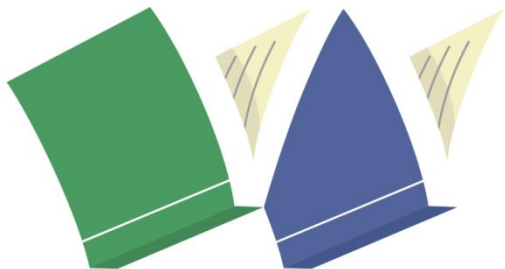


# Evolution of students' editions

ÁNGEL OBREGÓN SIERRA (VANBASTEN\_23) -> UOC AND WIKIMEDIA SPAIN



## Wikimedia+Education Conference April 5-7 • Donostia-San Sebastián • Basque Country

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Do students  
learn to edit  
in Wikipedia?

# Previous research in vandalism

- ▶ There is a lot of research on how vandalism can be prevented in Wikipedia, thanks to automatic learning, combining language, reputation, time...
  - ▶ Hicks, J. (18 de febrero de 2014). This machine kills trolls. *The Verge*. Retrieved from <http://www.theverge.com/2014/2/18/5412636/this-machine-kills-trolls-how-wikipedia-robots-snuff-out-vandalism>
  - ▶ Kumar, S., Spezzano, F., & Subrahmanian, V.S. (2015). *VEWS: A Wikipedia Vandal Early Warning System*. Actas de la 21ª ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD'15), 607-616. doi: <http://dx.doi.org/10.1145/2783258.2783367>
  - ▶ Mola-Velasco, S.M. (2010). *Wikipedia vandalism detection through machine. learning: feature review and new proposals*. Reporte para PAN 2010. Recuperado de [http://ceur-ws.org/Vol-1176/CLEF2010wn-PAN-Mola\\_Velasco2010.pdf](http://ceur-ws.org/Vol-1176/CLEF2010wn-PAN-Mola_Velasco2010.pdf)
  - ▶ Potthast, M., & Holfeld, T. (2011). Overview of the 2nd International Competition on Wikipedia Vandalism Detection. In Petras, V., & Clough, P. (eds.) *Notebook Papers of CLEF 2011 Labs and Workshops*. Amsterdam. Retrieved from [http://www.uni-weimar.de/medien/webis/publications/papers/potthast\\_2011a.pdf](http://www.uni-weimar.de/medien/webis/publications/papers/potthast_2011a.pdf)
  - ▶ Suzuki, Y., & Nakamura, S. (2016). *Assessing the Quality of Wikipedia Editors through Crowdsourcing*. Wiki Workshop'16. Montreal, Canadá. Retrieved from [http://wikiworkshop.org/2016/papers/Wiki\\_Workshop\\_WWW\\_2016\\_paper\\_5.pdf](http://wikiworkshop.org/2016/papers/Wiki_Workshop_WWW_2016_paper_5.pdf)

# ORES

- ▶ [ORES](#) is a web service and API that provides machine learning for Wikimedia projects
- ▶ Editors train ORES to detect which edits are malicious and which ones have been added in good-faith to add value to the articles
- ▶ Given a diff, Ores returns two values:
  - ▶ damaging – predicts whether or not an edit causes damage
  - ▶ goodfaith – predicts whether an edit was saved in good-faith

# Previous research in education

- ▶ There are also numerous studies on the teaching of Wikipedia in educational centers and educational projects:
  - ▶ Fessakis, G., & Zoumpatianou, M. (2012). Wikipedia uses in learning design: A literature review, *Themes in Science and Technology Education*, 5(1/2), 97-106
  - ▶ Knight, Ch., & Pryke, S. (2012). Wikipedia and the University, a case study. *Teaching in Higher Education*, 17(6), p. 649-659. doi: 10.1080/13562517.2012.666734
  - ▶ Konieczny, P. (2010). Teaching with Wikipedia and other Wikimedia foundation wikis. *WikiSym '10, Gdansk*. doi: 10.1145/1832772.1832810
  - ▶ Menchen-Trevino, E., & Hargittai, E. (2011). Young adults' credibility assessment of Wikipedia Information, *Communication & Society*, 24-51
  - ▶ Meseguer-Artola, A. (2014). Aprendiendo mediante la comparación con Wikipedia: su importancia en el aprendizaje de los estudiantes. *RUSC. Universities and Knowledge Society Journal*, 11(2), 57-69. doi: 10.7238/rusc.v11i2.2042

# UOC

- ▶ “Fundamentals of e-learning technology” is part of the Master's Degree in Education and ICT
- ▶ The activity of editing in the Wikipedia has a value of 15% in the final qualification of the subject
- ▶ Groups of 4 people edit articles on topics such as technology and education
- ▶ 28 days working in Wikipedia (editing in the sandbox and in the educational project)

# Investigation questions

1. Had they edited before?
2. At which stage of the activity do the students edit?
3. Are students still editing with their username after the course?
4. Do the students' editions cause any damage to Wikipedia?
5. Is it considered that the students' editions are in good faith?
6. As the activity progresses, do students' editions improve?

