

4-1980

Are Financial Statements Easy To Read? Evaluating The Readability Of Corporate Annual Reports

Charles L. Holley

James Early

Follow this and additional works at: <https://egrove.olemiss.edu/wcpa>



Part of the [Accounting Commons](#), and the [Women's Studies Commons](#)

Recommended Citation

Holley, Charles L. and Early, James (1980) "Are Financial Statements Easy To Read? Evaluating The Readability Of Corporate Annual Reports," *Woman C.P.A.*: Vol. 42 : Iss. 2 , Article 3.

Available at: <https://egrove.olemiss.edu/wcpa/vol42/iss2/3>

This Article is brought to you for free and open access by the Archival Digital Accounting Collection at eGrove. It has been accepted for inclusion in Woman C.P.A. by an authorized editor of eGrove. For more information, please contact egrove@olemiss.edu.

Are Financial Statements Easy To Read?

Evaluating The Readability Of Corporate Annual Reports

By Charles L. Holley, CPA, DBA
and James Early

Introduction

New guidelines for identifying the objectives of financial reporting have recently been issued by the Financial Accounting Standards Board (FASB) in its Statement of Accounting Concepts Number 1. This pronouncement recognized that financial reporting should provide useful information to investors and creditors with primary emphasis on earnings. However, the FASB acknowledged that objectives are subject to environmental influences which may necessitate future changes in financial reporting. One of the major issues in the financial area is that of providing relevant, timely, understandable information in accordance with stated reporting objectives. The accounting discipline should assist in providing information which permits the users to effectively and efficiently assimilate the data and take appropriate action.

The objectives established for financial reporting cannot be achieved when information lacks clarity, timeliness, comprehensiveness or manifests other significant deficiencies. The purpose of this study was to evaluate the readability of selected corporate annual reports according to specific criteria established by the Flesch technique.¹ The

results of this study were compared with those compiled for 1948 and 1961 to ascertain the extent to which annual reports may have changed according to the Flesch approach. Corporate annual reports were selected for examination since they represent a basic communication media which should achieve the intent of established reporting objectives for varied users.

Background and Related Studies

Communicating the results of economic transactions is a primary objective of accounting. Investors and various other parties have the right to certain information regarding business entities. The prevailing economic, social, legal and political environments interact and exert influences such that there are identifiable parties which have the right to information which can be initiated only by the involved firms. Attempts to define guidelines and objectives for effective communication of economic information have been presented by numerous sources. The following sample statements reflect this basic concern for identifiable, attainable objectives for financial reporting.

The basic objective of finan-

cial statements is to provide information useful for making economic decisions. (Objectives 1973, p. 61)

An objective of financial statements is to serve primarily those users who have limited authority, ability, or resources to obtain information and who rely on financial statements as their principal source of information about an enterprise's economic activities. (Ibid)

The corporate annual report is primarily a report to stockholders. Its objective should be to service the information needs of the stockholders in making ... investment decisions. (Stone, 1967, p. 331)

Financial statements are the means by which the information accumulated and processed in financial accounting is periodically communicated to those who use it. They are designed to serve the needs of a variety of users, particularly owners and creditors ... Notes to the statements, which may explain headings, captions, or amounts in the statements or present information that cannot be expressed in money terms are an integral part of the statements. (Basic Concepts, 1970, p. 6)

The basic purpose of financial accounting and financial statements is to provide financial information about individual business enterprises that is useful in making economic decisions ... General objectives determine the appropriate content of financial accounting information. (Ibid, p. 9)

Certain qualities or characteristics make financial information useful. Providing information that has each of these qualities is an objective of financial accounting. These qualitative objectives are relevance, understandability, verifiability, neutrality, timeliness, comparability, and completeness. The objectives of financial statements are at least partially achieved at present, although improvement is probably possible in connection with each of them. (Ibid, p. 10)

However, as indicated by the following statement, any user of financial information has certain responsibilities, as well as rights, associated with having access to the data.

