



 ADULT
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SYMPOSIUM

Usefulness of Blog Activities for Learning About Workplace Safety in a Polytechnic

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Overview

1. Introduction
2. Literature review
3. Method / intervention
4. Findings
5. Discussion / Lessons Learnt
6. Conclusion



#1 Introduction: Accidents in the Workplace

Accidents happen because of a lack of experienced, qualified workers, as well as safety officers, and the limited resources needed to meet adequate safety standards requirements (Seow, 2018).



Workplace injuries in Singapore (2017)

	Number	Rate (per 100,000 employed persons)
Workplace injuries	12,498	369
• Fatal injuries	42	1.2
• Major injuries	574	16.9
• Minor injuries	11, 882	351



Cost of accidents in the workplace

In 2017, workplace accidents in Singapore resulted in a loss of 544,687 lost man-days at a rate of loss of 69 man-days per million man-hours worked (i.e. accident severity rate)

(Ministry of Manpower, 2018, p.1)



Call to address workplace safety

In April 2008, PM Lee Hsien Loong challenged stakeholders to set a new target for Workplace Safety and Health (WSH), and decrease number of workplace fatalities from 2.8 per 100,000 workers in 2008 to below 1.8 per 100,000 workers by 2018

(WSHCouncil, 2018, p. 1)



Call to address workplace safety through capability building

1. Equip employers, employees and WSH professionals with the right skills and capabilities to manage WSH and take responsibility for WSH outcomes.
2. Have supporting institutions – such as professional associations, industry bodies and training institutions – to identify the skills required, and guide the development of such capabilities.

(WSHCouncil, 2018, p. 1)



About WSH

Workplace Safety and Health (WSH) in Singapore is a national strategy to assess and manage workplace safety and health risks to eliminate death, injury and ill-health at the workplace.



Solutions

Formal Education / Training

- WSQ courses for working adults
- Courses offered by IHLs to students



Established in 1990

6 Academic Schools

46 Full-time Diploma Courses

Over 30 part-time courses

Over 15,000 Full-time students



Bringing education to life
and life to education



Temasek Polytechnic's offering

“Workplace Safety and Health for Facility Management”

- Sem 1 year 1 Subject for [Diploma of Facility Management](#) students from April 2017 onwards
- On successful completion of the subject, students are awarded the WSQ certification - BIZSAFE Level 2 and 4 from the Ministry of Manpower.



Challenge: How to engage young adult learners (PETs)

- Use blog - What the younger generation like today; also part of workplace / lifelong learning
- Blogs are also used for Workplace Safety workers as well.



Target Zero Falls Campaign 2018

Promote safe Working at Heights by pledging your support

[Learn more](#)

Workplace Safety And Health Resources|Workplace Safety And Health Blog|

Think Safety. Work Safely. Stopping All Unsafe Actions To Make Every Employee Happy

[Source:http://wshsingapore.blogspot.com/p/workplace-safety-checklist.html](http://wshsingapore.blogspot.com/p/workplace-safety-checklist.html)

Workplace Safety Checklist

Here are some workplace safety checklist that you can use

Working With Chemicals Safety Checklist

<http://wshsingapore.blogspot.com/2011/12/safety-checklist-for-working-with.html>

Electrical Works Safety Checklist

<http://wshsingapore.blogspot.com/2011/12/safety-checklist-for-electrical-work.html>

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Research Team

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- Trainer, ICT Mentors Programme

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- Subject Leader, Curriculum Developer & Tutor
- ICT Mentor



Research questions and sub-questions

1. How did the participants react to the blog?
2. How did it shape learning?
 - a. How did it help them with their final report?
 - b. How did it help with the acquisition and sharing of knowledge?
 - c. How did the participants view workplace safety after working on their blog?



#2 Literature Review: Definition of Blog

An easily created, easily updatable website that allows an author (or authors) to publish instantly to the Internet from any Internet connection (Richardson, 2006, p. 17)

Web log = BLOG



Definition of Blog

New writing genre that contain reflections and conversations that are updated regularly. They:

- Engage readers with ideas, questions and links
- Ask them to respond
- Demand interaction.

(Richardson, 2010)



Uses of Blog in Education

According to Farwell, & Kruger-Ross (2013, pp. 206-207), blogs

- May present a more up-to-date and meaningful method to encourage students to write class reflections and develop viewpoints stemming from class discussion
- Can be used as classroom activity: online discussion and feedback with and for writer
- Provide an avenue to assess writing, facilitate engagement and evaluate student attitudes.