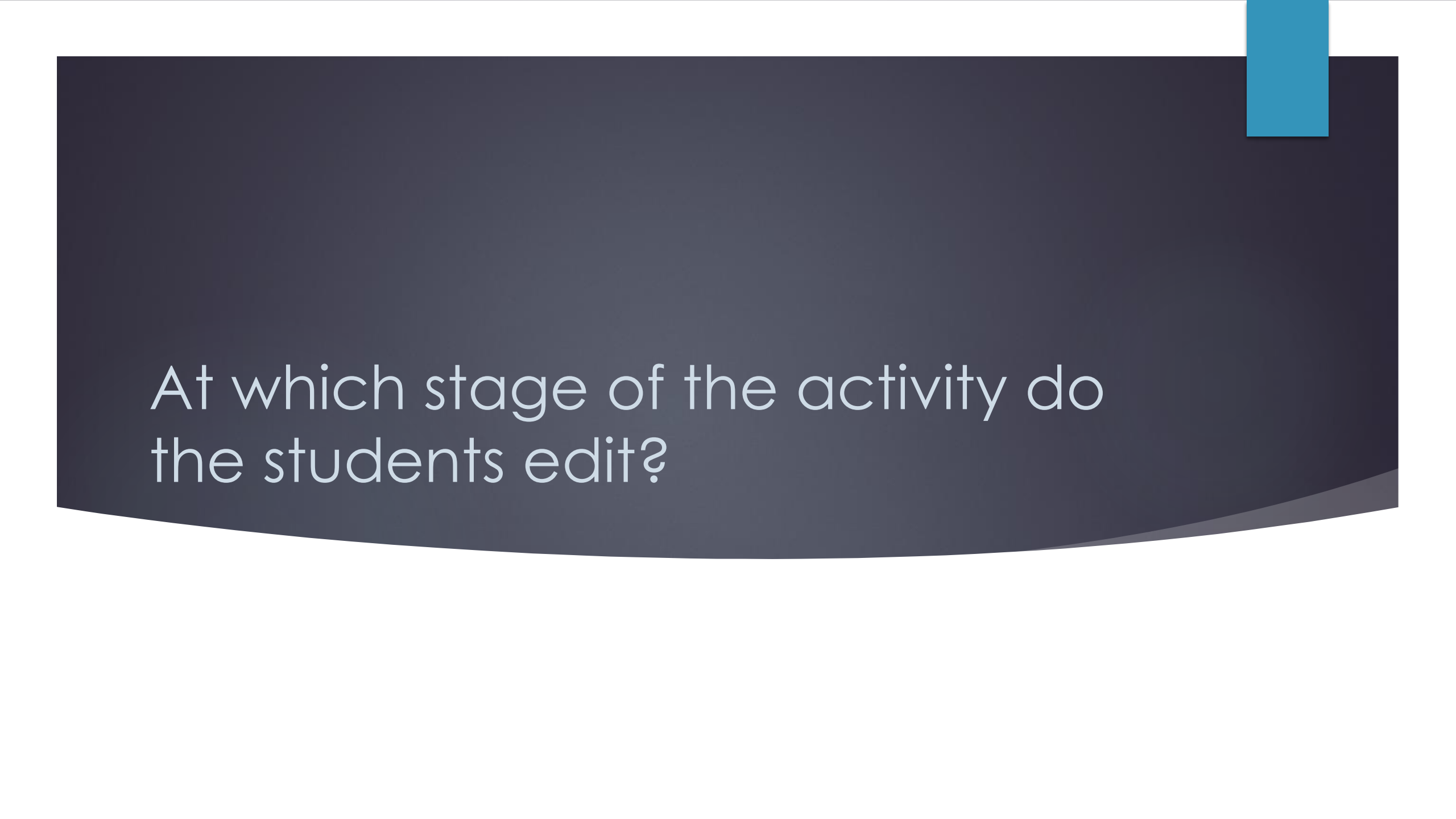
# Methodology

- ▶ For our classes we use an educational project named [Fundamentos tecnológicos del e-learning](#)
- ▶ There were three editions, the end of 2017, the beginning and the end of 2018
- ▶ Students sign up for the project with their own username
- ▶ With all their usernames, I programmed a script to collect all the editions made by the students
- ▶ With each edition I got data about the modified article, the date and the diff
- ▶ With the diff I programmed another script to ask ORES for the damage and good faith of that edition



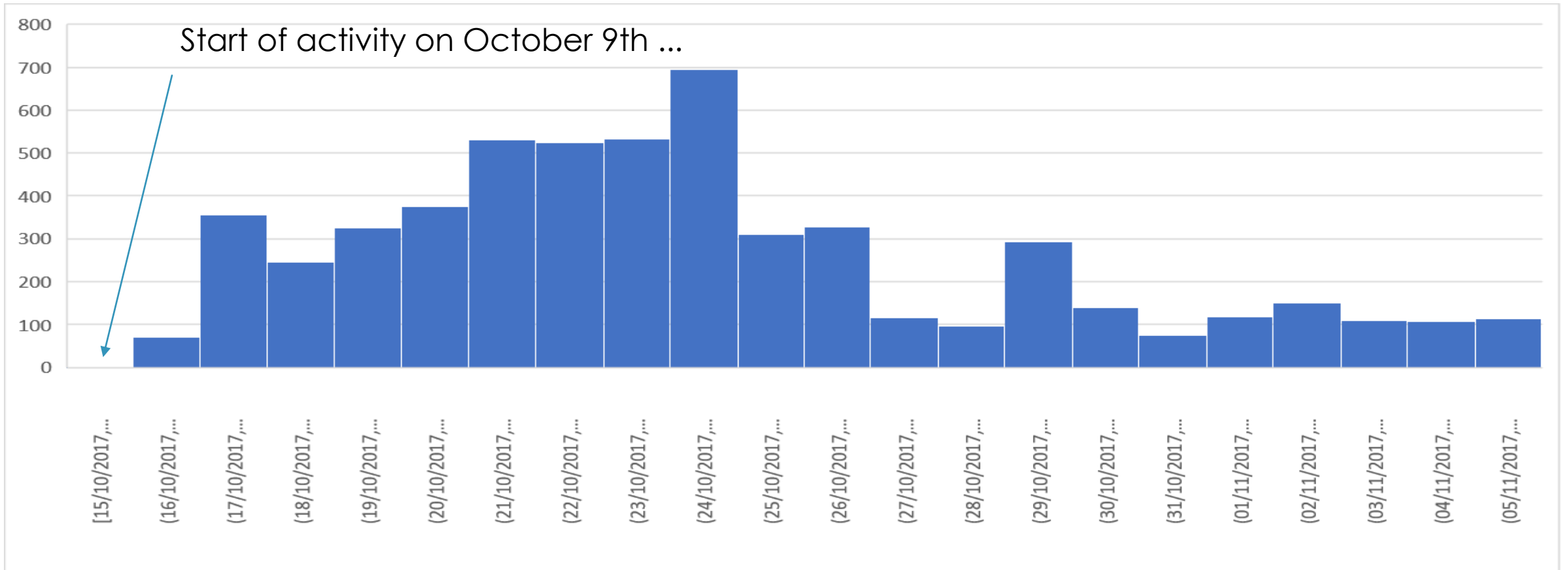
# Had they edited before?

