

Comprehensibility of the Accounting Information Disclosed by the Brazilian Public Sector: An Experiment Based on the Use of Popular Reporting

Kalina Kely Miranda Leite¹ , Josedilton Alves Diniz² 

^{1,2} Universidade Federal da Paraíba, João Pessoa, Paraíba, Brasil.



¹kalina.miranda@hotmail.com
²josedilton@gmail.com

Edited by:
Cláudia Cruz

Abstract

Purpose: To investigate the comprehensibility of the information disclosed through accounting reports from the Brazilian public sector by comparing the model mandatory disclosure with alternate disclosures from the popular reporting perspective.

Method: Experimental research was used as a methodology and it was done based on scenarios with the use of a control group and three treatment groups, which encompassed the manipulation of the technical language knowledge variables and the differentiated layout based on popular reporting.

Results and discussions: This paper pointed that the citizens who have no technical language knowledge but who had access to accounting information released by popular reporting know more about the accounting information disclosed by the public sector than the citizens who have technical knowledge and had access to accounting statements traditionally highlighted. Therefore, it is possible to conclude that the differentiated layout, based on popular reporting precepts, is able to overcome the lack of technical knowledge of the majority of users of the accounting information disclosed by the public sector.

Contributions: Analyzing the Brazilian experience on the understandability of accounting information disclosed by the public sector from the comparison between experimental groups, this paper finds evidence that alternative ways of presenting the accounting reports disclosed by the public sector, from the use of a model based on popular reporting, overcome the lack of knowledge of technical terms used by accounting, improving the understanding of users. These findings contribute to improving the process of accountability and transparency of the accounting information disclosed by the Brazilian public sector.

Keywords: Accounting Information; Public Sector; Comprehensibility; Popular Reporting; Social Control.

How to cite:

Leite, K. K. M., & Diniz, J. A. (2024). Comprehensibility of the Accounting Information Disclosed by the Brazilian Public Sector: An Experiment Based on the Use of Popular Reporting. *Advances in Scientific and Applied Accounting*, 17(1), 069–083/084. <https://doi.org/10.14392/asaa.2024170104>

Submitted: 08 March 2023
Revisions required on: 04 July 2023
Accepted: 18 September 2023

Introduction

Over the past few years, the world has seen a movement of constant institutional change with the objective to reach more transparency in the allocation of public resources by managers (Barbera et al., 2016; Hood, 1995). Given this, traditional barriers to financial reporting disclosure need to be overcome, creating new relationships with their key stakeholders, demanding new communication tools (Cohen & Karatzimas, 2015) and offering a significant paradigm shift that aims to promote a new culture in which greater emphasis is placed on getting citizens involved.

Traditionally speaking, the financial report has been considered as the most appropriate way for public sector entities to meet their liability obligations with their citizens (Mack & Ryan, 2007; Rosair & Taylor, 2000). However, most citizens do not understand the information presented in these reports given the technicalities of accounting (Cohen & Karatzimas, 2017; Cohen et al., 2022).

By taking into account that the overly technical language of accounting statements hinders their comprehensibility and absorption by those who have no experience in the accounting and technical sciences (Paulsson, 2006) and that the several technical terms employed in accounting statements that are not easy to be understood by their recipients, it is possible to see that the concern should not be only about the level of transparency and display of this information. It is also necessary to check whether they are understood by society, since social control will only be made possible when it is possible to interpret the data and, from them, to get to know the actual situation of the public entity and the actual allocation of public resources (Augustinho et al., 2015).

From this setting, meaningful steps started to be taken in order to make the accounting information disclosed by the public sector more easily comprehensible for most of its users (Bergmann, 2012; Christiaens et al., 2010; Cohen & Karatzimas, 2015). Since citizens are identified as the most important group of users of governmental financial reports (Cohen et al., 2017), public accounting becomes an important tool of social control by promoting more citizen participation in the exercise of democracy.

Due to this difficulty to understand, which is found in the information disclosed by public entities, and to the improvement of citizen communication that comes from popular reporting, also known as Popular Financial Reporting. This article tries to use a vocabulary that is simple and comprehensible for the general public, as it complements the disclosure of financial information and makes it more citizen-friendly (Lee, 2006). Thus, it becomes an advantage for the disclosure of financial information, which is carefully prepared, easy to read, comprehensible and disclosed in a pleasant way, aiming at the citizen's informational need (Bergmann, 2012; Christiaens et al., 2010; Cohen, 2016).

Based on this, popular reporting is seen as an informative-character report aimed at the regular citizen, someone who doesn't need to have any knowledge about accounting and public finances in order to read and interpret the municipality's statements. Besides, this report aims at providing a simplified version of financial statements as a basic philosophy, thus avoiding both the disclosure of a detailed analysis and the use of technical terms, and making the report easy to be understood by non-experts, aiming at contributing to the development of a democratic political system through fair access to information for all citizens (Cohen, 2016; Lee, 2006; Oliveira et al., 2018).

From this setting presented, there is the need to carry out research to check whether the disclosure of accounting statements disclosed by public administration is an obstacle to comprehending such information. Based on that, this study tries to check **the comprehensibility level of the information disclosed through accounting statements by the Brazilian public sector.**

Then, based on the observation that the State is more and more required to provide information for its own people, it is necessary to check whether the way the disclosure of accounting information done is efficient concerning the citizen's understanding capacity or if this information only reaches part of the population that holds the knowledge about technical language, that is, if only the people who have some knowledge about the techniques and the language used by public accounting are able to understand the accounting information disclosed by the Brazilian public sector. From this perspective, and since there were no studies that analyzed whether a differentiated layout that tries to use a language that is more accessible and based on the precept of popular reporting is able to fill in the gap of technical knowledge from most users of accounting information disclosed by the public sector, providing a higher comprehension possibility for those who don't hold the knowledge about public accounting, the present research is anchored by one of the main issues faced by the accounting theory: comprehending accounting information, especially that in the public sector.

2 Literature Review

2.1 Comprehensibility of the Accounting Information for the Exercise of Citizenship

Understandability is one of the characteristics that help the user to assimilate the meaning of the accounting information (Financial Accounting Standards Board [FASB], 2018). According to the Conceptual Framework of Normas Brasileiras de Contabilidade Aplicadas ao Setor Público [NBC TSP] (2016), the information presented must be understood by users, i.e., understandability is

the quality of information that allows users to understand its meaning, but, for this, it is expected that they already have knowledge of the environment in which public sector entities operate. Every effort should be made to represent the economic and other phenomena included in accounting reports in a way that is understandable to a wide range of users. However, relevant information on complex topics should not be excluded from financial statements, even under the guise of being difficult for some users to understand without proper assistance.

Therefore, understandability refers to the quality of information that enables users to understand its meaning (International Accounting Standards Board [IASB], 2008), playing a vital role in promoting transparency, accountability, and informed decision-making.

