Impact of Course Delivery Mode on Learner Engagement in MOOCs

xTalk Jan 12, 2021
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2 Course Delivery Modes for MOOCs

Instructor-paced (IP)

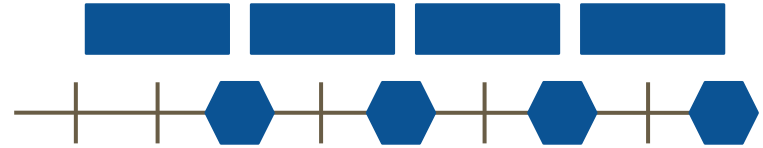# 2 Course Delivery Modes for MOOCs

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- Content released gradually

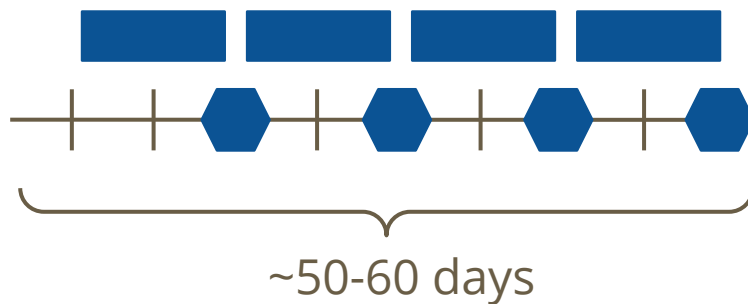# 2 Course Delivery Modes for MOOCs

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- Multiple deadlines

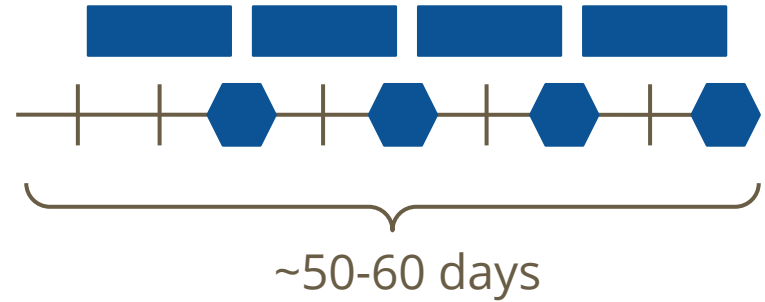# 2 Course Delivery Modes for MOOCs

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- Content released gradually
- Multiple deadlines
- Short duration

~50-60 days

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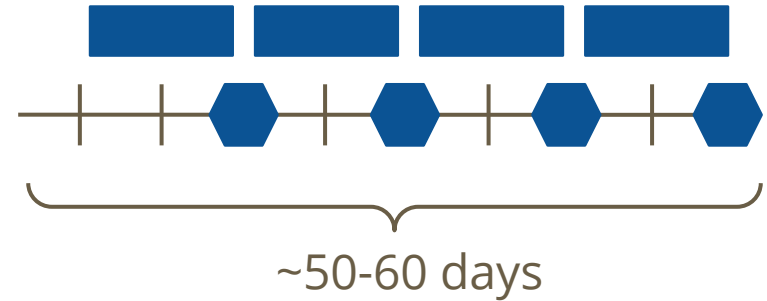- Multiple deadlines
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Self-paced (SP)

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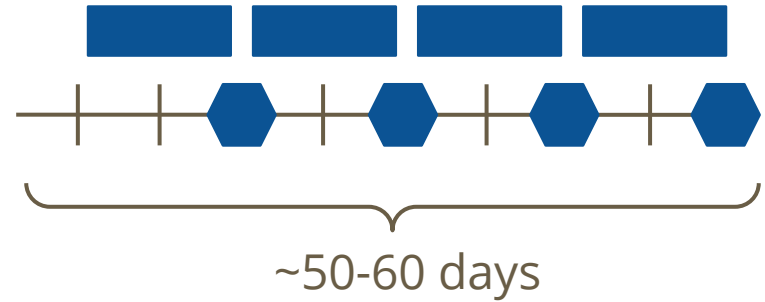- Short duration

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Self-paced (SP)
- Content released at once

2 Course Delivery Modes for MOOCs

Instructor-paced (IP)
- Content released gradually
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Self-paced (SP)
- Content released at once
- Single deadline at end

