional authority or safety authority is given and health and safety enjoys priority, in which instance the SP becomes part of the organization management system (Friend & Kohn, 2014:214).

Change is imminent and takes place on a daily basis. Safety practitioners should continuously be aware of changes and be prepared to propose and implement actions to accommodate changes regarding the health and safety of an organization (Esterhuyzen, 2015:4). As an internal consultant, the SP can take the initiative to process information with the objective to train and coach the employees of the organization. This implies that the SP can no longer perform the 'watchdog role', which, in the past, was perceived as an integral part of the job. However, the SP can be requested by the organization's management to assist in investigating and analyzing specific safety issues and by doing so, conduct an audit and provide recommendations. Yet, this can only be done within the realm of a healthy organizational relationship, where the organization management, the practitioner and the target (the particular unit or section) are all involved. They are collectively committed towards identifying problems and solving them.

13th International Conference on Probabilistic Safety Assessment and Management (PSAM 13)

2~7 October, 2016 • Sheraton Grande Walkerhill • Seoul, Korea • www.psam13.org

The new dispensation demands that the SP performs roles differently from the traditional safety officer roles. The focus is now on the innovative integrated and interlocking roles with other professions that guide over all other well-being facets of employees and non-employees involved in business operations. These roles are the following:

Roles of the SP

- Facilitator
- Relationship builder
- Change agent
- Coach/Trainer

- Advisor/consultant
- Communicator
- Collaborator
- Continuous improvement agent

VI. ROLE OUTPUTS

TABEL I. Role outputs of the SP

SP's Role	Outputs	
Relationship building	Build, establish and maintain an effective, trustworthy functional organizational relationship	
	with all stakeholders.	
Safety guidance/advice	Deliver qualitative safety advice to organization management in accordance with safety	
Safety guidance/advice	policy, procedures and applicable national and international legislation.	
E 314 41	Assist with or facilitate in the development and implementation of such programs and	
Facilitating capacity	control measures.	
Solving problems	Use an innovative approach with the objective to classify SHE-issues, solving problems,	
	resolve conflict and negotiate outcomes.	
Sound solutions and	Demonstrate a sound business focus in offering solutions, recognizing bottom line business	
safety consultation	needs.	
Facilitation of safety-	Facilitate the SHE-learning and training process.	
learning		
Control/measurement	Measure, analyze, evaluate and assess SHE-activities, incidents, non-conformances and	
compliance/evaluation	performance.	
Communication	Effectively manage own development, professional registration and performance.	
Communication		
Network of resources	Establish a network of resources regarding current, as well as emerging technologies,	
Network of resources	theories and best practices in safety and associated professional and scientific fields.	

VII. BASIC COMPETENCIES (SKILLS)

TABEL II. Basic competencies (skills) of the SP

THINKING SKILLS		
Information search	Searches for and integrates relevant information and perspectives from various sources, to create an understanding of the work and systems within the business context.	
Analytical and systematic thinking	Comprehends and logically thinks through a number of related or integrated activities and their consequences. Breaking problem down into manageable elements and identifies links between related ideas/issues.	
Conceptual thinking	Links and integrates information to form diagnostic concepts in order to explain situations and problems. Realizes the immediate and longer-term impact of various elements, plans, events and actions on business, team and own performance.	
Organizational awareness	Shows insight into the interaction between drivers/disciplines of the business (e.g. finance, quality, client service, speed, growth, safety, health and environment). Understands the content and importance of relevant company policies and procedures and its contribution to the whole.	
Problem solving & decision making	Analyze situations or alternative strategies, actions and outcomes against rational, logical assumptions. Decisions lead to a positive outcome for individual and unit/ organization.	

13th International Conference on Probabilistic Safety Assessment and Management (PSAM 13) $2\sim7$ October, 2016 • Sheraton Grande Walkerhill • Seoul, Korea • www.psam13.org

RELATIONSHIP BUILDING		
Cross boundary liaison	Builds relationships and influence stakeholders across functional and unit boundaries to achieve common objectives which include skills to establish effective personal contacts and to act as the channel for contact with other parties or units.	
Client orientation	Continuously ensures high standards of quality and service delivery to meet clients' expectations.	
PERFORMANCE EXCELLENCE		
Excellence orientation	Sets and achieves high standards and strives towards ongoing improvement of practices and SHE-systems as the outcome of uncompromising determination and self-discipline. Open to new or innovative ideas.	
Result driven	Focuses on the achievement of goals, targets and financial objectives. Removes barriers and seeks performance feedback in order to improve success. Demonstrates the need and willingness to persevere in pursuit of achievement.	
Planning, organizing & control	Applies planning and control skills and functions to ensure the successful execution of own work and the organization's strategy and improvement plans. Applies action planning and time management skills effectively.	