Uses of Blogs in School for students

- Class Portal (teacher generated for journalism class)
- Online filing cabinet (students archive their work)
- e-Portfolio (Students' portfolios)
- Collaborative Spaces (junior and senior students and Sue Mong Kidd, author of *The Secret Life of Bees* (2002))

(Richardson, 2010, pg. 20 - 24)



Uses of blogs in School for staff

- Knowledge management and articulation (minutes of meetings, dialogues between get-togethers, share links to relevant info, and store documentations and presentations for easy access)
- School Website (to increase communication with parents and staff, post pictures and student work, keep the yearly calendar, create a community around the site. Teachers post weekly classroom notes that serve as a diary of what students are doing and achieving.

(Richardson, 2010, pp 22 – 25))



Study: Attitude towards blogs as an interactive reflective learning

... international students consistently viewed the use of e-learning tools more positively than domestic students.

(Jackling, et al, 2014)



Study: Willingness to continue using blog to learn (Ifinedo, 2018)

Involved a technology acceptance model, social cognitive theory, innovation diffusion theory, and expectation–confirmation model. The survey results show that:

- Perceived usefulness and perceived compatibility have positive effects on students' attitudes towards blog use; perceived ease of use did not.
- Perceived compatibility, perceived self-efficacy, perceived support for enhancing social ties with blogs have significant effects on the positive impacts of learning with such tools.



Study: Willingness to continue using blog to learn (Ifinedo, 2018)

- Attitude and positive impacts of learning with blogs influence satisfaction with blog use.
- Both attitude and satisfaction are determinants of students' continuance intention to use blogs to learn.
- Satisfaction with blog use is the main predictor of continued use intention.



Study: Effectiveness of blogs (Farwell, & Kruger-Ross, 2013)

Study on using blogs for three courses:

... blogging was found to be most successful in facilitating learning and interaction when students were given a single platform, minimum work limits for posts, the opportunity to use RSS feeds, and autonomy in determining content of their posts ... (p. 213)



Study: Effectiveness of blogs on learning (Mansouri & Piki, 2016)

Case studies in postgraduate business education:

... Statistical analyses revealed significant correlation between students' degree of contribution and their achievement. No significant correlation was observed between the degree of contribution and students' learning preferences... (p. 260)



Study: Effectiveness of blogs for training (Bogoch, et al, 2012)

Use of morning report blog by medical trainees

... trainees rated the blog a useful learning tool and cited it to be among the top 3 educational resources accessed during their rotation ... (p. 238)



#3 Methodology / Intervention

Subject: Workplace Safety and Health for Facility Management”

Year 1 Sem 1 Subject for Diploma in Facility Management

60 hour, 4 credit subject, 15 week semester (2 terms)

Weekly classes: two-hour face-to-face tutorial sessions x 2

Class size: 20 to 25

Grouping: students placed in groups of five members



Blogs written using WordPress, A Software for Blogs

Participants

- Learnt from video tutorials
- Asked to create their group blog
- Host blog using their domain name
- Follow format of templates provided



Advantages of hosting Blog on WordPress

WordPress

- Is free (can also be for subscription)
- Allows lifetime access
- Is modifiable with plug- ins (codes)

McNulty (2010,p. 3)

Blog Activities



A1 Wk 1 Interaction

Create a Group Blog and Share 3 favourite things about themselves

A2 Wk 2 Video, [Shoelaces](#)

Respond to prompt “Why is safety important (consider various stakeholders) from role play

A3 Wk 3 - Personal reflection

Research & share information
- How can we take a more proactive stance towards preventing accidents

A4 Wk 5 Spot the hazard - around campus

Post 10 photos of hazards (Group)

A5 (week 6) Hazard Classification

Research and present information using a Mind Map

A6 Wk 11 (after term break)

Critique on Policy and objectives



Instruments

- Blog entries
- Marks from Interim Project (risk mgt plan to address hazards)
- Survey (Week 13, / 9th to 13th July 2018)
- Interview (Week 17, 6 - 10 August 2018)



Case Study: Profile of three Classes by Gender and educational background

Gender	O level	ITE	Others*	Total
Male	22	7	2	31
Female	34	5	3	42
Total	56	12	5	73

