

Discussion on IPM 48: Statistics Education for Media Reports

Jane M. Watson

University of Tasmania, Faculty of Education

Private Bag 66, Hobart, Tasmania, 7005, Australia

Jane.Watson@utas.edu.au

In interpreting the title of this session in the light of the three papers presented, I have defined “for” as “to prepare for.” The next point of clarification is, “for whom” is the preparation for media reports necessary? And the final point of clarification relates to the “type” of media reports referred to in the title.

In clarifying “for whom,” two of the papers (Gal and Snell) focus on students, at school or university, as the people for whom statistical education is needed. Both authors see the aim as the preparation of citizens who can participate meaningfully in society. Gal’s thrust is more generally based in statistical understanding, with suggestions for educators, whereas Snell focuses specifically on a university course teaching about chance. The third paper (Podehl) takes a different perspective, looking at journalists, in particular those reporting on information from Statistics Canada, the country’s National Statistical Office. The requirements of these people are similar to the school and university students in terms of statistical literacy but the material with which Podehl works is much more restricted than the other two authors.

Turning to the “types” of media reports, two of the papers (Gal and Podehl) focus on press releases from statistics agencies, whereas the third (Snell) considers secondary media reports potentially derived from many kinds of press releases. Podehl considers the importance of the press release in getting the messages of his organization across to the public *through* the journalists who must translate data and information into a form that will attract attention and satisfy an editor. He details how Statistics Canada accomplishes this in terms of preparation of the releases, liaising with journalists, making sure the final product is accurate, and using internet technology. Podehl admits that the task is not only to inform the general public but also to demonstrate the National Statistical Office’s relevance to the government and public. Gal sees the importance of press releases from statistics agencies from the point of view of their educational value in increasing the statistical literacy of students. He suggests press releases provide a variety of formats and types of information for processing, helping prepare students to evaluate reports and giving opportunities for students to communicate their understandings. Both Gal and Podehl see the press release in terms of factual information and messages about trends. The focus on Snell is the next step in the information transfer process, the final media report, the stage in the process that is more likely to be encountered by the ordinary citizen. These reports are used by Snell to teach both probability and the reasoning skills to follow up with more calculations and ask further questions. There is obviously more potential for conflict and criticism in Snell’s approach, as the temptation to sensationalize a story is always present in the media.

Several issues would appear to be raised by these three papers in relation to the overall theme of the session. One is related to the actual training of journalists in statistics education. Statistics Canada does not appear to see its role as going further than providing accurate, understandable information and links for further enquiries, perhaps on a web site or through a contact person. It would be interesting to know if other National Statistical Offices around the world share this belief. There are courses in statistical literacy in various universities in North America and it might be recommended that they become a compulsory part of the requirement for journalists to become accredited. This view was recently expressed by the president of Columbia University following a professional review of his famous Graduate School of Journalism (Bollinger, 2003). Authors such as Crossen (1996) and Paulos (1995) provide many media-based exposés for motivation in these courses.

A second issue is related to the ethical position of a National Statistical Office, one of whose objectives is to demonstrate the relevance of the organization to the public and government in order to gain greater support for its programs. Although not compromising the accuracy of its information, might there be some concern about the temptation of the office itself to provide starting headlines or attention-catching summaries of data? In Australia at the time of release of census data, the Australian Bureau of Statistics often provides data on the “average” Australian. These may fill an entire newspaper page with “typical” figures but often they do not portray the distribution traits of the Australian population (Stevenson, 1998). In this sense any statistics agency (as referred to by Gal) needs to be aware of its responsibilities and motives, in much the same way as the media outlets that tell the stories at the next stage.

A third issue arises from this in relation to the use of press releases from sources other than statistics agencies. If these press releases are valuable for educational purposes, why not consider using press releases from other agencies that distribute statistical information? Although perhaps more difficult to access than newspaper articles, the original press releases upon which reports are based may be even more valuable for educational purposes. They portray exactly the data and message that the organization wishes to convey, without the risk of mis-translation on the way to newsprint. If one of the goals of statistical literacy is to develop a questioning, critical attitude to claims, then looking directly at press releases avoids the potential confusion or fault introduced by the journalist who prepares the media report. On many political, environmental, social and even medical (as illustrated by Snell) issues, there are likely to be more than one group with a vested interest in a particular outcome. In line with the aims of both Gal and Snell there is great potential in comparing and contrasting the press releases on a proposed health scheme by two political parties or on a proposed logging plan by an environmental group and a forestry commission. For students who bring their own biases to such discussions, it can be a salutary lesson to see how their side, as well as the opposition, manipulates data and conditional statements to make claims that are difficult or impossible to sustain from available data.

Now that web sites provide press releases instantaneously and on a myriad of issues, it is feasible to go directly to sources for information that can be used with students. In fact students, including journalism students, can be set the task of finding such releases themselves. Preparing reports that compare and contrast releases will provide excellent opportunities to satisfy Gal’s aims of evaluating and communicating at high levels of statistical literacy.

REFERENCES

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