VIII. INTERPERSONAL SKILLS

TABEL III. Interpersonal skills and focus areas of the SP

Interpersonal skills	Focus areas
Influencing	Capacity to express one's own viewpoint firmly, honestly and clearly and is effective in influencing the viewpoints of others. Creates a positive climate and inspires others to follow a specific course of action.
Interpersonal learning/listening	The ability to clearly and objectively understand and consider the viewpoints of others in order to effectively utilize an appropriate behavioral style within a given social context.
Communication/pr esentation competency	Purposeful and clear communication to ensure understanding and aligned implementation of plans.

IX. **FUNCTIONAL ROLES**

Performing staff functional roles, the SP addresses particular issues that provide a basis for continual efficiency in service delivery.

TABEL IV. Functional role and focus areas of the SP

TABLE IV. Functional fold and focus areas of the Si		
Functional roles	Focus areas	
Sharing of safety expertise	Able and willing to obtain relevant SHE-information and empower others through focused sharing of subject matter knowledge, experience and expertise. Assess compliance with SHE-requirements and workplace standards and facilitate processes to establish effective SHE-systems and practices.	
Integrating and interlocking safety with health and environment management	Assess compliance with SHE-requirements and workplace standards and facilitates processes to establish effective SHE-systems and -practices. This emphasis is applied in the utilization of cross-functional teams (CFTs), which comprise all professions that can contribute to the best solutions of challenges to the overall well-being of all people involved in a business (Thompson, Strickland & Gamble, 2005:C]560).	
Continual learning, professional and personal development	Actively pursues opportunities for self-learning and learning of others to improve performance and facilitate career progression. Takes responsibility for own development and career development.	

13th International Conference on Probabilistic Safety Assessment and Management (PSAM 13)

2~7 October, 2016 • Sheraton Grande Walkerhill • Seoul, Korea • www.psam13.org

X. REQUIRED KNOWLEDGE

The SP is expected to master and possess a wide range of expertise. The level of expertise would differ in accordance with the nature of the activities of each business unit within an organization. The following knowledge fields apply:

TABEL V. Expected knowledge fields of the SP

Knowled	lge fields
Applicable national and international legislation and regulations	Safety and safety management theories, processes and practices (including new developments)
Organizational policies and practices	The core business and operational processes of the organization
Organizational structure, culture and its influence/effect on safety	Human behavior theories
Group dynamics/team functioning	• Measurement and evaluation of safety hazard interaction, energy exchange and safety risk origins, as well as safety hazard analysis and assessment processes and tools (Smit & Esterhuyzen 2014:65)
Control measures and control standards	Incident/non-conformance analysis methods and management
Hazardous goods management	Physical ability and job requirements of employees and competence management
Presentation/training processes and relevant learning theories	Business understanding
Promotion of safe, healthy and environmental friendly environment and workplace	Project Management – principles and practices
Relevant complimentary sciences	Quality systems
Education, literacy and development of OHS- practitioner	Basic media and computer technology
Communication – written and oral (English)	Professional registration procedures, bodies, networks and legal authorizations
Resources – libraries, conferences, intranet, internet etc.	Professional ethics
Knowledge of the above mentioned skills	

XI. ESSENTIAL VALUES / ATTITUDE

TABEL VI. Essential values / attitudes required of the SP

Applicable professional values			
Hazard awareness	Innovative		
Valuing human and environmental potential	Safety-conscious & inquisitive minded		
Walk the talk	Accuracy, meticulous, alertness		
Objectivity, consistency	Accommodating		
Assertiveness	Conscientious		
Analytical/logical inclination	Confidentiality		
Factual non-judgmental orientation	Performance or goal orientation		
Customer/stakeholder orientation	Considerate, empathic		
Ethical code of conduct	Business minded, sensitive		
Cultural awareness	Quality conscious		
Professional	Credible, assuring, legitimate and approachable		
• Transparency, honesty, committed, trustworthy and integrity	Team spirit		
• Actively caring for safety and well-being of self, others and the environment	Being risk wise		

13th International Conference on Probabilistic Safety Assessment and Management (PSAM 13)

2~7 October, 2016 • Sheraton Grande Walkerhill • Seoul, Korea • www.psam13.org

XII. GUIDELINES FOR THE COLLABORATIVE RELATIONSHIP

Specific guidelines apply to ensure success in the relationship with different types of CFTs for different purposes.