* Poly Foundation Program

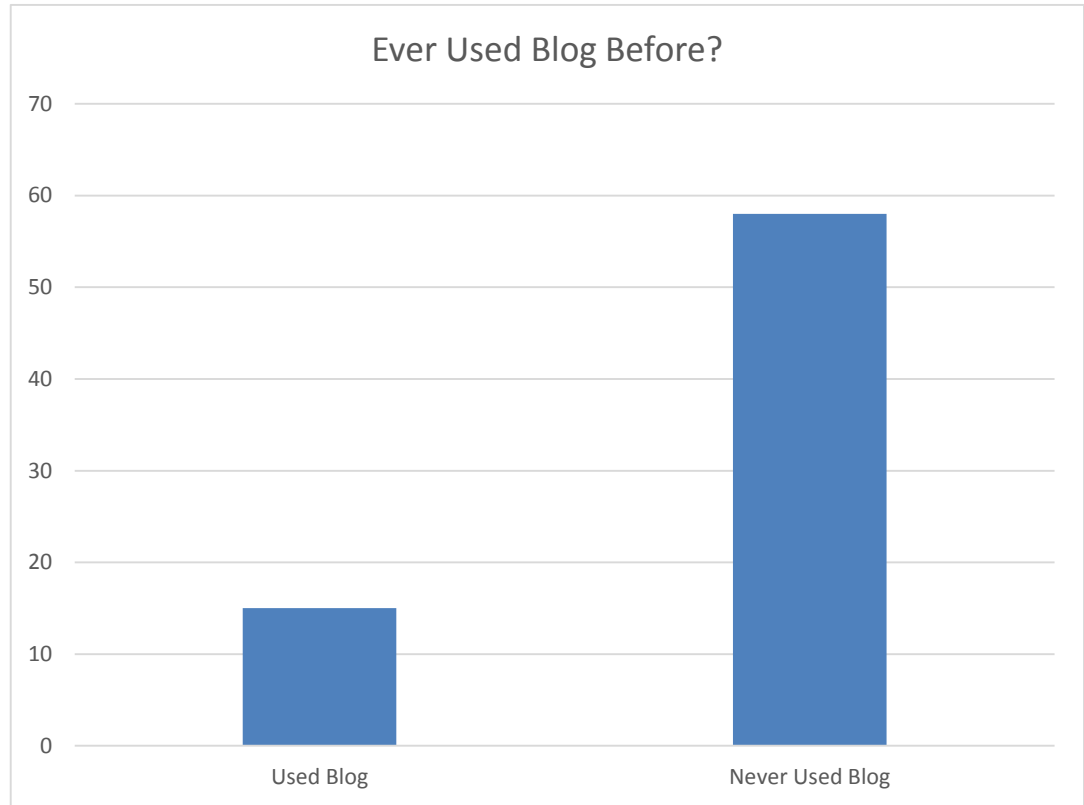


Prior use of Blog

New experience for the majority of students:

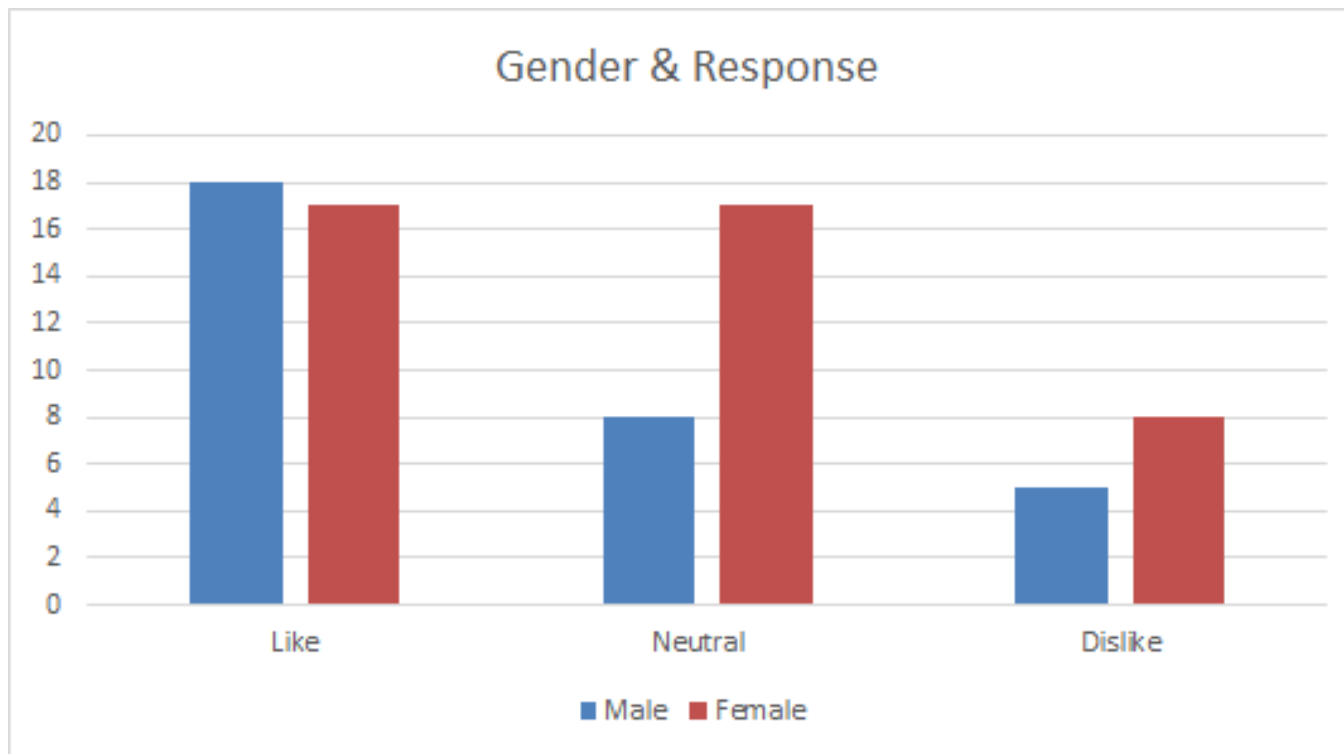
15 Used blog before

54 never used before



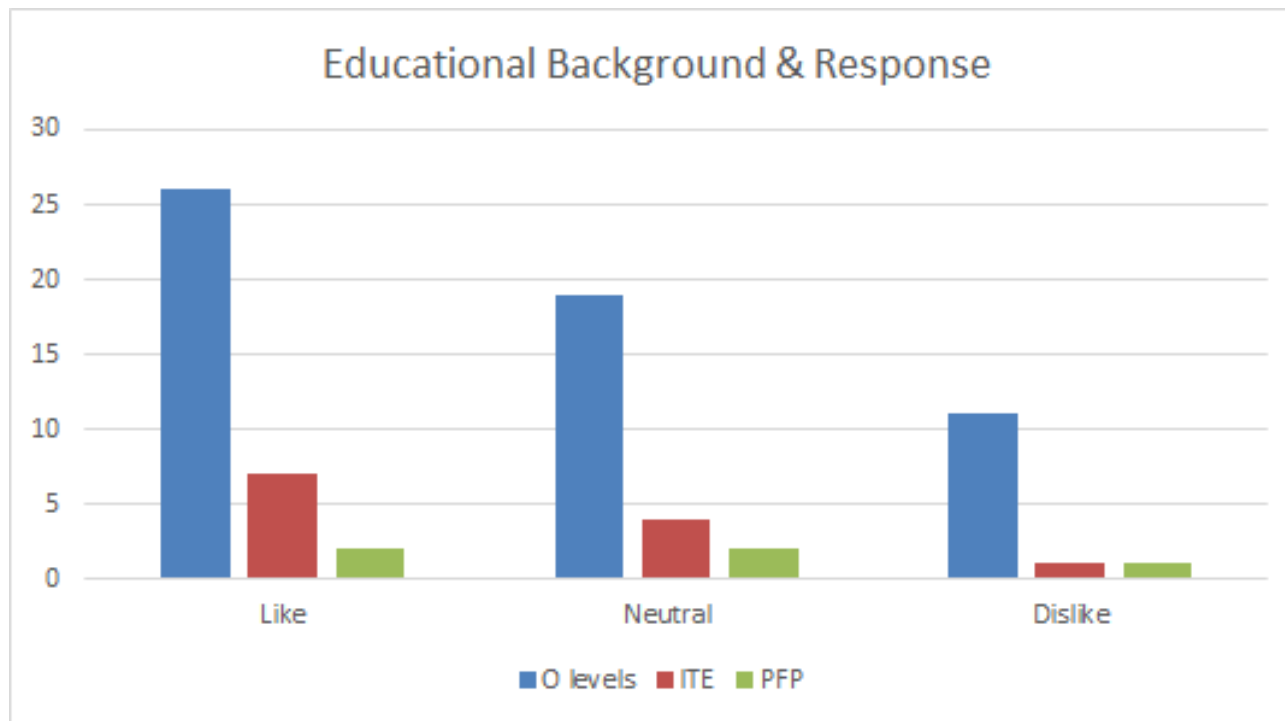


#4A Findings: Response to the Blog





Response to the Blog



Response to the Blog: Positives



How did you find the use of the blog for "Workplace Safety and Health for Facility Management"

... it provides me a solid foundation for our future job and its scopes ...

