



MOODLE

Learning Management System

PRE_STUDY

STUDY

DESIGN

TESTING

DOCUMENTATION

Problem Observation

- Difficulty in sharing notes
- Difficulty in submitting assignments
- Difficulty in having a course related discussion
- There are other platforms available for sharing but there are IPR issues also so, we can't share it on social networks
- Then, How do students and Professors share their notes and slides?
- Answer is Picasa, Gmail, Webmail, drives, dropbox, moodle and so on.....



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Identification of the users

- Students: Access and share slides and notes
- Professors: Sharing of class notes, Clearing doubts
- Teaching Assistants: Updates of the classes, Clearing doubts



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Problem Observation

- It was observed that not many departments in IIT Guwahati use Moodle.
- Out of those using Moodle, very few of them were active.

Page: 1 2 3 (next)

User picture	First name / Surname	City/town	Country	Last access ↑
	Prakash Shukla	Daltonganj	India	26 secs
	nilay kumar	guwahati	India	8 days 10 hours
	jitendra kumar yadav	gaya	India	8 days 11 hours
	Anurag Jhaver	indore	India	16 days
	VIKAS KUMAR GUPTA	guwahati	India	16 days 1 hour
	Vishal Anand	Dhanbad	India	34 days 1 hour
	PYRIMOHAN DEHURY	BHUBANESWAR	India	45 days 7 hours
	Vasu Kiran Mandava	Vijayawada	India	65 days 14 hours
	Akshay Sridhar	Guwahati	India	92 days
	pruthvi kondapalli	guwahati	India	216 days 6 hours
	prodyut dhar	guwahati	India	217 days 4 hours
	vijay laxmi meena	kota	India	235 days 4 hours
	Vineet Kumar	Unclaimed territory	Antarctica	260 days 14 hours
	jeetendra meena	GUWAHATI	India	279 days 9 hours



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Problem Observation

- Data was collected from the users about how they access and share their notes.
- After the data collection it was clear that Moodle in IIT G is very inactive.
- It was found that only 1 out of 7 users used Moodle



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Studying the problem

- We started with **Heuristic Evaluation** of Moodle to find the usability bugs.
- Following Usability problems were common
 - Inconsistency, not properly organized and categorized,
 - Prone to error
 - Inefficient for the users to use.



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Studying the problem

- After Heuristic Evaluation, We went to the users asked them to perform 3 **tasks on Moodle**. This was followed by a **questionnaire** based on their **task experience**.
- The following data was noted:
 - Time taken for each task
 - No. of clicks for each task
 - No. of errors performed overall



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Studying the problem

- The 3 tasks that were given to the users were:
 - Access the course 'Introduction to Psychology', enroll yourself in it. Open 'Learning Slides'
 - Add a new blog entry, which has title 'Hello World!' and body 'This is my first blog'. Also, add a smiley of your choice after the text. Post your blog.
 - Open Calendar from the 'Introduction to Psychology' course and Export Calendar.



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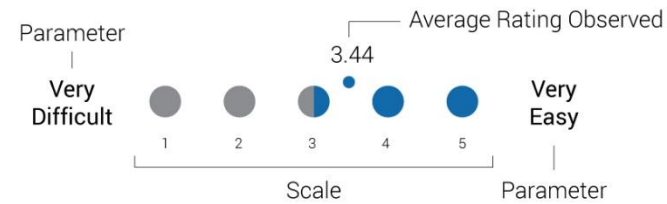
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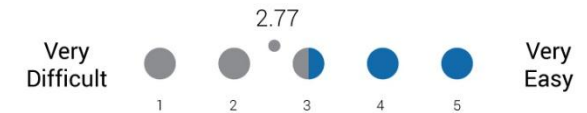
Studying the problem



1) Accessing the course materials/ slides was:



2) Performing different tasks was:



3) Writing a new blog was:



4) The options in the blog entry were:



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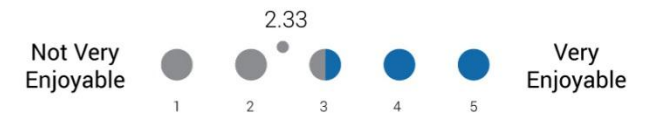
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Studying the problem

5) Finding necessary links was:



6) Using Moodle was:



7) Different types of information were clearly visible:



8) Moodle looks attractive:



9) Moodle looks organised:



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Benchmarking

- A benchmark is set for the design based on our interaction with users and studying the State of Art.
 - Adapt to several teaching and learning scenarios.
 - Notification of class announcement
 - Profile
 - Blog
 - Instant message
 - Group Discussion
 - Schedule
 - Notes



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Deciding on Grids and Colour pallet

- Following a user centered design methodology, every design decision was taken with consideration of the users' preferences and visual and cognitive perceptions.
- Users were shown and asked to rank six grid patterns, which were probable design solutions for our system, and four colour pallets which could fall into our visual design.



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Deciding on Grids and Colour pallet

- We intended to understand their perception of the context of the system and the initial psychological impact of the various designs.
- No knowledge of design was necessary to rank the visuals.
- This was undertaken not to be entirely biased by the users' preferences, but to give ourselves a bridge of safety, if at all there was a point in the design phase where we couldn't move forward.