COMMITMENT

Both the organization and the practitioner should be fully committed in order to solve safety, health and environmental safety related problems. Commitment at this level is only possible within the confines of a long-term consulting relationship, based on mutual respect and trust.

• INTERDEPENDENCE

The roles as described in the foregoing paragraphs need to be clarified and accepted through the process of negotiation. This also applies to rules, practical implications and arrangements. The parties have to perceive each other as equals who interdependently have to address problems. The SP will not be able to perform the advisory role effectively within the constraints of a superior-subordinate relationship.

• COMMUNICATION

Communication between the organization and the practitioner should be open, honest and ongoing. Communication should also be recorded in the form of memoranda and reports. The relationship should obviously also make provision for regular informal effective communication opportunities (Glendon, Clarke, & McKenna, 2006:287). Regular official communication should take place as follows:

Internally

Within the functional groups that comprise all internal professions and management functionaries in an organization.

Externally

Between the safety function and all resources not directly in the service of a business, as well as relevant stakeholders.

• FOCUS

Challenges in connection with safety must always be viewed in the total context of SHE-problems in an organization. SP challenges should not be viewed in isolation. Obviously, it is part of the business process and therefore constitutes a business problem. Problems should be addressed within this context. The implication is that the SP should have a clear grasp of the organization's divisional business strategy and performance objectives. The organizational management, on the other hand, needs to fully grasp the implications of the SP input, functional contributions and positional limitations on the business performance.

CONTROL

Effective control is only possible if safety objectives, results and standards are clear. Control is therefore applicable to both outcomes and processes. The implication is that clear objectives, results and standards should exist with regard to all the SHE-functions. SHE-performance standards should be determined and evaluated jointly. Corrective action could be a joint effort between the organization and the SP, yet the organization stays responsible for the final results. The organization should also be primarily responsible for the implementation of action steps.

The SP's role and responsibilities in the implementation of the organizational safety program should be negotiated between himself and the client. The SP may take responsibility for certain specific actions where his expertise is required. However, the overall responsibility and accountability for safety successes remain with the organization.

ACTION PLANNING

Action plans should be developed jointly. Action planning should involve programming and scheduling and should be recorded and communicated properly. Action planning refers to planning actions and systems with the intention to assist an organization to affect organizational change and to enhance its effectiveness (Cummings & Worley, 2005:142).

13th International Conference on Probabilistic Safety Assessment and Management (PSAM 13)

2~7 October, 2016 • Sheraton Grande Walkerhill • Seoul, Korea • www.psam13.org

• DATA

Within this collaborative relationship, the parties jointly decide what data would be required. They also jointly decide on the types of analyses that need to be made, including pre-measurements and post-measurements. It is essential to involve all stakeholders (including the target, that is all employees or the organization in the collecting and sharing of information.

• IMPLEMENTATION

The overall accountability for the success of a safety program remains with the organization, yet the SP is jointly responsible for the outcome. In the management of the plan the organization, the SP and the target (all employees) should be involved.

XIII. PRACTICAL IMPLEMENTATION CONSULTATION MODEL FOR THE DIFFERENT FIELDS

SPs will be expected to practice the new roles based on their newly acquired perspectives. Meeting the new requirements will have to be incorporated into their personal position performance objectives and evaluated within the framework of the **organization's** performance appraisal system.

XIV. CONCLUSION

The integrated model for safety practitioners provides a complete picture of the main roles, functions, skills, knowledge, and values necessary to affect an organization's SHE-program successfully. It also suggests clear guidelines for the recruitment, selection and development of the SP and other practitioners in the different specialist fields. The information from this integrated model should form the basis for the establishment of a development program during which current employees in the safety, occupational hygiene and health fields will be developed towards successful SPs. Consul Table 1 in Appendix A for a structured presentation of roles and competencies of an SP in context of the suggested integrated model of safety competencies and skills.