The underlying determinant of adequacy of disclosure in published financial reports is their usefulness in making decisions, particularly with respect to investment problems. It is reasonable to assume that any recipient desirous of making effective use of a financial statement must be willing and competent to read it carefully and with discrimination. (AAA, 1957, p. 46)

In a rapidly-changing, increasingly-complex environment with influences being exercised by many self-interest groups, the financial community continually needs to justify its functions and to improve its services and products. The question of whether annual reports effectively communicate to investors and other parties, in accordance with established objectives, is another manifestation of an increasing level of maturity within the corporate sphere.

In 1948, Pashalian applied the Flesch technique to the annual reports of twenty-five companies included in *Business Week's* Billion Dollar Club. The results of that study indicated that annual reports were included in a general range of very difficult to difficult in terms of reading ease and were measured as dull to mildly interesting in terms of human interest. Soper and Dolphin conducted a comparable study of the same twenty-five firms for the year 1961. One basis for their study was the statement: "It seems to be generally believed that corporate annual reports are improving over time and that they are currently easier to read and more understandable than they once were." (1964, p. 358) However, the results of their study indicated that annual reports did not exhibit the assumed improvement but were becoming more difficult and less understandable in terms of the Flesch measurement scale.

Flesch Measurement Technique

In partially fulfilling the objective of responding to shareholders' informational needs, an annual report

The content continues to require a relatively high level of technical ability and self motivation on the part of the reader

should provide data that is relevant and understandable to the recipient. In this study, the Flesch approach was applied to a sample of corporate annual reports in an attempt to measure certain characteristics related to readability. In order to achieve comparability, this research project was designed to parallel the two previously described studies. The Flesch formulas were initially developed to evaluate descriptive material with respect to two factors, reading ease and interest (Table 1 and 2). (1948, p. 230) On a 100 point scale, reading ease can range from very difficult (0) to very easy (100). Also, on a 100 point scale, interest can range from dull (0) to dramatic (100).

Samples of one hundred words each were selected in a consistent manner from every other page of the annual reports. The revised Flesch formula includes the following two factors in measuring reading ease: the number of syllables and the mean sentence length. In a relative sense, the fewer the number of syllables and the shorter the sentences, the greater the reading ease score. In measuring the reading interest element, the Flesch approach measures the frequency of personal words and personal sentences. The following formulas were designed by Flesch for conversion purposes. (1948, p. 230)

$$\text{Reading ease} = 206.835 - .846 \text{wl} - 1.015 \text{s1}$$

$$\text{Reading interest} = 3.635 \text{pw} + .314 \text{ps}$$

wl = number of syllables per 100 words

s1 = mean sentence length

pw = personal words

ps = personal sentences

A departure from the two earlier studies was experienced in that two annual reports were omitted from the present study. The reports of the New York Central Railroad and the Pennsylvania Railroad were omitted since these two companies had been merged into a firm which no longer exists as a separate entity.

TABLE 1
Pattern of Reading Ease Rating

Reading Ease Rating	Description of Style	Typical Magazine
0 to 30	Very Difficult	Scientific
31 to 50	Difficult	Academic
51 to 60	Fairly Difficult	Quality
61 to 70	Standard	Digests
71 to 80	Fairly Easy	Slick Fiction
81 to 90	Easy	Pulp Fiction
91 to 100	Very Easy	Comics

TABLE 2
Pattern of Interest Ratings

Interest Rating	Description of Style	Typical Magazine
0 to 10	Dull	Scientific
11 to 20	Mildly Interesting	Trade
21 to 40	Interesting	Digests
41 to 60	Highly Interesting	New Yorker
61 to 100	Dramatic	Fiction

Measurement Results and Interpretations

Table 3 and Exhibits I and II present the results of the analyses of readability of the 23 annual reports after applying the Flesch conversion factors. Summarized data from the previous reviews are included for comparability. For the 15 years from 1961 to 1976, the mean sentence length in the samples declined by 1.69 words. This 8% decline in sentence length considered alone would yield a higher (less difficult) reading ease rating. However, the mean number of syllables per hundred words increased by approximately 8.65 or 5%. Due to the differential in the weight assigned in the Flesch formula, this increase in syllables was sufficient not only to offset the reduction in sentence length but to yield an overall decline in mean reading ease of 5.56. In relationship to the base year of 1961, this result represented a decline of 20% in reading ease. The mean reading ease ratings for 1961 and 1976 (28.61 and 23.05 respectively) were both within the range described as very difficult on the scale. Only five of the annual reports for 1976 had ratings above 30 and the highest was 38 (Safeway Stores). The adjusted reading ease rating for the period 1948 to 1961 had also declined from 34.13 (difficult) to 28.61 (very difficult).