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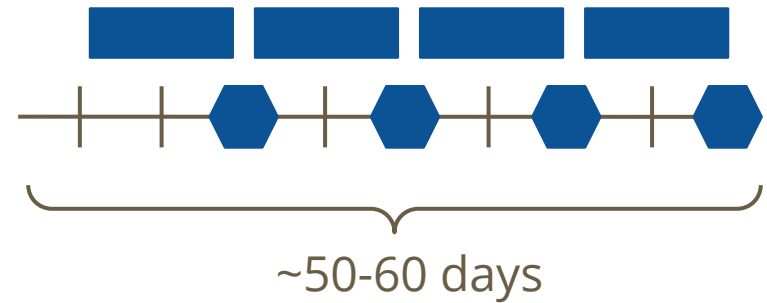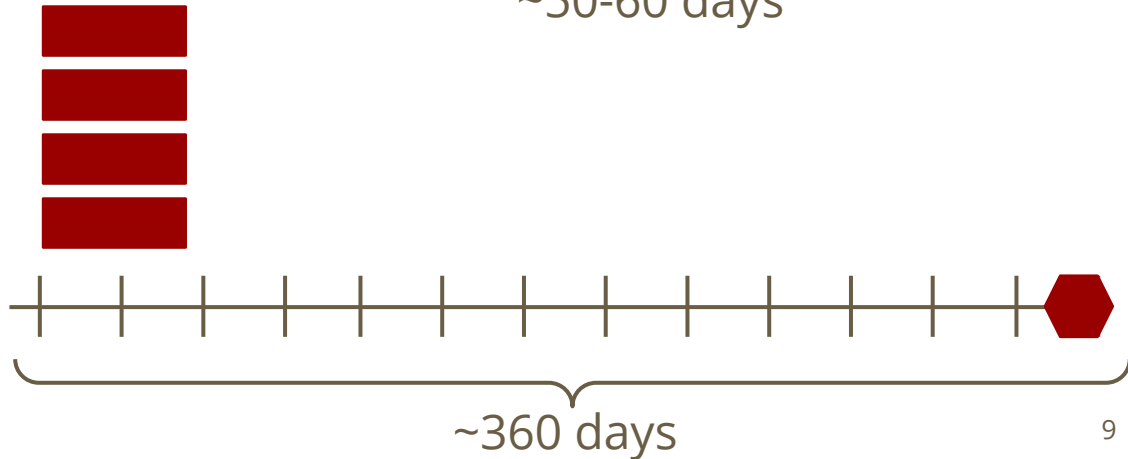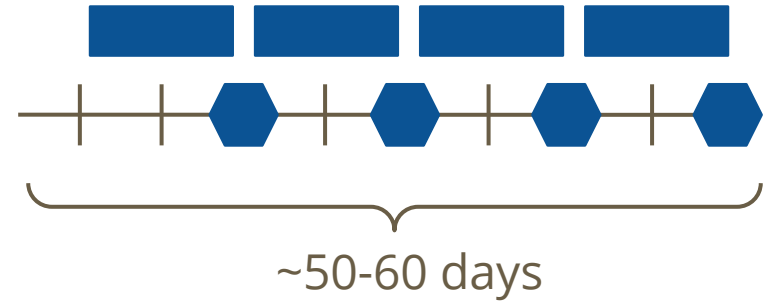- Content released at once
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- Long duration