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Deciding on Grids and Colour pallet



1

Gross Rank: 53
Top Choice: 3
Lowest Choice: 2



2

Gross Rank: 57
Top Choice: 2
Lowest Choice: 0



3

Gross Rank: 66
Top Choice: 1
Lowest Choice: 3



4

Gross Rank: 67
Top Choice: 3
Lowest Choice: 4



5

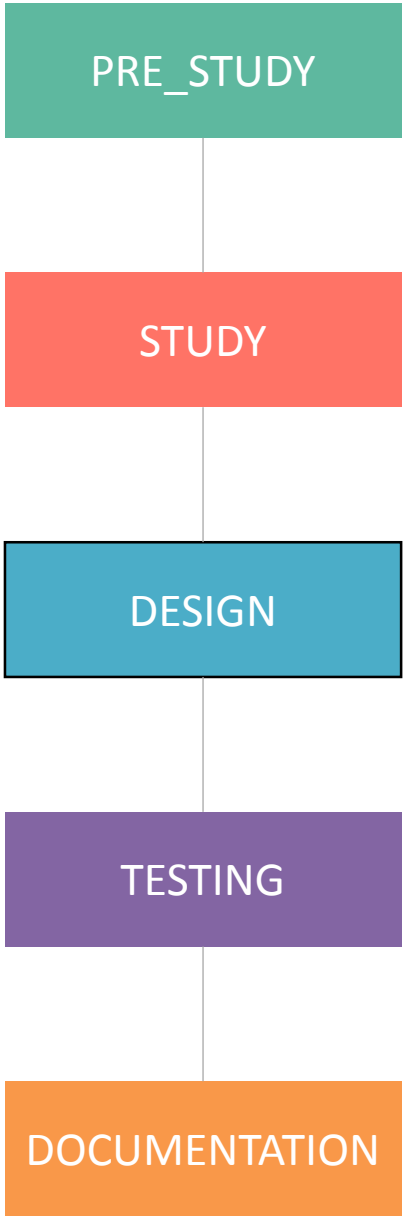
Gross Rank: 56
Top Choice: 3
Lowest Choice: 3



★ 6

Gross Rank: 43
Top Choice: 7
Lowest Choice: 1





Deciding on Grids and Colour pallet

1



Gross Rank: **37**
Top Choice: **6**
Lowest Choice: **2**

2



Gross Rank: **44**
Top Choice: **4**
Lowest Choice: **4**

3



Gross Rank: **51**
Top Choice: **1**
Lowest Choice: **7**

4



Gross Rank: **37**
Top Choice: **4**
Lowest Choice: **1**

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Attributes

- Accessible
- Intuitive
- Easy to Use
- Efficient
- Simple
- Organised
- Enjoyable



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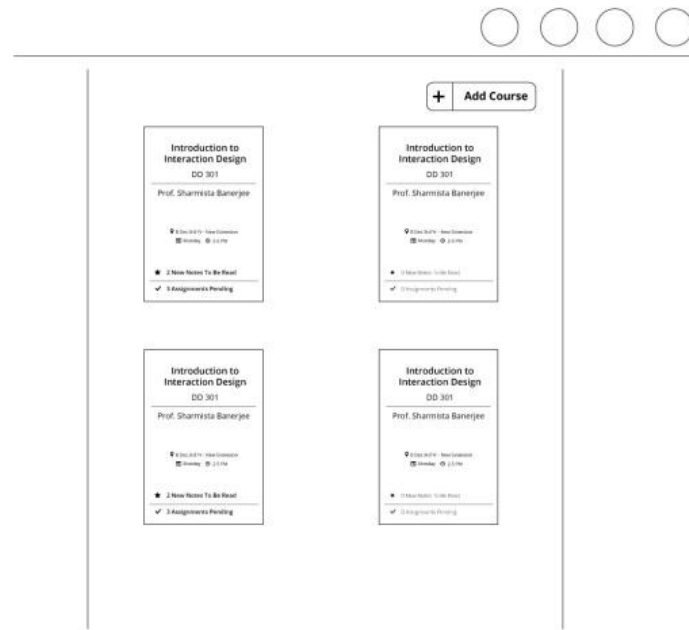
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Initial concepts