- ▶ In the first edition of this activity, 2 students (Javiermc and Jlangreo) had done 58 editions between both of them
- ▶ In the second edition nobody had ever edited before in wikipedia
- ▶ In the third edition 4 students (Rodolfobegno, Sginzo, Nachoska and Angelapaz0685) had previously published articles, with a total of 38 editions among all of them

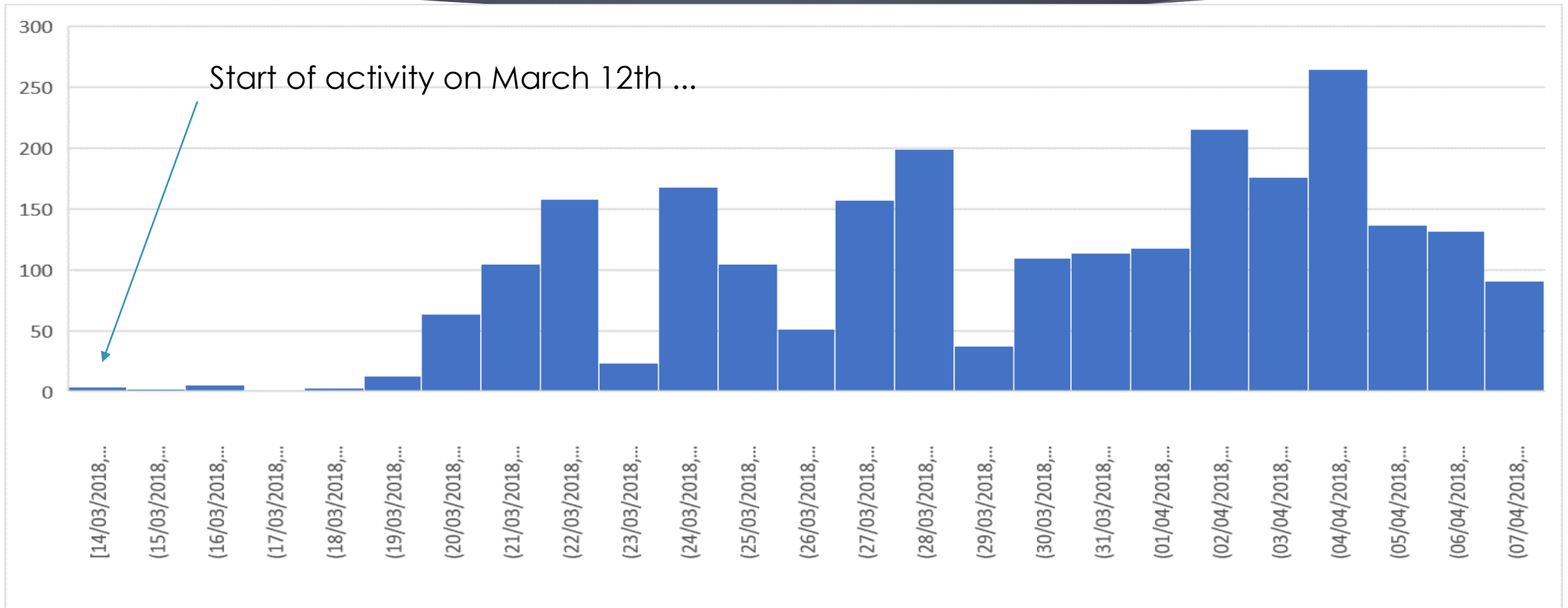


At which stage of the activity do the students edit?