~360 days

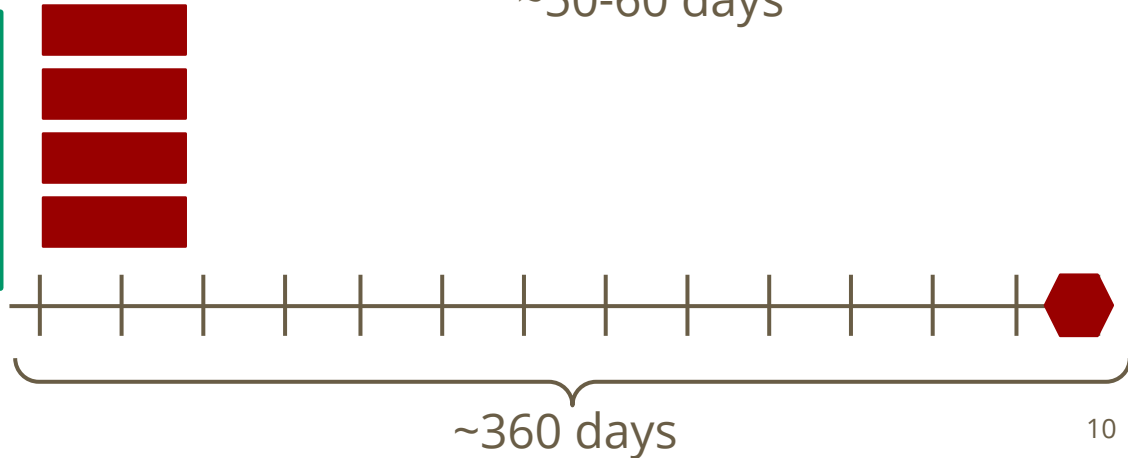# 2 Course Delivery Modes for MOOCs

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Does running a MOOC in SP vs IP mode increase learner engagement?

Analyzed SP vs IP runs of 2 Computational MOOCs

- **Advanced Quantitative Biology**
  - ~3000 registered learners/run
  - 5 IP runs, 2 SP runs

- **Introductory Computer Programming**
  - ~85,000 registered learners/run
  - 8 IP runs, 1 SP run

Running a MOOC in SP vs IP ...

- **... did NOT increase engagement metrics for all learners**
  - Participating, exploring, completing, verifying
  - Posting to the forum, attempting a problem, watching a video
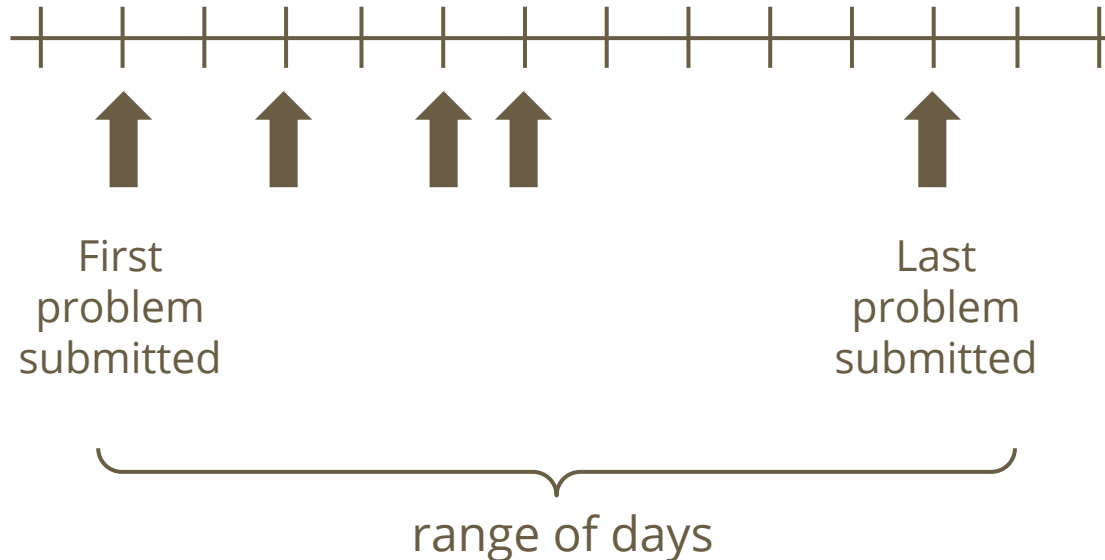
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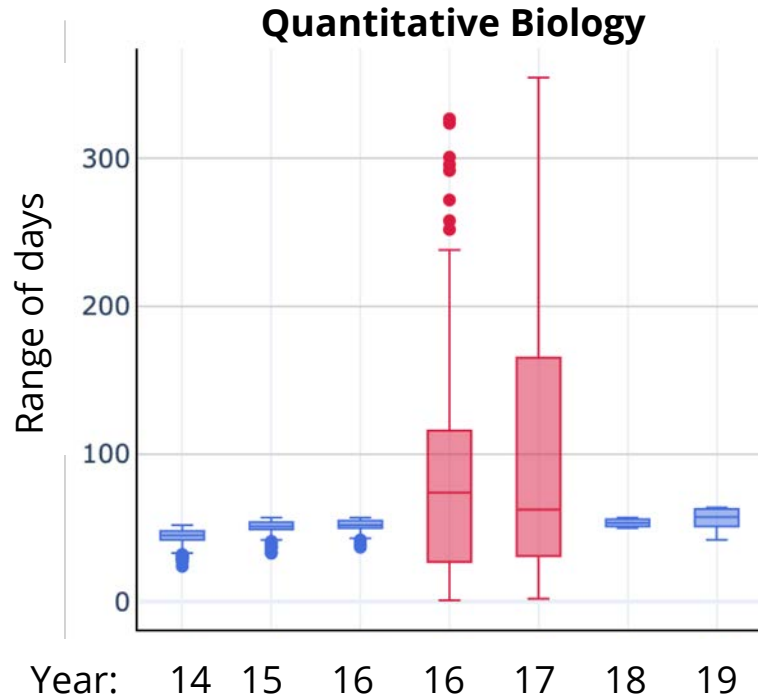
Does running a MOOC in SP vs IP …

