

survey name here | 3% of items completed

Comprehension Questions

[Sample to demonstrate style - content is from previous similar experiments] Based on what you learned in the video, answer the following questions. You can always [watch the video again](#) (opens in new window) or refer to [this short "cheat-sheet"](#) (pops-up a window).

Please match each of the following definitions with the entity it defines.

An active, autonomous entity that holds beliefs and aims at achieving goals.

Actor

Goal

Task

Effect (previous value)

Effect

Quality

Quality (previous value)

TODO Definition - Effect

Actor

Goal

Task

Effect (previous value)

Effect

Quality

Quality (previous value)

TODO Definition - Task

Actor

Goal

Task

Effect (previous value)

Effect

Quality

Quality (previous value)

Please match each of the following examples with the entity it exemplifies.

TODO - Training Example - Effect (previous value)

Actor

Goal

Task

Effect (previous value)

Effect

Quality

Quality (previous value)

TODO - Training Example - Goal

Actor

Goal

Task

Effect (previous value)

Effect

Quality

Quality (previous value)

TODO - Training Example - Task

Actor

Goal

Task

Effect (previous value)

Effect

Quality

Quality (previous value)

Please match each of the following definitions with the relationship it defines.

TODO Definition - is-and-child-of

is-and-child-of

is-or-child-of

affects

may-affect

contributes to (positively or negatively)

TODO Definition - may-affect

is-and-child-of

is-or-child-of

affects

may-affect

contributes to (positively or negatively)

TODO Definition - is-or-child-of

is-and-child-of

is-or-child-of

affects

may-affect

contributes to (positively or negatively)

Please match each of the following examples with the relationship it exemplifies.

TODO - Training Example - contributes to (positively or negatively)

is-and-child-of

is-or-child-of

affects

may-affect

contributes to (positively or negatively)

TODO - Training Example - may-affect

is-and-child-of

is-or-child-of

affects

may-affect

contributes to (positively or negatively)

TODO - Training Example - is-or-child-of

is-and-child-of

is-or-child-of

affects

may-affect

contributes to (positively or negatively)

Click this button to continue

survey name here | 11% of items completed

Overlap


[Sample to demonstrate style - content is from previous similar experiments] Please watch the following video with directions about this page. If embedded video does not load, you can [watch it directly on Youtube](#)




Overlap Assessment

Consider **pairs** of the modeling entities and relationships discussed earlier: (**Actor, Effect (indirect), contributes-to, etc.**) etc. For each pair, rate how much you think the two concepts in the pair **overlap**, i.e., refer to the same thing. Choose any level from 0 to 10, between **No Overlap** (0, the concepts in the pair are completely distinct) and **Complete Overlap** (10, the concepts in the pair refer to the same thing in different words). You can review the language again by referring to [the previous video](#) (opens in new window) or to [the cheat-sheet](#) (pops-up a window).


Actor and Goal

No Overlap	6	Complete Overlap
		


Actor and Task

No Overlap	5	Complete Overlap
		


Actor and Effect (previous value)

No Overlap	1	Complete Overlap
		


Actor and Effect

No Overlap	1	Complete Overlap
		


Actor and Quality

No Overlap	1	Complete Overlap
		


Actor and Quality (previous value)

No Overlap	1	Complete Overlap
		


Goal and Task

No Overlap	1	Complete Overlap
		


Goal and Effect (previous value)

No Overlap	4	Complete Overlap
		


Goal and Effect

No Overlap	2	Complete Overlap
		

Goal and Quality

No Overlap	2	Complete Overlap
		


Goal and Quality (previous value)

No Overlap	2	Complete Overlap
		


Task and Effect (previous value)

No Overlap	4	Complete Overlap
		


Task and Effect

No Overlap	3	Complete Overlap
		


Task and Quality

No Overlap	1	Complete Overlap
		


Task and Quality (previous value)

No Overlap	2	Complete Overlap
		


Effect (previous value) and Effect

No Overlap	2	Complete Overlap
		


Effect (previous value) and Quality

No Overlap	6	Complete Overlap
		


Effect (previous value) and Quality (previous value)

No Overlap	2	Complete Overlap
		


Effect and Quality

No Overlap	1	Complete Overlap
		


Effect and Quality (previous value)

No Overlap	2	Complete Overlap
		


Quality and Quality (previous value)

No Overlap	2	Complete Overlap
		


is-and-child-of and is-or-child-of

No Overlap	2	Complete Overlap
		


is-and-child-of and affects

No Overlap	2	Complete Overlap
		


is-and-child-of and may-affect

No Overlap	2	Complete Overlap
		


is-and-child-of and contributes to (positively or negatively)

