

# What can we learn from Lemony Snicket?



“One of the most difficult things to think about in life is one’s regrets. Something will happen to you, and for years afterward you will wish you had done something different”

~Lemony Snicket

It was just a normal day –  
It is always just a normal day...

~Sigmund



...and then your  
parents die  
in a house fire

(Or a fire alarm goes off & disrupts operations)



So I decided that this would be a  
good time to go to lunch...

HOWEVER

“One of the most troublesome things in life is  
that what you do or do not want has very little  
to do with what does or does not happen.”

~Lemony Snicket

I made the assumption that I could get back to the stockroom before the labs started back.

“Assumptions are dangerous things to make, and like all dangerous things to make – bombs, for instance, or strawberry shortcake – if you make even the tiniest mistake you can find yourself in terrible trouble.”

~Lemony Snicket



Violet was left in charge...



...with no way to contact me in  
case of an emergency

What could go wrong?



“People who think nothing can go wrong  
are usually disappointed.”

-Lemony Snicket

As fate would have it...



“Fate is like a strange, unpopular restaurant filled with odd little waiters who bring you things you never asked for and don't always like.”

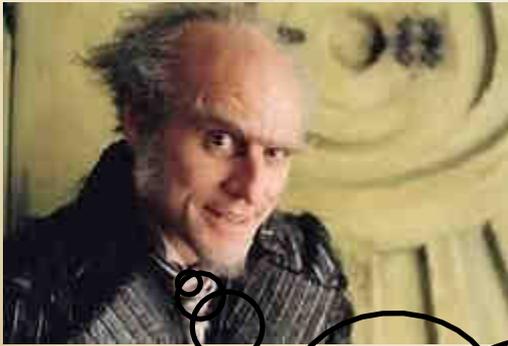
-Lemony Snicket

“...the table of elements does not contain one of the most powerful elements that make up our world, and that is the element of surprise.”



“Accidents happen all the time.”

-Lemony Snicket



“We will have to do  
a shorter  
experiment



It will be easy to  
set up.”



“The prep book says we need a 10% solution of ethylenediamine

## That's Simple

To make 1 L of  
10% ethylene diamine solution:  
mix 100 mL of ethylenediamine with  
900 mL of DI water.



“It's my pleasure  
to help, but I  
have never made  
that before?”



“Knowing that something is wrong and doing it anyway happens very often in life, and I doubt I will ever know why.”

~Lemony Snicket

“People often forget to look at something right in front of them.”

~Lemony Snicket



Violet went to get the chemical to accommodate the instructors

Violet did not review the safety data sheet  
All the prep book said was “(caution, en is toxic)”  
~ so how bad could it be?

11 Safety and Hazards  

11.1 Hazards Identification  

11.1.1 GHS Classification  



**Signal:** **Danger**

**GHS Hazard Statements**

Aggregated GHS information from 30 notifications provided by 1390 companies to the ECHA C&L Inventory. Each notification may be associated with multiple companies.

H226 (100%): Flammable liquid and vapor [**Warning** Flammable liquids]  
H302 (99.78%): Harmful if swallowed [**Warning** Acute toxicity, oral]  
H311 (51.01%): Toxic in contact with skin [**Danger** Acute toxicity, dermal]  
H312 (53.17%): Harmful in contact with skin [**Warning** Acute toxicity, dermal]  
H314 (100%): Causes severe skin burns and eye damage [**Danger** Skin corrosion/irritation]  
H317 (100%): May cause an allergic skin reaction [**Warning** Sensitization, Skin]  
H318 (38.2%): Causes serious eye damage [**Danger** Serious eye damage/eye irritation]  
H332 (21.58%): Harmful if inhaled [**Warning** Acute toxicity, inhalation]  
H334 (98.42%): May cause allergy or asthma symptoms or breathing difficulties if inhaled [**Danger** Sensitization, respiratory]  
H335 (26.98%): May cause respiratory irritation [**Warning** Specific target organ toxicity, single exposure; Respiratory tract irritation]  
H412 (24.96%): Harmful to aquatic life with long lasting effects [Hazardous to the aquatic environment, long-term hazard]

Information may vary between notifications depending on impurities, additives, and other factors. The percentage value in parenthesis indicates the notified classification ratio from all companies. Only Hazard Codes with percentage values above 10% are shown.



