# Integrated Python-Git Framework (IPGF) survey

## Scales

Likert 5 points (L5P)

Strongly disagree (1) - Disagree (2) – Neither agree nor disagree (3) - Agree (4) - Strongly Agree (5)

## Survey items

A. Pre- & Post-test

1. I like programming. [3] (Intrinsic motivation)
2. Programming is interesting. [3] (Intrinsic motivation)
3. I would like to continue learning programming in the future. [3] (Intrinsic or extrinsic value)
4. I would like more programming teaching in the next year. [3,7] (Intrinsic or extrinsic value)
5. Programming is hard. [3] (Self-efficacy)
6. Programming concepts and syntax are difficult for me to learn. [6] (Self-efficacy)
7. I am confident that I could learn a new programming skill. [1] (Self-efficacy)
8. Programming makes me feel more like a geophysicist. (Belonging)
9. Collaborating in coding activities makes me feel more like a geophysicist. (Belonging)

B. Reflection on experience with IPGF

1. When I first started with the IPGF, I had troubles figuring out how to use it. [4] (Cost start)
2. I enjoyed using the IPGF during coding. [2] (General)
3. I valued learning about the IPGF. (General)
4. Using the IPGF makes me more eager to keep coding regularly. (Python)
5. How confident are you in your ability to use the IPGF to code? [1] (Python)
6. The IPGF made it easy to keep track of changes in documents. [4] (Git)
7. The IPGF made it easy to share all kinds of documents. [4] (Git)
8. The IPGF is great for working on group projects? [1] (Collaboration)
9. The IPGF made it easy to collaborate on code with my peers. (Collaboration)
10. After some experience with the IPGF, it has become much easier to use. (Cost finish)

## Research questions (to be refined)

1. What is the students’ perception about using the IPGF, and its effect on their programming abilities? [2]
2. How does the IPGF enhance collaboration, programming fluency and motivation to code for the students?

## References

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