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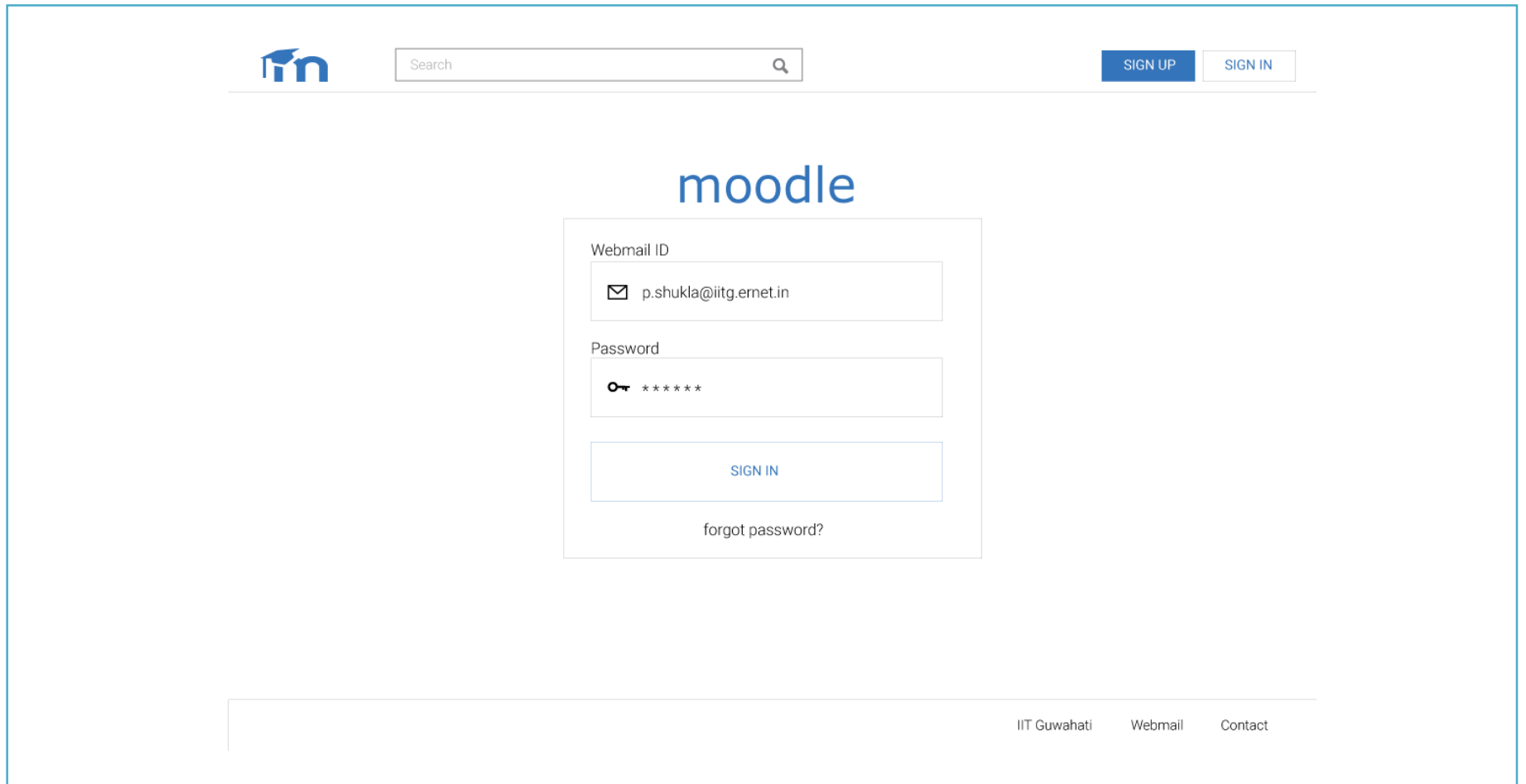
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Screens



The image shows a mockup of a Moodle login page. At the top, there is a header bar with the IIT Guwahati logo on the left, a search bar in the center, and 'SIGN UP' and 'SIGN IN' buttons on the right. Below the header, the word 'moodle' is displayed in a large, blue, sans-serif font. In the center of the page, there is a login form with two input fields: 'Webmail ID' containing the email 'p.shukla@iitg.ernet.in' and 'Password' containing masked characters '*****'. Below these fields is a 'SIGN IN' button and a link for 'forgot password?'. At the bottom of the page, there is a footer bar with the text 'IIT Guwahati', 'Webmail', and 'Contact'.