No Overlap	2	Complete Overlap
		


is-or-child-of and affects

No Overlap	2	Complete Overlap
		


is-or-child-of and may-affect

No Overlap	2	Complete Overlap
		

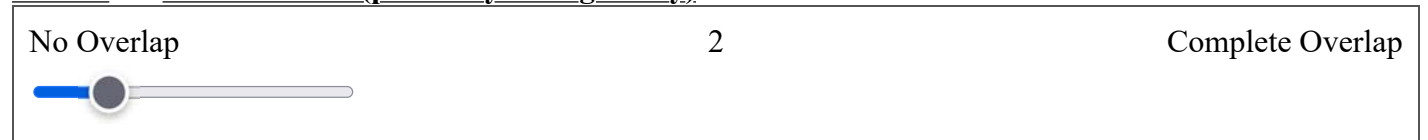
is-or-child-of and contributes to (positively or negatively)

No Overlap	2	Complete Overlap
		

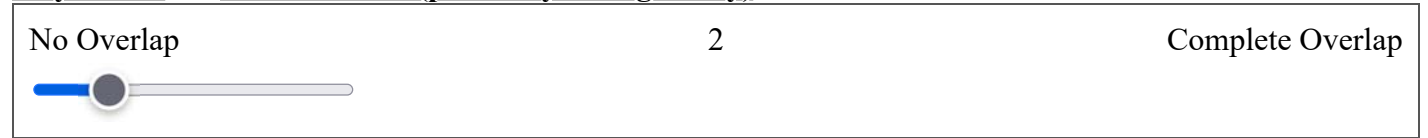
affects and may-affect

No Overlap	2	Complete Overlap
		

affects and **contributes to (positively or negatively)**



may-affect and **contributes to (positively or negatively)**



Click this button to continue

survey name here | 15% of items completed

Classification Exercise 1: Heather's Case

[Sample to demonstrate style - content is from previous similar experiments] Please watch the following video with directions. If embedded video does not load, you can [watch it directly on Youtube](#)

Directions: Heather's Case



We are modeling a heating controller. The heating controller's purpose is to maintain optimal room temperature at all times. To do so, it sends periodic signals that turn on or off an electric heater. Specifically the controller may choose to send to signal the heater on or signal heater off. These signals are sent wirelessly to the heater, so they are not always received. Thus, when an on signal is sent the outcome can be that the On Signal Succeeded or that the On Signal Failed. Likewise the outcome of an off signal can be Off Signal Succeeded or Off Signal Failed. Whether Heater is On is eventually true depends on which of those four outcomes comes about as well as whether Heater was previously On.

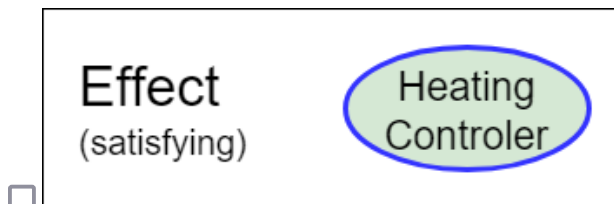
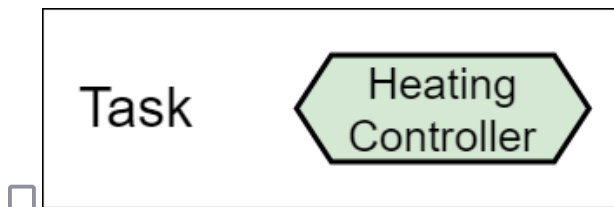
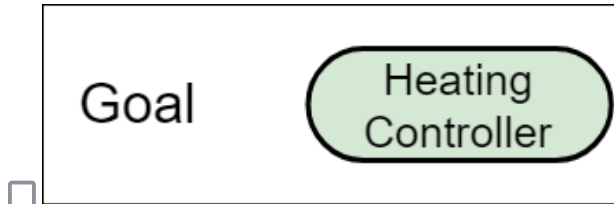
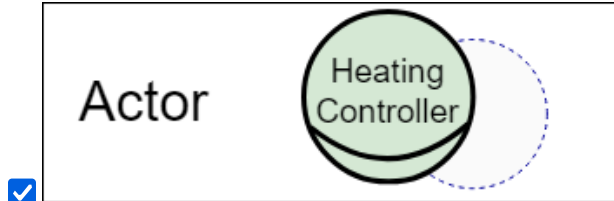
The heating controller aims at maintaining optimal room temperature while minimizing cost and maximizing comfort. To minimize cost the controller needs to minimize running time, while to maximize comfort the controller needs to ensure that the ideal temperature is maintained. Whether ideal temperature is maintained, however, depends on (a) the extend to which the ideal temperature was maintained at the previous state (b) whether the heater is on.

Entities


Based on what you learned in the video and the information in the above passage, classify each of the following expressions to **one or more entities** that best describe it. You can always [watch the vocabulary](#)

[presentation video again](#) (opens in new window) or refer to [this short "cheat-sheet"](#) (pops-up a window).
Please check **None of the above** if you think that none of the listed concepts describes the expression well.