From 1961 to 1976, the weighted human interest ratings increased from a mean of 3.09 to 4.26 (approximately 38%). As indicated in Table 2, these ratings were in the dull category. Moreover, the value for 1976 was slightly less than the mean of 4.39 in 1948. One of the dimensions of the Flesch interest rating is the frequency of personal sentences. Only one of the annual reports for 1976 had a value other than zero for this factor. Consequently, the in-

The inclusion of more technical material in annual reports is a manifestation of an increasingly complex economic environment

TABLE 3
Reading Ease Ratings for 23 Corporate Annual reports As Measured by the Revised Flesch Readability Formula

No. Corporate Annual Report	1948	Reading Ease Rating		1976	
		Increase (Decrease)	Increase (Decrease)		
1 Armour & Co.	43	(14)	29	6	35
2 B&O R.R.	44	(8)	36	(8)	28
3 AT&T	43	(4)	39	(10)	29
4 Bethlehem Steel	23	(2)	21	14	35
5 Chrysler Corporation	42	(17)	25	(9)	16
6 Con. Edison	39	(9)	30	1	31
7 DuPont	26	(1)	25	(2)	23
8 General Electric	26	(10)	16	0	16
9 Geeral Motors	38	(12)	26	(18)	8
10 Gulf Oil	34	(5)	29	(14)	15
11 Montgomery Ward	43	(3)	40	(12)	28
12 Safeway Stores	28	10	38	0	38
13 Sante Fe R.R.	25	(14)	11	8	19
14 Sears, Roebuck and Co.	47	(12)	35	(3)	32
15 Socony-Mobil	33	(4)	29	(8)	21
16 Southern Pacific R.R.	26	(10)	16	1	17
17 Chevron	32	(6)	26	0	26
18 Amoco	35	7	42	(22)	20
19 Exxon	34	(10)	24	2	26
20 Swift & Co.	58	(15)	43	(21)	22
21 Texaco	32	(9)	23	(12)	11
22 Union Pacific R.R.	6	17	23	(6)	17
23 U.S. Steel	28	4	32	(15)	17
MEAN	34.13	(5.52)	28.61	(5.56)	23.05

terest rating was almost exclusively attributable to the frequency of personal words. Nine of the twenty-three reports had a rating of zero in the human interest category and only one report approached the rating described as interesting. The modest, overall increase since 1961 in the reading interest factor for the sample of reports for 1976 may reflect some social awareness on the part of selected large corporations and/or some increased stockholder influence in the corporate realm. However, the results seem to support an intuitive assumption that annual reports may inherently not be very susceptible to ratings concerning human interest. For this criterion there was relatively little variability from one report to another. An example of the personal orientation in the samples was found in the report of Marcor (Montgomery Ward). Several pages contained transcripts of question and answer sessions conducted on college campuses. The Flesch human interest rating assigns cer-

tain weights to quoted material. The application of the sampling approach resulted in the inclusion of these passages although such direct quotations were atypical of the reports in general.