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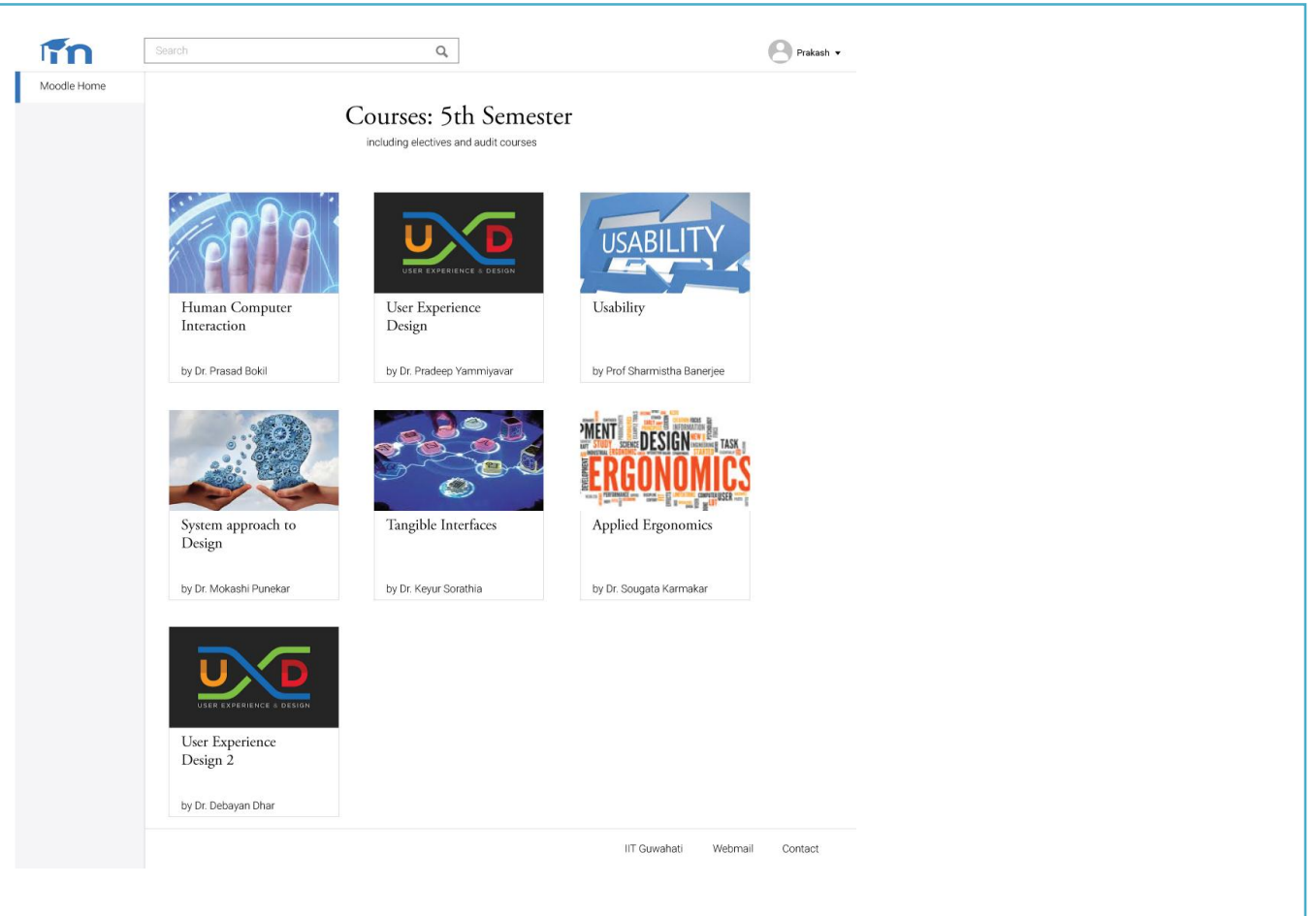
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Screens



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Screens

The screenshot displays a Moodle course interface for 'Human Computer Interaction' by Dr. Prasad Bokil. The top navigation bar includes a search bar and a user profile for 'Prakash'. The left sidebar contains links to 'Moodle Home', 'Course Home', 'Discussions', 'Assignments', 'Grades', and 'Downloads'. The main content area is titled 'Human Computer Interaction' and lists the course schedule by week. The current week, Week 1, is highlighted with a green star. The schedule includes topics such as 'Introduction to HCI', 'Participant Observation', 'Paper prototypes and ...', 'Faking it. Wizard of Oz', 'Creating Alternatives', 'Direct Manipulation', 'Mental Model', 'Cognition', 'Heuristic Evaluation', 'Design Heuristics', 'Visual Design', 'Typography', 'Grids and Alignments', 'Designing Studies', 'In Person Experiments', and 'Web experiments'.

Week	Topics
★ Week 1	• Introduction to HCI • Why prototyping • Evaluating designs
★ Week 2	• Participant Observation • Interviewing • Other need finding strat..
★ Week 3	• Paper prototypes and ... • Faking it. Wizard of Oz • Creating Alternatives
★ Week 4	• Direct Manipulation • Mental Model • Cognition
★ Week 5	• Heuristic Evaluation • Design Heuristics
★ Week 6	• Visual Design • Typography • Grids and Alignments
★ Week 7	• Designing Studies • In Person Experiments • Web experiments