"Heating controller"



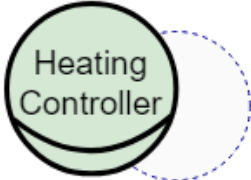
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Quality
(previous value) 

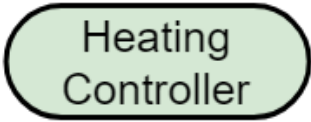
☐ None of the above

"Maintain optimal room temperature"

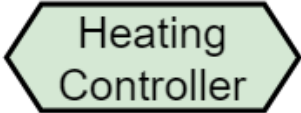
☐

Actor 

☒

Goal 


☐

Task 

☐


Effect
(previous value) 

☐

Effect
(satisfying) 

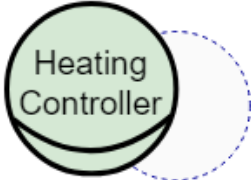
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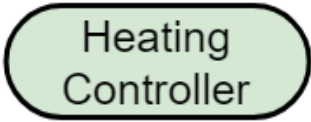
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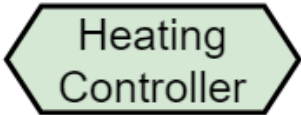
☒ **Quality**
(previous value) 

☐ None of the above


"Signal Heater On"

☒ **Actor** 


☐ **Goal** 

☐ **Task** 

☒ **Effect**
(previous value) 

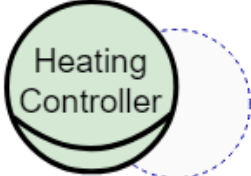
☐ **Effect**
(satisfying) 

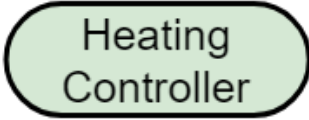
☐ **Quality** 

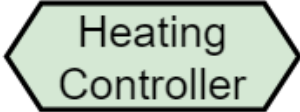
☐ Quality
(previous value) 

☐ None of the above


"Signal Heater Off"

☐ Actor 

☐ Goal 


☐ Task 

☐ Effect
(previous value) 

☐ Effect
(satisfying) 

☐ Quality 

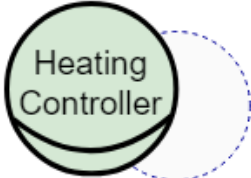
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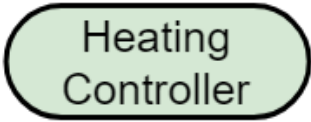
☐ None of the above

"On-signal succeeded"

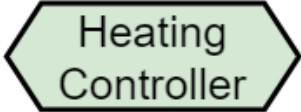
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Actor 

☐

Goal 


☐

Task 

☐

Effect
(previous value) 

☐

Effect
(satisfying) 

☐

Quality 

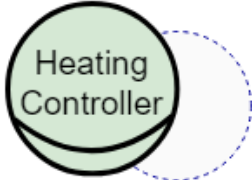
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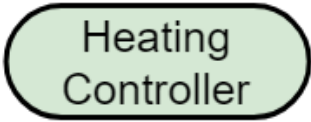
☐ None of the above

"On-signal failed"

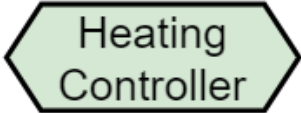
☐

Actor 


☐

Goal 


☐

Task 

☐

Effect
(previous value) 

☐

Effect
(satisfying) 

☐

Quality 

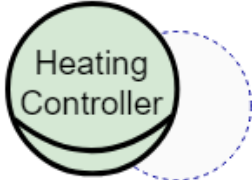
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Quality
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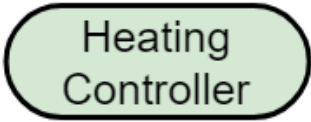
☐ None of the above

"Off-signal succeeded"

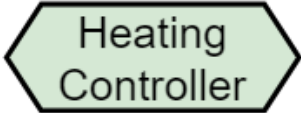
☐

Actor 


☐

Goal 


☐

Task 

☐

Effect
(previous value) 

☐

Effect
(satisfying) 

☐

Quality 

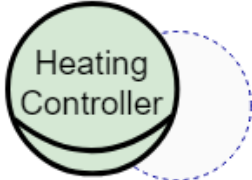
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Quality
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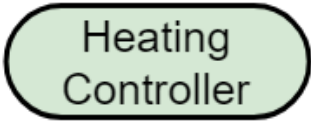
☐ None of the above

"Off-signal failed"

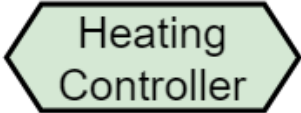
☐

Actor 


☐

Goal 


☐

Task 

☐

Effect
(previous value) 

☐

Effect
(satisfying) 

☐

Quality 

☐

Quality
(previous value)

PRE

Heating
Controller

☐ None of the above

"Heater is On"

