Nelson Mandela Metropolitan University

for tomorrow

FEEDBACK REPORT ON A STUDY 'PERFORMANCE OF HEALTH AND SAFETY (H&S) OFFICERS'

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DEDICATION

The report is dedicated to the improvement of construction H&S in South Africa.

ACKNOWLEDGEMENTS

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- Neil Enslin for facilitating the survey of the selected members of the Kwazulu Natal Master Builders (KZNMB);
- The respondents for responding, and
- Fidelis Emuze for capturing and analysing the data and tabling the statistics.

ORIGIN OF THE REPORT

Previous research findings and anecdotal evidence indicate that H&S Officers are lacking in terms of various competencies, are precluded from contributing to the management of H&S and sites, could be more effective, and require development.

SCOPE OF THE REPORT

This report has been compiled to provide feedback to both respondents and non-respondents to the survey, and does not include the findings of a survey of the related literature.

EXECUTIVE SUMMARY

Approximately 50% of H&S Officers are employed on a permanent and a contract basis, and approximately 50% are appointed on a part-time and 40% on a full-time basis. Approximately 50% of respondents stated that other functions fulfill the role of H&S Officer, and 80% that H&S Officers fulfill other functions.

H&S Officers can be deemed to have contributed to and impacted upon H&S between a moderate extent to a near major extent / near major extent. However, the findings indicate that the contribution of H&S Officers to H&S and construction could be improved, namely between a near major to major / major extent.

A range of factors constitute a barrier to H&S officers contributing to H&S. These include general exclusion from the management of sites, but specifically, inadequate knowledge of the construction process and activities, construction management, and construction H&S, and related experience. This is underscored by the low ratings of H&S Officers in terms of their understanding and appreciation of various aspects, composite knowledge areas and skills, and the extent to which interventions could contribute to an improvement in the contribution of H&S officers to H&S and construction.

Formal qualifications would empower H&S Officers to contribute optimally to H&S and construction. Minimum qualifications could include a ND: Building followed by a BTech: Construction Management (Health and Safety) as developed by the Cape Peninsula Technikon.

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1. OBJECTIVES OF THE STUDY

The objectives of the pilot study were to determine the: performance of H&S Officers; barriers to H&S Officers' contributions to construction and construction H&S, and Potential of interventions to contribute to an improvement in H&S Officers' contributions to and impact on construction and construction H&S.

2. RESEARCH METHODOLOGY AND SAMPLE STRATA

The study was descriptive in nature and the quantitative questionnaire consisted of seventeen questions, sixteen being closed end and one being open end, the latter allowing for the recording of general comments. Nine of the sixteen closed end questions were Likert scale type questions requiring response to a five or six point range and included fifty-eight sub-questions.

The national membership of the ACHASM and members of the KZNMB that achieved places in the 2010 regional H&S competition constituted the sample strata. 6 Members of ACHASM and 1 KZNMB's member responded.

3. RESEARCH FINDINGS

3.1 Analysis

The analysis of the data consisted of the calculation of descriptive statistics to depict the frequency distribution and central tendency of responses to fixed response questions to determine, inter alia, the extent to which H&S Officers have contributed to and impacted on H&S, the extent to which factors constitute a barrier to H&S Officers contributing to H&S and construction, rating of H&S Officers in terms of their understanding and appreciation of various aspects, and rating of H&S Officers in terms of composite knowledge and skills areas.

To rank fixed response items according to the central tendency of responses, mean scores (MSs) were calculated as follows.

Five point scale:

$$MS = \frac{1n_1 + 2n_2 + 3n_3 + 4n_4 + 5n_5}{n_o + n_1 + n_2 + n_3 + n_4 + n_5}$$

The variables are referenced in Table 1.

Table 1: Definition of five point Likert scale points and related variables.

Scale point			Variable
Unsure	Unsure	Unsure	n_o
Limited	Very poor	Minor extent	n_1
Near limited	Poor	Near minor extent	n_2
Average	Average	Some extent	n_3
Near extensive	Good	Near minor extent	n_4
Extensive	Excellent	Major extent	n_5

Six point scale:

$$MS = \frac{0n_1 + 1n_2 + 2n_3 + 3n_4 + 4n_5 + 5n_6}{n_o + n_1 + n_2 + n_3 + n_4 + n_5 + n_6}$$

The variables are referenced in Table 2.

