

Safety Leadership in the Construction Industry

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Presentation Outline





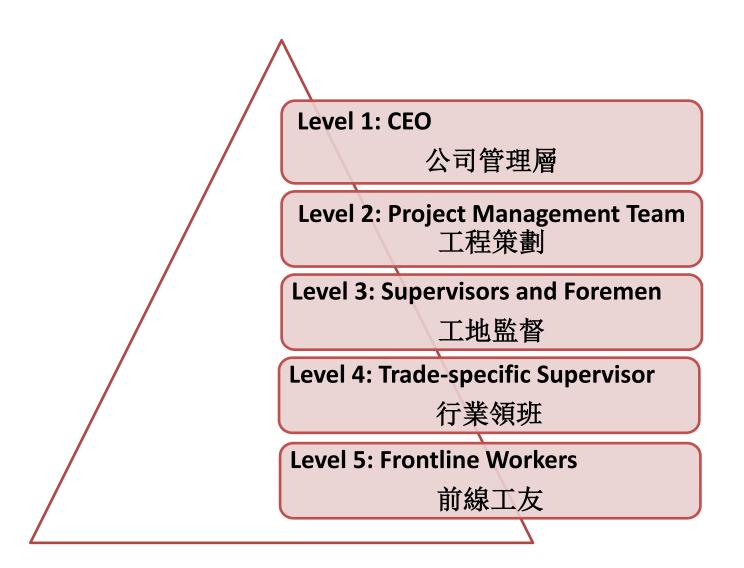
To classify practitioners of the construction industry into a number of levels based on their different roles in construction site safety.

To establish guidelines on the conduct, actions or output to be performed in the day-to-day operation, which would render the doers becoming safety leaders for that level.

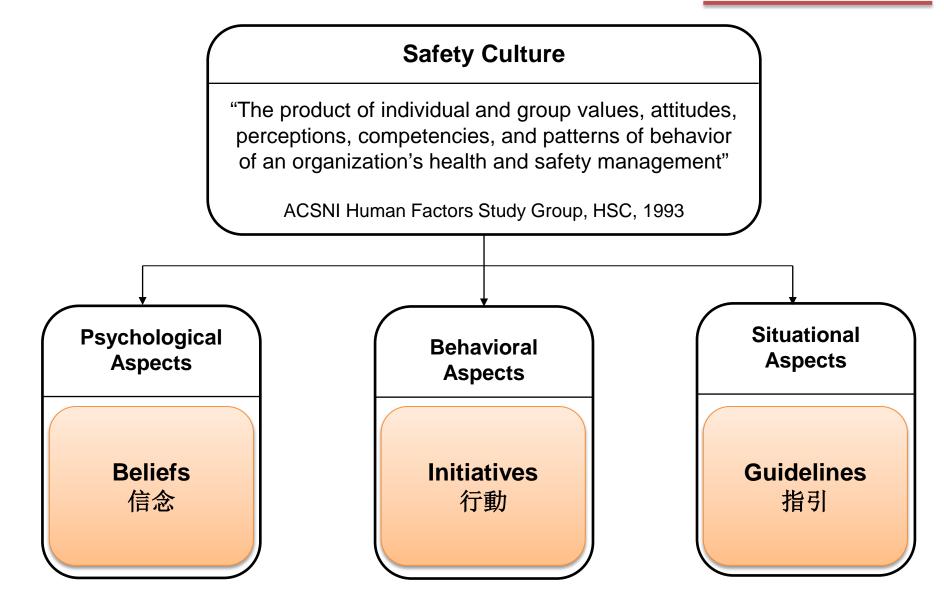


To gauge / benchmark the enhancement of safety culture in the construction industry after the Construction Safety Week 2014.