- **… increase activity of learners who complete the MOOC?**
  - **Submitting a problem in a greater range of days**
  - **Submitting a in a greater total number of days**

Does running a MOOC in SP vs IP result in learners who complete the MOOC submitting problems in a greater range of days?

Range of days = last - first date a problem submitted during active run

range of days

Running a MOOC in SP does result in learners who complete the MOOC submitting problems in a greater range of days

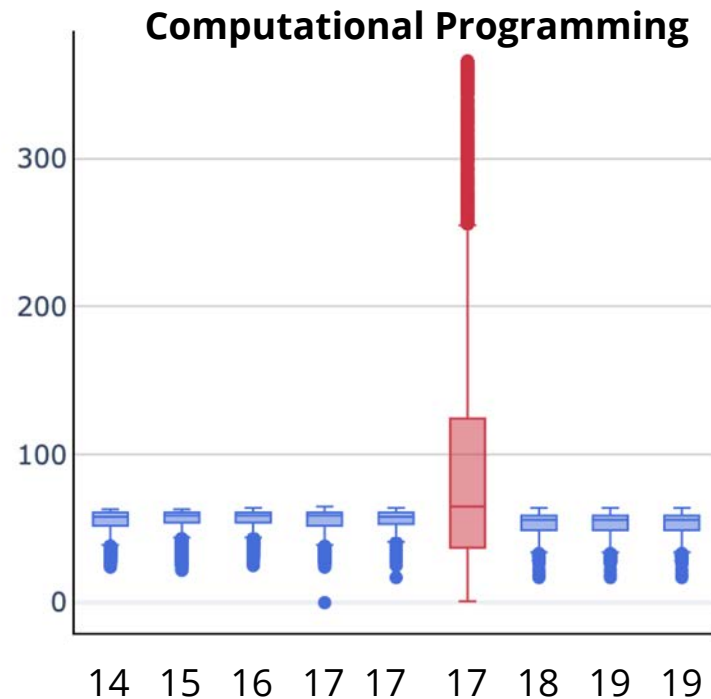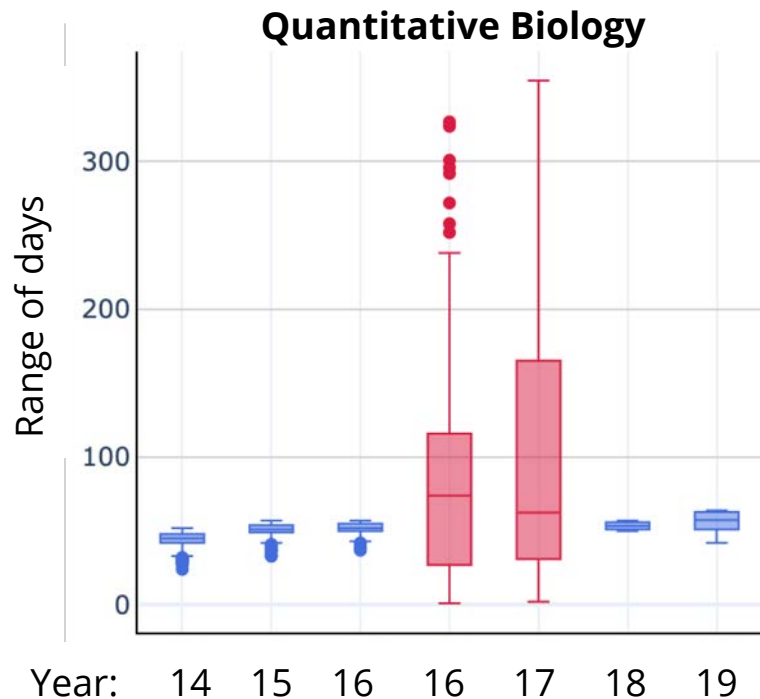Quantitative Biology
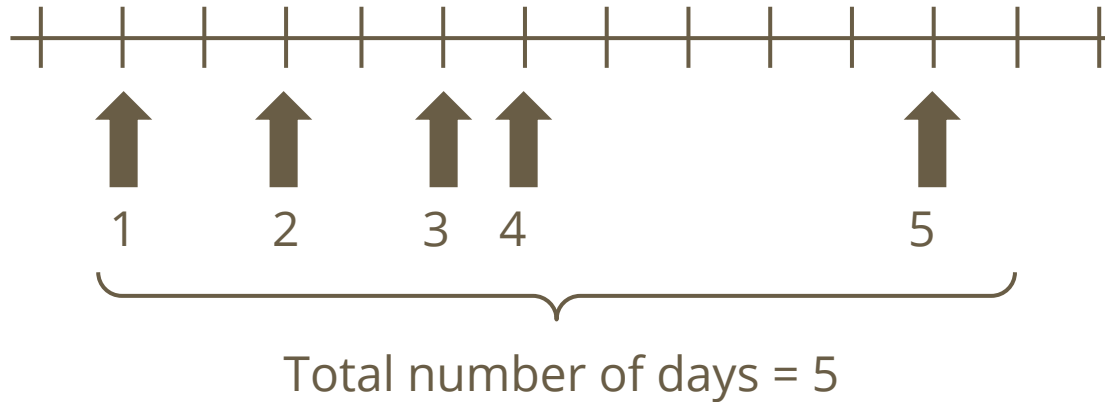
Color Legend: IP runs   SP Runs