☐

Actor

Heating
Controller

☐

Goal

Heating
Controller

☐

Task

Heating
Controller

☐

Effect
(previous value)

PRE

Heating
Controller

☐

Effect
(satisfying)

Heating
Controller

☐

Quality

Heating
Controller

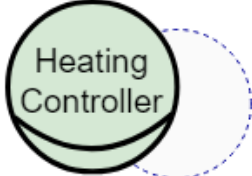
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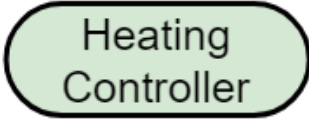
☐ None of the above

"Heater was previously on"

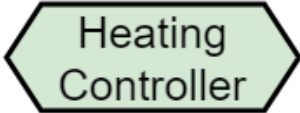
☐

Actor 


☐

Goal 


☐

Task 

☐

Effect
(previous value) 

☐

Effect
(satisfying) 

☐

Quality 

☐

Quality
(previous value)

PRE

Heating
Controller

☐ None of the above

"Minimize cost"

☐

Actor

Heating
Controller

☐

Goal

Heating
Controller

☐

Task

Heating
Controller

☐

Effect
(previous value)

PRE

Heating
Controller

☐


Effect
(satisfying)

Heating
Controller

☐

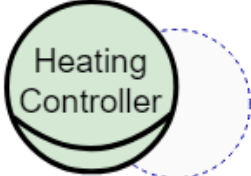
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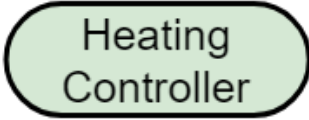
Heating
Controller

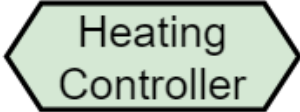
☐ Quality
(previous value) 

☐ None of the above


"Maximize comfort"

☐ Actor 

☐ Goal 


☐ Task 

☐ Effect
(previous value) 

☐ Effect
(satisfying) 

☐ Quality 

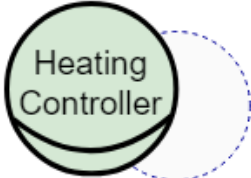
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Quality
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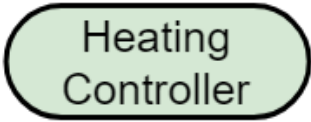
☐ None of the above

"Maintain Ideal Temperature"

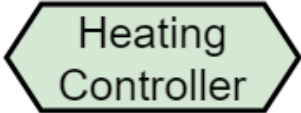
☐

Actor 

☐

Goal 


☐

Task 

☐

Effect
(previous value) 

☐

Effect
(satisfying) 

☐

Quality 

☐

Quality
(previous value)

PRE

Heating
Controller

☐ None of the above

"Maintain Ideal Temperature (previous level)"

☐

Actor

Heating
Controller

☐

Goal

Heating
Controller

☐

Task

Heating
Controller

☐

Effect
(previous value)

PRE

Heating
Controller

☐

Effect
(satisfying)

Heating
Controller

☐

Quality

Heating
Controller

☐

Quality
(previous value)

PRE

Heating
Controller

☐ None of the above

Relationships

Based on what you learned in the video and the information in the above passage, classify each of the following expressions to **one or more relationships** that best describe it. You can always [watch the vocabulary presentation video again](#) (opens in new window) or refer to [this short "cheat-sheet"](#) (pops-up a window). Please check **None of the above** if you think that none of the listed relationships describes the expression well.

"Signal Heater On _____ Maintain Optimal Room Temperature"

☐

is AND-child of

Signal
Heater On

AND

Maintain
Optimal Room
Temperature

☐

is OR-child of

Signal
Heater On

OR

Maintain
Optimal Room
Temperature

☐

affects

Signal
Heater On

eff

Maintain
Optimal Room
Temperature

☐

may or may not bring about

Signal
Heater On

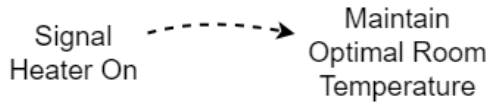
eff

Maintain Optimal
Room Temperature

16 of 28

2024-12-10, 2:13 p.m.