5 Levels of Construction Practitioners

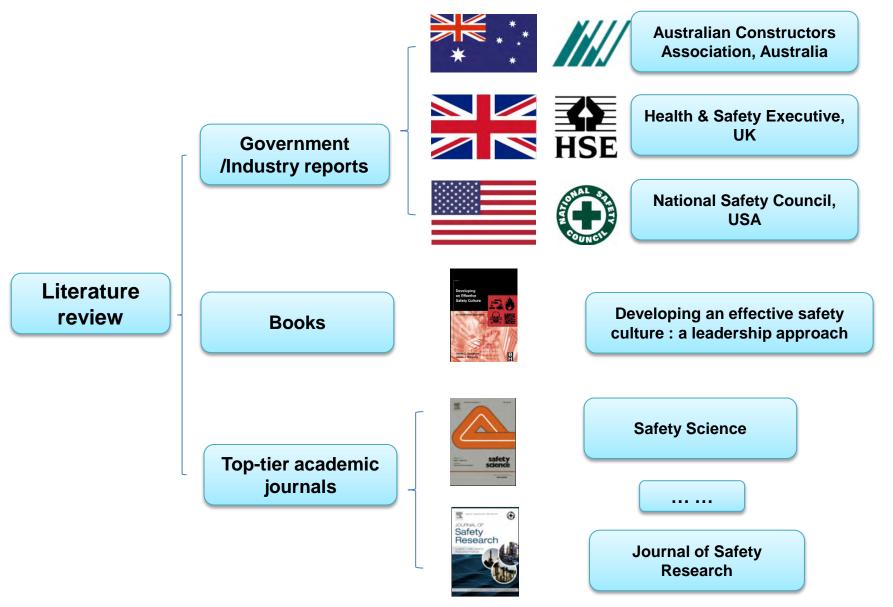


Safety Culture



Source: Flynn, A., Shaw, J. 2010. Safety Matters! A Guide to Health & Safety at Work.

Literature Review



Beliefs, Initiatives & Guidelines 信念、行動和指引

	Beliefs 信念
•	Safety is an integral part in business performance 安全是企業績效的組成部分
•	All accidents can be prevented 所有的事故都是可以預防的
•	The company shoulders a social responsibility on safety 企業對於安全局負著社會責任
•	Everyone shares a responsibility on safety 每個人對安全都負有責任
	Initiatives 行動
•	Formulates safety policies to reflect the beliefs
	制定安全政策,反映企業理念
•	制定安全政策,反映企業埋念 Provides resources to support safety 提供資源來保障安全
•	Provides resources to support safety
•	Provides resources to support safety 提供資源來保障安全 Creates and insist on a safe company culture

Guidelines 指引

- Ensure statutory compliance with government health and safety regulations 確保制定的規範符合政府健康安全法規
- Establish a clear mission, safety responsibility system, and goal in order to set standards of behaviour for employees

建立企業使命、安全責任系統、以及目標,從而為員工制定行為準則

- Encourage contingent incentives and punishments 鼓勵依情況而定的激勵和懲罰措施
- Provide consistently resources for a comprehensive safety program 為全面安全計劃提供持續的資源
- Ensure that adequate resources are provided to support best safety practices 確保足夠資源提供給最佳安全實踐
- Be clear and transparent when dealing with safety issues 處理安全問題時要保持清晰和透明
- Emphasize the importance of proactive action 強調主動行為的重要性
- Review the safety process regularly 定期檢查影響安全生產的操作過程
- Develop trust worthiness in the employee-manager relationship 提高員工和管理層關系的信任度
- Work with subordinates to reinforce the corporate safety commitment 與下屬協作來加強企業安全承諾

Data Collection

	Target	Completed
Level 1 CEO 公司管理層	4	6
Level 2 Project Management Team 工程策劃	6	6
Level 3 Supervisors and Foremen 工地監督	8	8
Level 4 Trade-specific supervisors 行業領班	12	28
Level 5 Frontline workers 前線工友	200	232

