

CHAPTER

2

ANALYSIS

2.1 PROCESS MODEL :

WATERFALL MODEL :

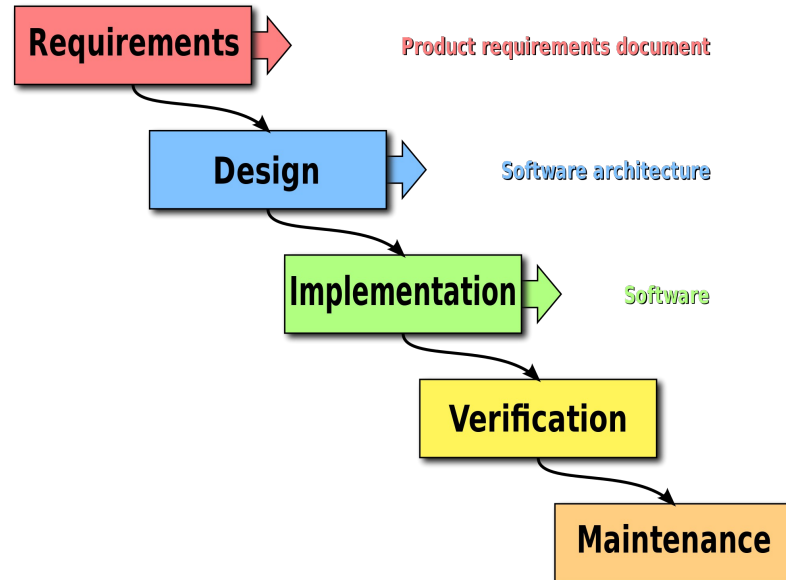


Figure. Water Fall Model

- **Requirements** : In this phase we analyzed the project and we filtered out the hardware and software requirements that we will have to take care to ensure quality in the project.
- **Design** : In this phase we made a document which contained basic layout designs of the website and the android application and also worked on the functional diagram and the hardware circuit flow.
- **Implementation** : We have finished working on this phase in which we did the coding part of the project.
- **Verification** : In this phase we verified the product that we have made in the Implementation phase with the requirements that we have set for this project in the first phase (Requirements phase).
- **Maintenance** : This phase is also called the deployment phase in which we will be delivering the product and will provide support/maintenance for the product.

2.2 FEASIBILITY STUDY :

- i. **Technology and system Feasibility :** In today's world, technology is moving from big desktops to small and portable devices like tablet and mobiles, our project will be providing a tablet to the students which will help to take the education system towards the latest technology.
In current education system all the work is done on papers, so our project will give us the same thing in a digitized way which is feasible with the current education system.
- ii. **Economic Feasibility :**
 - **Development Cost :** The development cost of this project is around 6,000/-. The tablet that will be provided will cost around 5,500/- to 6,000/-. And the cost of softwares used is 0/- as we are using all open source products for development and all open source languages like PHP, HTML, CSS, MySQL, GIMP (For Designing background images) which are all free of cost.
 - **User Cost :** The user cost of this project is 5,500/- i.e. the cost of the tablet.
- iii. **Legal Feasibility :** Our project is not violating any legal rule.
- iv. **Schedule Feasibility :** We have completed this project properly on schedule, hence, we have ensured schedule feasibility.
- v. **Operational Feasibility :** The most important part to be kept in mind while making the project is to make the project user friendly and to make it totally operationally feasible. Our project is designed to be very easily useable to students of all grades and is perfectly operationally feasible.

2.3 COST ANALYSIS :

CURRENT EDUCATION SYSTEM	E-GYAAN
In the current education system the cost of study material is too high. The minimum cost of a school or college student per semester is approximately 8,000/- to 10,000/- .	But if the current education system is replaced with E-GYAAN, student will be provided with a tablet and all the study material will be digitized which cuts down the cost as the tablet is of 6,000/- which is just one time.
In the current education system a lab with approximately 20 machines will cost the college around 6,00,000/- .	But if E-GYAAN is implemented no labs will be needed as each student will have their own tablet. Hence, saving high cost of the school/college.