13th International Conference on Probabilistic Safety Assessment and Management (PSAM 13)

2~7 October, 2016 • Sheraton Grande Walkerhill • Seoul, Korea • www.psam13.org

REFERENCES

- 1. T.G. CUMMINGS and C.G. WORLEY, *Organization development and change*, 8th edition, Thomson South-Western, Mason, USA (2005).
- 2. M.A. FRIEND and J.P. KOHN, Fundamentals of Occupational Safety and Health, 6th edition, Bernan Pres, London, UK (2014).
- 3. A.I. GLENDON, S.G. CLARKE and E.F. McKENNA, *Human safety and risk management*, 2nd edition, Taylor & Francis Group, Boca Raton, USA (2006).
- 4. D.L. GOETSCH, The basics of occupational safety, Prentice Hall, New Jersey, USA (2010).
- 5. P. HUGHES and E. FERRETT, *Introduction to International Health and Safety at Work. The Handbook for the NEBOSH International General Certificate*, Routledge Taylor & Francis Group, New York, USA (2010).
- 6. R.C. McKINNON, *Changing the Workplace Safety Culture*. CRC Press Taylor & Francis Group, Boca Raton, USA (2010).
- 7. T.M. McMANUS, Management of Hazardous Energy. Deactivation, De-Energization, Isolation, and Lockout, CRC Press Taylor & Francis Group, Boca Raton, USA (2013).
- 8. S.J. SMIT and E. ESTERHUYZEN, *The basics of safety hazards and the origins of safety risk*, Business Print, Pretoria, RSA (2014).
- 9. S.J. SMIT and E. ESTERHUYZEN, The safety officer as intrapreneur in delivering safety management services within SHEQ context, NOSHCON Conference, NOSA, RSA (2013).
- 10. A.A. THOMSON, STRICKLAND A.J. and J.E. GAMBLE, Crafting and executing strategy: A quest for competitive advantage concepts and cases, McGraw-Hill/Irwin, Boston, USA (2005).
- 11. N.J.F. VAN LOGGERENBERG, Design for Safety, Juta, Cape Town, RSA (2015).

13th International Conference on Probabilistic Safety Assessment and Management (PSAM 13) 2~7 October, 2016 • Sheraton Grande Walkerhill • Seoul, Korea • www.psam13.org

APPENDIX A

TABEL VII. Integration of Role Outputs with Basic Competencies and Values (Attributes/Personality)

ROLE OUTPUTS	BASIC COMPETENCIES	ATTRIBUTES/ PERSONALITY
	Client orientation	Integrity / Trustworthiness
Relationship building	Cross boundary liaison	Credible
	,	Transparency
SHE-advice	SHE-management	Control Persuasive
	Safety knowledge sharing	Committed / Rule following / Consistency
	Excellence orientation	Legitimate
		Business minded
	Info Search	Caring for Safety environment
	Interpersonal learning	Performance/goal orientation
Control programs and	Analytical / systematic	Hazard awareness
measures	thinking	Safety conscious
	Result driven	
	Safety Management	
	Info Search	Quality conscious
	Analytical / Systematic	Accurate / Objectivity
	thinking	Alertness/Logical business minded
Problem solving	Conceptual thinking	• Innovation
	Problem solving and decision	Safety conscious
	• making	,
	Organizational awareness	Objectivity
C11-4	Conceptual skills	Alertness / Business minded
Sound solutions	Safety management	Innovation
	Safety knowledge sharing	Adaptability
	Safety management	Accommodating / Approachable
	Safety knowledge sharing	Team spirit
Safety learning facilitation	Excellence orientation	Confidentiality
	Interpersonal Learning	Cultural awareness
	Analytical / Systematic	Detail consciousness
Control measurement	thinking	Data rational
Compliance / Evaluation	Safety management	Accurate
•	Excellence orientation	Performance / goal orientation
	Communication / Presentation	Assertiveness
Communication	Influencing	Sociability
	Interpersonal learning	Cultural awareness
	Info Search	Inquisitive mind
	Cross boundary liaison	Professional
Network of resources	Learning & development	Open / adaptable
		Valuing potential / contributions of people