Data Collection







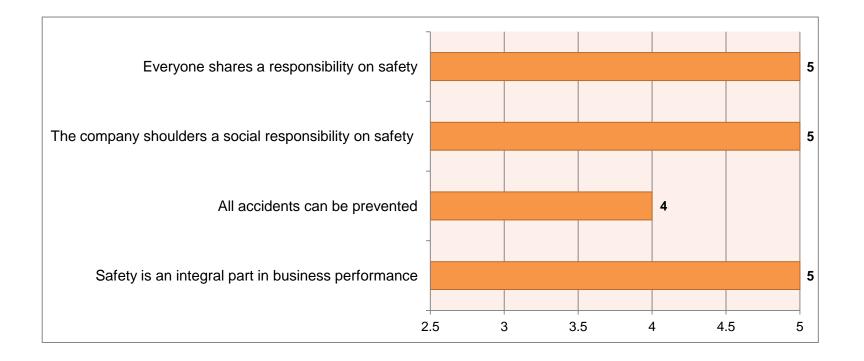


Research Findings



Sample size = 6

Awareness & Consciousness 意識與認知



Level 1 CEO 公司管理層

Sample size = 6

Actions & Behaviors 行動與行為

Work with subordinates to reinforce the corporate safety commitment

Develop trust in the employee-manager relationship

Review the safety process regularly

Emphasize the importance of proactive action

Be clear and transparent when dealing with safety issues

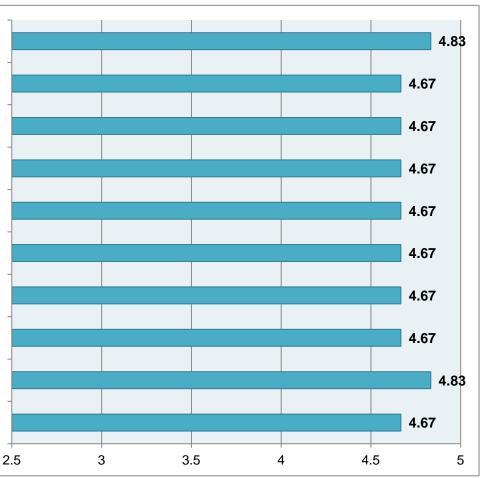
Ensure that all resources are provided to support best safety practices

Provide consistently resources for a comprehensive safety program

Encourage contingent incentives and punishments

Establish a clear mission, safety responsibility system, and goal in order to set standards of behaviour for employees

Ensure statutory compliance with government health and safety regulations





Sample size = 6

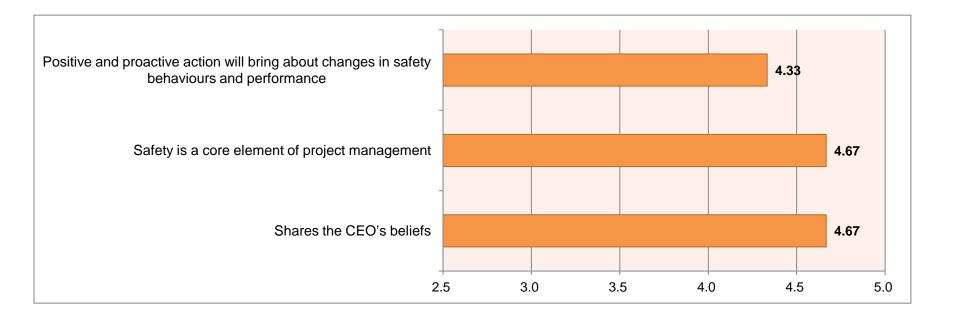
Importance of factors contributing to positive safety culture 促進積極安全文化的重要因素

		Rank
*	Provide resources to support safety 為保障安全提供人力、物力等資源	1
*	Formulate safety policies to reflect the beliefs 制定反映企業理念的安全政策	2
*	Create and insist on a safe company culture 建設及深化企業安全文化	3
*	Lead by example 以身作則	4
*	Establish reward and punishment system for employees 建立賞罰機制	5
*	Implement safety education and training programs 執行安全教育培訓計劃	5

Level 2 Project Management Team 工程策劃

Sample size = 6

Awareness & Consciousness 意識與認知

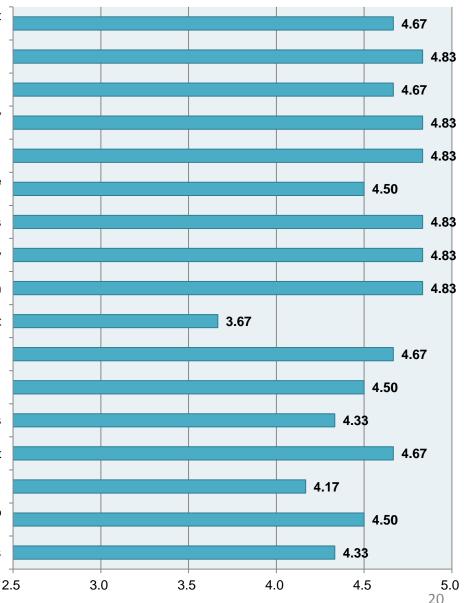


Actions & Behaviors 行動與行為

Address safety system flaw, be willing to admit mistakes and correct them Apply the rules and company safety policy consistently Emphasize the interests in acting on safety policy Encourage the workforce to rectify the risky behaviour when they disobey safetv rules Express appreciation and respect for good safety behaviour Establish effective incentive schemes and reward systems to reinforce safety behaviour Promote "Safety Behaviour" campaigns Keep safety rules and regulations updated regularly Organize safety training and promotion Drive for the flexibility and adaption of safety management Maintain an "open door" policy by developing honest and trust relationships with the workforce Reinforce/support subordinates' safety activities Advocate and communicate safety values to subcontractors Allocate resources to safety management Review safety process and take feedback seriously Motivate the workforce to participate in safety activities in order to increase their awareness of safety and acceptance of safety... Communicate with the subordinates on safety behaviours