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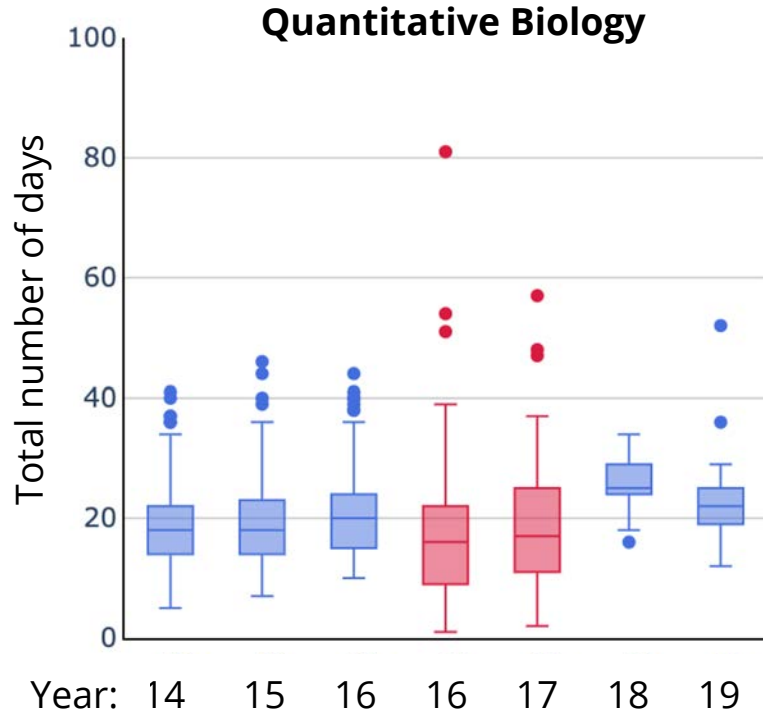

Color Legend: IP runs SP Runs

Does running a MOOC in SP vs IP result in learners who complete the MOOC submitting problems in a greater total number of days?