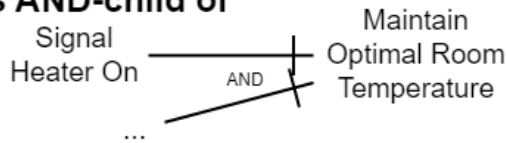
contributes to


☐

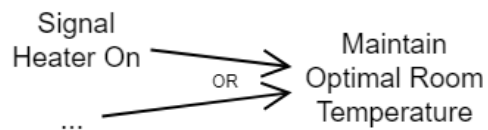
☐ None of the above

"Signal Heater Off _____ Maintain Optimal Room Temperature"

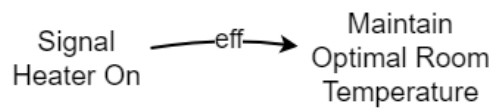
is AND-child of


☐

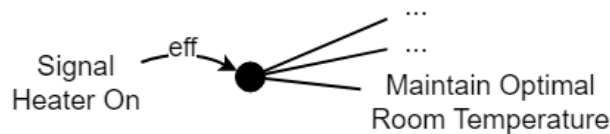
is OR-child of


☐

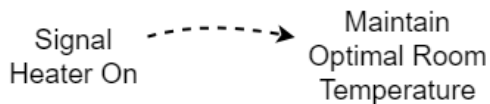
affects


☐

may or may not bring about

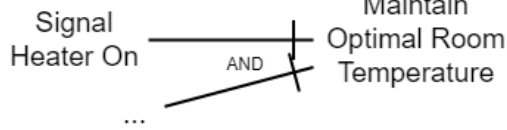
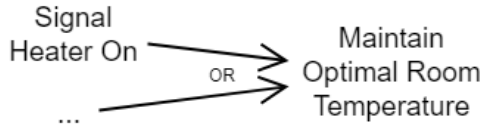
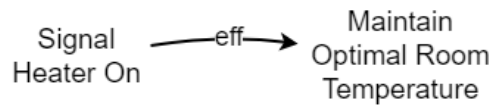
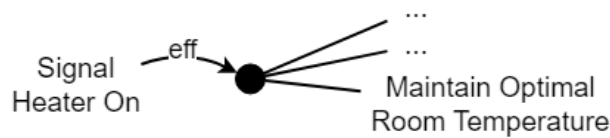
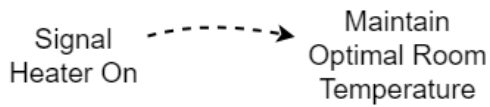
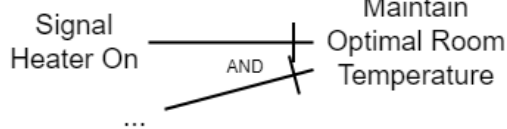
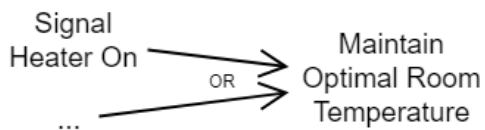

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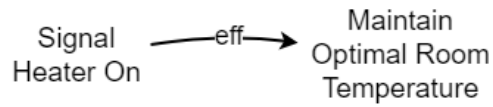
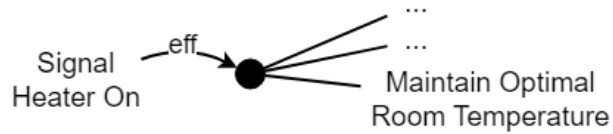
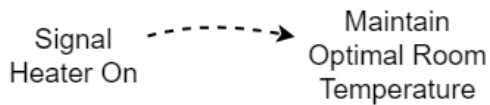
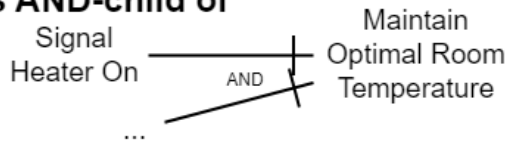
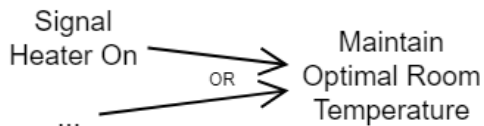
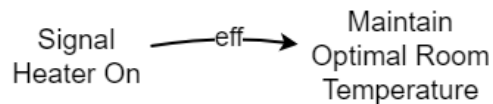
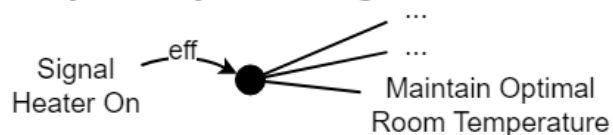
contributes to


☐

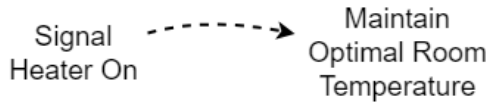
☐ None of the above

"Signal Heater On _____ On Signal Succeeded"

is AND-child of☐**is OR-child of**☐**affects**☐**may or may not bring about**☐**contributes to**☐☐ None of the above*"Signal Heater On _____ On Signal Failed"***is AND-child of**☐**is OR-child of**☐

affects☐**may or may not bring about**☐**contributes to**☐☐ None of the above*"Signal Heater Off _____ Off Signal Succeeded"***is AND-child of**☐**is OR-child of**☐**affects**☐**may or may not bring about**☐