For clarity, accounting details should be articulated briefly, allowing individuals with financial and accounting background to review it diligently (Hristov & Dimitrova, 2016). Thus, ensuring the clarity and accessibility of financial statements and accounting reports is crucial. This ensures that various users, such as citizens, legislators, and supervisory bodies, are able to understand and correctly interpret the financial information presented. Moreover, adequate understandability of accounting information in the public sector plays a key role in making informed decisions and assessing the efficiency and effectiveness of allocated public resources.

Thus, comprehensibility of accounting information plays a key role in exercising citizenship by enabling citizens to understand and analyze public sector financial information. By understanding financial statements and accounting reports, citizens can evaluate the efficiency, effectiveness, and transparency in the management of public resources. In addition, understandable accounting information enables citizens to exercise effective social control over government activities, promoting accountability of public managers.

We can state that social control has as its main objective the supervision and inspection of the actions performed by agents who perform functions in the various public agencies at all levels of power, whether executive, legislative or judicial (Siraque, 2009). Therefore, the existence of deficient financial reports and budgeting tools hinders social control, since it hinders the process of understanding about public finances. Being, however, paramount that financial reports are useful (Van Helden & Reichard, 2019), they should be more informative and more easily understandable for most users of public accounting (Bergmann, 2012; Christiaens et al., 2010).

Given this reality, the practice of democracy in Brazil has been expressed mainly by the actions of society, which seeks for more ethical and transparent conduct in the conduct of public interests. However, for the full exercise of citizenship to be possible, it is essential to promote society's

awareness through cultural and educational changes. In addition, it is necessary that the public administration strives to make the information disclosed more understandable. Thus, transparency and accessibility of accounting information play an essential role in building a society that is informed, engaged, and able to exercise more effective control over the actions of the public sector.

2.2 Popular Reporting

Citizens have been demanding more responsibility from their governments and governmental programs more and more (Barbera et al., 2016; Montesinos & Brusca, 2019), especially concerning the administration of public resources (Yusuf et al., 2013). This pressure has been boosted by the citizen's decline of trust in the government due to the several scandals about corruption and by the increase of citizens' dissatisfaction with the performance of the administration. Together with the perception of inefficiency and governmental waste, citizens started to demand more transparency and the rendering of accounts from public events.

For Lewis and Hildreth (2011) the population believes that transparency doesn't meet their needs. This finding may have been identified through the fact that the efforts to improve the transparency of the public entity by improving the rendering of accounts tended to involve more detailed financial reports, which ends up increasing its complexity and negatively impacting the process of rendering accounts to the citizens (Justice et al., 2006).

With the objective to create a mechanism of reports with a more simplified approach and which can meet this demand for transparency and rendering of accounts, some governments started to adopt the reports called popular reporting, that is, popular financial reports. These reports were widely supported by the Government Finance Officers Association (GFOA) in the United States and Canada (Cohen et al., 2017).

In 1991, GFOA reached even farther upon establishing an annual award program for governmental entities that create popular reports with the objective to provide financial data in a simplified way and not by discouraging the supervision from those who are not familiarized with accounting and financial reports (Groff & Pitman, 2004; Yusuf et al., 2013).

Therefore, popular reporting refers to the creation of a simplified document that is easy to read and understand and contains financial information for every citizen (Cohen et al., 2017; Biancone et al., 2016). Even though the popular reporting's target group comprises citizens (Cohen & Karatzimas, 2015; Daniels & Daniels, 1991), these reports can also be useful for politicians, civil servants, communication means and community groups (Carpenter & Sharp, 1992; Cohen & Karatzimas,

2015). From this perspective, they can also be seen as the financial reports the governments develop and disclose for citizens and other parties that are interested and which are not familiar with public budget, accounting and financial reports, but that need or wish to have an overview of the government's activities and financial status.

Tool comprehension is based on the citizens' maturity to translate and encode financial and economic information from local and state government (Oliveira et al., 2018). Thus, the popular reporting's basic philosophy is that of providing a simplified view of financial statements by avoiding both the detailed analysis and the use of confusing technical terms (Cohen, 2016). The complexity of these reports should, then, be handled according to the users' level of maturity, that is, the citizens and not the assistants (Sharp et al., 1998).

Moreover, popular financial reports must be disclosed at the appropriate time through a scope that is clearly defined and highlight the existence of a formal group of statements for those who wish to have more detailed information (Gasb, 1987). Those who are interested in obtaining more details or additional information can easily check the financial reports, since popular reporting is issued separately from the financial reports demanded by legislation and norms (Cohen, 2016).

Through this alternative way to present governmental accounting information, most citizens who are not interested or familiar with the public sector's accounting or accounting in general are encouraged to engage with public affairs.

From this perspective, scholars consider that comprehending accounting information demands a high level of technical knowledge (Dias Filho, 2000), and that the citizens who hold no knowledge of the accountancy applied to the public sector can barely understand or be able to interpret the data included in the reports (Daniels & Daniels, 1991; Jones et al., 1985; Steccolini, 2004).

Therefore, it is possible to see that displaying accounting information to public entities is directed to the audience with technical training, since public entities only follow the legal establishment that forces them to emphasize their accounts and not to be understood by a great share of the population, which leads to this research's first hypothesis:

H1: citizens who hold no technical knowledge face difficulties to understand the information from traditional accounting reports.

Besides, in order to promote the effective absorption with the objective to promote citizenship, the reports must be disclosed in several communication formats but always using the vocabulary that is comprehensible and meaningful for all the citizens (Armstrong, 2005).

Thus, the communication done through different means aims at filling the gap there is in public financial reports. Therefore, this new communication way contains the same financial information that is currently public but with a language that is inclusive and easy to understand (Yusuf et al., 2013).

For this reason, the progress of the governments' accountability and communication with the citizens, to whom governors and public managers in general must render their accounts, is of fundamental importance (Oliveira et al., 2018). Therefore, it is extremely important that the "message" in the public accounts reaches the citizens and is understood, for, concerning the comprehensibility of the information, the entity that discloses it is the primary responsible (Platt Neto et al., 2007), with popular reporting playing a key role in this process (Biancone et al., 2016; Cohen, 2016; Oliveira et al., 2018; Yusuf & Jordan, 2012; Yusuf et al., 2013).

Therefore, it is possible to understand that a complementary disclosure, done based on data layout in a more simplified way and on popular reporting precepts, improves the comprehensibility of the accounting information disclosed by the Brazilian public sector, which leads to this research's second hypothesis:

H2: the accounting information presented in the popular reporting format increases the comprehensibility of the accounting statements disclosed by the Brazilian public sector.