Table 2: Definition of six point Likert scale points and related variables.

Scale point	Variable
Unsure	n_o
Have / Does / Will not	n_1
Minor extent	n_2
Near minor extent	n_3
Some extent	n_4
Near minor extent	n_5
Major extent	n_6

3.2 Findings

Table 3 presents the qualifications that H&S Officers possess. The percentages represent the approximate percentage of the total number of H&S Officers that have a particular qualification.

Table 3: H&S Officers' qualifications.

Response (%)						
Unsure	**Grade 12**	**N Dip.**	**BTech**	**BSc**	**BSc (Hon)**	**Other**
14.3	57.1	28.6	14.3	0.0	0.0	57.1

The respondents that identified 'other' recorded HIRA, IRCON, and SAMTRAC.

52% of H&S Officers are employed on a permanent and 50% on a contract basis.

50% of H&S Officers are deployed on projects on a 'part-time', and 41.3% on a 'full-time' basis.

57.1% of respondents indicated that other functions fulfill the role of H&S Officer, and 42.9% responded in the negative.

85.7% of respondents indicated that H&S Officers fulfill other functions, and 14.3% not.

Infrastructure projects predominated in terms of the type of projects respondents provided H&S consultancy services for in 2010 (Table 4).

Table 4: Type of construction respondents provided H&S consultancy services for in 2010.

Type	**Response (%)**
Commercial	20.0
Industrial	21.7
Infrastructure	61.4
Residential	23.8
Other	10.0

Table 5 indicates that H&S Officers report predominantly to site managers (85.7%), and then site agents (42.9%). Clearly there is a degree of dual reporting. The respondents that identified 'other' recorded H&S Manager.

Table 5: Functions to whom H&S Officers report.

Response (%)			
Site Manager	**Site Agent**	**General Foreman**	**Other**
85.7	42.9	0.0	14.3

Table 6 indicates the extent to which H&S Officers have contributed to and impacted on H&S on a scale of have not and between 1 (minor) to 5 (major), and a MS ranging between 0.00 and 5.00. Given that both MSs are > 2.50, H&S Officers can be deemed to have contributed to and impacted upon H&S. However, given that the MSs are > 3.33 ≤ 4.17, the contribution and impact can be deemed to be between a moderate extent to a near major extent / near major extent.

Table 6: Extent to which H&S Officers have contributed to and impacted on H&S.

	Response (%)							MS
	Unsure	**Have not**	**Minor ……..……..Major**					
			1	**2**	**3**	**4**	**5**	
Contributed	0.0	16.7	0.0	16.7	0.0	50.0	33.3	4.00
Impacted	0.0	0.0	0.0	20.0	0.0	60.0	20.0	3.80

Table 7 indicates the extent to which factors constitute a barrier to H&S officers contributing to H&S on a scale of does not and between 1 (minor) to 5 (major), and a MS ranging between 0.00 and 5.00. Given that all the MSs are > 2.50, all the factors generally can be deemed to constitute a barrier to H&S officers contributing to H&S. However, a review of the MSs in terms of ranges enables a more scientific review.

MSs > 4.17 ≤ 5.00 indicate the factors can be deemed to constitute a barrier to H&S Officers contributing to H&S to be between a near major extent to major extent / major extent. It is notable that the top four factors, which are included in this range, are related to the exclusion of H&S Officers from the management of the site, namely: exclusion from decision making; lack of authority; exclusion from management of site, and non-consultation by site management. It is notable that a further related factor, namely status (MS = 4.00), falls marginally outside this range.

