

ภาคผนวก

## ผลการรันโปรแกรมฉบับสมบูรณ์ classifiers.bayes.NaiveBayes

=== Run information ===

Scheme:weka.classifiers.bayes.NaiveBayes

Relation: test

Instances: 1280

Attributes: 7

gender

Reasoning

HaveRelate

consider

time

document

difficultycase

Test mode:10-fold cross-validation

=== Classifier model (full training set) ===

Naive Bayes Classifier

Attribute	Class	
	easy	difficulty
	(0.5)	(0.5)

=====

## gender

male	396.0	341.0
female	246.0	301.0
[total]	642.0	642.0

## Reasoning

general litigation	171.0	141.0
special case	216.0	426.0
special case management	256.0	76.0
[total]	643.0	643.0

## HaveRelate

notrelate	366.0	1.0
relate	276.0	641.0
[total]	642.0	642.0

## consider

justice	346.0	371.0
sent to justice	116.0	66.0
High incarceration rate	66.0	16.0
Psychologists requested	41.0	41.0
interpreter requested	26.0	56.0
lawyer requested	51.0	96.0
[total]	646.0	646.0

time

allday	146.0	206.0
morning	411.0	266.0
afternoon	86.0	171.0
[total]	643.0	643.0

document

complete	296.0	186.0
notcomplete	346.0	456.0
[total]	642.0	642.0

Time taken to build model: 0.03 seconds

=== Stratified cross-validation ===

=== Summary ===

Correctly Classified Instances	1018	79.5313 %
Incorrectly Classified Instances	262	20.4688 %
Kappa statistic	0.5906	
Mean absolute error	0.2607	
Root mean squared error	0.3818	
Relative absolute error	52.1453 %	
Root relative squared error	76.3615 %	
Total Number of Instances	1280	

=== Detailed Accuracy By Class ===

TP Rate	FP Rate	Precision	Recall	F-Measure	ROC Area	Class
0.667	0.077	0.897	0.667	0.765	0.844	easy
0.923	0.333	0.735	0.923	0.819	0.844	difficulty
Weighted Avg.		0.795	0.205	0.816	0.795	0.792 0.844

== Confusion Matrix ==

```

a    b  <-- classified as
427 213 |    a = easy
49   591 |    b = difficulty

```

**ผลการรันโปรแกรมฉบับสมบูรณ์ classifiers.trees.J48**

=== Run information ===

Scheme:weka.classifiers.trees.J48 -C 0.25 -M 2

Relation: test04052558

Instances: 1280

Attributes: 7

gender

Reasoning

HaveRelate

consider

time

document

difficultycase

Test mode:10-fold cross-validation

=== Classifier model (full training set) ===

J48 pruned tree

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HaveRelate = notrelate: easy (365.0)

HaveRelate = relate

| document = complete

| | time = allday: difficulty (60.0)

| | time = morning: easy (150.0)

| | time = afternoon

| | | gender = male: easy (25.0)

| | | gender = female: difficulty (125.0)

| document = notcomplete

| | Reasoning = general litigation: difficulty (115.0)

| | Reasoning = special case

| | | time = allday

| | | | consider = justice: difficulty (75.0/25.0)

| | | | consider = sent to justice: easy (25.0)

| | | | consider = High incarceration rate: difficulty (0.0)

| | | | consider = Psychologists requested: difficulty (0.0)

| | | | consider = interpreter requested: difficulty (0.0)

| | | | consider = lawyer requested: difficulty (50.0)

| | | time = morning: difficulty (200.0/50.0)

| | | time = afternoon: difficulty (15.0)

| | Reasoning = special case management: difficulty (75.0)

Number of Leaves : 15

Size of the tree : 22

Time taken to build model: 0.13 seconds

==== Stratified cross-validation ====

==== Summary ====

Correctly Classified Instances	1197	93.5156 %
Incorrectly Classified Instances	83	6.4844 %
Kappa statistic	0.8703	
Mean absolute error	0.0827	
Root mean squared error	0.2044	
Relative absolute error	16.5386 %	
Root relative squared error	40.881 %	
Total Number of Instances	1280	

==== Detailed Accuracy By Class ====

	TP Rate	FP Rate	Precision	Recall	F-Measure	ROC Area	Class
	0.891	0.02	0.978	0.891	0.932	0.984	easy
	0.98	0.109	0.9	0.98	0.938	0.984	difficulty
Weighted Avg.		0.935	0.065	0.939	0.935	0.935	0.984

=== Confusion Matrix ===

	a	b	<-- classified as
570	70		a = easy
13	627		b = difficulty