Total number of days = unique days problems submitted during active run
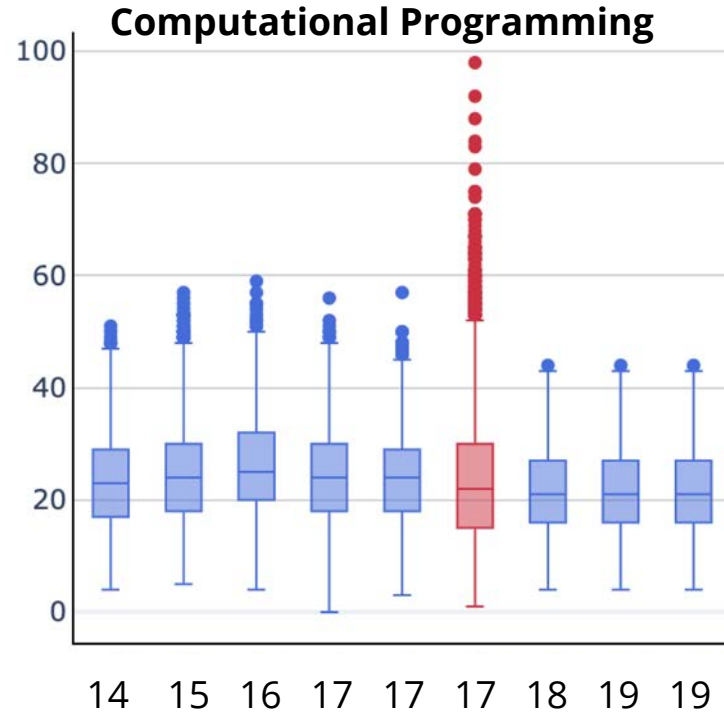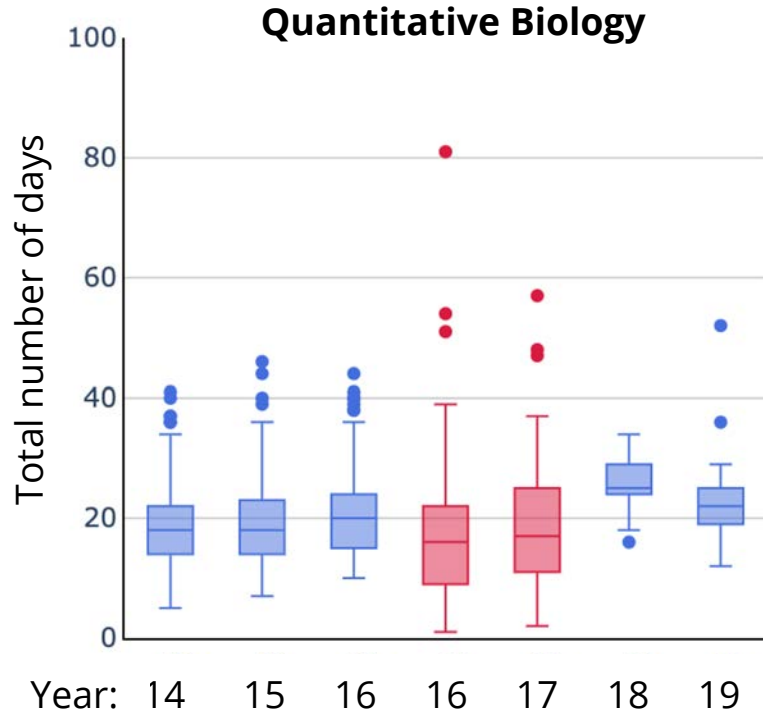

Total number of days = 5

Running a MOOC in SP does NOT result in learners who complete the MOOC submitting problems in a greater total number of days

Quantitative Biology

Color Legend: IP runs   SP Runs

Running a MOOC in SP does NOT result in learners who complete the MOOC submitting problems in a greater total number of days

Quantitative Biology

Computational Programming

Total number of days

Year: 14 15 16 16 17 18 19

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Running a MOOC in SP vs IP …

- **… did NOT increase engagement metrics for all learners**
  - Participating, exploring, completing, verifying
  - Posting to the forum, attempting a problem, watching a video

- **… did NOT increase activity of learners who complete the MOOC**
  - Submitted problems in a **greater** range of days
  - Submitted problems in **less or similar** total number of days
  - Attempted fewer problems per day

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Thank you!

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