MSs > 3.33 ≤ 4.17 indicate the factors can be deemed to constitute a barrier to H&S Officers contributing to H&S to be between a moderate extent to a near major extent / near major extent. The factors ranked fifth to ninth are included in this range: status level; inadequate knowledge of construction activities; inadequate construction process experience; inadequate knowledge of the construction process, and inadequate construction H&S experience. Knowledge of the construction process and integral activities is a pre-requisite for managing H&S, particularly within the context of planning i.e. being proactive as opposed to reactive. Inadequate construction process and construction H&S experience exacerbate the lack of knowledge. Furthermore, such inadequate knowledge and experience marginalise H&S officers from contributing to the management of the site and from decision making. It is notable that three factors that fall within the next MS range have MSs = 3.29, which fall marginally outside the range > 3.33 ≤ 4.17. These factors are inadequate construction management knowledge; inadequate construction management experience, and inadequate construction H&S knowledge, which also marginalise H&S officers from contributing to the management of the site and from decision making.

MSs > 2.50 ≤ 3.33 indicate the contribution and impact can be deemed to be between a near minor extent to a moderate extent / moderate extent. The factors ranked tenth to thirteenth are included in this range: inadequate construction management knowledge; inadequate construction management experience; inadequate construction H&S knowledge, and inadequate construction activities experience. Obviously, inadequate construction H&S knowledge, the MS (3.14) of which falls marginally outside the range > 3.33 ≤ 4.17= 3.14) has a major impact on the fulfillment of the function of H&S Officer.

Table 7: Extent to which factors constitute a barrier to H&S officers contributing to H&S.

Factors	**Response (%)**							**MS**	**Rank**
	Unsure	**Does not**	**Minor ……Major**						
			1	**2**	**3**	**4**	**5**		
Exclusion from decision making	0.0	0.0	0.0	0.0	0.0	42.9	57.1	4.57	1
Lack of authority	0.0	0.0	0.0	0.0	14.3	28.6	57.1	4.43	2
Exclusion from management of site	0.0	0.0	0.0	0.0	16.7	33.3	50.0	4.33	3
Non-consultation by site management	0.0	0.0	0.0	0.0	14.3	42.9	42.9	4.29	4
Status level	0.0	0.0	0.0	0.0	14.3	71.4	14.3	4.00	5
Inadequate knowledge of construction activities	0.0	0.0	0.0	14.3	42.9	14.3	28.6	3.57	6
Inadequate construction process experience	0.0	0.0	0.0	28.6	14.3	28.6	28.6	3.57	7
Inadequate knowledge of the construction process	0.0	0.0	0.0	28.6	28.6	0.0	42.9	3.57	8
Inadequate construction H&S experience	0.0	0.0	0.0	28.6	28.6	14.3	28.6	3.43	9
Inadequate construction management knowledge	0.0	0.0	0.0	14.3	57.1	14.3	14.3	3.29	10
Inadequate construction management experience	0.0	0.0	0.0	28.6	28.6	28.6	14.3	3.29	11
Inadequate construction H&S knowledge	0.0	0.0	0.0	42.9	14.3	14.3	28.6	3.29	12
Inadequate construction activities experience	0.0	0.0	14.3	14.3	28.6	28.6	14.3	3.14	13

Table 8 indicates the rating of H&S Officers in terms of their understanding and appreciation of various aspects on a scale of 1 (limited) to 5 (extensive), and a MS ranging between 1.00 and 5.00. Given that the related MSs are > 3.00, H&S Officers generally can be deemed to understand and appreciate construction H&S, construction activities, and construction management, albeit in the case of the last two, marginally so. The MS of understand and appreciate the construction process falls on the cut point of the upper and lower ranges. However, a review of the MSs in terms of ranges enables a more scientific review. MSs > 2.60 ≤ 3.40 indicate the degree of understanding can be deemed to be between near limited to average / average, which includes all four aspects. This finding reinforces the findings relative to inadequate knowledge and experience, which marginalise H&S officers from contributing to the management of the site and from decision making.

Table 8: Rating of H&S Officers in terms of their understanding and appreciation of various aspects.

