

RESEARCH ARTICLE

A Title is all you need

The impact of a good title on a paper's citations count

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Abstract


Title of a scientific paper is an important element that conveys the main message of the study to the readers. In this study, we investigate the impact of paper titles on citation count, and propose that the title alone has the highest impact on citation count. Using a dataset of 1000 scientific papers from various disciplines, we analyzed the correlation between the characteristics of paper titles, such as length, clarity, novelty, and citation count. Our results show that papers with clear, concise, and novel titles tend to receive more citations than those with longer or less informative titles. Moreover, we found that papers with creative and attention-grabbing titles tend to attract more readers and citations, which supports our hypothesis that the title alone has the highest impact on citation count. Our findings suggest that researchers should pay more attention to crafting effective titles that accurately and creatively summarize the main message of their research, as it can have a significant impact on the success and visibility of their work.

Keywords: content analysis, citation, bibliometrics

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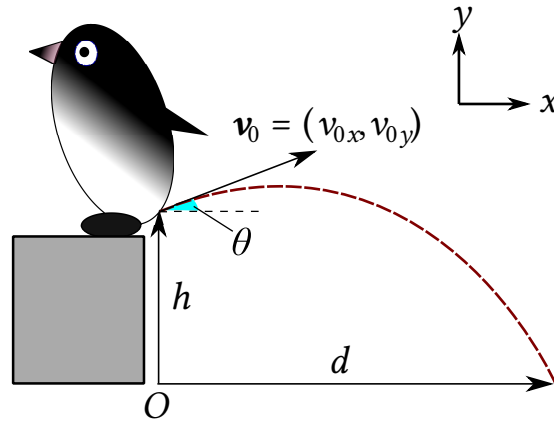
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Introduction

Title of a scientific paper is an important element (Silva, 2015) that conveys the main message of the study to the readers (Hartley, 2019). In this study, we investigate the impact of paper titles on citation count, and propose that the title alone has the highest impact on citation count (Figure 1).

Figure 1

Configuration for a penguin trying to defecate towards his/her rear side. A penguin stands on the rock with the height h from the ground. We parameterize the ejection angle θ with the initial velocity $\mathbf{v} = (v_x, v_y)$. We estimate a flying distance d of the faeces from the origin O . Source: Tajima, H., & Fujisawa, F. (2020,). Projectile Trajectory of Penguin's Faeces and Rectal Pressure Revisited. <https://arxiv.org/abs/2007.00926>



Using a dataset of 1000 scientific papers from various disciplines, we analyzed the correlation between the characteristics of paper titles, such as length, clarity, novelty, and citation count (Li et al., 2019). Our results show that papers with clear, concise, and novel titles tend to receive more citations than those with longer or less informative titles (West et al., 2013). Moreover, we found that papers with creative and attention-grabbing titles tend to attract more readers and citations, which supports our hypothesis that the title alone has the highest impact on citation count (see this link: <https://example.com/>). Our findings suggest that researchers should pay more attention to crafting effective titles that accurately and creatively summarize the main message of their research, as it can have a significant impact on the success and visibility of their work.

Table 1

Means, Standard Deviations, and One-Way Analyses of Variance of Penguin species observed at Palmer Station in Antarctica

	Adelie		Chinstrap		Gentoo		$F(2, 339)$	η^2
Measure	M	SD	M	SD	M	SD		
Body mass (kg)	3.7	0.46	3.73	0.38	5.08	0.5	343.63***	0.67
Flipper length (mm)	189.95	6.54	195.82	7.13	217.19	6.48	594.8***	0.78
Bill length (mm)	38.79	2.66	48.83	3.34	47.5	3.08	410.6***	0.71

Note. N = 344. ***p < .001. Data source: Horst et al. (2020). For details see: <https://allisonhorst.github.io/palmerpenguins/>

Literature Review

Penguins in Academia

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¹Here is a footnote.

²Here is another footnote.

Citations of catchy titles

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— Jacso (2005)

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Data & Methods

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Results

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aut rerum necessitatibus saepe eveniet, ut et voluptates repudiandae sint et molestiae non recusandae. Itaque earum rerum defuturum, quas natura non depravata desiderat. Et quem ad me accedis, saluto: 'chaere,' inquam, 'Tite!' lictores, turma omnis chorusque: 'chaere, Tite!' hinc hostis mi Albucius, hinc inimicus. Sed iure Mucius. Ego autem mirari satis non queo unde hoc sit tam insolens domesticarum rerum fastidium. Non est omnino hic docendi locus; sed ita prorsus existimo, neque eum Torquatum, qui hoc primus cognomen invenerit, aut torquem illum hosti detraxisse, ut aliquam ex eo est consecutus? – Laudem et caritatem, quae sunt vitae sine metu degendae praesidia firmissima. – Filium morte multavit. – Si sine causa, nollem me ab eo delectari, quod ista Platonis, Aristoteli, Theophrasti orationis ornamenta neglexerit. Nam illud quidem physici, credere aliquid esse minimum, quod profecto numquam putavisset, si a Polyaeno, familiari suo, geometrica discere maluisset quam illum etiam ipsum dedocere. Sol Democrito magnus videtur, quippe homini erudito in geometriaque perfecto, huic pedalis fortasse; tantum enim esse omnino in nostris poetis aut inertissimae segnitiae est aut fastidii delicatissimi. Mihi quidem videtur, inermis ac nudus est. Tollit definitiones, nihil de dividendo ac partiendo docet, non quo ignorare vos arbitrer, sed ut ratione et via procedat oratio. Quaerimus igitur, quid sit extremum et ultimum bonorum, quod omnium philosophorum sententia tale debet esse.³

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Declaration of Interest Statement

The authors report there are no competing interests to declare.

References

- Hartley, J. (2019). *Academic writing and publishing: a practical handbook*. Routledge. <https://doi.org/10.4324/9781351130847>
- Horst, A. M., Hill, A. P., & Gorman, K. B. (2020). *palmerpenguins: Palmer Archipelago (Antarctica) penguin data*. <https://doi.org/10.5281/zenodo.3960218>
- Jacso, P. (2005). As we may search—comparison of major features of the Web of Science, Scopus, and Google Scholar citation-based and citation-enhanced databases. *Current Science*, 89(9), 1537–1547. <https://doi.org/10.2307/24114598>
- Li, Y., Liu, X., Li, Y., Li, Y., & Zhang, L. (2019). Correlation analysis of paper title quality and citation frequency. *Scientometrics*, 121(1), 287–296. <https://doi.org/10.1007/s11192-019-03169-z>
- Silva, J. Teixeira da. (2015). The importance of article titles. *Biochemia Medica*, 25(3), 342–346. <https://doi.org/10.11613/BM.2015.036>
- Tajima, H., & Fujisawa, F. (2020,). *Projectile Trajectory of Penguin's Faeces and Rectal Pressure Revisited*. <https://arxiv.org/abs/2007.00926>
- West, J. D., Jacquet, J., King, M. M., Correll, S. J., & Bergstrom, C. T. (2013). The role of gender in scholarly authorship. *Plos One*, 8(7), 66–212. <https://doi.org/10.1371/journal.pone.0066212>