

PROJECT DL WORKFLOW

certain infos



work process



certain infos 

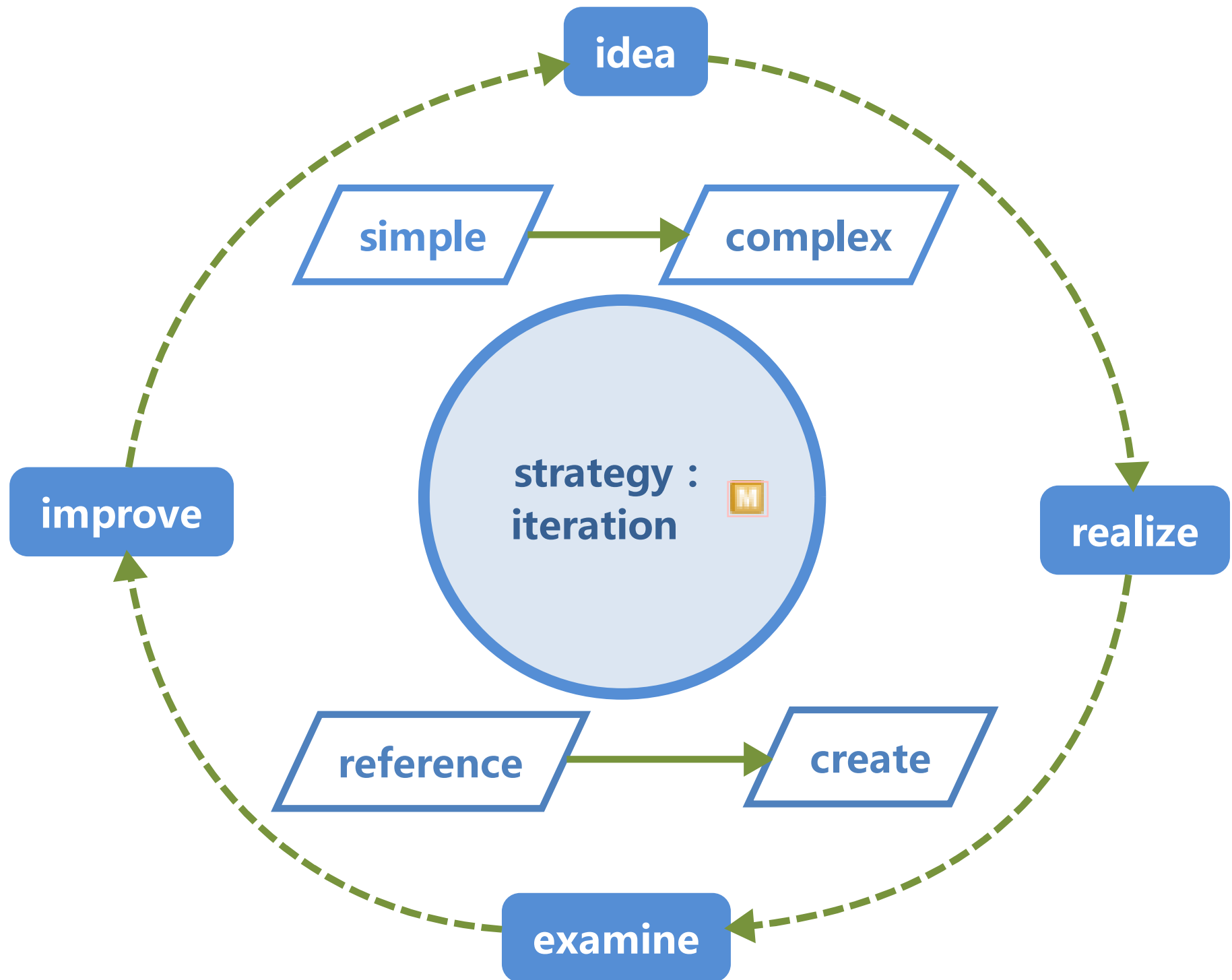
strategy 

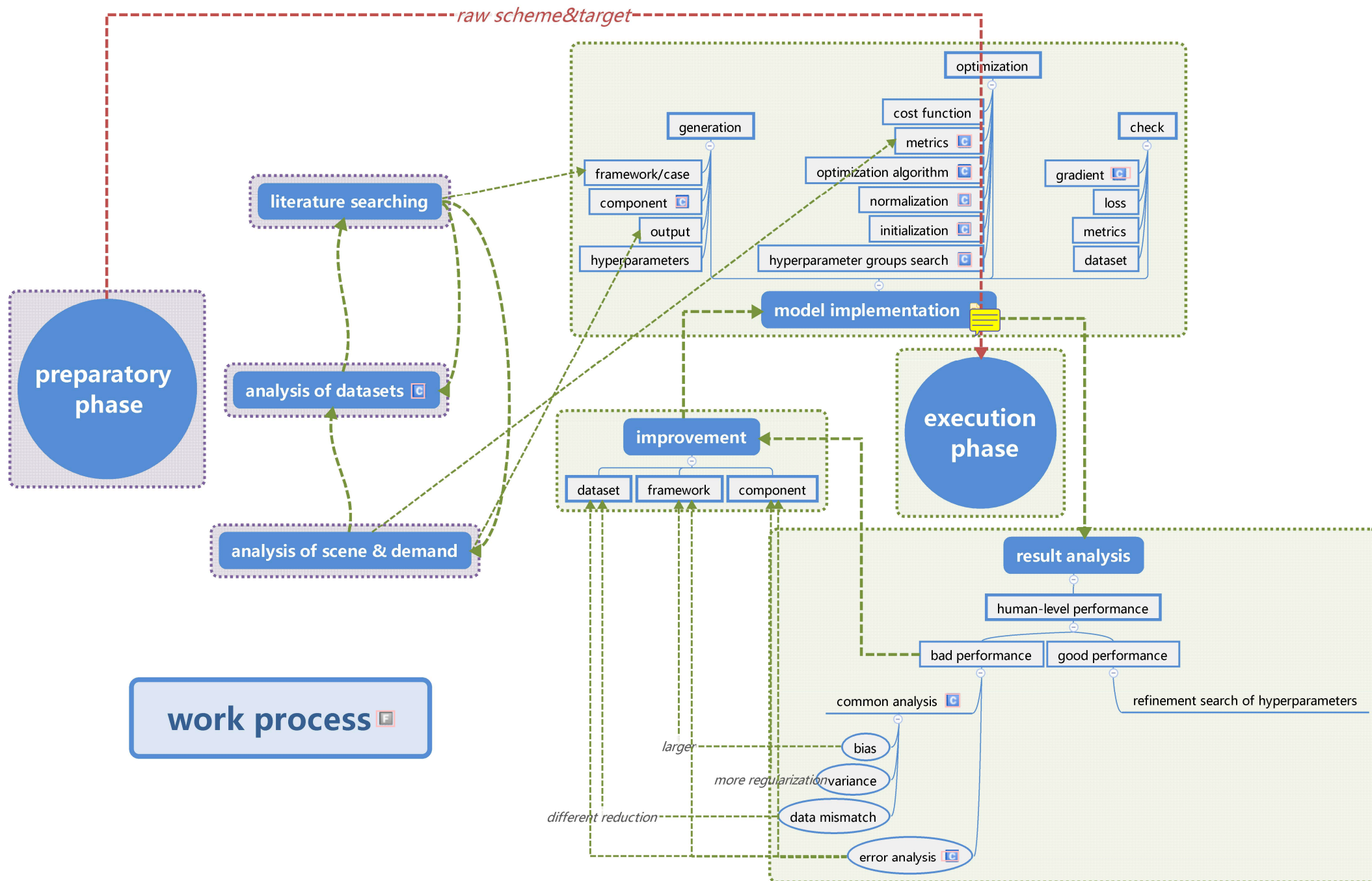
Project

scene

demand