Level 2 Project Management Team 工程策劃

Sample size = 6



Level 2 Project Management Team 工程策劃

Sample size = 6

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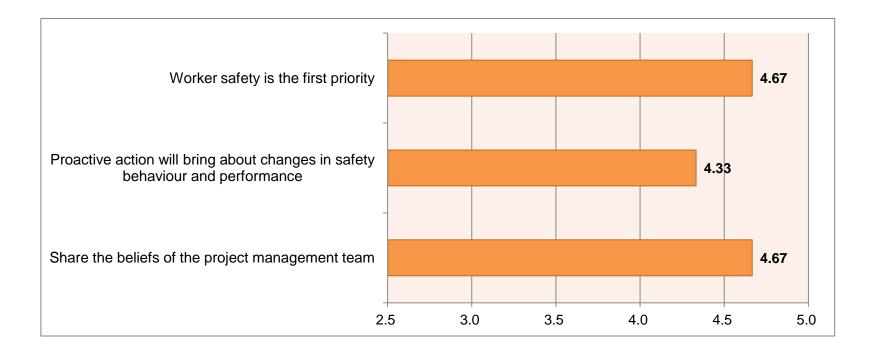
Importance of factors contributing to positive safety culture 促進積極安全文化的重要因素

		Rank
*	Enhances safety knowledge 加強安全知識	1
*	Instils respect and commands authority 灌輸尊重和命令授權的理念	2
*	Sets a good personal example 樹立好榜樣	3
*	Establish reward and punishment system for employees 建立賞罰機制	4
*	Incentivize, recognize, and reward safety behaviour 激勵、認可和獎勵安全行為	5
*	Participates in safety activities 參與安全活動	6

Level 3 Supervisors and Foremen 工地監督

Sample size = 8

Awareness & Consciousness 意識與認知



Provide feedback and follow up near-miss and post-accident reports

Lead investigations into injuries, accidents and high potential incidents,

Report all unsafe conditions, practices and all injuries and illness

Be willing to admit mistakes and correct them

Listen to workers' concerns with regard to safety and act on them

Deliver the established incentives and punishments as part of the daily routine

Provide subordinates with a flow of challenging and innovative ideas for improving safety

Be consistent and fair in dealing with workers against safety issues

Build strong relationship with frontline workers

Stop any unsafe activity or operation

Detect and correct errors based on monitoring subordinates' safety behaviour or being reported by the subordinates

Explain the concept of safety and good practices clearly

Actions & Behaviors 行動與行為 Coach, mentor, and provide feedback promptly

Provide safety equipment to the workforce

Promote design for safety

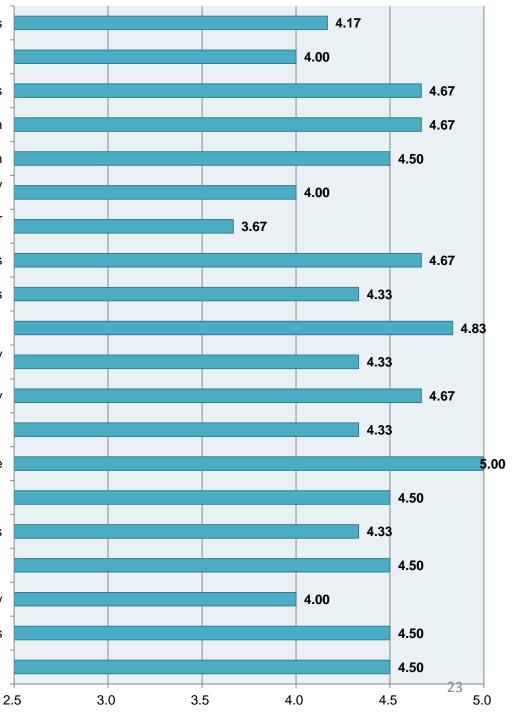
Conduct safety site-walks and report and rectify any irregularities