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Screens - Courses



Human Computer
Interaction

by Dr. Prasad Bokil



User Experience
Design

by Dr. Pradeep Yammiyavar



Usability

by Prof Sharmistha Banerjee



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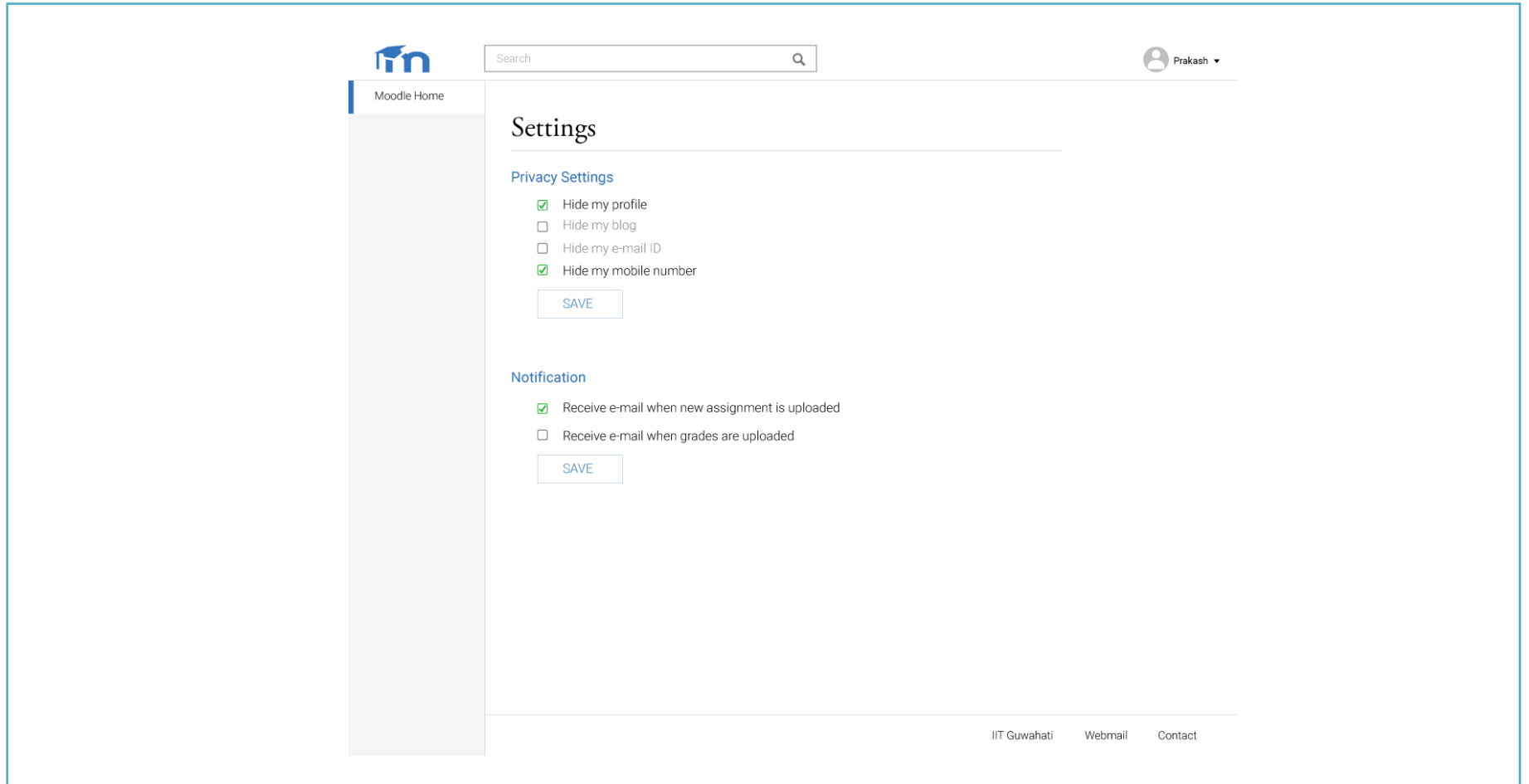