analysis of datasets

magnitude

end-to-end

artificial feature

transfer learning

type

supervised learning

semi-supervised learning

unsupervised learning

reinforcement learning

GAN

ingredient

general data/practical data

raw data/labeled data

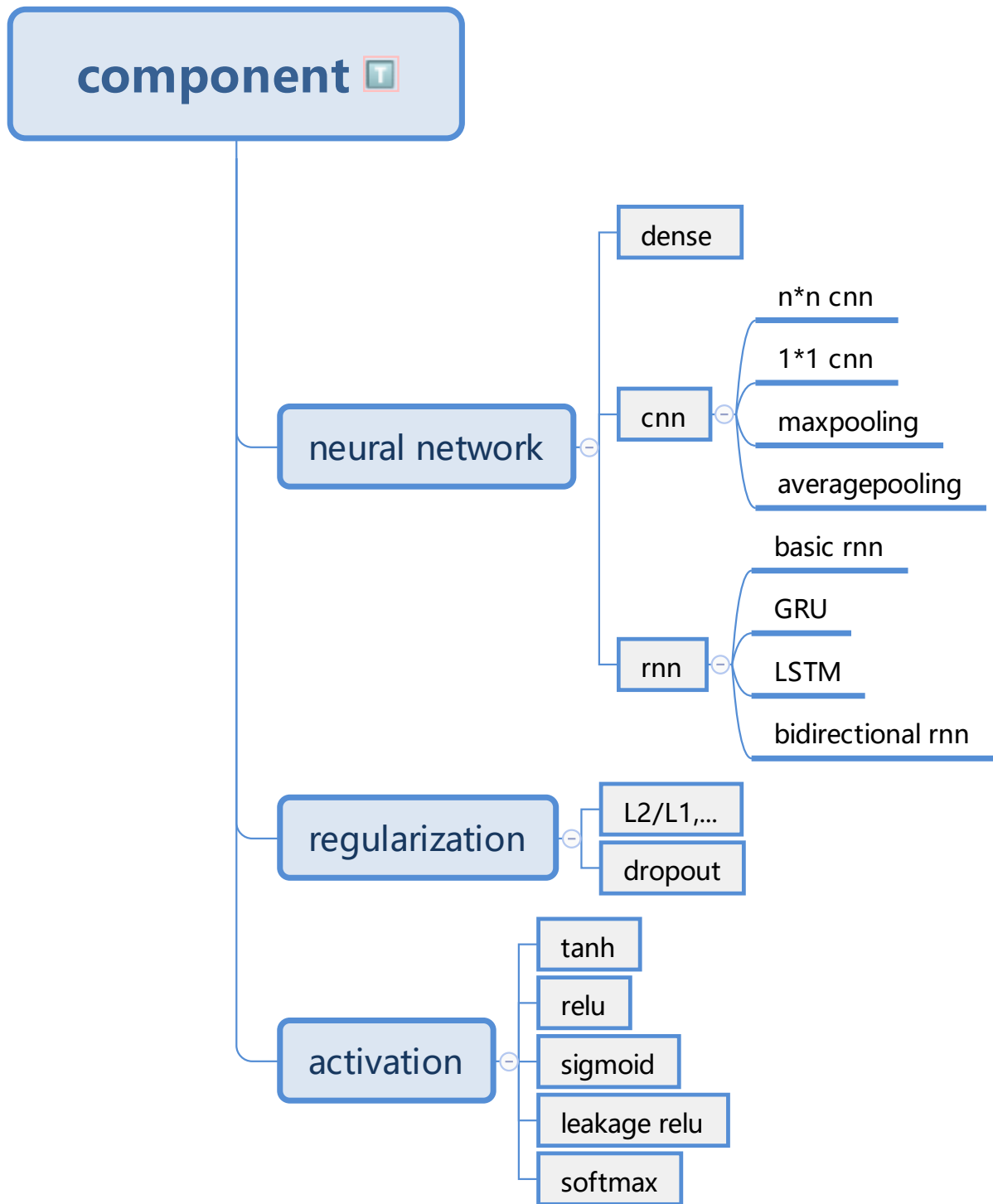
reliability

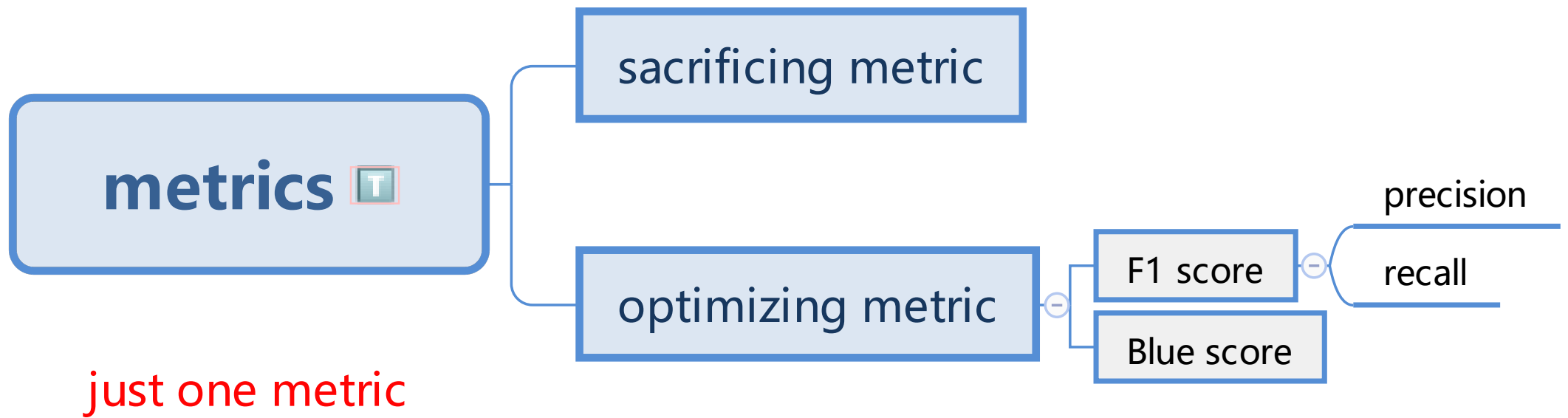
expandability

