

Blind Testing

@wikipedia

Synonym: [Cross-Validation](#) = [Blind Testing](#)

A specific technique for estimating how accurately the given [model](#) is capable to predict the [Source Dataset](#).

It assumes that [Source Dataset](#) is split into two subsets: [Training dataset](#) and [Validation dataset](#).

The [Training dataset](#) is used to calibrate the [model](#) parameters.

The discrepancy between [model](#) values and [Training dataset](#) values can be low but it does not mean that predicting accuracy of the [model](#) on the data outside the [Training dataset](#) will be the same low.

This may happen because the [model](#) is not unique and a given [model](#) realization may not be the best predictor.

In order to assess predictability of the [model](#) it should be validated on the data outside the [Training dataset](#), which is called [Validation dataset](#).

If [model](#) discrepancy on [Validation dataset](#) is close to [model](#) discrepancy on [Training dataset](#) one can say that a given [model](#) has a good predictability within the [Source Dataset](#) range.

If [model](#) discrepancy on [Validation dataset](#) is not close to [model](#) discrepancy on [Training dataset](#) then this phenomenon is called [overtraining](#) and means that a given [model](#) realization has "remembered" the [Training dataset](#) but it can not accurately predict on the data points outside the [Training dataset](#).

Splitting the [Source Dataset](#) into [Training dataset](#) and [Validation dataset](#) can be done in different ways.

It can be done manually or randomly (see [Bootstrapping](#)).

It should be noted though that [Source Dataset](#) may not hold enough of representative events/occurrences to provide the opportunity for [Cross-Validation](#) and in this case the [Goodness of fit](#) over the [Training dataset](#) (which is the whole [Source Dataset](#) in this case) will be the only one available, thus increasing the risk of future [Model Prediction](#).

See also

[Natural Science](#) / [System](#) / [Model](#) / [Model Validation](#)

[Formal science](#) / [Mathematics](#) / [Statistics](#)

[[Source Dataset](#)] [[Training dataset](#)] [[Validation dataset](#)]