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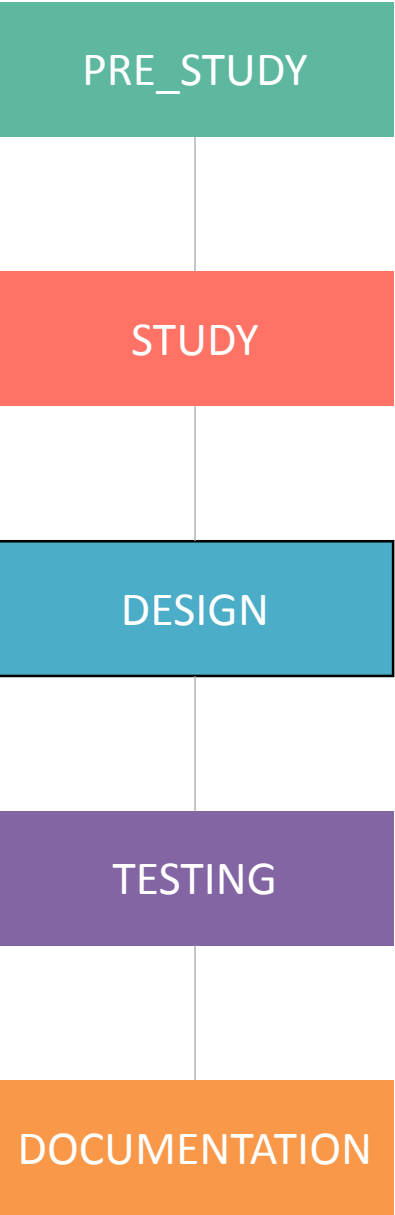
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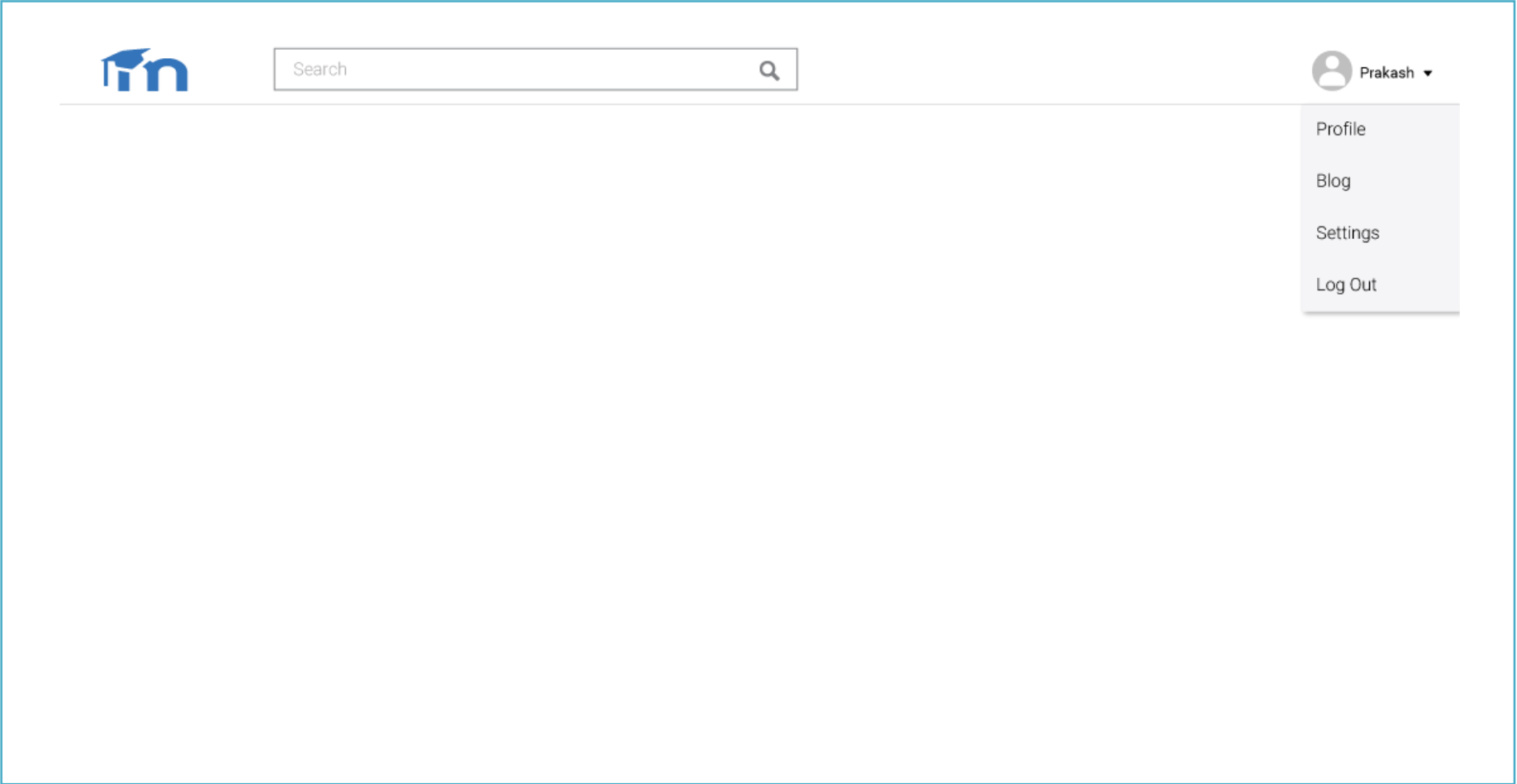
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Screens