“As I am sure you know, when people say ‘It’s my pleasure,’ they usually mean something along the lines of, ‘There’s nothing on Earth I would rather do less.’  
[...]”

~Lemony Snicket



No news is good news – right?



About that saying....

"No news is good news." ... simply means that if you don't hear from someone, everything is probably fine, and you can see at once why this expression makes such little sense, because everything being fine is only one of many, many reasons why someone may not contact you. Perhaps they are tied up. Maybe they are surrounded by fierce weasels, or perhaps they are wedged tightly between two refrigerators and cannot get themselves out."

"The expression might well be changed to "No news is bad news," except that people may not be able to contact you because they have just been crowned king or are competing in a gymnastics tournament."

-Lemony Snicket

“The point is that there is no way to know why someone has not contacted you, until they contact you and explain themselves. For this reason, the sensible expression would be

**No news is no news.”**

**On jumping to conclusions...**

**-Lemony Snicket**

“...it is hard not to jump at all when you are jumping to conclusions, and it is impossible to make sure that you are jumping to a safe place, because all ‘jumping to conclusions’ means is that you are believing something is true even though you don’t actually know whether it is or not.”

-Lemony Snicket



You have to tell her!

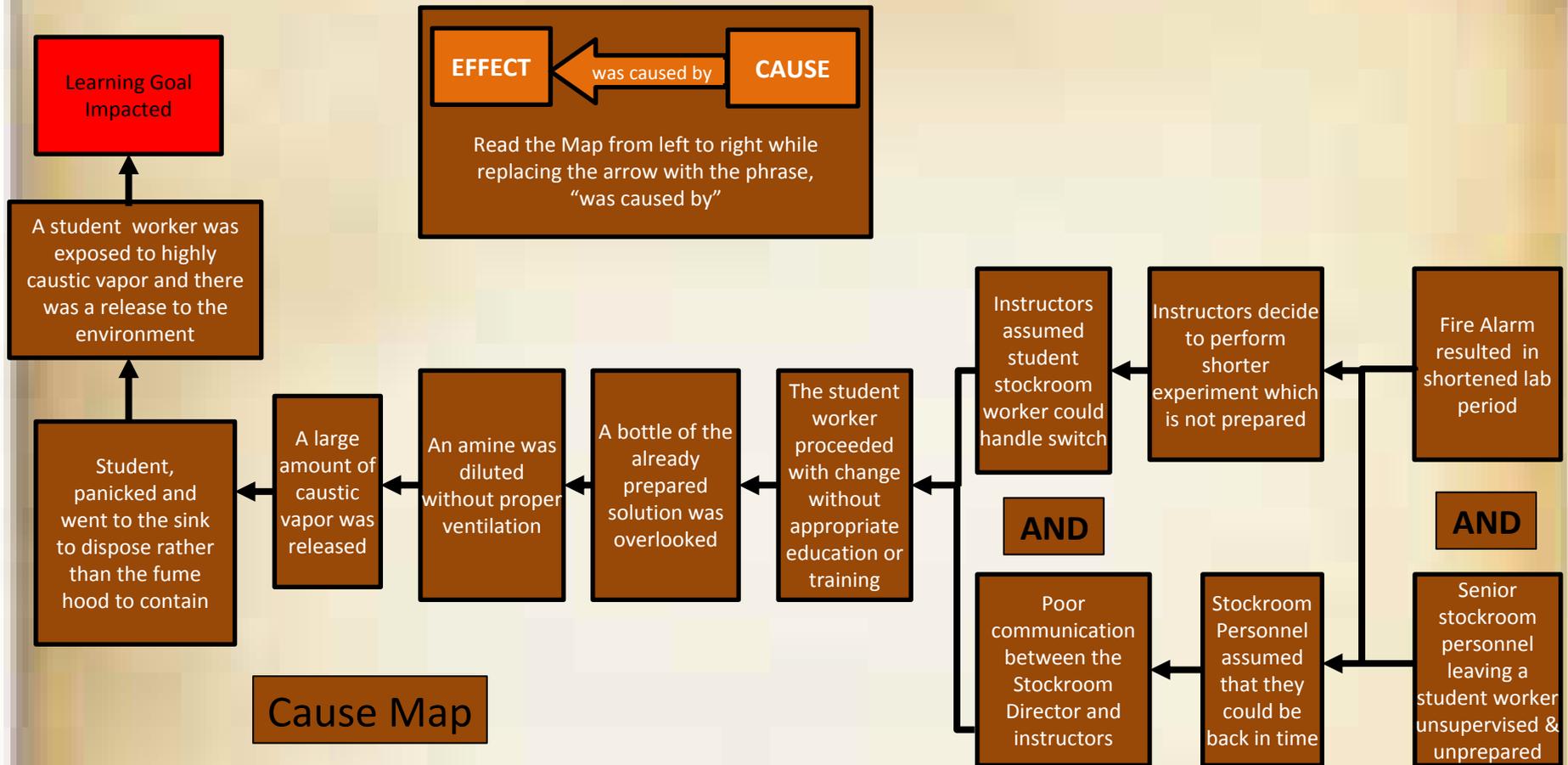
“There are many difficult things in this world to hide, but a secret is not one of them.”

