

Using the Flipped Classroom Model for Research Metrics Teaching: A Pilot Study



What is a Flipped Classroom?

Participants review information before the session so they can use higher-order thinking during the session.

In a traditional classroom, the teacher or lecturer role is more of a 'Sage on the stage'. The idea is to move towards being a 'Guide on the side' (1).

Move from being a



This method of teaching has been increasingly adopted by university lecturers, particularly since the 2020 pandemic (2), but from the author's experience, is less common in library-based teaching.

What are the benefits of a Flipped Classroom?

- Participants watch/listen/read the workshop or lecture content at a prior time of their choosing and review it at their own pace.
- Concept engagement takes place during the clinic time, led by the subject expert, focusing on more in-depth questions and discussion than time would permit in a traditional format.
- It allows for peer-learning, as questions and issues raised by one participant may be relevant to others.
- It is inclusive as participants are free to review and repeat the content at their own pace. Videos can include edited subtitles.
- It encourages more discussion and debate. More time can be spent on specific or difficult concepts, which could inform alterations to the main content in future. This makes the most of the time when a subject expert is present.
- Participants have access to the content 24/7 and are not restricted solely to advertised workshop or lecture times.
- One systematic review reported 38 benefits vs 26 limitations (3).

Aims

- To compare attendance figures between traditional classroom workshops and Flipped Classroom clinics.
- To make knowledge of Research Metrics, databases where Research Metrics are sourced and responsible use of Research Metrics more accessible to staff and postgraduate researchers (PGRs).

Methodology

- Two workshops (A and B) were delivered three times each in a traditional workshop format during the 2022/2023 academic year. Participant attendances were recorded.
- The same two workshops (A and B) were delivered three times each during the 2023/2024 academic year as clinics. Participant attendances were recorded.
- The traditional workshops were recorded, edited and uploaded to the Library's YouTube channel. Advertising text was added to the Library's online booking system 'LibCal', which described the sessions as 'Drop-in clinics' and linked directly to the relevant YouTube videos, inviting students and staff to engage with the video content and if they had any further questions, to book onto a drop-in clinic.
- Both the traditional workshops and the drop-in clinics were advertised via LibCal approximately one month in advance. YouTube unique views and YouTube total views were measured from four weeks before to four weeks after each drop-in clinic.
- Percentages of viewers who found the YouTube video via direct link vs other means and YouTube analytics' average view duration of videos were also analysed.
- Drop-in clinic participants were polled during the sessions to gather feedback.
- Because of the non-compulsory nature of bibliometrics teaching, it was anticipated that not everyone who engaged with the video content would need to, or choose to, engage with the more in-depth discussions within the drop-in clinics.

Results

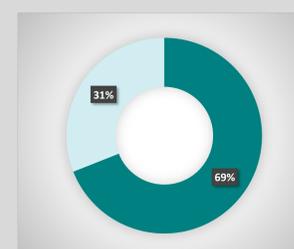
Session	Traditional Workshop Attendances	Flipped Classroom		
		Attendances at Drop-in Clinics	YouTube Unique Views	YouTube Total Views
Session A1	7	9	51	75
Session A2	*N/A	11	42	50
Session A3	**N/R	11	43	58
Session B1	25	15	39	56
Session B2	39	7	53	72
Session B3	7	7	36	49

Table: Traditional workshop attendances during the 2022/2023 academic year. Drop-in clinic attendances and YouTube views during the 2023/2024 academic year.

*N/A: Session A2 was not run or rescheduled due to industrial action.

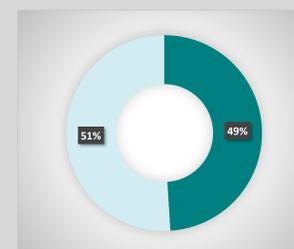
**N/R: Session A3 attendance numbers were not recorded, reason unknown.

YouTube Analytics



Session A YouTube Video

69% of total viewership during the measurement dates came via direct or external link and had a higher than average 'average view duration'.



Session B YouTube Video

49% of total viewership during the measurement dates came via direct or external link and had an average 'average view duration'.

Discussion and Impact

- The initial pilot revealed a mix of higher and lower numbers attending traditional workshops vs flipped drop-in clinics, however many more have engaged with the YouTube videos, indicating that the aim to make knowledge regarding Research Metrics more accessible, was achieved.
- Some limitations to the Flipped Classroom include staff and students not watching the video or reading the booking information before attending, which can result in difficulties with eliciting engagement, despite including formative assessment activities.
- Anecdotal feedback from participants ranged from neutral to positive regarding the flipped model. No participants reported that they preferred traditional workshops to flipped drop-in clinics.
- **Impact:** Seven Library colleagues will be trialling this model in their own subject areas to increase access to expert library knowledge of research support.

References

- 1) King, A. 1993. From Sage on the Stage to Guide on the Side. *College Teaching*. [Online]. 41(1), pp. 30–35. [Accessed 15 November 2024]. Available from <http://www.jstor.org/stable/27558571>.
- 2) Divjak, B., Rienties, B., Inierto, F. et al. 2022. Flipped classrooms in higher education during the COVID-19 pandemic: findings and future research recommendations. *International Journal of Educational Technology in Higher Education*. [Online] 19(9). [Accessed 20 September 2025]. Available from <https://doi.org/10.1186/s41239-021-00316-4>.
- 3) Akçayir, G. and Akçayir, M. 2018. The flipped classroom: A review of its advantages and challenges. *Computers & Education*. [Online]. 126, pp.334-345. [Accessed 15 November 2024]. Available from <https://doi.org/10.1016/j.compedu.2018.07.021>.