Assuming that a complementary disclosure done by public entity improves popular comprehension, it is possible to understand that, when highlighted through the popular reporting format, the accounting information disclosed by the public sector is able to fill in the gap concerning the lack of technical language knowledge. This leads to this research's third hypothesis:

H3: the level of accounting information comprehensibility of those who hold no technical knowledge, and based on the information disclosed through popular reporting, is higher than that of users who hold technical knowledge and analyze reports that are traditionally highlighted by the public sector.

The hypotheses construction was based on the international literature (Biancone et al., 2016; Cohen, 2016; Cohen et al., 2017; Kinnersley & Fleischman, 2001; Mack & Ryan, 2007; Oliveira, 2016; Oliveira et al., 2018; Yusuf & Jordan, 2012; Yusuf & Jordan, 2013) that deals with the understandability of the information disclosed by the public sector, including the analyses of some experiences of the use of popular reporting in European countries and in the United States. In Brazil, the national literature on popular reporting (Augustinho et al., 2015; Gallon et al., 2011; Miranda et al., 2008; Platt

Neto et al., 2007) is still incipient, and this is a gap to be explored, when proposing to investigate what is the level of compressibility of the information disclosed by the Brazilian public sector, comparing the degree of understanding of the financial reports required by legislation, i.e., those traditionally disclosed, with the financial reports disclosed with the experience of popular reporting.

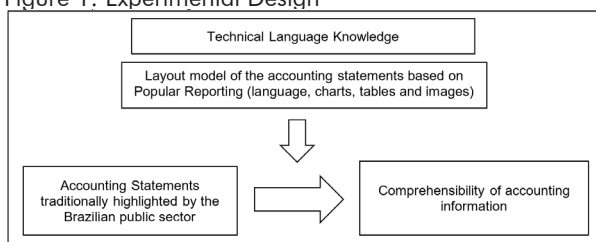
This understanding arises from the observation of the position that, for citizens to exercise social control, they need to understand the information that is disclosed by the public sector. In this context, if the entity discloses popular financial reports as a complementary tool for disclosing financial information adjusted to the citizen, seeking to use a simple vocabulary that can be understood by the general public, the financial statements will be easily interpreted by someone who has no knowledge of accounting or public finance.

3 Methods

With the objective to check the comprehensibility level of the information disclosed through accounting statements by the Brazilian public sector, and by analyzing whether the accounting information disclosed through the popular reporting format improves the comprehensibility of the accounting statements disclosed by the Brazilian public sector and fills in the gap concerning the lack of technical knowledge, this article used the experimental research as its methodology.

The experiment was designed in order to test the hypotheses that the knowledge of technical terms and popular reporting influence the comprehension of accounting information from the public sector by checking the behavioral differences between the different groups of participants in the research in the different scenarios presented, with only an experimental status being attributed to these groups, which typify them as a between-participants design (Leary, 2012), according to the layout in Figure 1:

Figure 1: Experimental Design



Source: Prepared by the authors.

Based on the above, the study acknowledged that the participants of the research acted as citizens who, among their prerogatives, have the right to exercise their vigilance, analysis, consideration, supervision, and evaluation of the acts of governors aiming at the

perception of either the accuracy or the inaccuracy of the public manager’s role, thus practicing their social control. On the other hand, the State must guarantee the right of access to information and that it must be clear and in a language that is easily understood.

Therefore, Figure 1 shows the comparison done between the two social groups, with or without technical language knowledge, defined by this research, besides the way the layout of financial statements disclosed by public administration, both in its traditional form (mandatory) or through popular reporting.

3.1 Procedures and Data Collection

The popular elements to comprise the research sample were selected from a non-probabilistic convenience sampling, composed of undergraduate students of Accounting Sciences, Administration and Economics from public and private Higher Teaching Institutions in the state of Paraíba, and public institutions in the state of Alagoas, besides specialization, master and doctor’s programs in Accounting Sciences in the state of Paraíba, as well as students who are finishing their technical studies in the Federal Network of Professional, Scientific and Technological Education in the state of Alagoas. Therefore, the sample comprised people of different schooling levels, age group, gender and region, and home situation, both urban and rural residents in the states of Paraíba and Alagoas.

According to Chan et al. (2011), the research that use the experimental method find a great obstacle due to the fact people are not available to take part in the study. This way, the use of students in the experiments becomes a matter of research feasibility, since they represent a viable option.

Thus, the participants were distributed randomly according to experimental conditions in a blind experiment process, that is, they didn’t know which group they were allocated to. Sample size will follow suggestion by Hair et al. (1998), that is, no less than 30 individuals by research cell, which guarantees that every research cell has the same number of observations.

The distribution of participants was done in four research groups, with one control group (G1) and three experimental groups (G2, G3 and G4). Moreover, the experiment layout tried to focus on the maximization of control possibilities, since it simulates a real situation and adjusts experimental factors (Cooper & Schindler, 2003) by trying to minimize interferences in the results and mask up the influence of the independent variables over the dependent ones.

Therefore, the sample in the present research encompassed 207 respondents. From these, 196 questionnaires were used due to the fact some respondents only answered the

social-demographic questionnaire or gave up answering along the research process. The valid questionnaires were thus distributed: 50 in the G1 control group, 52 in the G2 treatment group, 45 in the G3 treatment group, and 49 in the G4 treatment group. They are, therefore, within the acceptance margin established by the research plan, according to Hair et al. (1998).

3.2 Experimental Scenario

This scenario was designed from the construction of scenarios by using a control group (G1) that received no intentional stimulus, both in terms of technical knowledge acquisition to enable interpretation and in terms of layout, with an easy interpretation language, which served as a pattern for comparison. In the G2, G3 and G4 experimental groups, there was the manipulation of independent variables, technical language knowledge and popular reporting in order to measure their effects over the comprehensibility of accounting information from the public sector.

The scenario in the G1 control group encompassed respondents who didn't have or didn't acquire specific technical language knowledge in their academic or professional life in order to comprehend the accounting information highlighted by the public sector more accurately, which represents the average type of citizen, that is, the regular citizen. For this group, some accounting statements were presented and they were compulsorily disclosed by the public entity, and some questions were made in order to check their comprehension.

Similarly to the composition of the control group, the G2 experimental group encompassed respondents who didn't have or didn't acquire technical language knowledge. Notwithstanding, the financial statements traditionally disclosed by public administration were not presented to this group, but a model developed for experimental purposes that presents the statements explained through charts, figures and explanations with a more popular language and under the influence of the moderating variable concerning popular reporting. Thus, it aimed at checking if, through a simplified layout, the citizen is able to more easily understand the accounting information that is disclosed by the public sector.