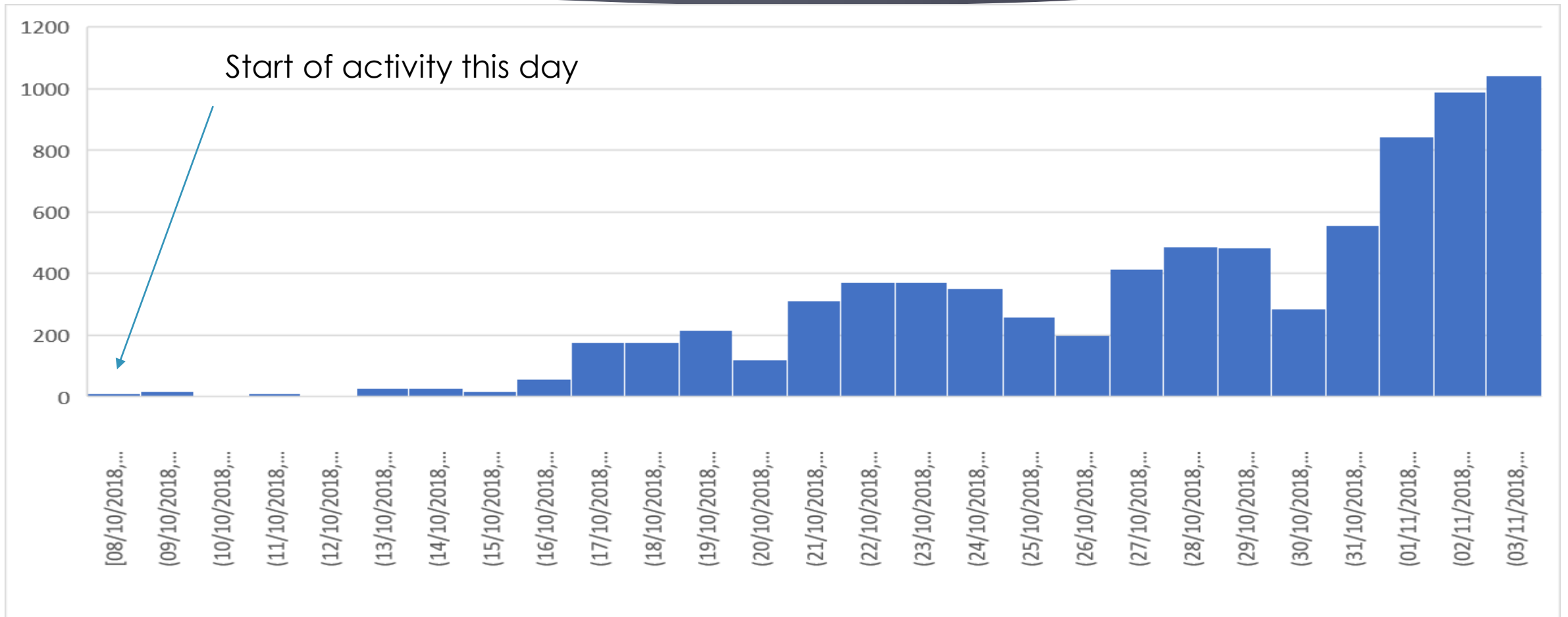
# During the first edition




# During the second edition



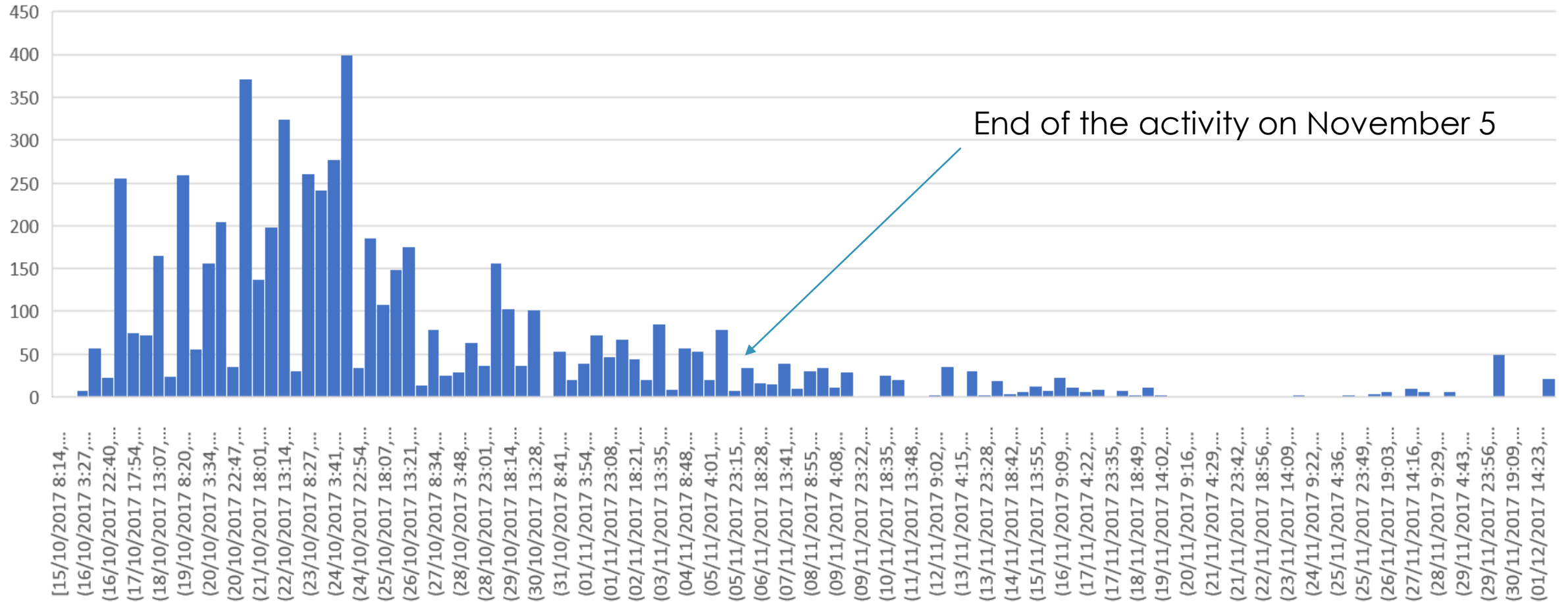