Screens



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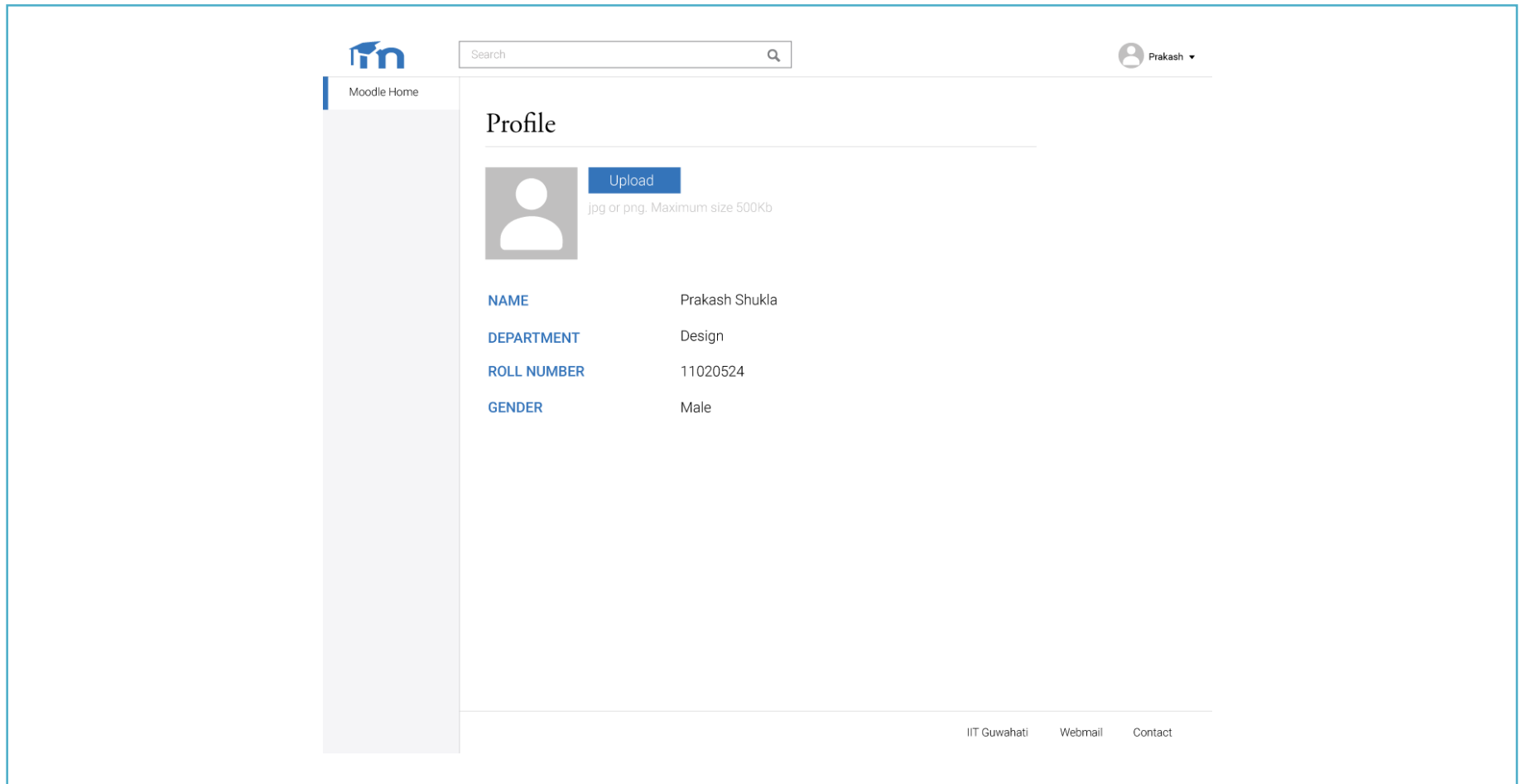
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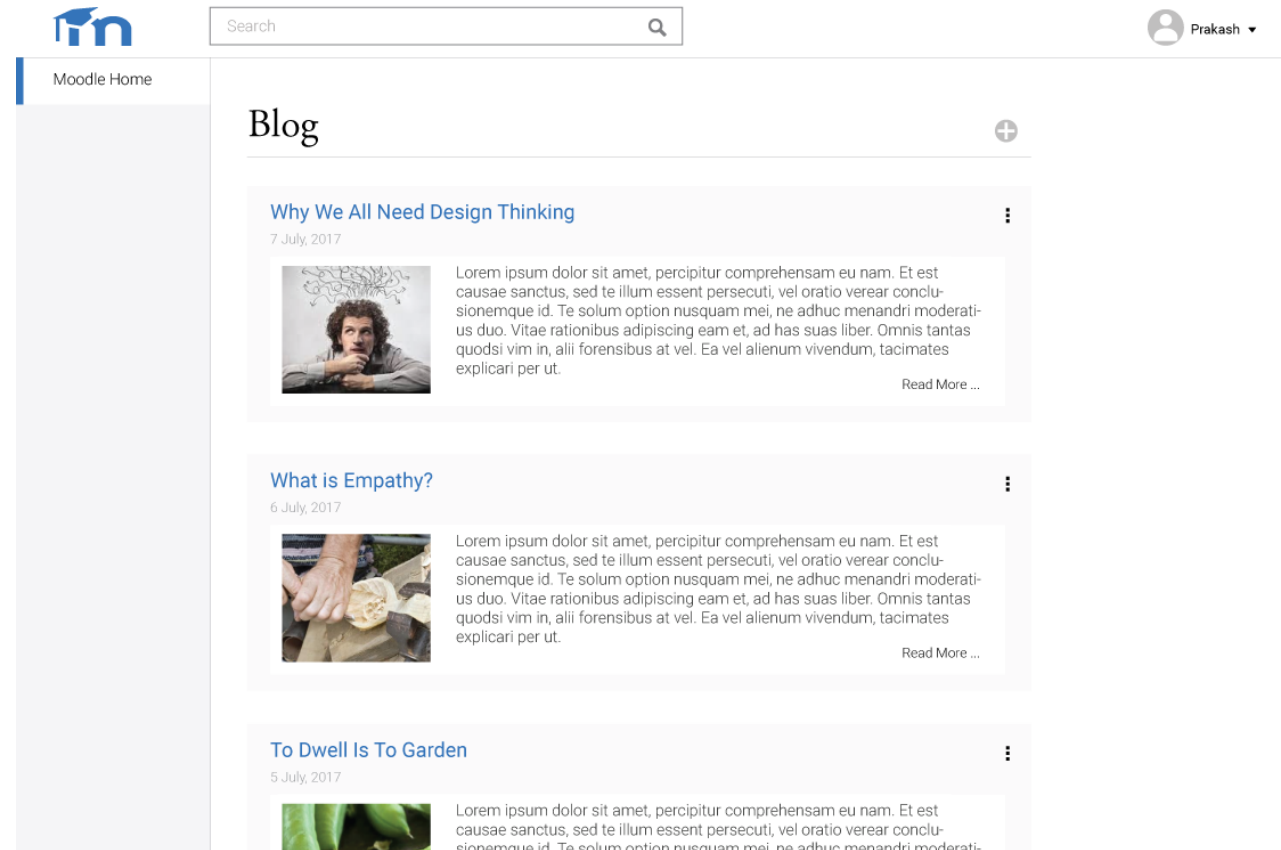
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Usability Testing