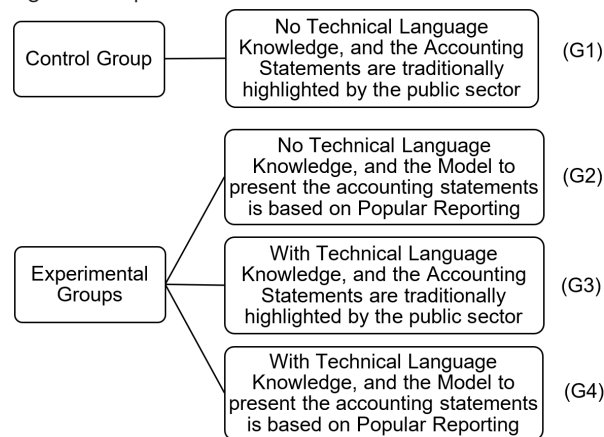
The G3 experimental group had the influence of the moderating variable concerning technical language knowledge, which is classified as the terms employed by accountancy and acquired through subjects that refer to public accounting taught in graduation, master, and doctor's programs. Therefore, from the moment the respondents are in touch with the subject, they start to acquire technical knowledge about it, which justifies the individuals' choice and, therefore, represents a small part of society that has some technical knowledge. Some accounting statements disclosed compulsorily by the public sector were presented to this group with the objective to check if the technical

language knowledge influences the comprehensibility of the information disclosed by public administration.

The G4 experimental group also encompassed respondents who had technical language knowledge, but they were presented a model developed for the experiment with accounting statements disclosed using popular reporting. G4 had both the influence of the moderating variable concerning technical language knowledge and the moderating variable concerning popular reporting.

The choice for the G3 and G4 experimental groups which had the influence of the moderating variable concerning technical language knowledge was based on the fact that the students who acquire knowledge about public accounting are those who will necessarily face the burden of technical studies seen as appropriate for the proper comprehension of the accounting reports disclosed by the public sector.

Figure 2: Experimental Scenario



Source: Prepared by the authors.

3.3 Breakdown of the Research Hypotheses based on the Comparison between the Groups

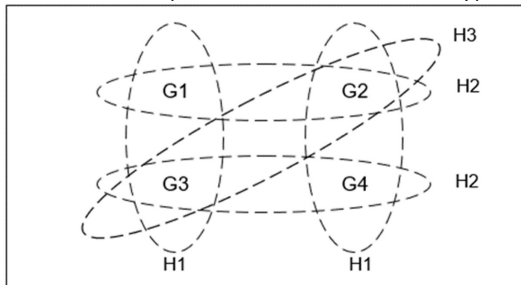
Based on the layout of the groups that comprised the sample within the scenarios presented, it was necessary to check the breakdown of the research hypotheses, according to Figure 3:

As reported, for the first experimental G3 group, the same G1 control group scenario was presented. However, for the second G4 experimental group, the scenario presented was the same for the G2 experimental group.

The G1 and G3 groups were presented to the accounting statements that are traditionally highlighted by the Brazilian public sector. The G2 and G4 groups were presented to a model containing the information of the same accounting statements presented to the G1 and the G3 groups, but with a simplified layout through charts, glossary and figures, and with a language that is more popular instead of the technical terms

used in the statements. This model was based on the premises for the disclosure from popular reporting.

Figure 3: Groups versus Research Hypotheses



Source: Prepared by the authors.

This way, the G1 and G3 groups and the G2 and G4 groups were comparatively analyzed with the objective to check possible differences when the moderating variable concerning technical language knowledge was included. In this sense, checking whether the comprehension of the accounting statements presented by the public sector improves as long as the experimenters hold technical knowledge about the topic and whether the comprehensibility depends on technical knowledge was something expected (Hypothesis 1).

On the other hand, the G1 and G2 groups, the G3 and G4 groups and the G2 and G3 groups were compared with the objective to investigate possible differences when the moderating variable concerning popular reporting was included, that is, with the objective to check whether the comprehension of the accounting information presented by the public sector increases when the entity presents the statements in a simplified way (Hypothesis 2), and whether this simplified layout is able to fill in the gap concerning the lack of technical knowledge (Hypothesis 3).

3.4 Instruments used in the Experimental Scenarios

To analyze the financial information traditionally disclosed by the public sector made available to the groups (G1 and G3) it was chosen the accounting statements that sought to show the budget, financial and equity execution of public entities, being: (a) Budget Balance Sheet; (b) Cash Flow Statement; and (c) Balance Sheet.

The construction of the model developed to verify the influence of the moderating variable of popular reporting made available to the groups (G2 and G4) was based on the best practices written by the GFOA in the article *Creating an Excellent Popular Financial Report* by Herrmann (2011): (a) the scope of the popular report should be clearly stated; (b) it should attract and hold the interest of readers, convey financial information in an easily understandable manner, present information in an attractive and easy-to-follow format, and be written in a concise and clear style;

(c) it should avoid using jargon and technical language to meet the needs of an audience without accounting knowledge; (d) it should use images and graphics to present report data; (e) highlight and explain items of importance. ; and most importantly, (f) the popular report must establish its credibility with its readers by presenting information in a balanced and objective manner.

Thus, through the understanding of how to report financial information to the users of public accounting in a way that facilitates their understanding, the presentation of the financial statements (Budget Balance Sheet, Cash Flow Statement, and Balance Sheet) in the developed model presented:

- a) explanation of what information should be evidenced, in order to present to the reader the objective of each statement;
- b) presentation of the information contained in the statements in graphic form, to facilitate the visualization and comparison between the data;
- c) presentation of drawings and figures that make the transmission of information more ludic, friendly and comfortable for an audience that does not have technical knowledge;
- d) presentation of a glossary, in order to explain the most commonly used terminology in accounting statements; and
- e) modification of the technical language to a more popular language by means of the popular reporting format, transforming the terms used in accounting applied by the public sector into terminologies known by most citizens.

4 Analysis and Discussion

4.1 Sample profile

From a total of 196 questionnaires collected, the group profile analysis was performed, even if such distribution didn't significantly affect group analysis and comparison, by considering the pattern of the statistic test performed. However, factors related to some social-demographic variables that comprise the profile of each group must be taken into account with the objective to know the individual attributes of the population under study.

From Table 1, which shows the respondents' profile, it is possible to see that the typical participants are mostly females. Moreover, it is possible to see that most respondents are younger than 25. Based on the composition analysis of the groups by governmental accounting knowledge, it was possible to see that the choice for the group is justified by the respondents' self-account concerning their knowledge about public accounting. In this context, most of the

Table 1: Group Composition

Demographic Variables	G1 (n=50)		G2 (n=52)		G3 (n=45)		G4 (n=49)		
	Rate	(%)	Rate	(%)	Rate	(%)	Rate	(%)	
Gender	Female	32	64.00	36	69.23	26	57.78	27	55.10
	Male	18	36.00	16	30.77	19	42.22	22	44.90
Average Age	Up to 20 years	39	78.00	43	82.69	8	17.78	7	14.29
	21 to 25 years	9	18.00	3	5.77	27	60.00	30	61.22
	26 to 30 years	2	4.00	2	3.85	5	11.11	11	22.45
	> 31 years	-	-	4	7.69	5	11.11	1	2.04
	None	36	72.00	34	65.38	8	17.78	2	4.08
Level of Knowledge	Little	10	20.00	12	23.08	15	33.33	26	53.06
	Reasonable	4	8.00	5	9.62	19	42.22	17	34.69
	Sufficient	0	0.00	0	0.00	2	4.44	2	4.08
	Good	0	0.00	1	1.92	0	0.00	1	2.04

Note: G1: no technical language knowledge, and the accounting statements are traditionally highlighted by the public sector; G2: no technical language knowledge, and the model to present the accounting statements is based on popular reporting; G3: with technical language knowledge, and the accounting statements are traditionally highlighted by the public sector; and G4: with technical language knowledge, and the model to present the accounting statements is based on popular reporting.