~Lemony Snicket

“At times the world can seem an unfriendly and sinister place, but believe us when we say that there is much more good in it than bad. All you have to do is look hard enough. And what might seem to be a series of unfortunate events may, in fact, be the first steps of a journey.”

-Lemony Snicket

An educational goal of the undergraduate curriculum is to teach students to work safely with chemicals.



This must include learning how to plan, how to communicate effectively, and to consider what the implications of procedural changes might be.

Poor Leadership Decisions

Latent (Organizational)

Poor Management

Latent (Organizational)

Preconditions Exist for an  
"Unfortunate Event"

Latent (Technical)

Active (Knowledge & Skill)

Unsafe Act

Active  
(Knowledge, Rule  
& Skill based failure)

Unfortunate Event

## The Series of Unfortunate Events

### Latent

- Organizational Influences
  - Poor leadership decisions – Both from myself (leaving active event) & the instructors (changing experiment, pressuring a student)
  - Poor management – Student was left without a safety net (she had nobody to turn to)
  - Pre-existing conditions – Chemical access, no clear instructions for faculty or student workers on solution preparation
- Technical
  - Poorly written procedure (no safety instructions or limitations)

### Active

- Knowledge
  - Student did not have the knowledge or training required
- Rule
  - Student did not review the safety of the process or look at SDS
- Skill
  - Not your normal “dilution”

# Lessons Learned

“Sometimes words are not enough. There are some circumstances so utterly wretched that I cannot describe them in sentences or paragraphs or even a whole series of books.”

~Lemony Snicket



“In an emergency, one often learns that one’s companions can be of even less help in extraordinary circumstances than they are during an average evening.”

~Lemony Snicket

“We are all told to ignore bullies. It's something they teach you, and they can teach you anything. It doesn't mean you learn it. It doesn't mean you believe it. One should never ignore bullies. One should stop them.”

~Lemony Snicket

“But there are times in this harum-  
scarum world when figuring out the right  
thing to do is quite simple, but doing the  
right thing is simply impossible...”

~Lemony Snicket

**SOLUTION PREP:**

\*Quantity sufficient for 200 students\*

**Ethylenediamine is very corrosive to the skin and  
can be lethal if inhaled.**

**THIS SOLUTION SHOULD ONLY BE MADE BY THE  
STOCKROOM MANAGER.**

1 L of 10% ethylenediamine solution: **WITH Nitrile (short contact)  
GLOVES AND IN THE HOOD**, mix 100 mL of ethylenediamine with  
900 mL of DI water.



*But it's going to be alright.*

- “...Your initial opinion on just about anything will change over time.”
- “But the sad truth is that the truth is sad, and that what you want does not matter. A series of unfortunate events can happen to anyone, no matter what they want.”
- “It is very easy to say that the important thing is to try your best, but if you are in real trouble the most important thing is not trying your best, but getting to safety.”
- “Even the best plans can change if there’s an accident.”

- “Imagining the worst doesn’t keep it from happening”
- “In the vast majority of cases, however, getting into trouble has nothing to do with one’s self-esteem. It usually has much more to do with whatever is causing the trouble – a monster, a bus driver, a banana peel, killer bees, the school principal – than what you think of yourself.”
- “..There’s more to life than safety”
- “There is no easy way to train an apprentice. My two tools are example and nagging.”
- “Those unable to catalog the past are doomed to repeat it.”
- “There is nothing wrong with crying at the end of a long day.”

~ The End ~