more labeled data

more raw data

totally new data





optimization algorithm

gradient descent

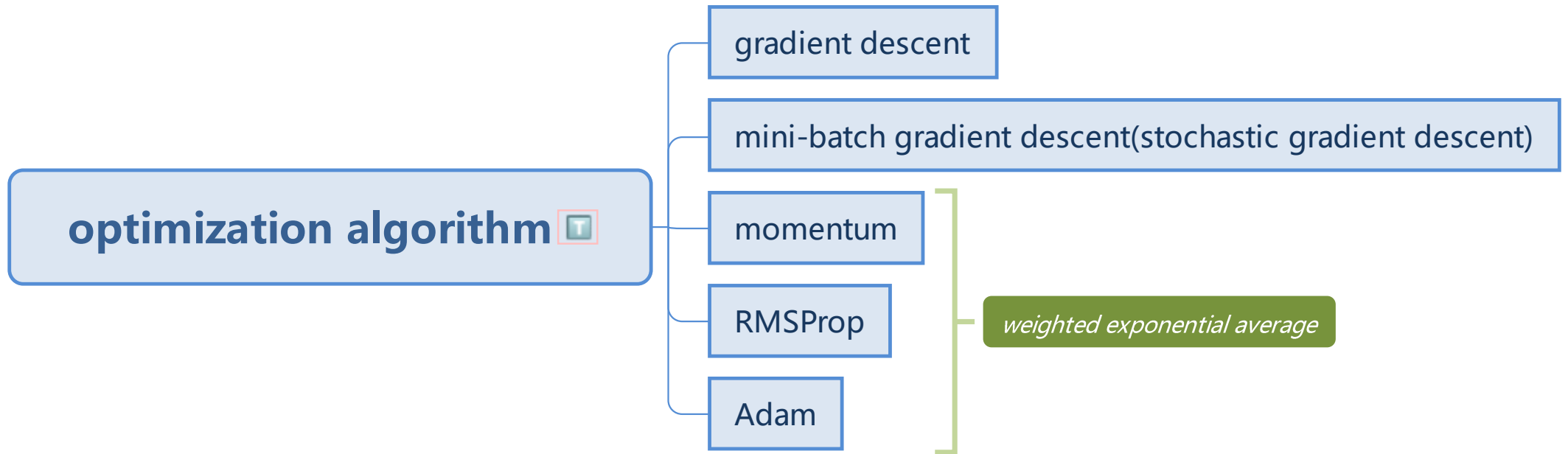
mini-batch gradient descent(stochastic gradient descent)