# During the third edition



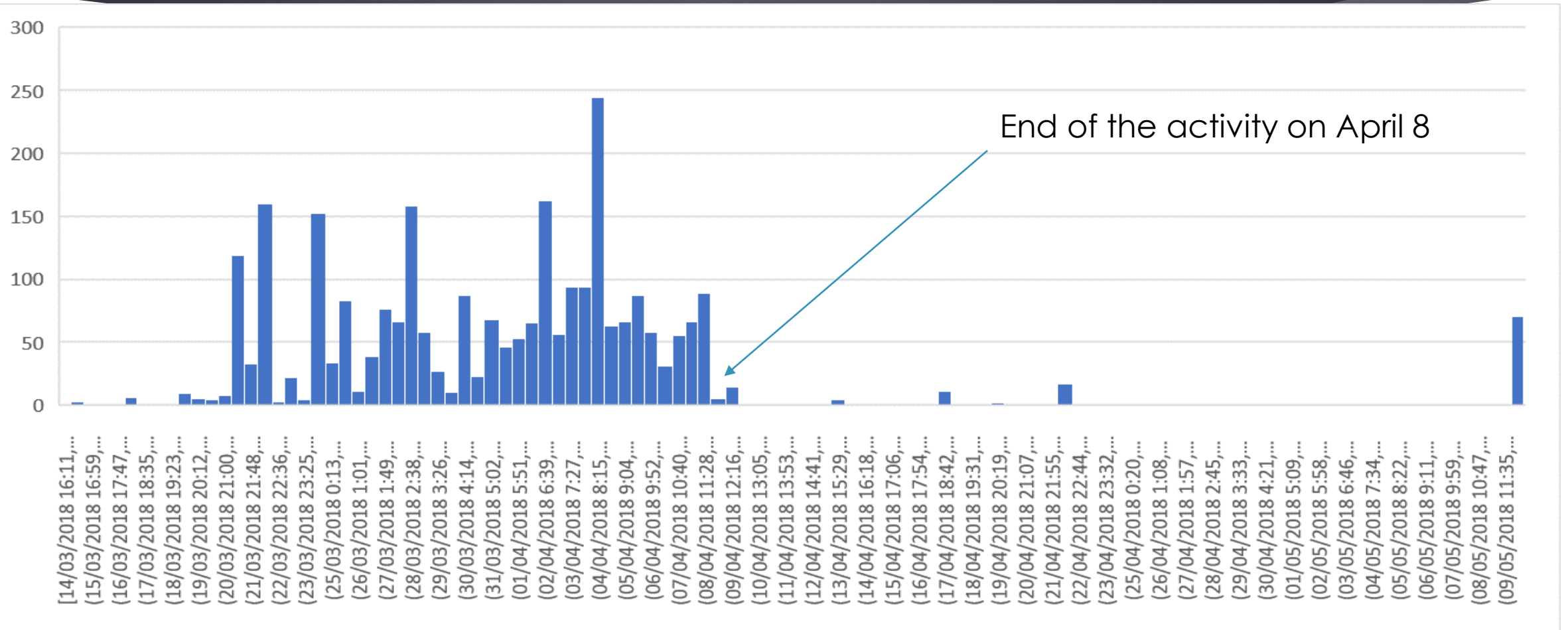


Are students still editing with their  
username after the course?