Source: Search results.

participants in the G1 control group and in the G2 treatment group state they have little or no knowledge about public accounting, whereas most of the respondents in the G3 and G4 treatment groups state they have reasonable or little knowledge about governmental accounting.

It should also be mentioned that the G3 and the G4 treatment groups have respondents who stated they have sufficient or good knowledge about public accounting, even though this quantity has been fairly expressive in relation to the total of respondents, which may mean that they didn't feel at ease about pointing out they have either sufficient or good knowledge of public accounting and fear low performance in the answer scores, even if they were warned their answers would be anonymous, which shows they were aware that they would not be identified.

4.2 Correlation between Technical Language Knowledge and Comprehensibility

In order to test the H1 hypothesis, which says that the groups with technical language knowledge tend to comprehend the accounting information disclosed by the public sector more than the groups without technical language knowledge, statistic evaluation techniques, such as the Kolmogorov-Smirnov test, were firstly done in order to test the normality of the variables. Then, the Levene hypothesis test was done to check if there is variance homogeneity. According to the results from the statistic tests mentioned, it was possible to see that the data presented no normal distribution at the significance level of 5%. Concerning the Levene's variance homogeneity test, the data were seen as homogeneous at the level of 5%.

In this sense, as the variables didn't meet the assumption of normality and presented an asymmetric distribution in at least one of the variables, the non-parametric Mann-Whitney U test was used, since it is an alternative to the t-Student test to compare the means of two independent samples.

Table 2 shows the statistical tests for knowledge of technical language.

Table 2: Average Performance Test for the Groups for Technical Knowledge

GROUP	Note	Mean	Median	Standard Deviation	Significance
Control Group (G1)	50	2,35	2,02	1,71	
Treatment Group (G3)	45	3,63	3,70	1,89	
Total	95				0,001
Treatment Group (G2)	52	4,94	4,83	1,61	
Treatment Group (G4)	49	6,51	7,06	2,08	
Total	101				0,000

Note: G1: no technical language knowledge, and the accounting statements are traditionally highlighted by the public sector; G2: no technical language knowledge, and the model to present the accounting statements is based on popular reporting; G3: with technical language knowledge, and the accounting statements are traditionally highlighted by the public sector; and G4: with technical language knowledge, and the model to present the accounting statements is based on popular reporting.

Source: Search results.

As a result for the Mann-Whitney U test in the G1 and G3 groups, it was possible to see that, at the significance level of 5%, the null hypothesis that there are no statistically significant differences between the groups was rejected. In other words, it can be concluded that the means referring

to the comprehensibility of fiscal statements are statistically different between the G1 group, which comprises citizens who have no technical background to better understand the statements, and the G3 group, which comprises citizens who hold technical language knowledge.

Upon comparing the mean of the G2 and the G4 groups through the Mann-Whitney U test in Table 2, it was possible to see that there is a mean difference, for the result was not significant at the level of 5%. This way, it can be concluded that the means referring to the level of comprehensibility from financial reports disclosed by the public entity from the layout of the model based on popular reporting are statistically different between the G2 group, which comprises citizens who have no technical background to better understand the statements, and the G4 group, which comprises citizens who hold technical language knowledge.

Based on this, it was possible to see that the groups which hold technical language knowledge tend to comprehend the accounting information disclosed by the public sector more than the groups without technical language knowledge. What can be confirmed through the descriptive analysis that was done is that the mean in the groups composed by respondents who hold technical knowledge (G3 and G4 groups) was higher than the mean in the groups composed by respondents who don't hold such knowledge (G1 and G2 groups), that is, the regular citizen.

This finding is confirmed by Oliveira (2016), who noticed that the process of communication between public accounting and the users of information is not efficient due to the fact the users employed in the research don't hold the semantic knowledge about the terminology used in the public accounting statements and, therefore, don't have the necessary requirements to interpret and analyze the statements adopted by the public sector.

Upon analyzing the respondents' schooling level, Biancone et al. (2016) concluded that people with lower schooling levels, especially high school, face more difficulties when trying to understand the information supplied by financial reports.

Although statistical differences were found among the means, when analyzing the G3 group (respondents who hold knowledge of technical terms when analyzing traditional accounting statements), it was possible to see that their mean was very low in relation to the total number of questions. This result confirms the hypothesis that some terms are not well understood even by accounting students and professionals.

With the objective to increase the verifiability of the H1 hypothesis, the research tried to analyze if the comprehensibility of the accounting information disclosed by the public sector, which is measured based on the respondents' performance, depend on technical

language knowledge. For such, the Chi-Square Test of independence was performed, as shown in Table 3:

Table 3: Chi-Square Test of the Performance Association of the Respondents with Technical Knowledge

Test	Note	Significance
Pearson Chi-Square	1457	0.000

Source: Search results.

From the results above, it is possible to see that, at the significance level of 5%, the null hypothesis that there is no association between the respondents' performance and technical language knowledge was rejected, that is, the respondents' performance depends on the knowledge of technical terms used by public accounting. This way, as seen through the mean test in Table 3, the respondents who hold technical language knowledge tend to get more right answers than students who don't hold such knowledge.

4.3 Correlation between Popular Reporting and Comprehensibility

In order to test the H2 and the H3 hypotheses that the groups which used the popular reporting model comprehend the accounting information disclosed by the public sector more than the groups that only had access to financial statements and that this simplified layout may fill in the gap of technical language knowledge, the Kolmogorov-Smirnov test was firstly performed to test the normality of the variables along with the Levene's hypothesis test to check if there is variance homogeneity.

According to the results from the statistic tests above, it was possible to see that the data presented no normal distribution at the significance level of 5%. Concerning the variance homogeneity test, the Levene test, only the joint verification of the G3 and the G4 groups was considered as non-homogeneous at the level of 5%.

Therefore, based on the fact the variables didn't meet the normality assumption, the non-parametric Mann-Whitney U test was used.

