

Goals

Allison sees a toy playing music and generates an inquiry goal

I want to make this toy play music!



Hypotheses

She generates a set of possibilities for how the toy might work

How does the toy work?

$p = 0.4$

A

$p = 0.4$

B

$p = 0.2$

A + B



Queries

She considers possible actions (queries) to learn how the toy works

(A)



(B)



(C)



Answers

She considers the possible answers for each query

(A)

Does button A play music?
 \rightarrow yes
 \rightarrow no

(B)

Does button B play music?
 \rightarrow yes
 \rightarrow no

(C)

Do both buttons play music?
 \rightarrow yes
 \rightarrow no

Allison reasons about the hypotheses, queries, and answers to select the “most useful” query that leads to the largest decrease in her uncertainty

(A)



(B)