... we are able to look at other people's blog and learn a thing or two from their blogs...

... it helps us to reflect on what we have learn in the class...

... It ensured that students understood what was being taught and made sure we reviewed what has been taught. However, since we have to make sure the blog is neat and such, it could be some sort of a hassle...

... i think it was an innovativr way of making us revise/reflect on the lessons we had so as to encourage us to remember what we've learnt in an easier way ...

Response to the Blog: Negatives



How did you find the use of the blog for "Workplace Safety and Health for Facility Management"

... The process is complicated ...

... Troublesome and waste time ...

... it is kind of hard to use ...

... The process is complicated ...

... i dont think we learn alot from the blog post.

Response to the Blog: Negatives



Difficulty in Setting up the Blog

- Unfamiliar with software
- Entries restricted to one user at a time.

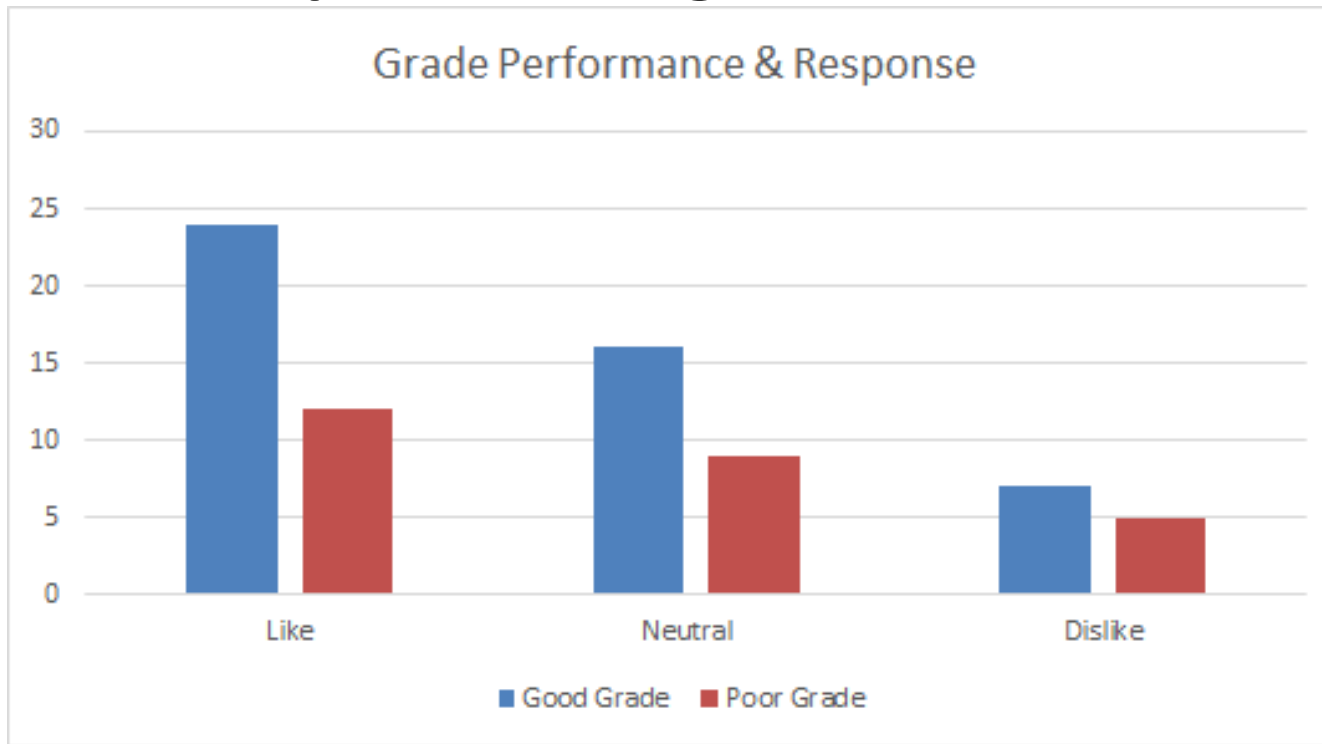


#4B How it shaped learning: Class Scores

	A	B	C	D	F	XF
TE01	1	13	8	1	0	0
TE03	8	11	6	0	0	0
TE04	1	15	4	4	1	0
Total	10	39	18	5	1	0



#4b How it shaped learning



Grade based on 45% CA: Written test 1 and 2 and preliminary report)



How did you find Blog Activity "Shoelaces - why is safety important / various stakeholders"

... It is very important because safety come first ...

