ENGR 399 Project 3

1

What are the implications from this case study for considering the implementation of a new technology in an organization that involves teams with different types of specialized expertise? (short answer to a paragraph)

✓ **Answer**

In this case, it appeared that the initial diagnostic ability of the doctor and the initial operating knowledge of the technologist were what influenced the initial state of the system, which makes sense as they bring their own respective skills to the table. Their ability to grow if there is no participation of the doctor heavily depends on much space there is to grow in his own operating knowledge. If the doctor does choose to participate, then thw growth is dependent on how much both the doctor and technologist can grow in their non-respective areas.

2

This project was based on a retrospective case study of CT scanning, but how might this apply to a new situation like the introduction of AI/ML into an organization? (short answer to a paragraph)

✓ **Answer**

Introducing new "intelligences" into an already existing ecosystem can either have significant benefits or no benefits as seen in this study — or possibly even harm. This study shows us that we should be monitoring how the introduction of something new into a system affects the system as to allow the system to be maximally impacted in a way that is helpful for everyone.

3

Who did you work with to complete this assignment? (Note that it’s OK to do this assignment individually)

✓ **Answer**

1. Myself

4

Include the summaries from your last 5 simulation runs, i.e., copy and paste the last 5 summaries into this document here:

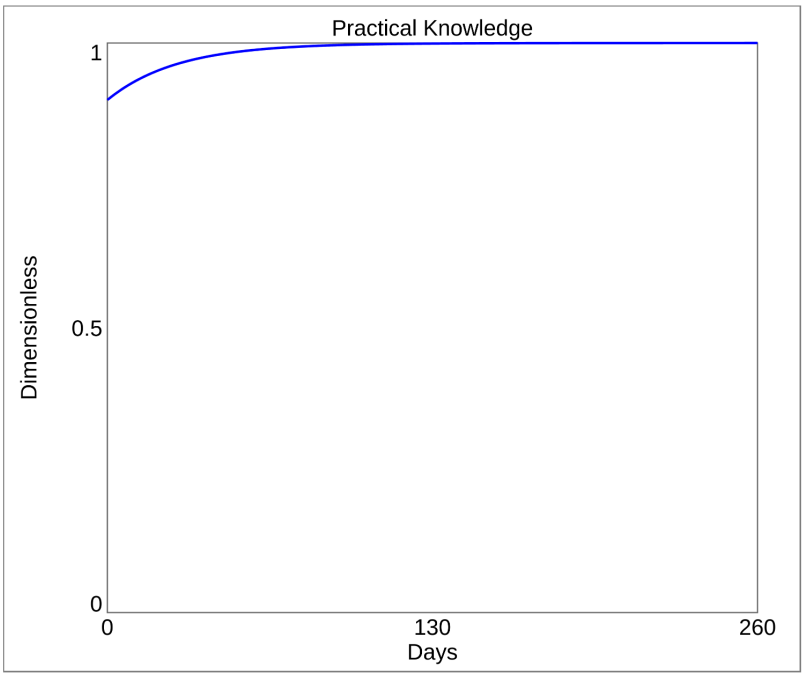
a

In this scenario, the initial diagnostic knowledge is 0.8, the initial doctor operating knowledge is 0, the initial technologist diagnostic knowledge is 0, and the initial technologist operating knowledge is 0.8,

Doctors participating in the scanning with the technologists is set to 0 (0 = no participation, 1 = participation).

Click the [Run] button to see the results.

Run



When the doctor has room to grow in utilizing the technology, no collaboration increasaes practical knowledge greatly when the doctor has good diagnostic knowledge.