Through the Mann-Whitney U test for the G1 and the G2 groups, it was possible to see that, at the significance level of 5%, the null hypothesis that there are no statistically significant differences between the groups was rejected, which shows that the respondents who don't hold any knowledge of the language used by the accounting statements and who had access to the model with popular terms, charts and glossaries (G2) had a higher mean than that of the respondents without knowledge of technical language and who only had access to traditional financial statements (G1). It was also possible to see that popular reporting improved the results in more than 100%, taking into account the fact that the groups have no knowledge of technical language.

Table 4: Performance Mean Test of the Groups for Popular Reporting

GROUP	Note	Mean	Median	Standard Deviation	Significance
Control Group (G1)	50	2,35	2,02	1,71	
Treatment Group (G2)	52	4,94	4,83	1,61	
Total	102				0,000
Treatment Group (G3)	45	3,63	3,70	1,89	
Treatment Group (G4)	49	6,51	7,06	2,08	
Total	94				0,000
Treatment Group (G2)	52	4,94	4,83	1,61	
Treatment Group (G3)	45	3,63	3,70	1,89	
Total	97				0,001

Note: G1: no technical language knowledge, and the accounting statements are traditionally highlighted by the public sector; G2: no technical language knowledge, and the model to present the accounting statements is based on popular reporting; G3: with technical language knowledge, and the accounting statements are traditionally highlighted by the public sector; and G4: with technical language knowledge, and the model to present the accounting statements is based on popular reporting. Source: Search results.

Upon comparing the means of the G3 and the G4 groups, which comprise only the respondents who have technical language knowledge, it was possible to see that, through the Mann-Whitney U test, there are statistically significant differences between these groups, since the null hypothesis was rejected at the level of significance of 5%, that is, the respondents who answered the questionnaire based on the model analysis that uses the principles of popular reporting (G4) had their means improved in more than 78% when compared to the respondents who only checked the accounting statements presented by the public entity (G3).

When comparing the G2 group, which comprises respondents without technical language knowledge and who had access to the popular reporting layout model, to the G3 group, comprised by respondents who have the necessary load of knowledge to understand the information that is disclosed through accounting statements, it was possible to see that, through the Mann-Whitney U test, the hypothesis that there are no differences between the groups at the level of significance of 5% was rejected. This result shows that the popular reporting format presented through the model increased the average hit of the respondents who have no technical knowledge, so that the number of hits in this group outnumbered in more than 35% the hits in the group with technical language knowledge that only had access to the accounting statements traditionally highlighted by the public sector. Thus, it is possible to understand that a layout that aims at displaying the data in a simplified way and with the use of popular language is able to fill in the gap concerning the lack of knowledge for most citizens.

Therefore, it is concluded that the groups that had access to the popular reporting model tend to comprehend the accounting information disclosed by the public sector better than the groups that had access to traditional accounting reports. From the sample studied, this can mean that the accounting statements presented in their traditional format may reduce the comprehensibility of those who access it, which can be confirmed through the descriptive analysis performed with the groups and which brings the hit average of the G2 and the G4 treatment groups higher than the hit average of the G1 control group and the G3 treatment group, as well as the difference between the means in the G2 and the G3 groups.

This result is supported by Yusuf et al. (2013), who, in their study, showed that popular reporting is motivated by the need to provide the citizens with information in order to improve transparency and accountability, by offering friendlier accounting reports as they highlight the understanding concerning governmental actions, thus increasing citizens' participation in the taking of governmental decision.

Following the same train of thought, Augustinho et al. (2015) state that the restrictions in the accounting communication can be reduced if it is exposed in a language that is easily understood and supported by complementary disclosure ways that include verbal and non-verbal language and that represents not only the results but their analysis and interpretation.

As an additional test, and with the objective to value the verifiability of the H2 hypothesis test, the study tried to analyze whether the comprehensibility of the accounting information disclosed by the public sector, measured based on the respondents' performance, depends on the simplified layout. For such, the Chi-Square test of independence was performed, according to Table 5:

Table 5: Chi-Square Test Association between Respondents' Performance and layout

Test	Note	Significance
Pearson Chi-Square	1457	0.000

Source: Search results.

Based on Table 5, the null hypothesis was rejected at the level of significance of 5%, which shows that the respondents' performance depends on the financial reports layout. Likewise, it means that, when the entity discloses the financial reports through charts and tables and uses popular language, the citizen tends to better understand what is disclosed by public managers. Thus, Cohen and Karatzimas (2015) states that the basic philosophy concerning popular reporting is about rendering the information displayed in financial statements in a simplified way by avoiding both the detailed analysis and the use of difficult technical terms.

5 Conclusions

The present research aimed at investigating the level of comprehensibility of the information disclosed by accounting statements in the Brazilian public sector by analyzing if, based on popular reporting, the knowledge about technical language and the simplified layout of this information improve the comprehensibility of these statements.

Thus, the results showed that the citizen who best understands the accounting reports disclosed by the public sector is the one who holds technical language knowledge when comparing to the regular citizen who doesn't hold such knowledge and doesn't have the technical-cognitive background to analyze such information.

This happens because the reports that are traditionally disclosed by the Brazilian public sector has technical terms, which obstructs the comprehension of accounting statements and, as a consequence, reduces the reinforcement of social control over public administration, thus creating an association between technical knowledge and comprehensibility, which shows that the comprehensibility of the accounting information disclosed by the public sector depends on technical language knowledge.

Likewise, when comparing the layout of accounting reports (either traditional or popular), it was possible to see that the disclosure of the accounting statements based on the practices of popular reporting, which aims at presenting the information through charts, glossaries and figures, provides the citizens with a better comprehension of the accounting reports disclosed by the public sector, both for those who hold the knowledge about technical language and for those who don't (the average citizen). Upon analyzing the association between popular reporting and comprehensibility, the comprehensibility of the accounting information disclosed by the public sector depends on the simplified layout done through popular reporting.

The results also pointed that, when exposed to accounting statements in the popular reporting format, regular citizens, those who don't hold technical language knowledge, perform better when compared to citizens who hold technical language knowledge when they are submitted to financial statements in the traditional format and as demanded by the law, which shows that the traditional layout is hard to understand even for citizens who have technical language knowledge.

Therefore, as a conclusion, the three hypotheses in this research were confirmed. From this perspective, it is possible to statistically infer that, based on the sample selected, the citizens who hold technical language knowledge comprehend the accounting information disclosed by the public sector better than the citizens who don't have this knowledge. However,

the moment the accounting information is disclosed through popular reporting with the use of a simpler language and a more ludic layout, citizens improve their comprehension level about such information, which shows that this complementary disclosure may fill in the gap concerning the technical language knowledge.