... It is very touching and thus is very memorable, allows me to know the importance of safety ...

... I feel that it is crucial to understand how an accident would affect the people related and how will they feel about it...

... It helps me understand the different perspectives of the people in the accident...



How did you find Blog Activity "How can we take a more proactive stance towards preventing accidents"

... The blog shows us the safety measures and issues towards preventing accidents in the workplace and ensures that we avoid all potential accidents and incidents from taking place...

... it helped me greatly when i was doing my assignments ...

... I feel that it is important to know how to prevent accident from taking place even before it has occurred...

... Its allows us to understand more about the controls needed to prevent accidents from happening...

... It allows us to think through the things to do to prevent accidents from happening ...



How did you find Blog Activity "Spot the Hazard and post 10 photos of hazards"

... I went around looking for hazards and it was quite fun...

... It was a fun activity that helped me to apply what I have learnt. It helped me to name the different possible hazards and it was a fun exercise...

... i am able to do a hands on activity which causes me to think harder about the location assigned and to figure out what hazard is it...

... I think that this is a good activity as I get to go around TP and identify the hazards. I will also need to have a better understanding before being able to do so ..

... It is interesting as i got to see the hazards in real life, and also i did not know there are several hazards in Temasek Polytechnic...



How did you find Blog Activity "Post Mind-map for sharing on hazard classification"

... This activity also helped to show and brainstorm ideas and solutions to classify hazards appropriately, ensuring that the relative knowledge is present...

... It was fun to do, and it helped me for my written test. I also found another way to study/revise...

... It was a useful activity as it helped to visualize the different hazards and also taught me how to use the mindmapping software...

... we get to have a better understanding of each hazards as we typed in more details of the hazard that we are doing...

... it makes me read the information provided and then summarizing the whole information...



Sample of a good mind map





How did you find Blog Activity "Reflection on Critique on Policy and Objectives"

... It has allowed me to understand more about the policy that many company uses, and how to come up with a good policy...

... It helped me to review the different policies that are currently being used. It helps in telling me about what is being considered important in the current society...

... understand the need of policy to show people what will the company do...

... it allow us to know that the samples online can be used as reference for us when we are creating our own policy...

... This activity helped us to reflect and comprehend the policy and objectives about Workplace Safety and will also help to further our understanding and learning to help us in tests/future projects and assignments...



TE03-B

X MENU

TE03-B

Our motto: Safety is our top priority. Advertisements

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HOME

SHOELACES VIDEO

SUBSIDIARY LEGISLATION

HAZARDS IN TP

TYPES OF HAZARDS CLASSIFICATION
[MINDMAP]

SYSTEMATIC OR INCIDENTAL-BASED
APPROACH?

RM TEAM

CRITIQUE ON POLICY

CONTACT

Good Example for Activity “Shoelaces”



Stage 1: Reflect on role - “Injured”

.... Being an injured person can cause lots of inconvenience such as not being able to move or work as efficiently as before. Hence the job opportunities will be reduced. This can lead to a loss in income and it will affect the whole family financially. The medical bill of the patient will also lead to the family needing more financial support. Therefore workplace safety and health are very important....



Stage 2: Refined reflection after WSH Regulations lesson

Workplace Safety and Health (WSH) law helps to improve safety at workplace and prevent accidents to happen at all workplace by asking stakeholders to take reasonably practical measures at workplace. When a accidents occur, it may lead to the worker will be suffering in pain for being injured or even death. It will have an impact on the worker for a long period of time or even a lifetime. For example, when a worker accidentally slip or fall, he may lose an arm and is not able to work as efficiently as before.