Review safety process and take feedback seriously

Report the risk assessment regularly

Take necessary precautions to mitigate these risks

Consider the hazards and risks before and during the execution of any



Level 3 Supervisors and Foremen 工地監督

Sample size = 8

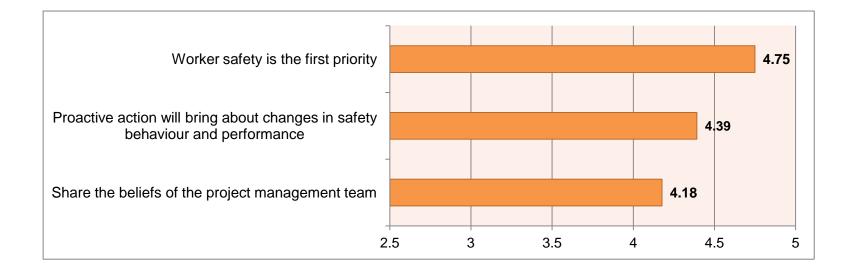
Importance of factors contributing to positive safety culture 促進積極安全文化的重要因素

		Rank
*	Carry out risk assessments before work 開展工作前的風險評估	1
*	Give safety instructions and information along with work instructions 提供安全說明和信息,以及作業指引	2
*	Take immediate action against those who deviate from safety working practice, or misbehave in safety 采取即時行動來應對來自安全工作實踐中的偏離或是不安全行為	3
*	Set a good personal example 樹立榜样	4
*	Participate in safety activities 參與安全活動	5
*	Report near-misses and identify measures to prevent reoccurrence 報告未遂事故, 並制定措施來防止再次發生	5

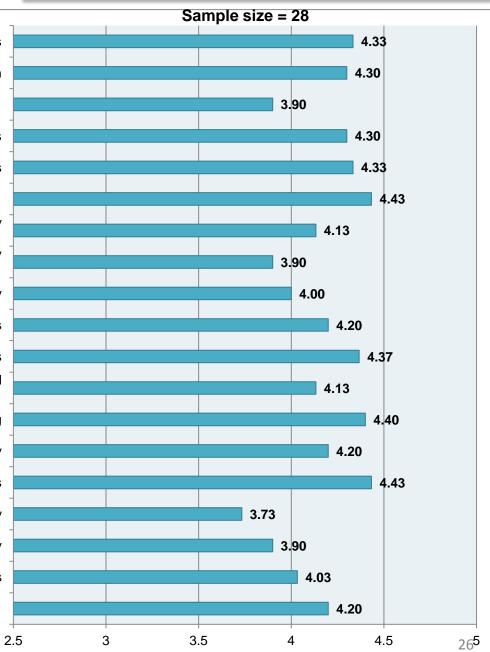
Level 4 Trade-specific Supervisors 行業領班

Sample size = 28

Awareness & Consciousness 意識與認知



Level 4 Trade-specific Supervisors 行業領班



Actions & Behaviors 行動與行為

Report all unsafe conditions, practices and all injuries and illness

Be willing to admit mistakes and correct them

Provide subordinates with a flow of challenging and innovative safety ideas

Be consistent and fair in dealing with workers against safety issues

Trust and respect frontline workers

Stop any unsafe activity or operation

Detect and correct errors based on monitoring subordinates' safety behaviour or being reported by the subordinates Deliver the established incentives and punishments as part of the daily routine

Monitor worker's awareness of safety instructions regularly

Ensure workforce to obey/enforce safety rules

Comply with all safety policies, procedures and rules

Ensure that plants and equipment are being licensed, registered, and maintained regularly

