

# Focusing on both Software Development and Communication

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# Introducing Learning by Writing

- Introducing Communication in Engineering via Writing to Learn
- The Syllabus
  - Writing Component – 35%
    - This is graded
  - Every Class Writing
    - This is low stakes
    - Participation points
    - Receives Candies 😊

# Every Class Writing to Learn

- User Stories
  - They write a sentence or 2
- First class
- Ex. What is your first step in celebrating your friend's birthday?
  - Everybody is given an index card
  - They have 5 mins to think and write no more than two sentences
  - Everyone shares
  - We identify the best sentences that were formed

# Every Class Writing to Learn – User Stories

User Stories – They write five sentences

Ex. Develop a weather app for grandma?

They now use these words to answer the user story

The What, The Who, The Why, The How, The When

They have 5 mins to think and write no more than two sentences

Everyone shares

We identify the best sentences that were formed

# Assignment to Writing to Learn – The Framework

- Students write a paper on an ensemble framework
- They pick a framework and write with examples.

# Assignment to Writing to Learn – The Framework – 1<sup>st</sup> assignment

- The first major communication assignment was assigned in the second quarter.
- This is 15% of the 35% that they have in the communication group
- They pick a framework and write with examples.
- Each student had to choose any one process like extreme programming (XP) team, feature driven development (FDD) team, Lean Team, Kanban Team, and Scrum Team.

# Assignment to Writing to Learn – The Midterm

- The second major communications assignment was a take-home midterm that was based on Agile manifestos.
- This assignment was 10% of their 35% of the communication block.
- This was assigned to them between the second and the third quarters.
- The instructions
  - Read the given journal article [7]
  - Apply the agile manifestos to your interest/hobby
  - detail how you would implement agile manifestos to teach or implement the interest/hobby in question.
  - Submit an article not less than five pages in the IEEE format uploaded here.
  - Please submit as a word document so I can allow double-blind review

# Assignment to Writing to Learn – Third Assignment

- The third assignment was assigned in the third quarter of the semester.
- It is called the lighting talk assignment.
- This was 5% of the 35%
- Prepare 15 slides and had to be timed such that the presentation is completed in five minutes.
  - The slides had to scroll automatically, and they did not have any control over the slides.
  - They had to talk as each of the slides appear.
  - The topic was their choice from a list of agile vocabularies given to them.

# Assignment to Writing to Learn – Fourth Assignment

- The final major assignment was assigned to them in the fourth quarter.
- This was fulfilling their partial requirement of the final exam.
- The weightage on this assignment was 5% of the 35% communication block.
- Write two pages about a topic from the list of topics given.
- Make a presentation.
- The instructions
  - Choose a topic, make a presentation and write about two pages on any topic that you choose from below.
  - Make citations and references

# Conclusion and Future Work

- Overall the students appreciated the teaching pattern of using multi-mode approaches.
- In the future, to help students better write a co-teaching class or a schedule time with the writing center would help students to learn to write.
- Students can be asked to present their work at the student conference
- This might help them increase their self-confidence.

# References

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