Stage 2: Refined reflection after WSH Regulations lesson (cont)

... Having a permanent disability will lead to the worker being less effective in working or unable to work at all as the worker may be required to carry heavy stuffs or climb to high levels which the injured is unable to do so. Hence the employer will have no choice but to end the contract with the injured worker. Therefore both the employer and the worker **should follow the WSH law to protect the safety and health of workers**, and **follow the safety procedures during work respectively**, because **both parties will be at a loss if they do not...**



Stage 2: Refined reflection after WSH Regulations lesson (cont)

...Without a job, the injured will lose the earnings that will be needed to support the family and to pay for the medical fee. Hence the family will need some financial support. **With the WSH Act, the Work Injury Compensation Act (WICA) will compensate up to \$262,000 for permanent incapacity, \$204,000 for death of worker and \$36,000 for medical expenses.**



Stage 2: Reflection refined after WSH Regulations lesson (cont)

...Lastly, being an injured will lose the ability to enjoy a good social life as they might not be able to do what they want such as travelling. People might also look down on the injured due to the injures and disabilities Therefore, **WICA also provide treatments that help worker to recover and regain ability to work...**



Stage 3: Reflection on whole activity “Shoelaces”

... After working on this video, i understand more about the WSH act and how it ensure both workers and employers at workplace to be responsible for their safety and how they manage any incidents that occurs such as compensating the injured or his family and providing treatments. By **reading the work done by my group members, i also understand more about the importance of WSH Act at different prospective...**



Stage 3: Reflection on whole Activity

How to Improve “Shoelaces” (cont)

...Firstly, i need to **think or research** more on the impacts on the worker after being injured using more resources online. Next, I should do more **elaboration on every point and explain how it is relevant to the WSH law so that others can understand the importance of the WSH law.** Lastly, i should **structure every point to make it link with the previous point** so that it is more understandable and less confusing...

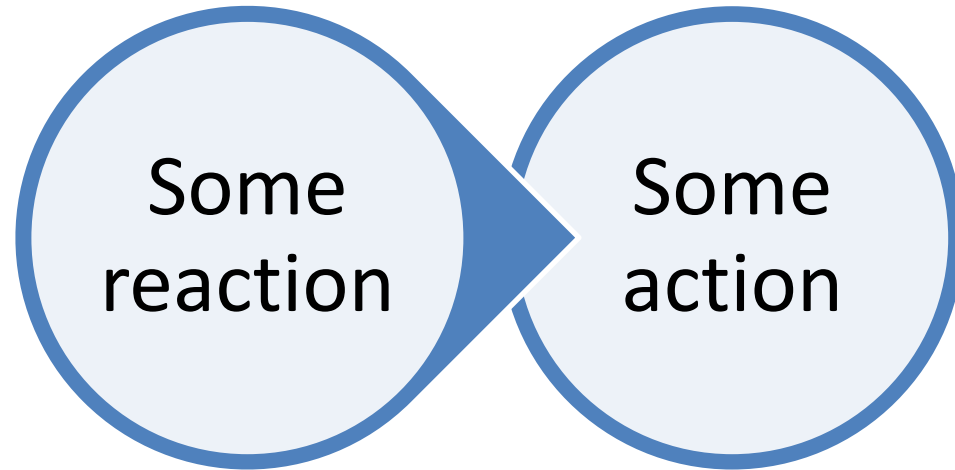


Good example of Activity: How can we take a more proactive stance towards preventing accidents?

..To take a more proactive stand towards preventing accidents, we can do a regular inspection to check if the environment and facilities are safe for people to use. **According to the WSH Act**, an inspection should be conducted once every three years, when an accident occurred or when there is a new work process. Before any work take place , the employers need to ensure the workplace is safe by **removing any hazards** found before letting the employees in into the workplace. Employees can also **attend courses to learn the rules to follow** when doing something or operating a machine such as using personal protection equipment ...