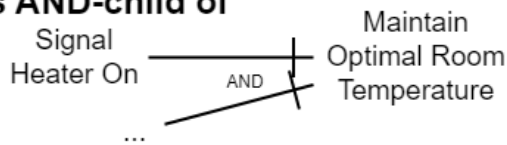
contributes to


☐

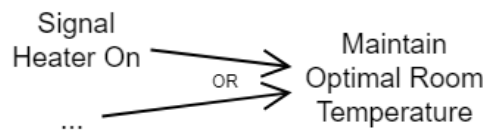
☐ None of the above

"Signal Heater Off _____ Off Signal Failed"

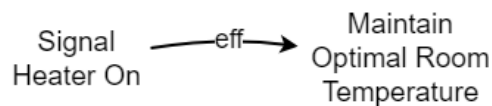
is AND-child of


☐

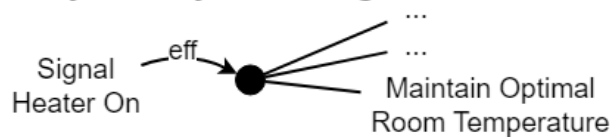
is OR-child of


☐

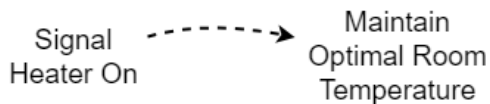
affects


☐

may or may not bring about

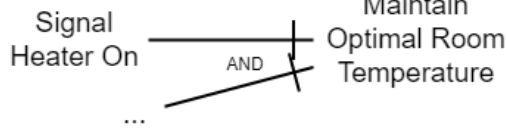
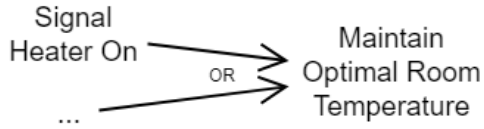
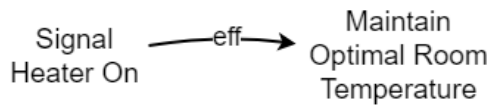
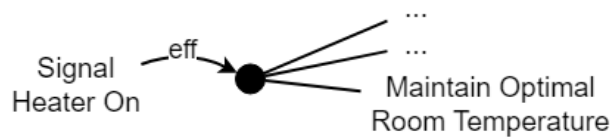
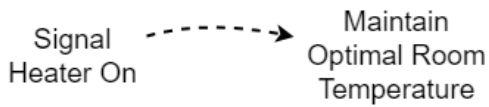
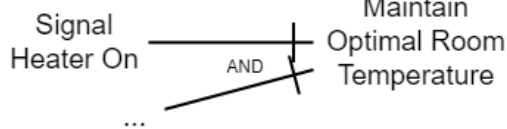
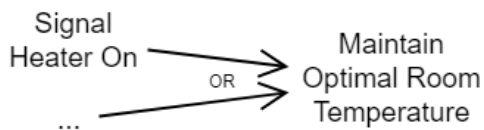

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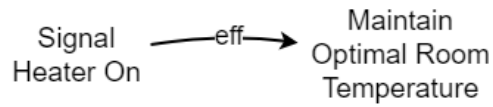
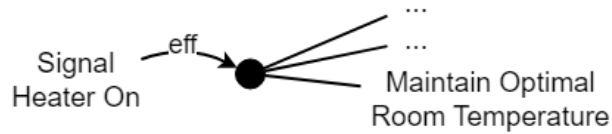
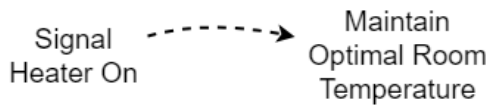
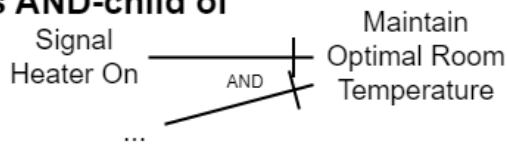
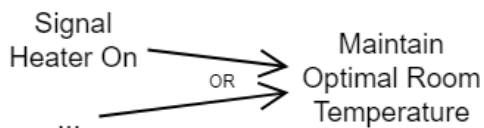
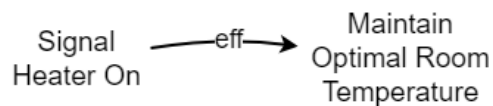
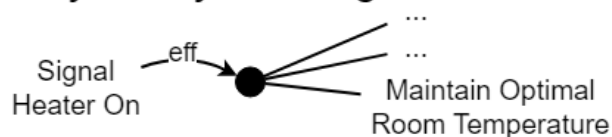
contributes to


☐

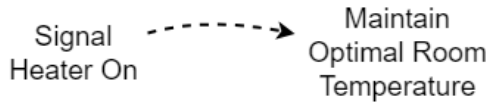
☐ None of the above

"Heater was previously on _____ Heater On"

is AND-child of☐**is OR-child of**☐**affects**☐**may or may not bring about**☐**contributes to**☐☐ None of the above*"On Signal Succeeded _____ Heater On"***is AND-child of**☐**is OR-child of**☐

affects☐**may or may not bring about**☐**contributes to**☐☐ None of the above*"On Signal Failed _____ Heater On"***is AND-child of**☐**is OR-child of**☐**affects**☐**may or may not bring about**☐