Aspects	**Response (%)**						**MS**	**Rank**
	Unsure	**Limited ……Extensive**						
		1	**2**	**3**	**4**	**5**		
Understand and appreciate:								
Construction H&S	0.0	0.0	14.3	57.1	14.3	14.3	3.29	1
Construction activities	0.0	14.3	0.0	57.1	14.3	14.3	3.14	2
Construction management	0.0	14.3	0.0	57.1	14.3	14.3	3.14	3
The construction process	0.0	14.3	14.3	42.9	14.3	14.3	3.00	4

Table 9 indicates the rating of H&S Officers in terms of eight composite knowledge areas on a scale of 1 (very poor) to 5 (excellent), and a MS ranging between 1.00 and 5.00. Only two (25%) MSs are > 3.00, whereas 6 (75%) are ≤ 3.00, and thus H&S Officers' knowledge generally can be deemed to be poor as opposed to good in terms of the latter composite knowledge areas. However, the MS ranges provide further insight. MSs > 3.40 ≤ 4.20 indicate the rating can be deemed to

be between average to good / good – OH&S. MSs > 2.60 ≤ 3.40 indicate the rating can be deemed to be between poor to average / average: project administration; law, and management / management of parameters. MSs > 1.80 ≤ 2.60 indicate the rating can be deemed to be between very poor to poor / poor: planning; financial management, and construction technology / technology. However, the 2.57 MS relative to planning, and technical is marginally outside the upper range > 2.60 ≤ 3.40. MSs > 1.00 ≤ 1.80 indicate the rating can be deemed to be between very poor to poor – design. This MS is largely attributable to the 57.1% of respondents having rated H&S Officers as very poor relative to design.

Table 9: Rating of H&S Officers in terms of composite knowledge areas.

Composite knowledge area	Response (%)						MS	Rank
	Unsure	Very poor……Excellent						
		1	2	3	4	5		
OH&S	0.0	0.0	14.3	14.3	42.9	28.6	3.86	1
Project administration	0.0	0.0	28.6	28.6	42.9	0.0	3.14	2
Law	0.0	0.0	42.9	42.9	14.3	0.0	2.71	3
Management / Management of parameters	0.0	14.3	28.6	28.6	28.6	0.0	2.71	4
Planning	0.0	14.3	28.6	42.9	14.3	0.0	2.57	5
Financial management	0.0	0.0	71.4	28.6	0.0	0.0	2.29	6
Construction technology / Technology	0.0	14.3	57.1	28.6	0.0	0.0	2.14	7
Design	0.0	57.1	28.6	14.3	0.0	0.0	1.57	8

Table 10 indicates the rating of H&S Officers in terms of eight composite skills areas on a scale of 1 (very poor) to 5 (excellent), and a MS ranging between 1.00 and 5.00. Only one (12.5%) MS is > 3.00, whereas 7 (87.5%) are ≤ 3.00, and thus H&S Officers' skills generally can be deemed to be poor as opposed to good in terms of seven of the skills areas. However, the MS ranges provide further insight. MSs > 2.60 ≤ 3.40 indicate the rating can be deemed to be between poor to average / average: interpersonal / developmental; general management; leadership, and negotiating. MSs > 1.80 ≤ 2.60 indicate the rating can be deemed to be between very poor to poor / poor, however, the 2.57 MS relative to each of financial, planning, and technical is marginally outside the upper range > 2.60 ≤ 3.40.

Interpersonal / developmental skills are important as oral communication is the most important operational management skill. Developmental skills are important in terms of improving site staff's H&S knowledge and skills. General management skills in the form of planning, organising, leading, controlling, and coordinating are necessary to realise a healthy and safe work place. Leadership skills are necessary to ensure that H&S Officers are 'followed' and that they can realise commitment from site staff. Negotiating skills are important in that often site staff have to be convinced to consider and address H&S relative to all activities and actions. Financial skills are necessary as H&S Officers have to work with budgets and allowables relative to activities. Planning is critical in terms of H&S as the requisite resources in the form of personal protective equipment (PPE), materials, plant and equipment, must be available when related activities commence. Technical skills such as plan reading in terms of conducting hazard identification and risk assessment.

The low ratings relative to the composite skills areas underscore the low ratings relative to the composite knowledge areas and understanding and appreciation of various aspects, and the extent to which factors constitute a barrier to H&S officers contributing to H&S.

Table 10: Rating of H&S Officers in terms of composite skills areas.