Carrying out safety induction/familiarization training

Coach, mentor, and provide feedback promptly

Provide safe equipment to workers

Promote inputs for design for safety

Report the risk assessment regularly

Take necessary precautions to mitigate these risks

Consider the hazards and risks before and during the execution of any task

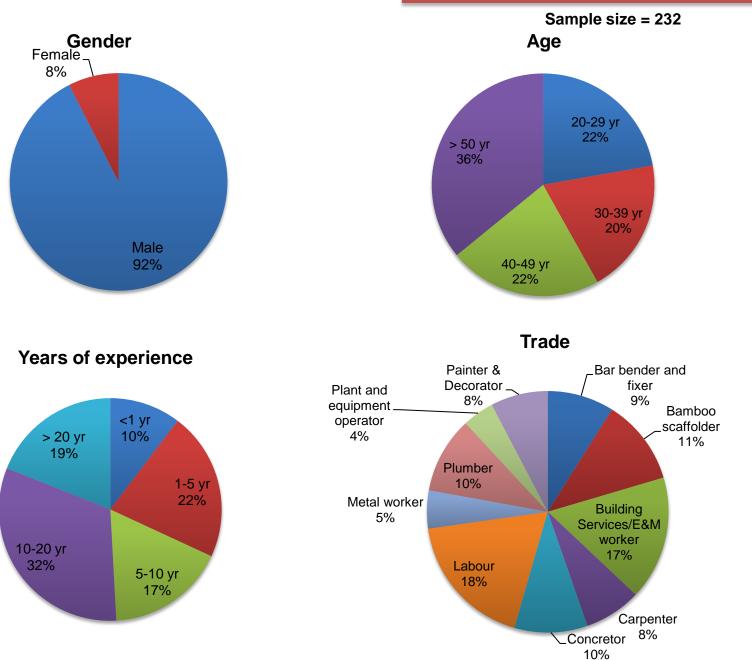
Level 4 Trade-specific Supervisors 行業領班

Sample size = 28

Importance of factors contributing to positive safety culture 促進積極安全文化的重要因素

		Rank
*	Carry out risk assessments before work 開展工作前的風險評估	1
*	Comply with safety instructions issued by the principal contractor 遵守總承包商發出的安全須知	2
*	Take immediate action against those who deviate from safety working practice, or misbehave in safety 采取即時行動來應對來自安全工作實踐中的偏離或是不安全行為	3
*	Give safety instructions and information along with work instructions 提供安全說明和信息,以及作業指導書	4
*	Set a good personal example 樹立榜样	5
*	Give warning and take disciplinary actions to workers with misbehaviours 對工人的不安全行為提出警告並給予紀律處分	6
*	Participate in safety activities 參與安全活動	7
*	Report near-misses and identify measures to prevent reoccurrence 報告未遂事故,並制定措施來防止再次發生	8 27

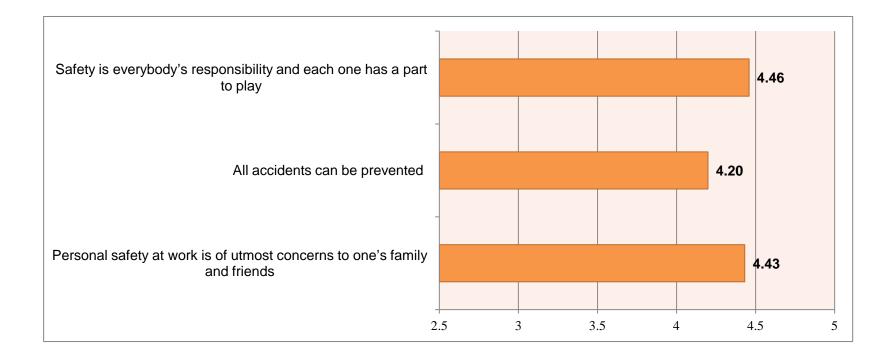




Level 5 Frontline workers 前線工人

Sample size = 232

Awareness & Consciousness 意識與認知



Level 5 Frontline workers 前線工人

Sample size = 232

Actions & Behaviors 行動與行為

Make suggestions and initiate new ideas to supervisor proactively	3.91
Communicate with fellow-workers on health, wellbeing and safety	
issues regularly	3.97
Keep abreast of new knowledge	4.07
	4.03
Work with management to identify safety problems and find solutions	4.03
Participate in safety activities	3.94
· a	
Reinforce and influence safety behaviour in workplace constantly	4.26
Advise and remind fellow-workers who deviate from safe working practice or misbehaves in safety	4.11
· · · ·	
Report all injuries, illnesses, near misses, equipment damage, unsafe conditions, and practices to the superiors promptly	4.16
Commit to use safety equipment provided	4.23
Perform work in accordance with safety practices and safety	
procedures	4.25
2	2.5 3 3.5 4 4.5 5

	Awareness & Consciousness 意識與認知	Actions & Behaviors 行動與行為
Level 1 CEO 公司管理層	4.75	4.70
Level 2 Project Management Team 工程策劃	4.56	4.57
Level 3 Supervisors and Foremen 工地監督	4.56	4.41
Level 4 Trade-specific Supervisors 行業領班	4.44	4.17
Level 5 Frontline worker 前線工友	4.36	4.09