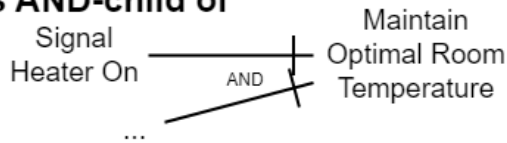
contributes to


☐

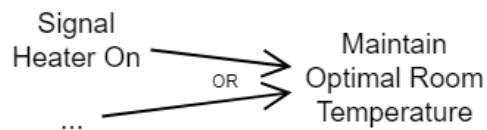
☐ None of the above

"Off Signal Succeeded _____ Heater On"

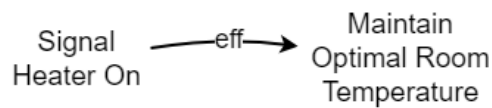
is AND-child of


☐

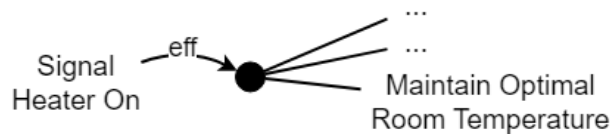
is OR-child of


☐

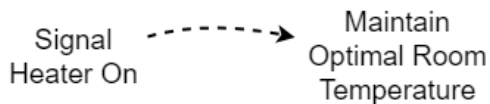
affects


☐

may or may not bring about

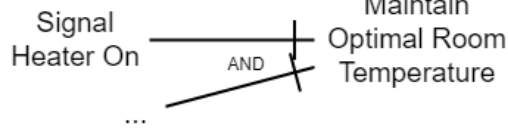
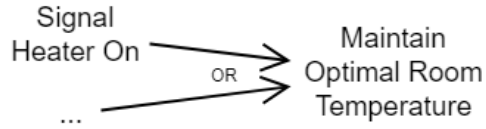
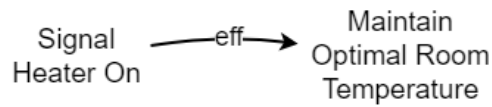
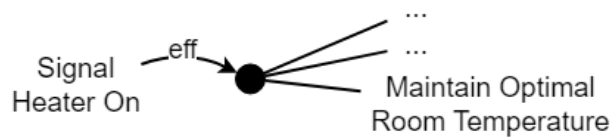
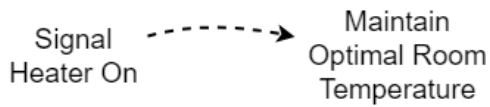
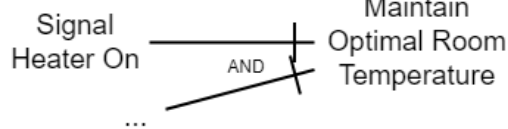
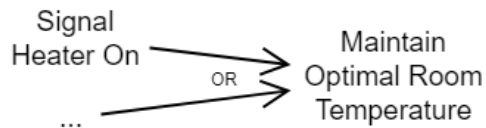

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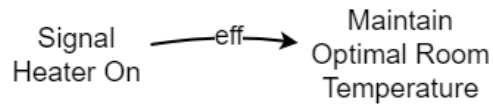
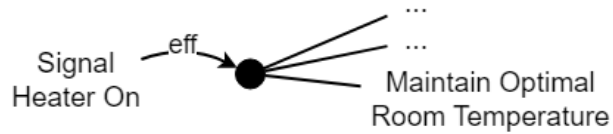
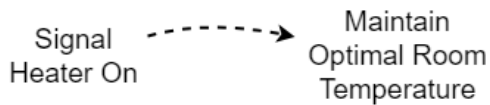
contributes to


☐

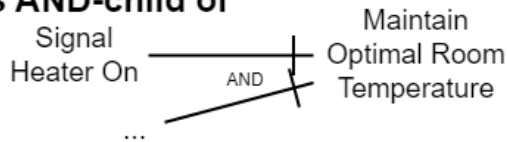
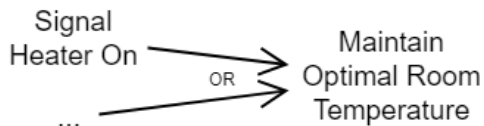
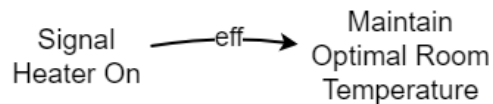
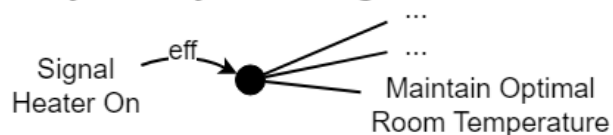
☐ None of the above