# Do they continue editing after the 1<sup>st</sup> edition?

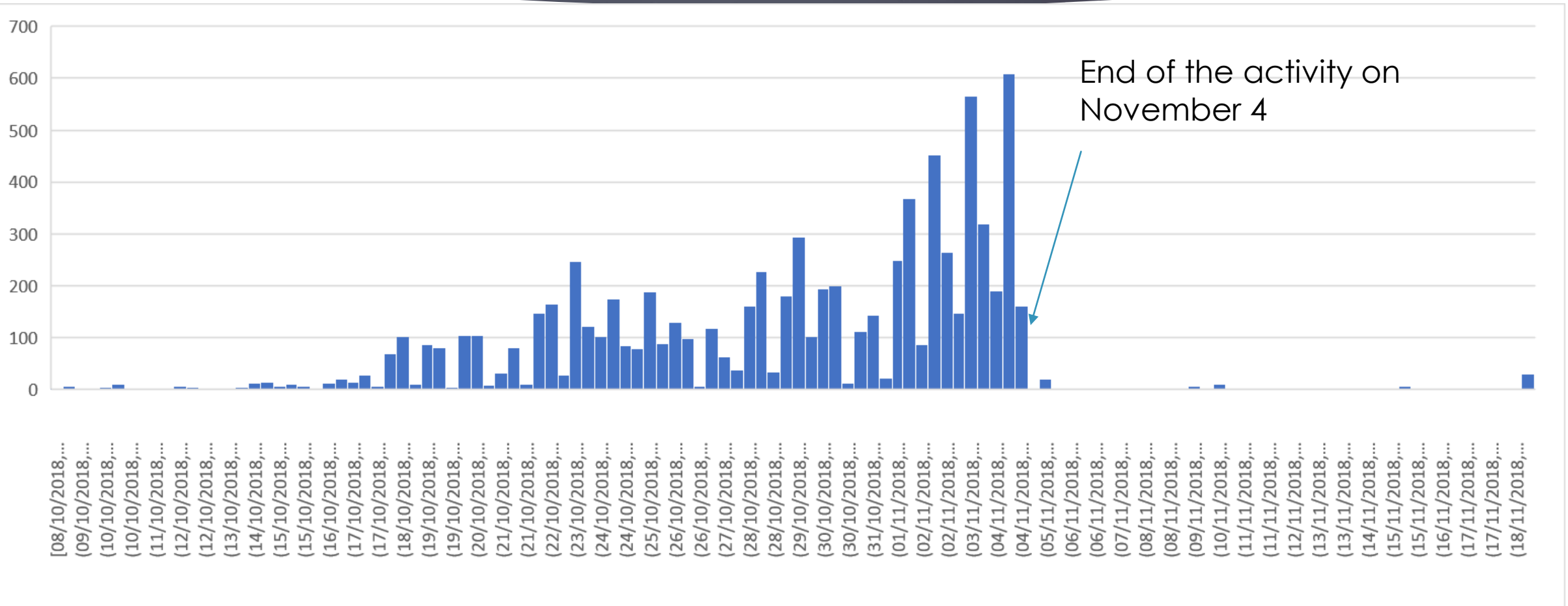


# Do they continue editing after the 2<sup>nd</sup> edition?





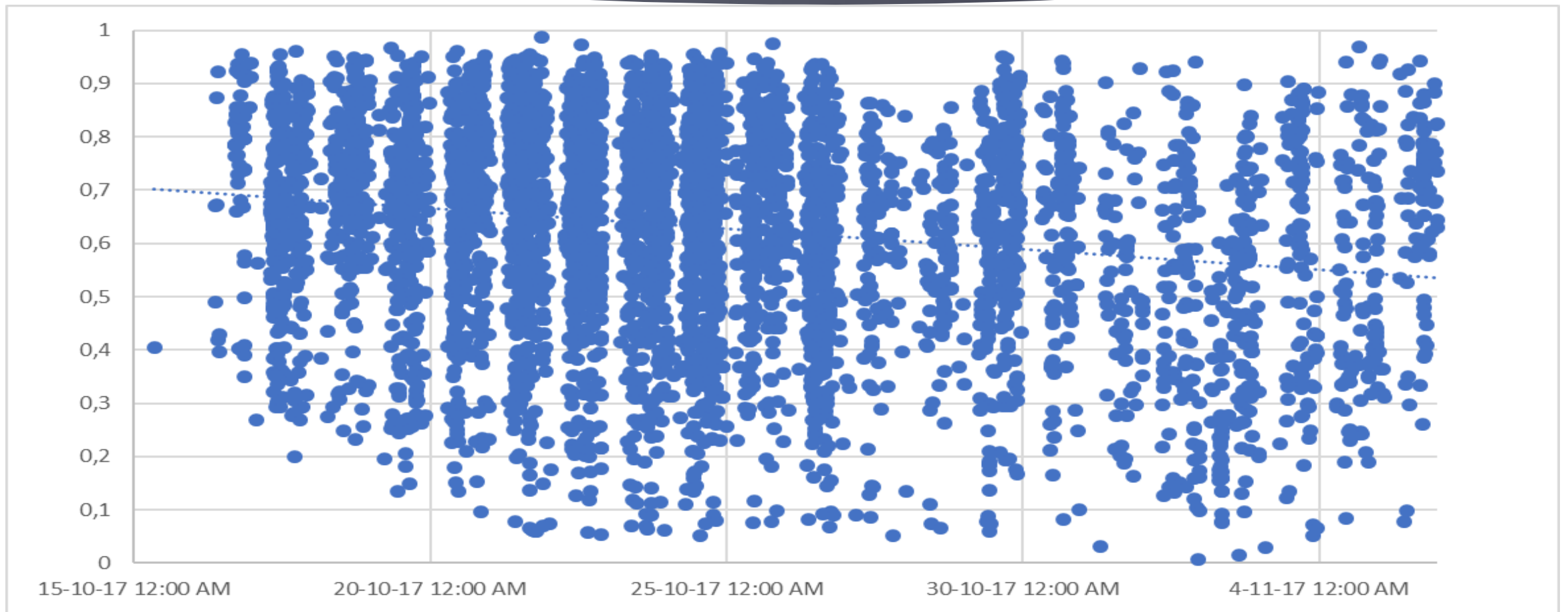
# Do they continue editing after the 3<sup>rd</sup> edition?



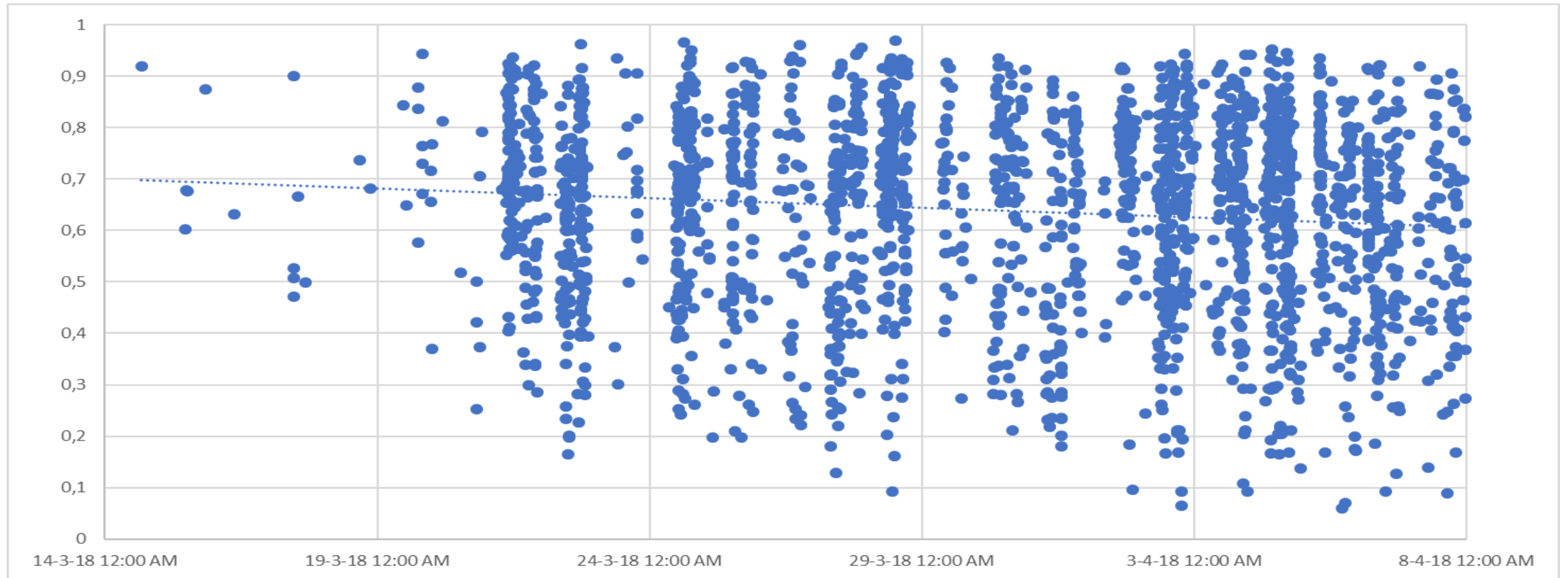


Do students' editions cause any damage to Wikipedia?