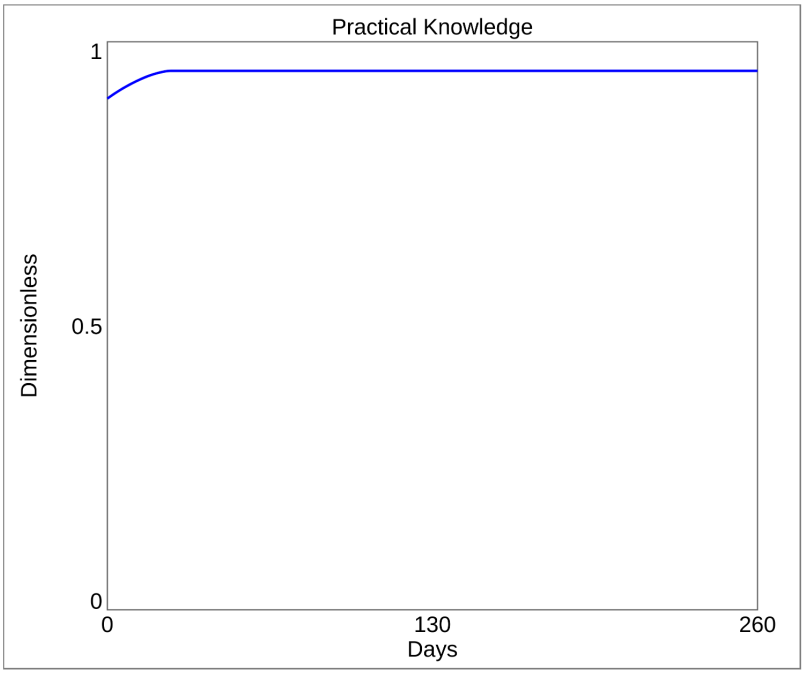
b

In this scenario, the initial diagnostic knowledge is 0.8, the initial doctor operating knowledge is 0, the initial technologist diagnostic knowledge is 0, and the initial technologist operating knowledge is 0.8,

Doctors participating in the scanning with the technologists is set to 1 (0 = no participation, 1 = participation).

Click the [Run] button to see the results.

Run



When there is collaboration, there reaches a plateau as the doctor eventually just lets the technologist do the work without knowing the system, as the technologist is more experienced in operating the machine.

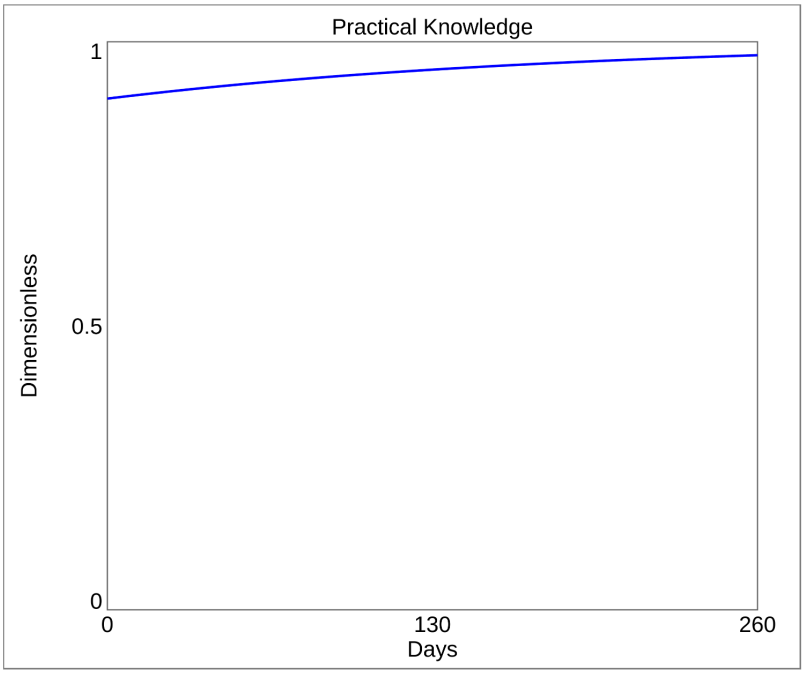
c

In this scenario, the initial diagnostic knowledge is 0.8, the initial doctor operating knowledge is 0.8, the initial technologist diagnostic knowledge is 0.8, and the initial technologist operating knowledge is 0.8,

Doctors participating in the scanning with the technologists is set to 0 (0 = no participation, 1 = participation).

Click the [Run] button to see the results.

Run



When the doctor doesn't have much room to grow, low collaboration leads to a slower learning pace.