#4C: View of Workplace Safety after Blog Activities



- More mindful of dangers in school and home

- Warn friends in school and family at home



#5: Discussion/ Lessons Learnt

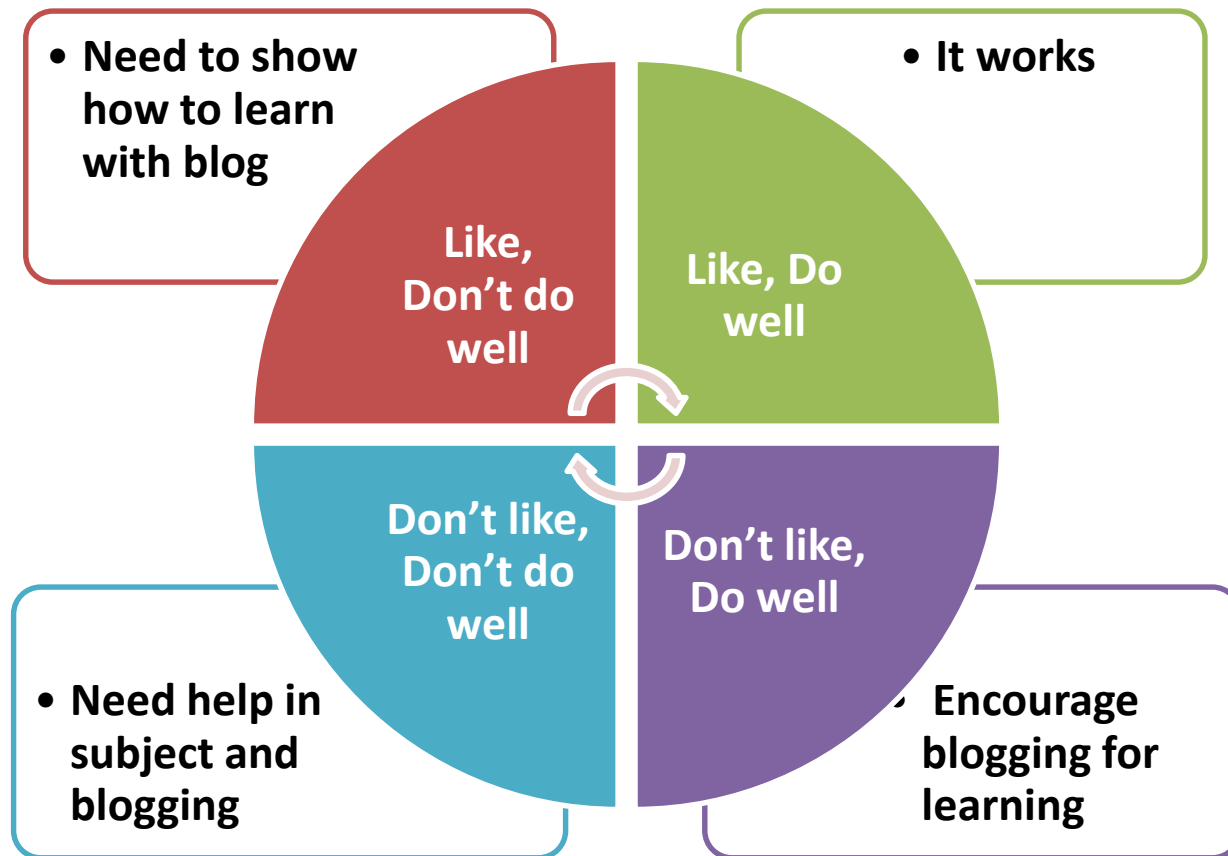
The Blog provided the experience of presenting information in a new way/new genre (Richardson, 2010)

- Not everyone will take to Blogging. For first timers, response was promising.
- Attitudes differ (Jackling, et al, 2014).
- Familiarity with the software affects the affinity to learn through the Blog.



#5: Discussion/ Lessons Learnt

- Can be use for class activity, (Farnwell, & Kruger-Ross,2013), but it may not work for everyone.
- Different teaching approaches are required to support the different needs and types of learners.





Discussion: Lessons Learnt

- Was useful as a learning tool, more for knowledge acquisition and sharing, and less for change of heart
 - Certain blog activities (reflection on Shoelace video) could trigger their hearts but buy-in is very important - attitude of the students is important.
 - Still need a lot of hands-on experience to make connections



Discussion / Lessons Learnt

- Deal with initial resistance - with more practice (will overcome biases / problems with software)
- Work on mindset change from doing for academic requirement, to learning for life - develop growth mindset.
- Encourage applicability to the real world - encourage them to blog about workplace safety for friends, family, their interest areas / personal hobbies



#5 Conclusion: Usefulness of Blog for workplace Safety course

The Blog is an effective learning tool more for enhancing knowledge, and for commitment to workplace safety (limited to close circle of family and friends/ classmates)



Conclusion: Potential for future uses

For Educators and Trainers:

- Need to approach WSH with growth mindset - plant seeds of growth mindset of students ; look for links to outside world : Safety forum / workplace symposium, workplace safety competitions



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