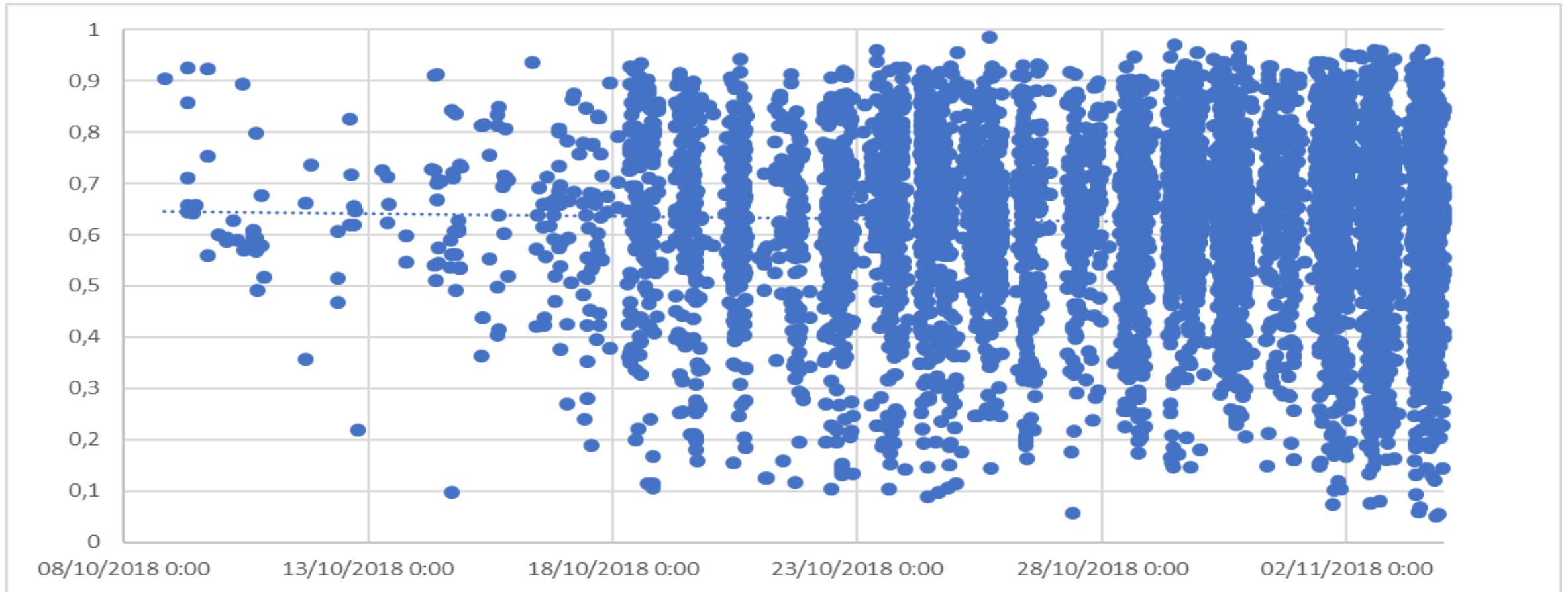
# What was the damage of the editions? (I)



# What was the damage of the editions? (II)



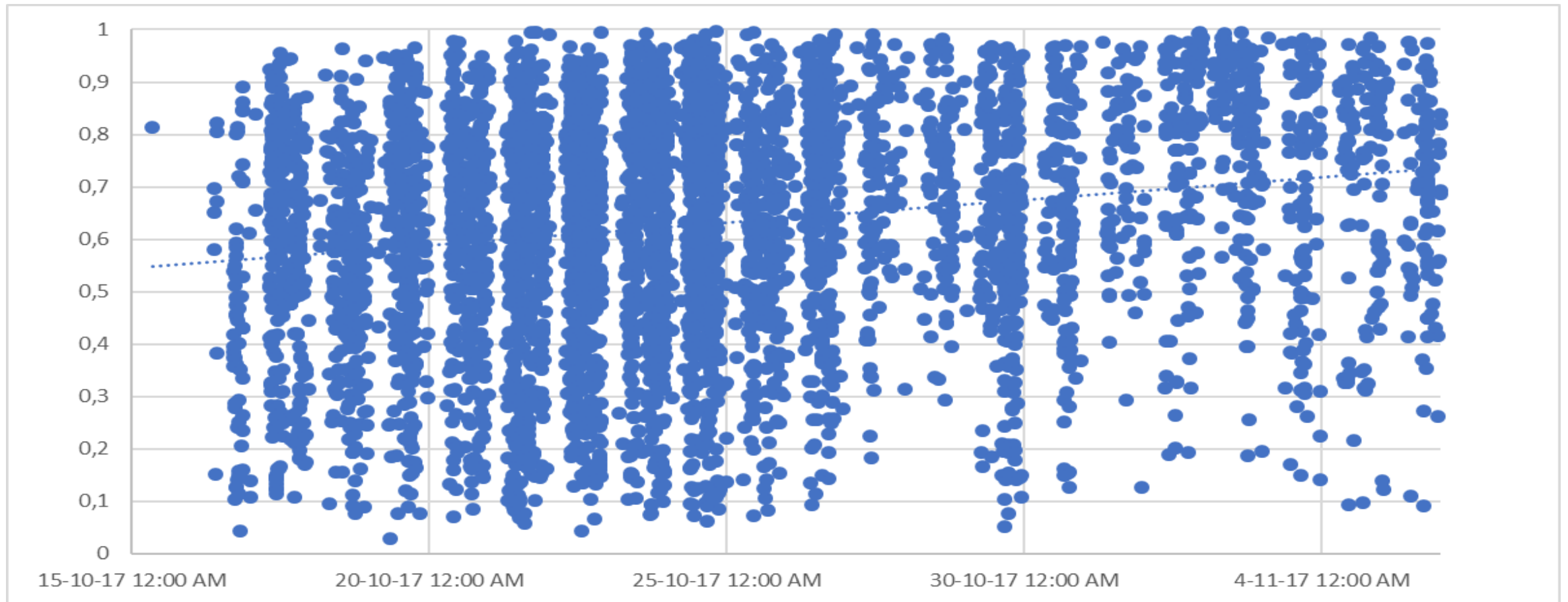
# What was the damage of the editions? (III)