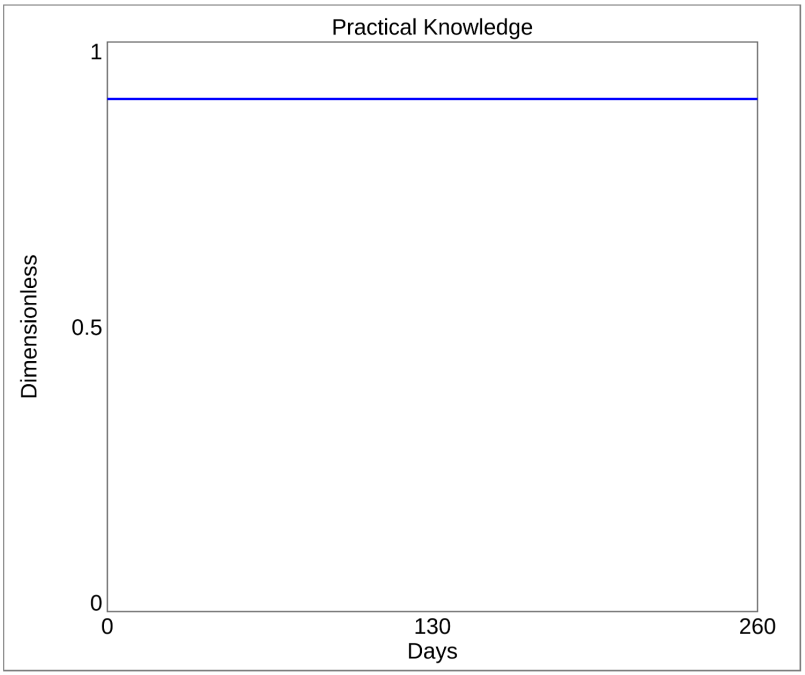
d

In this scenario, the initial diagnostic knowledge is 0.8, the initial doctor operating knowledge is 0.8, the initial technologist diagnostic knowledge is 0.8, and the initial technologist operating knowledge is 0.8,

Doctors participating in the scanning with the technologists is set to 1 (0 = no participation, 1 = participation).

Click the [Run] button to see the results.

Run



Since the doctor and the technologist have roughly equal knowledge, no one is pushed to grow if they are collaborating.

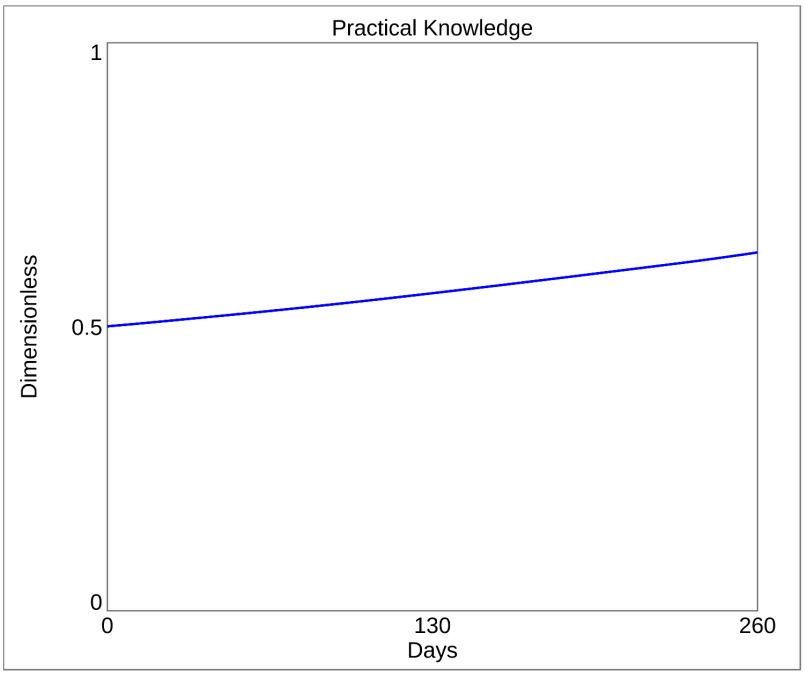
e

In this scenario, the initial diagnostic knowledge is 0.8, the initial doctor operating knowledge is 0.8, the initial technologist diagnostic knowledge is 0, and the initial technologist operating knowledge is 0,

Doctors participating in the scanning with the technologists is set to 1 (0 = no participation, 1 = participation).

Click the [Run] button to see the results.

Run



If the technologist is useless, then the participation of the doctor will be helpful.