Based on the reflections, considerations and results that are present in this research, it is expected that this study may improve the process of accountability for the effective users of public accounting by increasing their comprehensibility about accounting statements disclosed by the public sector and, especially, that it contributes to the academic and scientific advancement about the topics addressed herein, both directly and indirectly, by bringing in a new perspective to existing literature, with reflections on improving social effective control and promoting the interest about supervising public resources, which is justified, for, although one expects the use of popular reporting to increase the public entity's responsibility and transparency and to mobilize citizens' interest and involvement, public managers still don't explore it to its fullest.

Generally speaking, by analyzing the results found, it can be seen that regular citizens have a low level of comprehension concerning the accounting statements disclosed by the Brazilian public sector. Therefore, in order for the disclosure of accounting statement to reach its objective, that is, to be understood by a considerable share of citizens and prepare them to play their role to supervise the acts of public managers, two factors need more focus: either the State uses popular reporting by disclosing the information in a simpler, more ludic and friendly way, with figures, glossaries and other graphic tools, or the citizens, through their own interest, will try to acquire the knowledge about technical accounting language with the objective to understand the language used in the publications about official accounting statements, even though this knowledge acquisition doesn't ensure the comprehension that is as efficient as the use of disclosing statements through popular reporting mechanisms, for, based on this research findings, even people who know accounting technical tools face difficulties to understand the accounting statements disclosed by the public sector, which shows a relatively low level of comprehension.

The conclusion in the present study is not about omitting the disclosure of the accounting statements that are traditionally disclosed by the Brazilian public sector and demanded by law, but the need for a complementary disclosure of such information with the objective to enable the exercise of citizenship by the population as a whole and only by part of it, through popular reporting. Therefore, it is necessary and even urgent that the public entity rethinks the layout of the accounting statements applied by the Brazilian public sector with the objective

to increase social participation and promote democracy. It should be mentioned that adjusting the technical language into the popular language used herein is seen as a limitation, since the language seen as more efficient was used. However, it's not possible to ensure the adequacy of the language in order to provide the highest comprehensibility possible about the accounting information that is disclosed by the public sector. This way, here is the recommendation for future studies to try to analyze what would be the best way to report the information that is disclosed by the public sector's accounting through accounting statements with the objective to improve the citizens' level of comprehensibility.

Another suggestion would be a study that tried to clarify the real needs the citizens have for information, not only concerning the content of the accounting statement, but also its layout, frequency and propagation means, as well as checking whether the use of modern technologies and the Internet would increase the citizens' interest in the popular financial reports issued by the public sector.

Finally, given the limitations mentioned, here is the suggestion to use this study as a support in the search for improving the hypotheses herein suggested by increasing sample size and using new methodological approaches in order to turn the findings more solid with the objective to expand the theoretical field about the comprehensibility of the accounting information disclosed by the Brazilian public sector.

References

Augustinho, S. M., Oliveira, A. G., & Guimarães, I. A. (2015). Disclosure and accountability in public financial statements as instruments for social control. *Revista de Educação e Pesquisa em Contabilidade (REPeC)*, 9(2), 182-199. <https://doi.org/10.17524/repec.v9i2.1173>

Armstrong, E. (2005). Integrity, transparency and accountability in public administration: Recent trends, regional and international developments and emerging issues. United Nations, Department of Economic and Social Affairs, 1(10), 1-10.

Barbera, C., Borgonovi, E., & Steccolini, I. (2016). Popular reporting and public governance: The case of "Bilancio in Arancio" in Milan municipality. *Governance and Performance in Public and Non-Profit Organizations (Studies in Public and Non-Profit Governance)*, 5, 3-30. <https://doi.org/10.1108/S2051-663020160000005001>

Bergmann, A. (2012). The influence of the nature of government accounting and reporting in decision-making: evidence from Switzerland. *Public Money & Management*, 32(1), 15-20. <https://doi.org/10.1080/09540962.2012.643050>

Biancone, P., Secinaro, S., & Brescia, V. (2016). The

popular financial reporting: focus on stakeholders—the first European experience. *International Journal of Business and Management*, 11(11), 115-125. <http://dx.doi.org/10.5539/ijbm.v11n11p115>

Carpenter, F. H., & Sharp, F. C. (1992). Popular reporting: local government financial reports to the citizenry. Governmental Accounting Standards Board.

Chan, C., Landry, S. P., & Troy, C. (2011). Examining External Validity Criticisms in the Choice of Students as Subjects in Accounting Experiment Studies. *Journal of Theoretical Accounting Research*, 7(1). <http://jtar.org/id5.html>

Christiaens, J., Reyniers, B., & Rollé, C. (2010). Impact of IPSAS on reforming governmental financial information systems: a comparative study. *International Review of Administrative Sciences*, 76(3), 537-554. <https://doi.org/10.1177/0020852310372449>

Cohen, S., & Karatzimas, S. (2015). Tracing the future of reporting in the public sector: introducing integrated popular reporting. *International Journal of Public Sector Management*, 28(6), 449-460. <https://doi.org/10.1108/IJPSM-11-2014-0140>

Cohen, S., & Karatzimas, S. (2017). Accounting information quality and decision-usefulness of governmental financial reporting: Moving from cash to modified cash. *Meditari Accountancy Research*, 25(1), 95-13. <https://doi.org/10.1108/MEDAR-10-2015-0070>

Cohen, S. (2016). Popular Reporting (A. Farazmand, Ed.). *Global Encyclopedia of Public Administration, Public Policy, and Governance*. Springer, Cham. https://doi.org/10.1007/978-3-319-31816-5_2285-1

Cohen, S., Manes Rossi, F., Mamakou, X., & Brusca, I. (2022). Financial accounting information presented with infographics: does it improve financial reporting understandability? *Journal of Public Budgeting, Accounting & Financial Management*, 34(6), 263-295. <https://doi.org/10.1108/JPBAFM-11-2021-0163>

Cohen, S., Mamakou, X. J., & Karatzimas, S. (2017). IT-enhanced popular reports: Analyzing citizen preferences. *Government Information Quarterly*, 34(2), 283-295. <https://doi.org/10.1016/j.giq.2017.04.003>

Conselho Federal de Contabilidade. (2016). *Estrutura Conceitual para Elaboração e Divulgação de Informação Contábil de Propósito Geral pelas Entidades do Setor Público*. <https://www1.cfc.org.br/sisweb/SRE/docs/NBCTSPEC.pdf>

Cooper, D. R., & Schindler, P. S. (2003). *Métodos de Pesquisa em Administração*. (7th ed.). Bookman.