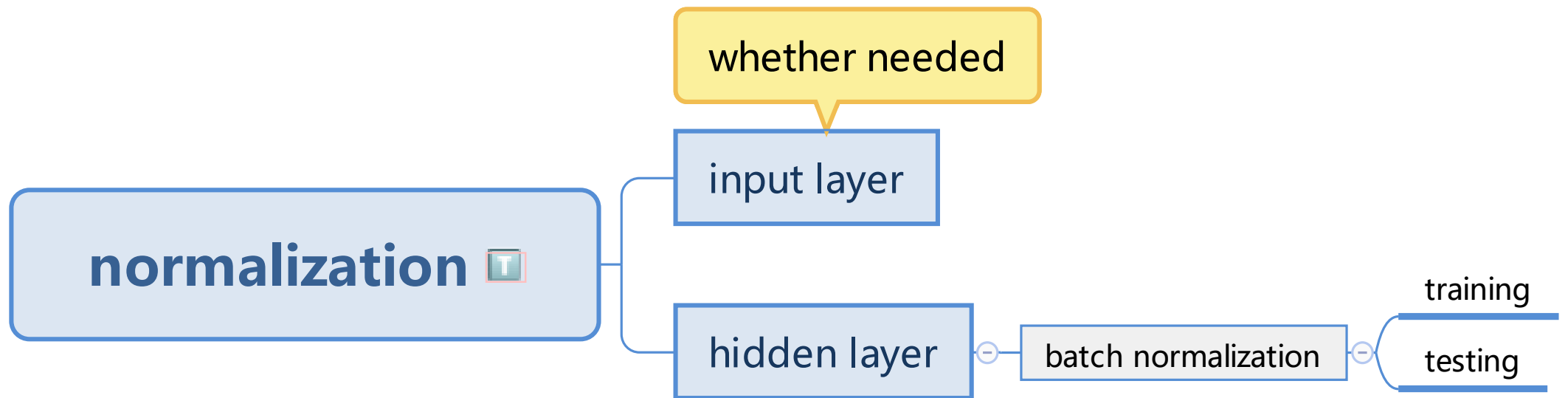
momentum

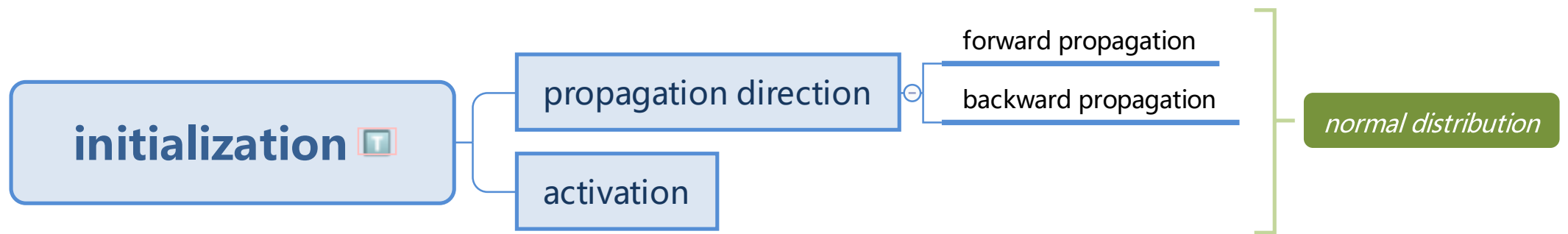
RMSProp

Adam

weighted exponential average







hyperparameter groups search

different importance of hyperparameters

random search

high level

middle level

low level

learning rate


filters

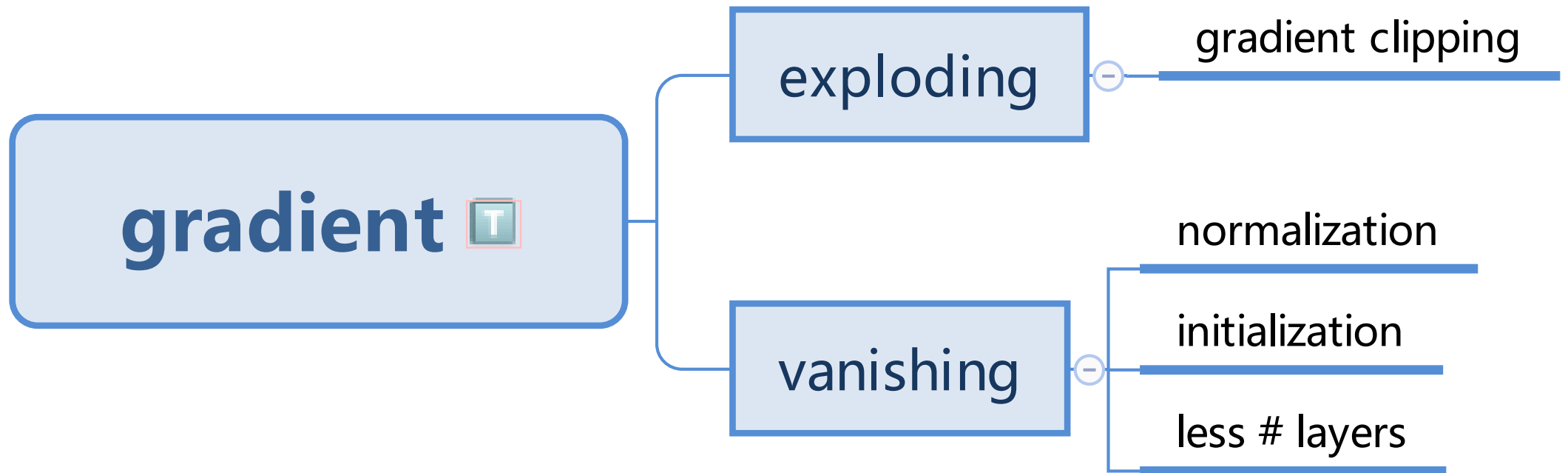
layers(deep CNN)

beta1(momentum)

...

 log scale

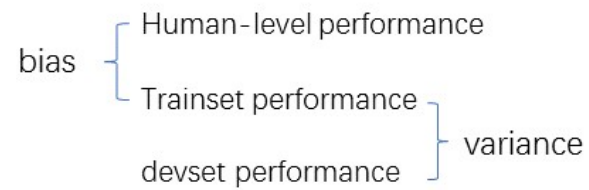
 log scale





Big Data

matched data



mismatched data



		General data	Practical data
bias {		Human-level	Human-level
		Train set	Train set
		Train-dev set	Dev set
		<div> <div></div> <div>variance</div> <div></div> </div>	
		<div> <div></div> <div>data mismatch</div> <div></div> </div>	

error analysis

error analysis of 100 items in dataset

Number	Blurry	Certain class	...	Mislabel	note
1					
2					
...					
sum	n1	n2	...	n3	
Pick errors have more items to fix					