"Off Signal Failed _____ Heater On"

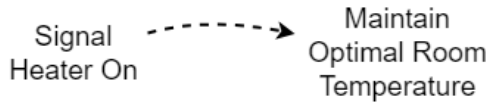
is AND-child of☐**is OR-child of**☐**affects**☐**may or may not bring about**☐**contributes to**☐☐ None of the above*"Heater On _____ Minimize Running Time"***is AND-child of**☐**is OR-child of**☐

affects☐**may or may not bring about**☐**contributes to**☐☐ None of the above

"Maintain Ideal Temperature (previous level) _____ Maintain Ideal Temperature (current level)"

is AND-child of☐**is OR-child of**☐**affects**☐**may or may not bring about**☐

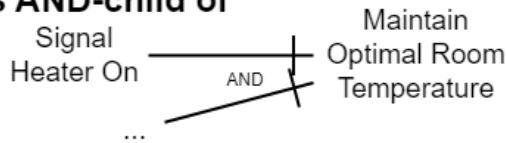
contributes to


☐

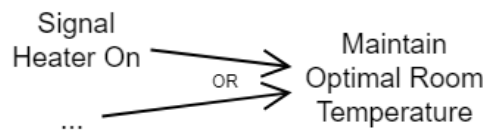
☐ None of the above

"Heater On _____ Maintain Ideal Temperature (current level)"

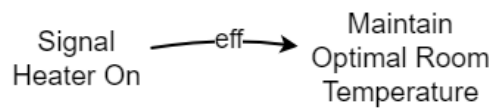
is AND-child of


☐

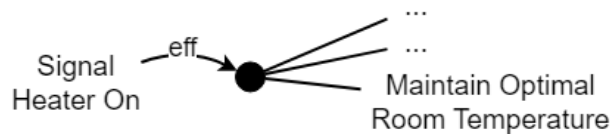
is OR-child of


☐

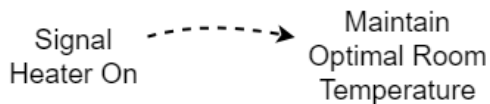
affects


☐

may or may not bring about

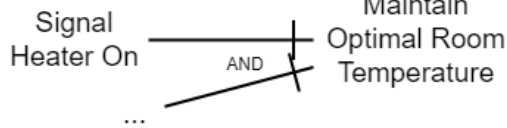
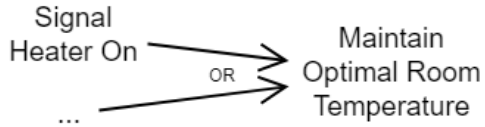
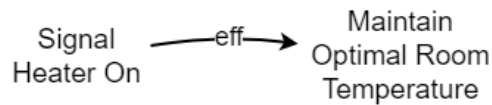
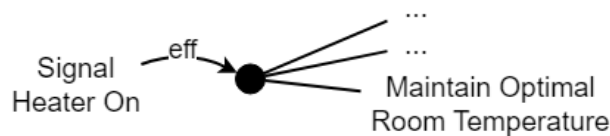
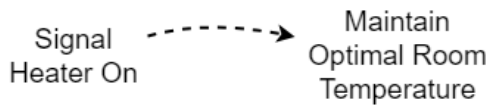
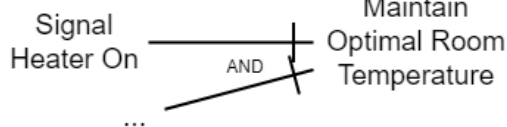
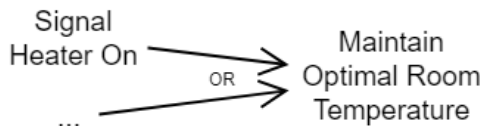

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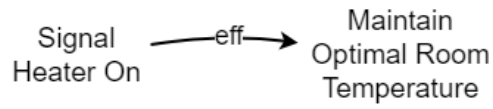
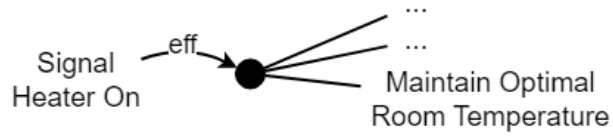
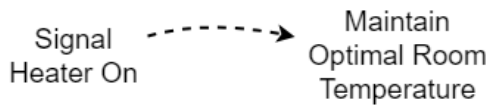
contributes to


☐

☐ None of the above

"Minimize Running Time _____ Minimize Cost"

is AND-child of☐**is OR-child of**☐**affects**☐**may or may not bring about**☐**contributes to**☐☐ None of the above*"Maintain Ideal Temperature _____ Maximize Comfort"***is AND-child of**☐**is OR-child of**☐

affects☐**may or may not bring about**☐**contributes to**☐☐ None of the above