



**Fig. 1** Architecture of the proposed system

**An Adaptive Mechanism for Moodle Based on Automatic Detection of Learning Styles**

Decision tree rules

Dimensions	Category		Rules	Values (S) Rules	
Processing (Active/Reflective)	Forum	Add post to start discussions	No of post	3	
		View & Add Post messages	No of view and post	2	
		Only View forums & discussions	No of views	1	
		No Participation	No participation	0	
	Chats	View & Report	No of view and report	2	
		Only view	No of view	1	
		No Participation	No participation	0	
	Assignments Done	Submit, View-Submit assign form	Makes <10% of assignments	0	
			Makes 10% - 30% of assign	1	
			Makes 30% - 50% of assign	2	
			Makes 50% - 70% of assign	3	
	Perception (Sensory/Intuitive)	Exams	Exam Review	Uses <5% of revision	0
				Uses 5% - 10% of revision	1
Uses 10% - 15% of revision				2	
Uses 15% - 20% of revision				3	
Uses > 20% of revision				4	
Attempt & Continue Attempt			Uses <10% attempt	0	
			Uses 10% - 30% attempt	1	
			Uses 30% - 50% attempt	2	
			Uses 50% - 70% attempt	3	
			Uses > 70% attempt	4	
Exam Delivery Time			Uses <40% of time given	0	
			Uses 40% - 50% of time given	1	
			Uses 50% - 60% of time given	2	
			Uses 60% - 70% of time given	3	
			Uses > 70% time given	4	
Exams done			Makes <10% of exams	0	
			Makes 10% - 30% of exams	1	
			Makes 30% - 50% of exams	2	
			Makes 50% - 70% of exams	3	
			Makes > 70% of exams	4	
Assignments Done	Submit, View-Submit assign form	Makes <10% of assignments	0		
		Makes 10% - 30% of assign	1		
		Makes 30% - 50% of assign	2		
		Makes 50% - 70% of assign	3		
		Makes > 70% of assign	4		
Input (Visual/Verbal)	Text	View Course (Word)	No of view (Word)	1	
		No view	No of no view (Word)	0	
	PPT	View Course (PPT)	No of view (ppt)	1	
		No view	No of no view(ppt)	0	
	Hyperlinks	View Course (HyperLink)	No of view (HyperLink)	1	
		No view	No of no view (HyperLink)	0	

S	Value of Processing Dimension
0-1	Extremely Reflective
2-3	Medium Reflective
4-5	Neutral
6-7	Medium Active
8-9	Extremely Active

S	Value of Perception Dimension
0<=S<=4	Extremely Intuitive
4<S<=8	Medium Intuitive
8<S<=12	Neutral
12<S<=16	Medium Sensitive
16<S<=20	Extremely Sensitive

S	Value of Input Dimension
0	-
1	Extremely Verbal
2	Neutral
3	Extremely Visual

سه بعد سبک یادگیری فلد رسیلورمن و learning object های (category) هر کدام و فیچر هایشان (rules)

Learning Object	Relevant Behavior	Learning Style	Dimension	
Forum	post/reply	active	Processing	
	view/read	reflective		
Demo	run	active		
	view	reflective		
Chat	post	active		
	view	reflective		
Text	visit	verbal	Input	
	no visit	visual		
Power Point	visit	visual		
	no visit	verbal		
Video	visit	visual		
	no visit	verbal		
Picture	visit	visual		
	no visit	verbal		
Example	visit	sensor		Perception
	no visit	intuitive		
Assignment	submit	sensor		
	view	intuitive		
Navigation	navigating linearly	sequential	Understanding	
	navigating globally	global		
Course Overview	view	global		
	no view	sequential		