SYSTEM COST :

- **Raspberry Pi** : 2,700/-
- **LCD** : 2,500/-
- **Power Bank** : 500/-
- **Other** : 300/-
- **Total** : 6,000/-

2.4 SURVEY :**i. SURVEY FORM :**

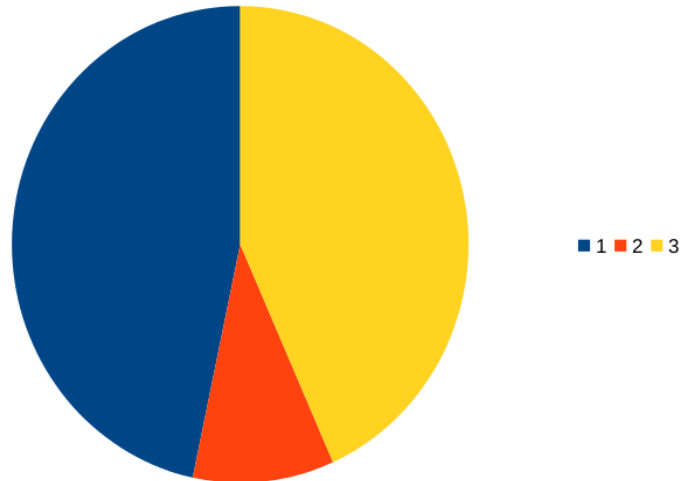
K.J. Somaiya Polytechnic
(COMPUTER ENGINEERING DEPARTMENT)
PROJECT SURVEY FORM
E-GYAAN

1. What do you think, Will this be a next step in the education system?
☐ Yes. ☐ No.
2. Will this reduce burden on your shoulders?
☐ Yes. ☐ No.
3. What would you prefer?
☐ Current Education System. ☐ E-Gyaan. ☐ Combination of Both.
4. This project will provide you a area to ask doubts, will it be helpful?
☐ Yes. ☐ No.
5. What do you think, Tablets will be useful for studies or possibly be misused?
☐ Useful. ☐ Misused.
6. Do you think this project will help easy the process of attendance and ensure accuracy?
☐ Yes. ☐ No.
7. Digital textbooks, assignment books, notes are better or paper based books are better?
☐ Digital. ☐ Paper Based. ☐ Both are equally good.
8. What do you think, Will Educational Institutes adopt E-Gyaan?
☐ Yes. ☐ No.
9. Will this save overall cost of study material of the student?(As everything is digital)
☐ Yes. ☐ No.
10. What would you prefer?
☐ Allow students to carry their own laptops. ☐ Provide E-Gyaan tablet to all. ☐ Let the institute decide about this.

ii. Data Presentation In Pie Chart Form :**E-GYAAN SURVEY REPORT**

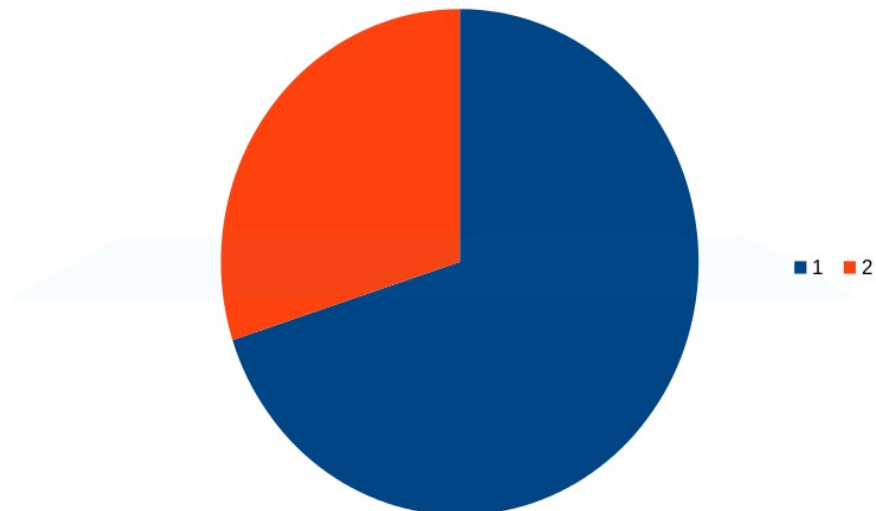
Q 1) Digital textbooks, assignment books, notes are better or paper based books are better ?