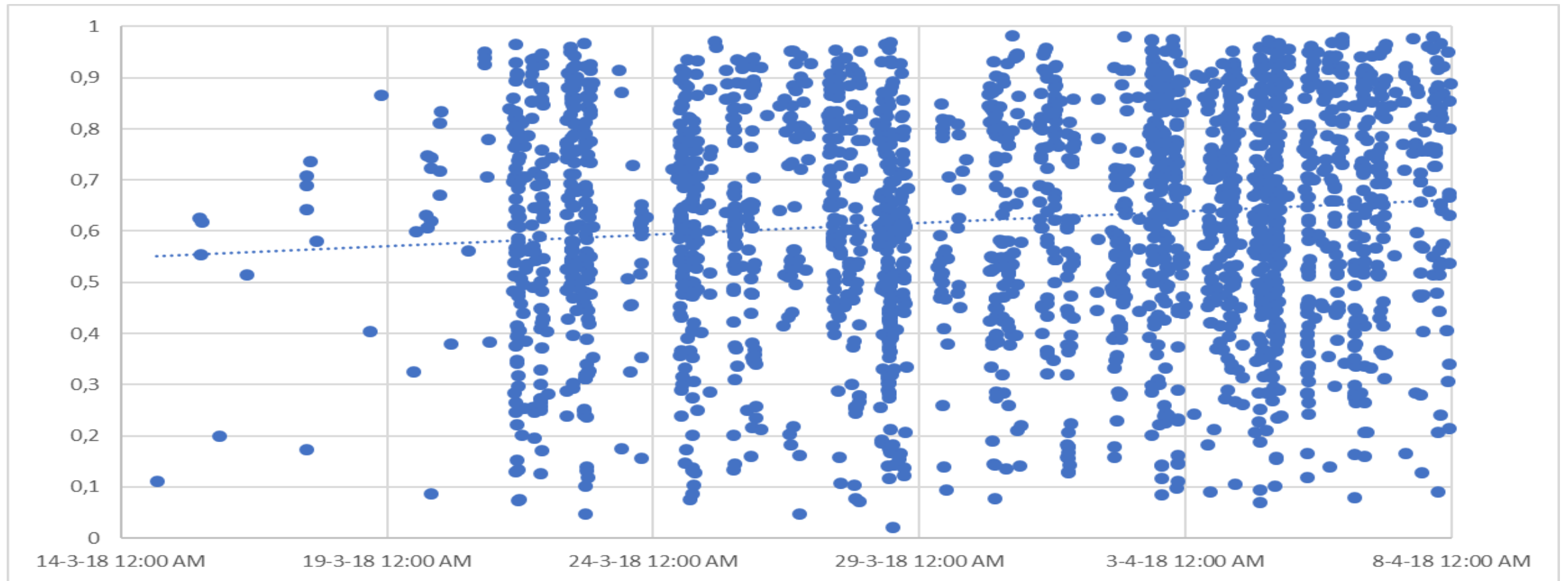


Is it considered that the students' editions are in good faith?

# And was there good faith? (I)

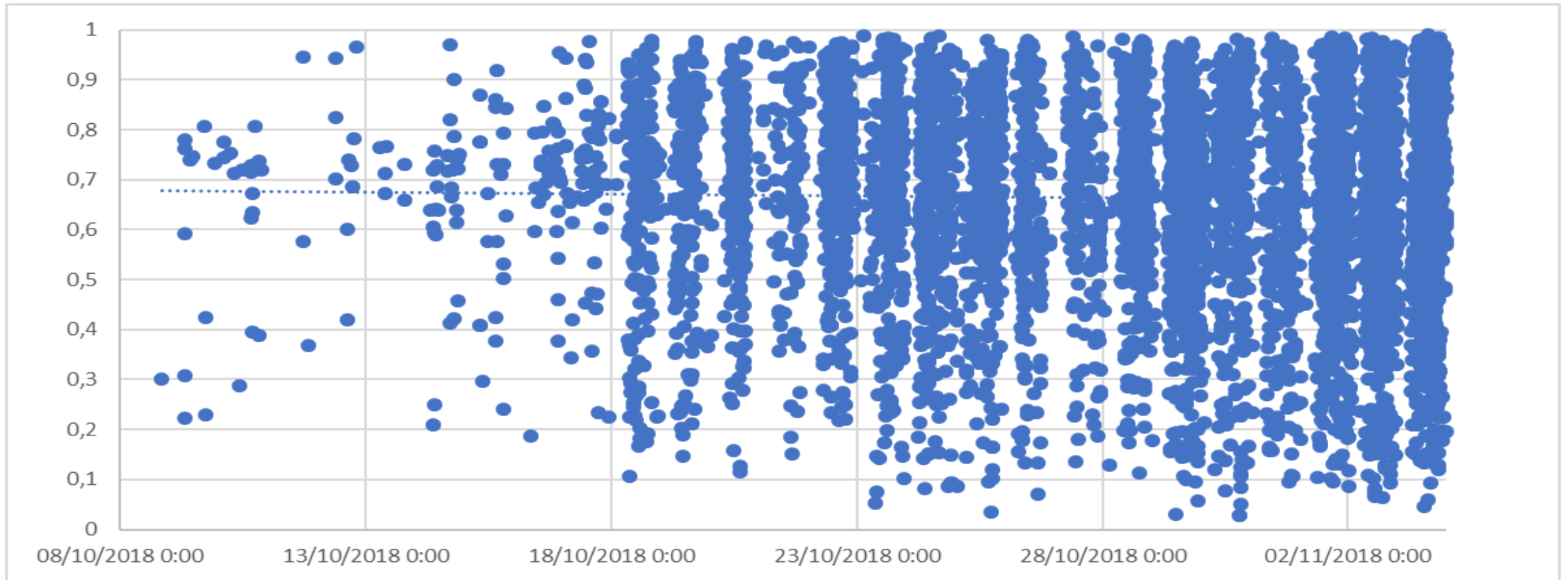


# And was there good faith? (II)





# And was there good faith? (III)





As the activity progresses, do students' editions improve?

# Conclusions

- ▶ During the 3 semesters in which this activity has taken place, the groups of students chose different moments of time to edit.
  - ▶ In the first edition they soon began to edit and hardly edited at the end.
  - ▶ In the second edition they worked in the middle and at the end.
  - ▶ In the third edition they worked a lot at the end.

	Damage beginning	Damage final	Good faith beginning	Good faith final
1st edition	0.7	0.55	0.55	0.72
2nd edition	0.7	0.6	0.55	0.66
3rd edition	0.65	0.63	0.68	0.67

# Limitations

- ▶ Classes at the UOC are remote (e-learning), so the students decide at what moment they will edit, so we can not see a continuous evolution of the way in which they learn to edit throughout the activity
- ▶ If the classes were given daily, we could see more clearly how they evolve in the quality of these editions

# Future research

- ▶ Further analysis of other educational projects, especially face-to-face ones, where learning could be faster
- ▶ Analysis of editing workshops to check when editors are ready to edit in Wikipedia and leave the sandbox
- ▶ We could analyze teaching methods and teachers in order to know which ones are better for novice editors