



MINISTRY OF BUSINESS,
INNOVATION & EMPLOYMENT
HĪKINA WHAKATUTUKI



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NEW ZEALAND



Manaaki Whenua
Landcare Research



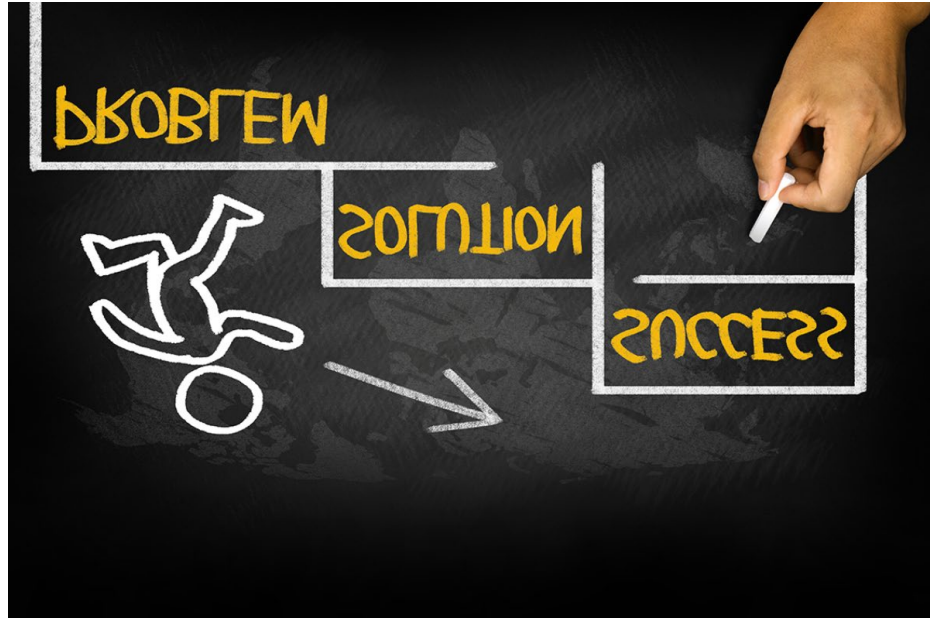
Coaching great practices of describing a problem



José Higino, 12 February 2021

Who has
problems?

No one right? :)



What is the
immediate
focus?



- Help (support)

- FAST!

- Solution that actually works

Let's iterate...



A user opens a support request with the following problem description...

I can't login!



Can you please tell
us where exactly?

User responds



On the login node.

Support asks
for more
detail



Can you please tell us the hostname?

User responds
back



obvious.hostname

Support try to
understand
more



When have this started?

User responds
back trying to
provide an
updated
status of the
problem



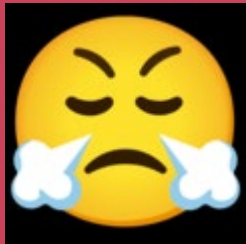
I have just tried and
it still does not work

Support seeks
clarification



Was it working yesterday?

User is
becoming
impatient...



Yes!

After long
hours of
emails back
and forward...



The problem finally
got fixed!





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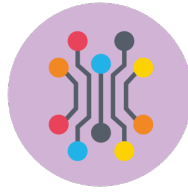


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Effects of context when describing a problem

A simple adaptation of Kepner Tregoe problem solving methodology



Where Exactly?

- Describe with as much detail as possible where is the problem occurring. Be as much factual as possible (avoid I “thinks”).



When?

- Describe when the problem first appeared...“yesterday around 5 PM”, “last month”



How Frequent?

- Describe how many times the problem occurs and if there are any patterns...
Everytime, once, 50%, 2 times out of 10...



What?

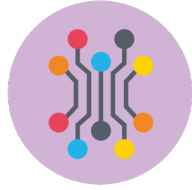
- What exactly is the problem...“Login fails, with the respective output of the failure...”

Reiterating
the same
problem

Trying to
answer the
4-questions

I can't login... on obvious.hostname
after last night, when I updated my
windows machine. I tried logging in
5 times after the first failure and all
of them failed. I have attached an
output of the message I get when
trying to log in.

What you get from the 4 questions



Where Exactly?

- `obvious.hostname`



When?

- Since last night after updating windows machine



How Frequent?

- Always (5 times)



What?

- Can't login, with the respective output of the login failure

Minutes
after...

The support staff checks the logs from last night and finds out that the user software client was attempting to login multiple times with a wrong key (via possibly a script), effectively locking the user account, before he/she had the chance to authenticate.



The user gets notified and the problem gets fixed.

Result

A better problem description (using 4 specific questions) allowed us to quickly pinpoint where to focus our investigation.

We did not spend extra time asking for more information... and it was faster!

- Can be applied to any kind of problems
- Reduces ambiguity and ping/pong communication
- Sometimes resolves itself



NeSI @ eResearch NZ Talks & Workshops:



Wednesday 10 Feb

13:00 - 17:00 - Maxime Rio - Machine Learning on NeSI 101

13:20 - 13:40 - Jun Huh - Taonga: building a data repository for genomics research in New Zealand

13:20 - 13:40 - Dinindu Senanayake - Paving the way for Bioinformatics excellence in New Zealand

14:20 - 15:00 - Brian Flaherty - Moving data: getting up to speed with Globus and Science DMZ

15:50 - 16:50 - Jana Makar - Challenge Accepted: Responding to community feedback for supporting diversity in HPC & eResearch

Thursday 11 Feb

11:00 - 11:20 - Maxime Rio - Data science consultancies at NeSI: A whirlwind tour of case studies

13:30 - 13:50 - Chris Scott - GPUs on NeSI

13:50 - 14:10 - Georgina Rae - Building Partnerships for eResearch

14:10 - 14:30 - Wolfgang Hayek - NeSI Consultancies - Evolving a Scientific Programming Service

14:40 - 15:00 - Albert Savary - Software on NeSI

15:00 - 15:20 - Jeff Zais - Taking Advantage of Technology Innovations in the Next Generation of NeSI HPC Infrastructure

15:20 - 15:40 - Callum Walley - Virtual Desktops for HPC

Thursday 11 Feb (cont.)

15:20 - 15:40 - Robin Bensley - Staying connected in an evolving eResearch ecosystem

16:00 - 17:00 - Megan Guidry - Sowing the seeds of capability: Experience what Carpentries instructor training is all about

Friday 12 Feb

11:20 - 12:30 - Nick Jones - Future of eResearch

12:20 - 12:30 - José Filipe Gonçalves Higino - Coaching great practices of describing a problem

13:30 - 14:30 - Blair Bethwaite - Embracing cloud-native architectures

13:30 - 14:30 - Alexander Pletzer and Nooriyah Lohani - Who needs research software engineers?

13:30 - 14:30 - Georgina Rae - FAIR for Research Software