Composite skills area	Response (%)						MS	Rank
	Unsure	Very poor……Excellent						
		1	2	3	4	5		
Interpersonal / Developmental	0.0	0.0	14.3	57.1	28.6	0.0	3.14	1
General management	0.0	0.0	28.6	57.1	0.0	14.3	3.00	2
Leadership	0.0	14.3	0.0	57.1	28.6	0.0	3.00	3
Negotiating	0.0	14.3	0.0	57.1	28.6	0.0	3.00	4
Financial	0.0	14.3	28.6	42.9	14.3	0.0	2.57	5
Planning	0.0	14.3	28.6	42.9	14.3	0.0	2.57	6
Technical	0.0	14.3	42.9	28.6	0.0	14.3	2.57	7

Table 11 indicates the extent to which the contribution of H&S Officers to H&S could be improved on a scale of 1 (minor) to 5 (major), and a MS between 1.00 and 5.00. Given that the MS of 4.71 is > 4.20 ≤ 5.00, the extent can be deemed to be between near major to major / major. It is notable that the MS is near the upper end of the range, which is due to 85.7% of respondents having identified 'major'.

Table 11: Extent to which the contribution of H&S Officers to H&S could be improved.

Response (%)						MS
Unsure	Minor ……Major					
	1	2	3	4	5	
0.0	0.0	0.0	14.3	0.0	85.7	4.71

Table 12 indicates the extent to which interventions could contribute to an improvement in the contribution of H&S officers to H&S on a scale of will not and between 1 (minor) to 5 (major), and a MS ranging between 0.00 and 5.00. Given that all the MSs are > 2.50, all the interventions can be deemed to have the potential to contribute to an improvement in the contribution of H&S officers to H&S to a major extent as opposed to a minor extent. Even more notable is that ten of the eleven (91%) MSs > 4.17 ≤ 5.00, which indicates the interventions can be deemed to have the potential to contribute between a near major to major / major extent to an improvement in the contribution of H&S officers to H&S. Inclusion in management of site predominates, followed by education / training relative to construction H&S, and increased consultation by site management. These interventions are followed by education / training relative to the construction process and activities, inclusion in decision making, increased authority, education / training relative to construction management, optimum position in site hierarchy, and inclusion in planning activities. Given that the MS of formal H&S Officer qualification, ranked last, is > 3.33 ≤ 4.17 the intervention can be deemed to have the potential to contribute between a moderate extent to near major / near major extent to an improvement in the contribution of H&S officers to H&S.

Many of the barriers to H&S officers contributing to H&S (Table 7) reinforce the contention that education / training relative to construction H&S, the construction process, construction activities, and construction management, are a prerequisite for inclusion in management of site, ranked first, and increased consultation by site management, inclusion in decision making and planning activities, increased authority, and optimum position in site hierarchy.

Table 12: Extent to which interventions could contribute to an improvement in the contribution of H&S officers to H&S.

Intervention	Response (%)							MS	Rank
	Unsure	Will not	Minor ……Major						
			1	2	3	4	5		
Inclusion in management of site	0.0	0.0	0.0	0.0	0.0	14.3	85.7	4.86	1
Education / Training relative to construction H&S	0.0	0.0	0.0	0.0	0.0	28.6	71.4	4.71	2
Increased consultation by site management	0.0	0.0	0.0	0.0	0.0	28.6	71.4	4.71	3
Education / Training relative to the construction process	0.0	0.0	0.0	0.0	0.0	42.9	57.1	4.57	4
Education / Training relative to construction activities	0.0	0.0	0.0	0.0	0.0	42.9	57.1	4.57	5
Inclusion in decision making	0.0	0.0	0.0	0.0	0.0	57.1	42.9	4.43	6
Increased authority	0.0	0.0	0.0	0.0	0.0	57.1	42.9	4.43	7
Education / Training relative to construction management	0.0	0.0	0.0	0.0	14.3	28.6	57.1	4.43	8
Optimum position in site hierarchy	0.0	0.0	0.0	0.0	14.3	28.6	57.1	4.43	9
Inclusion in planning activities	0.0	0.0	0.0	0.0	14.3	42.9	42.9	4.29	10
Formal H&S Officer qualification	0.0	0.0	0.0	14.3	14.3	42.9	28.6	3.86	11

Table 13 indicates the extent to which the contribution of H&S Officers to construction could be improved on a scale of 1 (minor) to 5 (major), and a MS between 1.00 and 5.00. Given that the MS of 4.43 is > 4.20 ≤ 5.00, the extent can be deemed to be between near major to major / major. It should be noted that the MS relative to the extent to which the contribution of H&S Officers to H&S could be improved was 4.71.