Summary

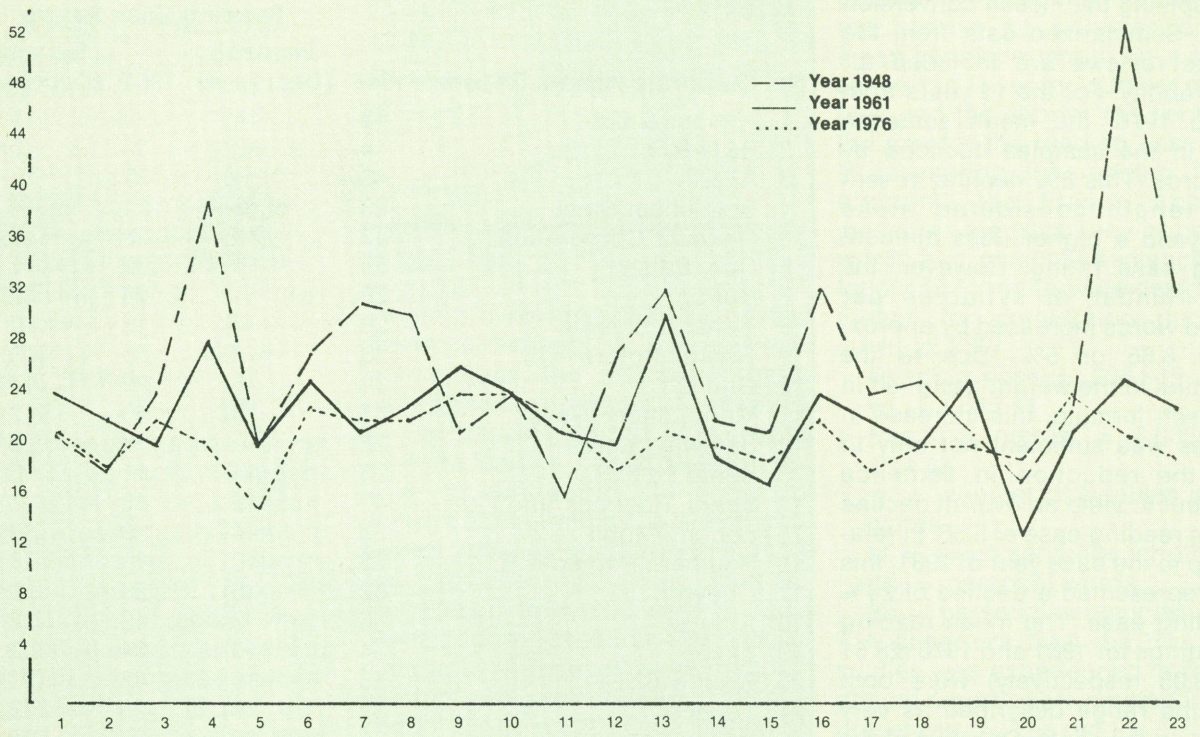
The Flesch measurement of readability was applied to sample material contained in twenty-three corporate annual reports issued for 1976. The results of the analyses based on the Flesch criteria for reading ease and interest were compared with studies for the years 1961 and 1948. The 1976 reports were

Annual reports were difficult to read, dull to mildly interesting in terms of human interest.

Exhibit I

Changes in Mean Sentence Length for Years 1948, 1961, 1976

Mean Number of Words per Sentence

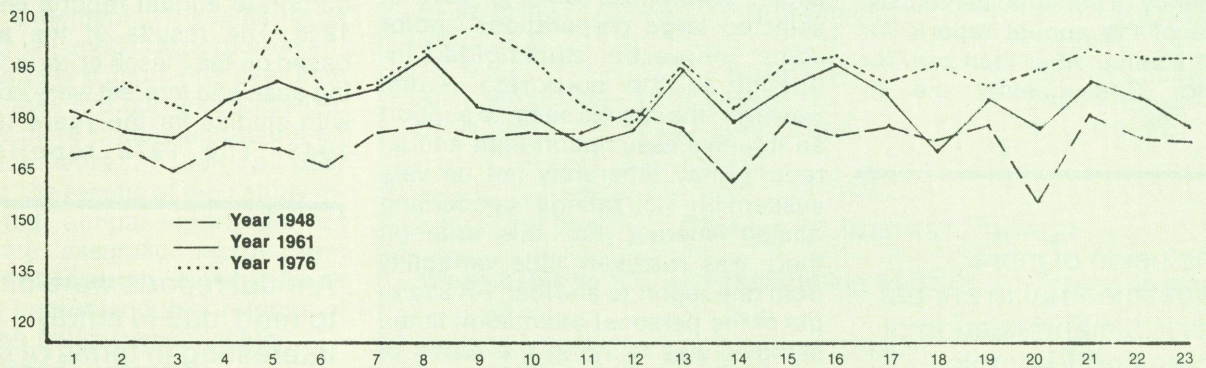


Corporate Annual Report Number (See Table 3)

Exhibit II

Changes in Mean Number of Syllables per Paragraph for Years 1948, 1961, 1976

Mean Number of Syllables per Paragraph



Corporate Annual Report Number (See Table 3)

The mean number of syllables per one hundred words increased

classified in the lowest Flesch categories of technical/scientific (very difficult and dull). The inclusion of more technical material in annual reports is a manifestation of an increasingly complex economic environment. Since the annual report usually finds its largest audience among stockholders, these recipients must be willing to devote the time and effort necessary to comprehend the content.

