

Science News in the Physics Classroom

What do students choose to read?

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Summary

Students in an introductory algebra-based physics course were asked to choose one article each week in the newsmagazine *Science News* and write a short paper.

Over four semesters, 2000 entries were recorded from 165 men and 17 women. Entries were analyzed for topic, page length, cover article, picture, gender, and major.

Men had 1871 entries, women had 228. Applied Science students had 199 entries, Construction students had 783, Engineering Technology had 699, and Packaging had 256.

- Topics on health were most likely to be chosen, with biology and animals next most popular.
- Cover articles were not more likely to be chosen than non-covers.
- Pictures did not appear to influence men's choice; women chose fewer articles with pictures than men did.
- Shorter articles were preferred by all students.
- Articles at the beginning and end of the issue were preferred.
- Very few differences were present by major, with Applied Science majors being the most likely to be different.

Science News covers



Topics Chosen

All students

The articles chosen were coded by the researcher into general science categories. There is certainly error in the coding.

Overall, health related articles were most popular, with 21% of all articles chosen being health-related.

	Overall	Men	Women
Health	21%	20%	28%
Biology	16%	15%	21%
Animals	13%	14%	11%
Astronomy	10%	11%	7%
Earth science	7%	7%	6%
Physics	7%	7%	4%
Chemistry	7%	7%	3%
Paleontology/ Archaeology	6%	6%	3%
Social Sciences	5%	5%	8%
Medicine	4%	4%	7%
Engineering	2%	2%	2%
Technology	2%	2%	0.4%
Math	0.5%	0.5%	0.4%
Other	0.2%	0.1%	0.9%

Topics by major

	Applied Science	Construction	Engineering Technology	Packaging
Health	26%	22%	21%	17%
Biology	27%	18%	14%	11%
Animals	9%	13%	13%	15%
Astronomy	8%	10%	10%	13%
Earth science	6%	5%	5%	13%
Physics	6%	6%	9%	5%
Chemistry	6%	7%	7%	7%
Paleo/Archeo	4%	6%	6%	6%
Social Sciences	4%	4%	6%	6%
Medicine	4%	5%	4%	4%
Engineering	1%	2%	2%	4%
Technology	2%	2%	3%	1%
Math	0%	0.6%	0.6%	0%
Other	1%	0.1%	0.1%	0%

Cover article

Are students more likely to choose an article featured on the cover?

Men and women chose cover articles with similar frequency; approximately 5-6% of articles chosen were cover articles.

Each issue has about 16 articles, one of which is the cover article (~6% of each issue). So students were not more or less likely to choose an article if it was on the cover.

	# choosing cover article	# choosing non-cover article
Men	97 (5%)	1774 (95%)
Women	13 (6%)	215 (94%)
Applied Science	16 (8%)	183 (92%)
Construction	39 (5%)	744 (95%)
Engineering Technology	30 (4%)	669 (96%)
Packaging	10 (4%)	246 (96%)

Pictures

Are students more likely to choose an article with an associated picture?

Men were more likely than women to choose articles that had pictures.

On average, 45% of articles in *Science News* had pictures. A picture does not seem to make men more likely to pick an article, and women picked fewer articles with pictures than the average would suggest.

	With picture	No picture
Men	836 (45%)	1025 (55%)
Women	73 (32%)	155 (68%)
Applied Science	72 (36%)	127 (64%)
Construction	330 (42%)	453 (58%)
Engineering Technology	298 (43%)	401 (57%)
Packaging	133 (52%)	123 (48%)

Length of article

Are students more likely to choose an article based on its length?

Students are very open about admitting to reading the shorter articles. This should be no surprise to instructors.

Most articles in *Science News* are short: one-third or one-half of a page. Of the 16 or so articles per issue, one or two will be more than a page.

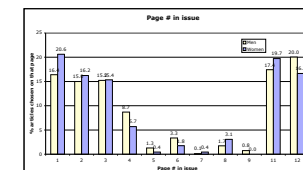
The average length of article chosen by students was .46 page.

There were no gender differences in length of article chosen.

	Average length of article chosen
Men	.46 page
Women	.46 page
Applied Science	.55 page
Construction	.45 page
Engineering Technology	.45 page
Packaging	.48 page

Article placement

Are students more likely to choose an article earlier in the issue? Earlier and later! The middle of the issue has the longer articles, so this is consistent with students choosing shorter articles.



Acknowledgements

Thanks to the YPER folks for help with research variables, and thanks to Sarah Klick, Tarissa Moss, and Ashley Potter for cheerfully doing tedious data entry.

And many thanks to the UW-Stout students in General Physics I and II and College Physics I and II, for providing me with such interesting data!