- Usability testing was conducted in consistent with the testing method used initially for Moodle
- The same users who were made to perform the evaluation of Moodle were asked to perform the tasks and evaluation
- Similar tasks were performed by users, followed by a questionnaire to measure ratings for user perceived web qualities



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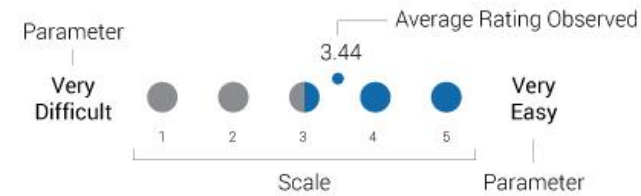
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Usability Testing Results



1) Accessing the course materials/ slides was:



2) Finding and reading topics in Discussions was:



3) The instant Submissions feature was:



4) Finding necessary links was:



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Usability Testing Results

5) Performing different tasks was:



6) Using Bookshelf was:



7) Different types of information were clearly visible:



8) Bookshelf looks attractive:



9) Bookshelf looks organised:



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Usability Testing Results

- New Design (Bookshelf) secured a positive user experience rating (>3.5 on avg.) based on user perceived web qualities
- Course materials and required features were more accessible compared to earlier [Q. (1),(2),(4),(7)]
- Bookshelf was found to be easy to use [Q. (1),(2),(4),(5),(7)]
- Learnability and efficiency ratings were positive and reflected a balanced user experience system [Q. (5),(6),(8),(9)]



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Problem: Enhancing usability of moodle for IITG fraternity

Target Users: Students & Faculty

Benefits: Enhancing accessibility to course materials, academic networking, awareness, visibility

1. Moodle

Adapting moodle to better support CS Education

- open source system for organizing courses
- LMS (Learning management system) - moodle, Blackboard, WebCT
- Attitudes towards LMS.
- Automated Assessment tool and interactive visualization

Why LMS not used:-

- * Lack of time and motivation.
- * Lack of perceived added values
- * Lack of awareness or visibility
- * Reliability and usability
- * Lack of perceived added values

Imp features:

- * Access to learning materials.
- * Compatibility and usability (ease, reliability, performance)
- * Communication & Group Work support (forums, group mails)
- * Flexibility in self study
- * Grading

Features missing:

- * Clumsy Interaction:
- * Visibility of content
- * Personal Notes (Blog)

Problems:

- * Interface
- * Awareness
- * Organisation

end user rate Moodle as unusable

Problem: Why Moodle is not used well

Target Users: Students, Faculty of IITG

Aim: Enhancing accessibility to course materials, academic networking, awareness, visibility, interface development

Lack of:

- * Reliability
- * Usability
- * Awareness
- * Visibility
- * Accessibility

Clumsy interactions:

- * Interface
- * Organisation

→ Dependence on Facebook, Dropbox

→ Open source system for organising courses.

→ Learning Management Systems (Moodle, WebCT)

Access to learning materials

Compatibility & Usability (ease, performance, reliability)

Communication & Group Work support

Flexibility in self study

Grading



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Usability [Interfacing, abilities]
Awareness (Branding) / Training [publicity]
Distinction from other sources.
Improving Skills (Writing/Reading/Discussion)
Organisation (all in one place)

→ Questionnaires:
→ People respond to relevant questions

Quantitative Research
→ Study based on statistical/mathematical observations

→

① Decide what we have to learn from the questionnaire

↓ → what are the problems faced in Moodle

① → How and where? → Notes / When did you last use?

② Class announcements

③ Group Discussions

④ Webmail

TYPOGRAPHY DAY
2013

→ what is our purpose?
→ what do we want to know?

→ How many people use Moodle?
a) Why they do/don't use Moodle?
b) What are the other preferred platform
- Reasons for preference

- How do you get notes/slides?
(Platforms/handouts, etc)
- which do you prefer? (Prioritize this list)

* [Now we know which platform is used most] ~~most used~~
[Randomly all are selected they need one common platform]

- Is sharing/reading notes, the primary motive of using the above mentioned platforms?

→ When was the last time you used Moodle?

o This Week o Month o Year o Never

What do you like/dislike in Moodle?
(open ended)

① 16s Task 1 + 10 + 18



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