1) Digital 2) Paper based 3) Both are equally good



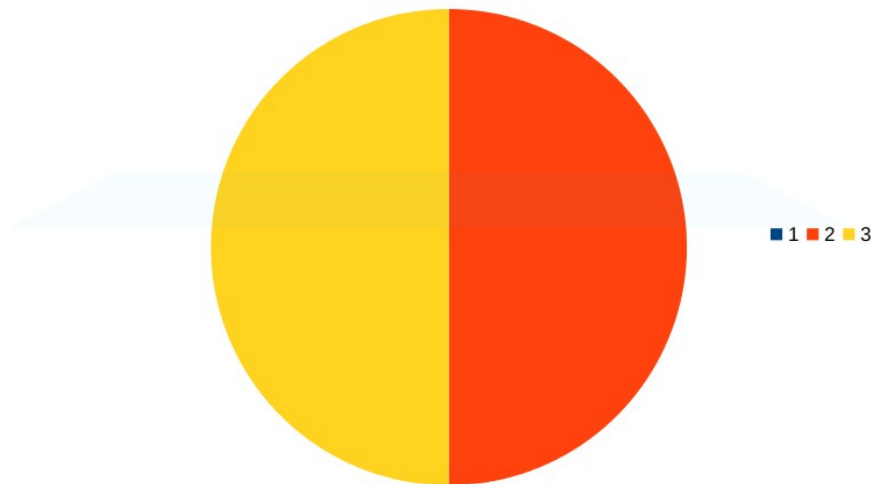
Q 2) What do you think, Tablets will be useful for studies or possibly be misused ?

1) Useful 2) Misused

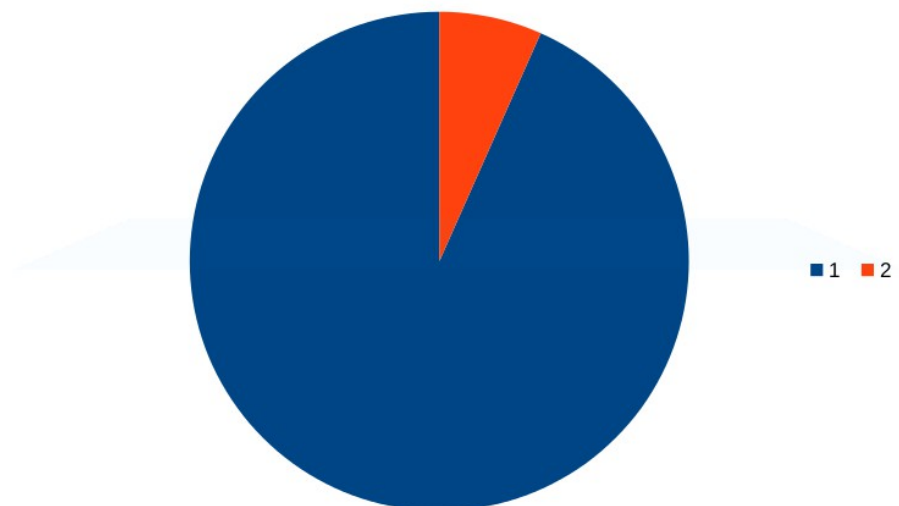


Q 3)What would you prefer ?

1)Current educationl system 2)E-Gyaan 3)Combination of both

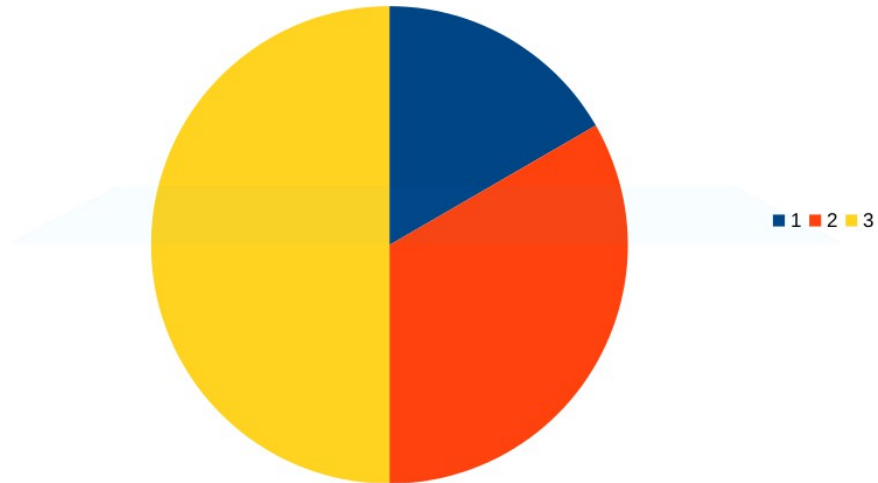
**Q 4) Will this save overall cost of study material of the student ?**

1)Yes 2)No



Q 5)What would you prefer ?

1)Allow students to carry their own laptops. 2)Provide E-Gyaan tablets to all. 3)Let the institute decide about this.

**OVERALL SURVEY RESULT**

1)Positive 2)Negative