Daniels, J. D., & Daniels, C.E. (1991). Municipal

- financial reports: what users want. *Journal of Accounting and Public Policy*, 10(1), 15-38. [https://doi.org/10.1016/0278-4254\(91\)90018-F](https://doi.org/10.1016/0278-4254(91)90018-F)
- DiasFilho, J.M. (2000). A linguagem utilizada na evidênciação contábil: uma análise de sua compreensibilidade à luz da teoria da comunicação. *Caderno de Estudos*, 38-49. <https://doi.org/10.1590/S1413-9251200000200003>
- Financial Accounting Standards Board. (2018). *Conceptual Framework for Financial Reporting: Chapter 3, Qualitative Characteristics of Useful Financial Information*. <https://www.fasb.org/page/PageContent?pageId=/standards/concepts-statements.html>
- Gallon, A. V., Trevisan, R., Pfitscher, E. D., & Limongi, B. (2011). A compreensibilidade dos cidadãos de um município gaúcho acerca dos demonstrativos da Lei de Responsabilidade Fiscal publicados nos jornais. *Revista de Contabilidade do Mestrado em Ciências Contábeis da UERJ*, 16(1), 79-96.
- Governmental Accounting Standards Board. (1987). *Concept's Statements No. 1 of the Governmental Accounting Standards Board: Objectives of Financial Reporting*. <https://gasb.org/page/ShowDocument?path=GASBCS-1.pdf&acceptedDisclaimer=true&title=GASB+CONCEPTS+STATEMENT+NO.+1%E2%80%944OBJETIVES+OF+FINANCIAL+REPORTING&Submit=>
- Groff, J. E., & Pitman, M. K. (2004). Municipal financial reporting on the world wide web: a survey of financial data displayed on the official websites of the 100 largest US municipalities. *The Journal of Government Financial Management*, 53(2), 20.
- Hair, J. F., Jr., Anderson, R. E., Tatham, R. L., & Black, W. C. (1998). *Multivariate Data Analysis*. (5th ed.), Prentice Hall, New Jersey.
- Herrmann, K. R. (2011). Create an Excellent Popular Financial Report. *Government Finance Review*, 41-44. https://fsfoa.starchapter.com/images/GFR_OCT_11_41.pdf
- Hristov, E., Dimitrova, Z., Parvova, I., & Kitov, B. (2016). Scientific, Regulatory and Practical Approaches to the Fight against Counterfeit Medicinal Products. *Bulgarian Experience. Journal of US-China Medical Science*, 13, 1-12. <https://doi.org/10.17265/1548-6648/2016.01.001>
- Hood, C. (1995). Contemporary public management: a new global paradigm?. *Public policy and administration*, 10(2), 104-117. <https://doi.org/10.1177/095207679501000208>
- International Accounting Standards Board. (2008). *An improved Conceptual Framework for Financial Reporting*. <https://www.ifrs.org/content/dam/ifrs/project/conceptual-framework-2010/conceptual-framework-exposure-draft.pdf>
- Jones, D. B., Scott, R. B., Kimbro, L., & Ingram, R. (1985). The needs of users of governmental financial reports. *Government Accounting Standards Board*, Stamford, CT.
- Justice, J. B., Melitski, J., & Smith, D. L. (2006). E-government as an instrument of fiscal accountability and responsiveness: Do the best practitioners employ the best practices? *The American Review of Public Administration*, 36(3), 301-322. <https://doi.org/10.1177/0275074005283797>
- Kinnersley, R., & Fleischman, G. (2001). The readability of government's letter of transmittal relative to public company management's discussion and analysis. *Journal of public budgeting, accounting & financial management*, 13(1), 1.
- Leary, M. R. (2012). *Introduction to behavioral research methods*. (6th ed.). Pearson Education Inc.
- Lewis, C. W., & Hildreth, W. B. (2011). *Budgeting: Politics and Power*. Oxford University Press.
- Lee, M. (2006). The history of municipal public reporting. *Intl Journal of Public Administration*, 29(4-6), 453-476. <https://doi.org/10.1080/01900690500436982>
- Mack, J., & Ryan, C. (2007). Is there an audience for public sector annual reports: Australian evidence? *International Journal of Public Sector Management*, 20(2), 134-146. <https://doi.org/10.1108/09513550710731490>
- Miranda, L. C., de Moura Silva, A. J., Ribeiro Filho, J. F., & da Silva, L. M. (2008). Uma análise sobre a compreensibilidade das informações contábeis governamentais comunicadas pelo Balanço Orçamentário. *BBR-Brazilian Business Review*, 5(3), 209-228.
- Montesinos, V., & Brusca, I. (2019). Non-financial reporting in the public sector: alternatives, trends and opportunities: La información no financiera en el sector público: alternativas, tendencias y oportunidades. *Revista de Contabilidad-Spanish Accounting Review*, 22(2), 122-128. <https://doi.org/10.6018/rcsar.383071>
- Oliveira, A. F. L. (2016). *Popular Reporting nos Municípios Portugueses*. [Dissertação de Mestrado]. Faculdade de Economia da Universidade de Coimbra.
- Oliveira, Â., Santos, J. P., & Susana, J. (2018). Popular Reporting nos municípios portugueses? *Revista Iberoamericana de Contabilidad de Gestión*, 16(31). https://repositorium.sdum.uminho.pt/bitstream/1822/83688/1/angela-oliveira_susana-jorge_joao-santos.pdf
- Paulsson, G. (2006). Accrual accounting in the public sector: experiences from the central government in Sweden.

- Financial Accountability & Management, 22(1), 47-62. <https://doi.org/10.1111/j.0267-4424.2006.00392.x>
- Platt Neto, O. A., Cruz, F., Ensslin, S. R., & Ensslin, L. (2007). Publicidade e transparência das contas públicas: obrigatoriedade e abrangência desses princípios na administração pública brasileira. *Contabilidade Vista & Revista*, 18(1), 75-94.
- Rosair, M., & Taylor, D. W. (2000). The effects of participating parties, the public and size on government departments' accountability disclosures in annual reports. *Accounting, Accountability & Performance*, 6(1), 77-97.
- Sharp, F. C., Carpenter, F. H., & Sharp, R. F. (1998). Popular financial reports for citizens. *The CPA Journal*, 68(3), 34.
- Siraque, V. (2009). Controle social da função administrativa do Estado: possibilidades e limites na Constituição de 1988. Saraiva.
- Steccolini, I. (2004). Is the annual report an accountability medium? An empirical investigation into Italian local governments. *Financial Accountability & Management*, 20(3), 327-350. <https://doi.org/10.1111/j.0267-4424.2004.00389.x>
- Van Helden, J., & Reichard, C. (2019). Making sense of the users of public sector accounting information and their needs. *Journal of Public Budgeting, Accounting & Financial Management*, 31(4), 478-495. <https://doi.org/10.1108/JPBAFM-10-2018-0124>
- Yusuf, J. E. W., & Jordan, M. M. (2012). Effective popular financial reports: The citizen perspective. *Journal of Government Financial Management*, 61(4), 44.
- Yusuf, J. E., Jordan, M. M., Neill, K. A., & Hackbart, M. (2013). For the people: Popular financial reporting practices of local governments. *Public Budgeting & Finance*, 33(1), 95-113. <https://doi.org/10.1111/j.1540-5850.2013.12003.x>