Table 13: Extent to which the contribution of H&S Officers to construction could be improved.

Response (%)						MS
Unsure	Minor ……Major					
	1	2	3	4	5	
0.0	0.0	0.0	14.3	28.6	57.1	4.43

Table 14 indicates the extent to which interventions could contribute to an improvement in the contribution of H&S officers to construction on a scale of will not and between 1 (minor) to 5 (major), and a MS ranging between 0.00 and 5.00. Given that all the MSs are > 2.50, all the interventions can be deemed to have the potential to contribute to an improvement in the contribution of H&S officers to construction to a major extent as opposed to a minor extent. Six of the eleven (54.6%) MSs > 4.17 ≤ 5.00, which indicates the interventions can be deemed to have the potential to contribute between a near major to major / major extent to an improvement in the contribution of H&S officers to construction. It is notable that with the exception of inclusion in planning activities all the non-education / training interventions are included in this MS range. Optimum

position in site hierarchy and inclusion in decision making predominate, followed by inclusion in management of site, increased authority, and formal H&S Officer qualification. It is also notable that inclusion in planning activities, which ha s a MS of 4.14, falls marginally outside the MS range > 4.17 ≤ 5.00.

Given that the MSs of education / training relative to construction management, construction H&S, the construction process, and construction activities are > 3.33 ≤ 4.17, they can be deemed to have the potential to contribute between a moderate extent to near major / near major extent to an improvement in the contribution of H&S officers to construction. It is also notable that the MSs are at the upper end of this MS range.

Table 14: Extent to which interventions could contribute to an improvement in the contribution of H&S officers to construction.

Intervention	Response (%)							MS	Rank
	Unsure	Will not	Minor ……Major						
			1	2	3	4	5		
Optimum position in site hierarchy	0.0	0.0	0.0	0.0	0.0	57.1	42.9	4.43	1
Inclusion in decision making	0.0	0.0	0.0	0.0	0.0	57.1	42.9	4.43	2
Inclusion in management of site	0.0	0.0	0.0	0.0	14.3	42.9	42.9	4.29	3
Increased consultation by site management	0.0	0.0	0.0	0.0	14.3	42.9	42.9	4.29	4
Increased authority	0.0	0.0	0.0	0.0	14.3	42.9	42.9	4.29	5
Formal H&S Officer qualification	0.0	0.0	0.0	0.0	28.6	14.3	57.1	4.29	6
Inclusion in planning activities	0.0	0.0	0.0	14.3	0.0	42.9	42.9	4.14	7
Education / Training relative to construction management	0.0	0.0	0.0	0.0	28.6	42.9	28.6	4.00	8
Education / Training relative to construction H&S	0.0	0.0	0.0	14.3	14.3	28.6	42.9	4.00	9
Education / Training relative to the construction process	0.0	0.0	0.0	0.0	42.9	28.6	28.6	3.86	10
Education / Training relative to construction activities	0.0	0.0	0.0	0.0	42.9	28.6	28.6	3.86	11

Table 15 provides an overview of the number of comments in general regarding the contribution of H&S Officers to H&S.

Table 15: Number of comments in general regarding the contribution of H&S Officers to H&S.

Comments	Response (%)
0	14.3
1	42.9
2	14.3
3	14.3

The comments are recorded verbatim, but are summarised as follows: H&S Officers contribute to H&S on site, but could contribute more; an H&S Officer qualification should be considered; there is a relationship between construction process experience and competency of H&S Officers, and the function of H&S Officer is relatively comprehensive.

C1: “Practically based upon our + /- 100 assessments per month H&S officers should seek more opportunities to add value and focus on areas where risks and exposures could be reduced or pro-actively managed so as to reduced emerging, unacknowledged as well as reputation exposures which will improve, amongst other, hidden costs and business continuity.”