Areas for Improvement

(Score < 4)

	Areas of Concern	
Level 2 工程策劃	 Drive for the flexibility and adaption of safety management 達成安全管理的靈活性和適應性 	
Level 3 工地監督	Provide subordinates with a flow of challenging and innovative ideas for improving safety 持續為下屬提供具有挑戰性的創新理念, 旨在提高安全	
Level 4 行業領班	 Promote inputs for design for safety 為安全設計出謀劃策 Deliver the established incentives and punishments as part of the daily routine 將相應的鼓勵與懲罰作為日常工作的一部分 Provide subordinates with a flow of challenging and innovative ideas for improving safety 持續為下屬提供具有挑戰性的創新理念, 旨在提高安全 	
Level 5 前線工友	 Make suggestions and initiate new ideas to supervisor proactively 提出有關安全問題的新建議和新理念 Participate in safety activities 參與安全活動 communicate with fellow-workers on health, wellbeing and safety issues regularly 定期與工友溝通健康安全方面的信息 	

Benefits of the safety leadership scheme

		Frequency
*	Minimize the work-related accidents on site 降低地盤安全事故的發生	Level 1(3) + Level 2 (2) + Level 3 (2) + Level 4 (2)
*	A powerful influence on promoting the safety culture as initiated by the government 政府具有影響力推動安全文化的滲透及普及	Level 1(2) + Level 2 (1) + Level 3 (2) + Level 4 (3)
*	Set clear expectation and be measurable 為業界制定清晰明確的信念、行動及指引	Level 1(2) + Level 2 (2)
*	Improve the image of the construction workers 提升從業人員的形象	Level 1(2) + Level 2 (1) + Level 3 (1)
*	Pay attention to the health and safety need of the frontline workers 留意到工人的健康安全需求	Level 1(1) + Level 2 (1) + Level 3 (2) + Level 4 (3)
*	Better understanding about the current situation and safety performance in the industry 更好得了解建造業安全文化的現狀	Level 1(1) + Level 2 (1) + Level 3 (2)
*	Improve construction labour productivity 有利於提高建築工人的工作效率	Level 1(1) + Level 2 (1)

		Frequency
*	How to mobilize the sub-contractors 如何調動中小企業	Level 1(5) + Level 2 (2)
*	Frontline workers' level of understanding / cognitive ability about safety is relatively low, which required longer time to improve 地盤工人對安全的認知水平偏低, 有待提高	Level 1(2) + Level 2 (2) + Level 3 (2) + Level 4 (2)
*	Increase cost of the investment (e.g., sub-contractors are unwilling to invest in safety tools / equipment because these safety measures are non-productive from their points of view) 增加投資成本	Level 1(2) + Level 2 (2) + Level 3 (1) + Level 4 (1)
*	Punishment is not highly implemented as punishment will result in negative action and impact 懲罰機制不成熟	Level 1(1) + Level 2 (2) + Level 3 (2)
*	Tight workforce supply is creating problem with the worker's cooperation particularly for safety 建造業從業人員的短缺	Level 1(1) + Level 2 (1)
*	Cooperation of the trade-specific foremen and frontline workers (e.g., sub-contractors foremen may not willing to follow the instruction given by the main contractor) 需要行業領班/前線工人的配合	Level 2 (2) + Level 3 (2)

Conclusion & Recommendations

Five (5) levels of construction practitioners has been identified. 確定了建造業從業人員的五個層面

2

1

Beliefs, initiatives, guidelines for each level of construction practitioners have been established. 構建了建造業各個層面從業人員的信念、行為及指引

3

In general, the safety awareness and behaviors in each level of construction practitioners are satisfactory. 通過調查發現,建造業各層面的從業人員在安全意識行為方面大致達到滿意水平

4

Construction practitioners in lower levels tend to have a comparatively lower score for safety awareness and behaviours. 建造業從業人員的安全意識 行為得分隨管理層次的下降而有所降低。

5

Training, instructions, and remarks have to be given for further safety improvement. 通過安全教育、培訓、及指導的方式,提高建造業各層面從業人員 安全意識與行為

6

Similar studies should be carried out in regular basis to monitor the enhancement of safety culture in the construction industry. 建議定期進行 類似研究,以監測建造業安全文化水平



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