In recent years, the accounting profession has attempted to identify and resolve numerous problems related to the objectives of financial reporting. One of the principal issues has been that of identifying the primary users and their needs for financial information. Additional governmental regulations, more extensive accounting pronouncements, and various consumer groups' desires for additional information are only a few of the factors contributing to the complexity of financial reporting. This study has attempted in a concise manner to inquire whether certain corporate annual reports have improved over three decades in presenting information in an interesting, readable style.

Despite the frequent assertion that annual reports are often only a form of promotional or public relations media, the content continues to require a relatively high level of technical ability and self motivation on the part of the reader. If an objective of annual reports is to communicate with individual investors and other parties whose main source of information is that provided by the business enterprise through The Annual Report, perhaps a simplified, less comprehensive, more readable style should be considered as a secondary, supplementary reporting format. The traditionally prepared annual report could continue to serve its present function in conjunction with their alternative of a less rigorous report available to certain users. {}

NOTE

In 1943, Rvdolph Flesch developed a statistical formula for measuring readability which has been widely applied to newspaper reports, advertising copy, government publications, adult education material, magazine content, and childrens' books. The technique was refined and modified by Flesch in 1948 to reflect formulas for two basic measurements: reading ease and human interest. The Flesch technique has also been the subject of several studies which have reaffirmed the validity of the measurements.

REFERENCES

Accounting and Reporting Standards for Corporate Financial Statements and Preceding Statements and Supplements, American Accounting Association (1957), p. 46.

Basic Concepts and Accounting Principles Underlying Financial Statements of Business Enterprises (Statement of the Accounting Principles Board No. 4), American Institute of Certified Public Accountants (1970), p. 6.

Rudolph Flesch, "A New Readability Yardstick", Journal of Applied Psychology (June, 1948), p. 230.

Objectives of Financial Statements, American Institute of Certified Public Accountants (1973), p. 61.

Siroon Pashalian, "An Investigation of the Application of the Flesch Readability Formulas to Corporate Annual Reports," Master's Thesis, New York University (September, 1949).

Fred J. Soper & Robert Dolphin, Jr., "Readability and Corporate Annual Reports", The Accounting Review (April, 1964) p. 358.

Statement of Accounting Concepts No. 1 (Objectives of Financial Reporting By Business Enterprises) Financial Accounting Standards Board (November, 1978).

Donald Stone, "The Objective of Financial Reporting in the Annual Report," The Accounting Review (April, 1967), p. 331.

Charles L. Holley, CPA, DBA, an assistant professor at Virginia Commonwealth University is a former staff auditor for Price Waterhouse and Co. His professional memberships include the AAA, AICPA, Institute of Internal Auditors, and the Va. Society of CPAs.

James Early is a graduate student at Virginia Commonwealth University.

ACCOUNTANTS!

"FED UP"

with corporate politics? Join the leader in Business counseling!

The PBS program has enjoyed tremendous success and profitable growth through our nationwide family of successful affiliates. From California to New York, accountants have established their own accounting, book-keeping and tax practices, streamlined by our own computer systems.

PBS will provide...

- Training Seminar • Computer Service • Starter Kit • Annual Tax Guide • Marketing Film • Support & Consultation • Fairchild Projector • Wats Line "Dial-An-Answer" • 3,000 Qualified Leads • Monthly Tax Newsletter • Sales Presentation Kit • Travel, Meals & Lodging • Training Manuals • Your In-House PBS Computer (Optional)

Total Investment \$10,500.

For more information and a sample startup kit, call now, toll free, 800/638-9390. In Maryland, call 301/727-4600.



PROFESSIONAL BUSINESS SYSTEMS, INC.

Thomas J. Morris III, V.P., PBS, Suite 253/World Trade Center, Baltimore, Md. 21202

Yes, I would like more information about your program and a sample startup kit.

Name _____

Address _____

City _____

State _____ Zip _____

Phone () _____