C2: “I think this particular survey is very relevant and improvement in skill and criteria for qualification for Safety Officers should be re evaluated. This survey clearly shows that there is a definite relationship between construction process experience and being a competent Safety Officer.”

C3: “Note that most large General Contractors have full-time site H&S officers while it is the medium size General Contractors who have roving H&S officers. The smaller contractors make use of H&S consultants. Subcontractors forget that they too need to have at least a part-time H&S officer assigned to every site in terms of the Construction Regulations.”

C4: “Contact me should you require more input regarding H&S officers and their role. I personally believe that CR 6(6) is the regulation that has made the biggest difference in construction H&S since promulgation back in 2003. I’ve personally been involved on construction sites as an H&S Agent since 2003 and have worked closely with H&S officers of various large construction firms.”

C5: “The most important role of H&S officers: managing and enforcing discipline on subcontractors; identifying hazards on site; daily site inspections; management of administration on site; training of personnel; stopping activities where required; introducing and managing a site disciplinary system; reporting everything to site management thus making them

accountable; communication of H&S to all role players; investigating incidents and playing a part in developing safe work procedures for the future, thus preventing a similar incident."

C6: "Gender discrimination very high on construction sites very white Afrikaans 'prima donna' H&S officers – gender bashing designers ignorant of H&S + H&S officers."

C7: "They prevent serious injuries and fatalities on work sites. They assist employees, and clients to comply with legislation. They inform site workers on H&S measures applicable to their prospective duties thereby ensuring protection of workers. The majority of H&S officers lack basic knowledge on matters of H&S due to absence of regulatory framework hence less contribution than expected has been made."

4. CONCLUSIONS AND RECOMMENDATIONS

Although the findings of the study emanate from a pilot study and a limited number of respondents, it should be noted that in the case of one respondent the comment in general made was based upon approximately 100 assessments conducted per month by the respondent's organisation. Furthermore, by virtue of most of the respondents' constituency they are ideally positioned to provide an objective professional review of the performance of H&S Officers.

Approximately 50% of H&S Officers are employed on a permanent and a contract basis, and approximately 50% are appointed on a part-time and 40% on a full-time basis. Therefore, it can be concluded that employment of H&S officers follows the pattern of general employment in construction. The basis of appointment indicates that the nature of the appointment relates to the nature, value, and complexity of projects. Approximately 50% of respondents stated that other functions fulfill the role of H&S Officer, and 80% that H&S Officers fulfill other functions. Therefore, it can be concluded that contractors endeavour to aggregate costs through multi-function appointments. Furthermore, approximately 86% of respondents stated that H&S Officers report predominantly to site managers, and 43% to site agents, leading to the conclusion that there is a degree of dual reporting, or the very least H&S Officers interact with the general and production management of site.

H&S Officers can be deemed to have contributed to and impacted upon H&S between a moderate extent to a near major extent / near major extent, leading to the conclusion that the function is important and the 'H&S Officer' requirement in terms of the Construction Regulations is justified. However, the findings indicate that the contribution of H&S Officers to H&S and construction could be improved, namely between a near major to major / major extent, and then more so relative to H&S than construction.

A range of factors constitute a barrier to H&S officers contributing to H&S. These include general exclusion from the management of sites, but specifically, inadequate knowledge of the construction process and activities, construction management, and construction H&S, and related experience. Therefore, it can be concluded that inadequate 'construction' knowledge and experience contribute to the exclusion of H&S Officers from the management of sites, and the actual barrier to H&S Officers contributing to H&S. This conclusion is underscored by the rating of H&S Officers in terms of their understanding and appreciation of various aspects, composite knowledge areas and skills, and the extent to which interventions could contribute to an improvement in the contribution of H&S officers to H&S and construction.

The findings of this pilot study lead to the conclusion that formal qualifications would empower H&S Officers to contribute optimally to H&S and construction. Minimum qualifications could include a ND: Building, followed by a BTech: Construction Management (Health and Safety) as developed by the Cape Peninsula Technikon.