Raising the Bar: Better Psychological Report Models for Graduate Education

by

Scott J. Taylor

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Department of Educational Psychology

University of Alberta

Abstract

This study explored the readability and practical utility of psychological report samples from graduate-level textbooks. Psychological reports are vital in educational and healthcare settings, transforming complex assessments into actionable plans for teachers, therapists, clients, and families. Despite their importance, these reports often remain difficult to understand due to their complex language and structure. This study used quantitative readability statistics and qualitative content analysis to evaluate the clarity, client-centeredness, presentation styles, and data integration in the reports. Findings indicate that while there has been some progress towards more readable and user-friendly reports, significant challenges remain. Sample reports continue to often use technical language and a passive voice, making them less accessible to general readers. Additionally, although some efforts have been made to enhance readability through bullet points and structured formats, the use of visuals and thematic organization is still limited. Many reports fail to integrate data effectively, simply restating test results without providing a cohesive narrative. This study highlights the need for continued efforts to improve the readability and utility of psychological report samples. Recommendations include enhancing training programs for graduate students, promoting the use of readability tools, and developing standardized templates.

Keywords: psychological reports, readability, client-centredness, training, education

Preface

This thesis is an original work by Scott Taylor. The research project, of which this thesis is a part, did not require Ethics Approval due to the nature of the study. No part of this thesis has been previously published.

Acknowledgments

I would like to extend my deepest gratitude to those who have supported and guided me throughout this journey. I would first like to thank my supervisor, Dr. Cormier, for his constant support, guidance, and expertise. His feedback and encouragement have been crucial in completing this thesis, and I am deeply grateful for his mentorship. I also want to thank my friends for their support and understanding. Your companionship and positivity have kept me motivated throughout this journey. Finally, I am incredibly thankful to my family including my Mom, Dad, Brother (Ryan), and Sister (Justine). Your love, patience, and belief in me has been my anchor. This thesis would not have been possible without your support. Thank you all for being there for me and believing in my work.

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Introduction

Psychological reports play a crucial role in the assessment process, transforming complex psychological evaluations into clear, practical information that teachers, parents, and clients can understand and use effectively. Historically, these reports have been written for professionals, such as psychologists, psychiatrists, family doctors, and other mental health workers (Harvey, 1997). Although the use of reports differs for each health practitioner, the document serves a common purpose of facilitating communication and decision-making regarding a client's current needs. Writing psychological reports that are easy to understand is challenging, and research has suggested that psychologists struggle in this area of practice (Harvey, 2006). This difficulty arises from the complexity of psychological data and the varied backgrounds of the people who read the reports (e.g., parents versus psychiatrists). Psychological assessments include detailed observations and intricate data that are often hard to simplify into lay terms (Dombrowski, 2020; Baum et al., 2018; Rahill, 2018).

The success of program planning decisions often depends on how well these reports present complex information in a way that is easy for everyone to understand (Dombrowski, 2020; Brenner, 2003; Groth-Marnat, 2016; Schneider, 2018; Wright, 2021). The effectiveness of psychological reports is often reduced by problems related to readability and accessibility (Postal et al., 2018). Readers frequently find psychological reports difficult to understand, overly technical, and not particularly useful (Bucknavage et al., 2007; Childs & Eyde, 2002; Wiener & Kohler, 1986). Reports are intended to be comprehensible to individuals without specialized training in psychology, such as teachers who need to implement educational recommendations or parents who must make decisions about their child's treatment plan (Rafoth & Richmond, 1983). The real value of these reports lies not only in the accuracy of their assessments but also in how

clearly these assessments are communicated. If reports are not sufficiently clear, they can be misunderstood or improperly used, which can negatively impact the client outcomes, such as educational progress and therapeutic effectiveness (Harvey, 2006; Rahill, 2018)

The utility of psychological reports is reduced when they fail to adhere to best practices in writing. This includes using simple, clear language, organizing information logically, and incorporating summaries that highlight the main points and recommendations (Wiener & Costaris, 2012). When reports do not meet these standards, their effectiveness is significantly impacted, creating a gap between the potential benefits of psychological assessments and their actual impact (Eriksson & Maurex, 2018; Harvey, 2006). To address these issues, psychological reports need to be more accessible and practical. Developing guidelines and training programs for psychologists that teach them how to write effective reports using high-quality standardized templates (e.g., using summaries and clear instructions) is necessary (Eriksen, 2023). Such improvements can enhance the clarity and usability of reports, ensuring they fulfill their role as vital links between detailed psychological assessments and practical applications.

Overall, it is crucial to determine whether the textbook samples provided to students still exhibit the same limitations identified in previous research (Harvey, 2006). Creating samples that follow evidence-based practices is essential for making psychological reports more user-friendly and ensuring they fulfill their role as vital links between detailed psychological assessments and practical applications. Ensuring that graduate students are trained to write reports adhering to established standards from the outset is paramount. This approach prevents the need for students to unlearn bad habits acquired through poor models, which can be both time-consuming and challenging. By providing strong, high-quality models early in their training, we can start

students on the right foot, fostering the development of good practices that will benefit their professional careers.

Context and Importance

Effective communication in these reports is not merely beneficial; it is critical for ensuring that insights are understood, and recommendations are implemented (Geffken et al., 2006; Merkel, 2010). Psychologists are ethically obligated to communicate results in ways that are meaningful and helpful (Canadian Psychological Association Code of Ethics, 2017). Despite this ethical responsibility and the existence of research and guidelines on report writing, there has never been a consistent professional consensus on how these reports should be crafted (Groth-Marnat & Wright, 2016; Sattler, 2008; Schneider, 2018; Wright et al, 2021). This lack of consensus can result in significant variability in the quality of reports produced by different professionals (Harvey, 1997; Wiener, 1987) and the samples available for graduate students.

More recently, Eriksen (2023) demonstrated that these reports often contain complex jargon, convoluted sentences, and layouts that obscure critical information. These issues hinder the usability of the reports and diminish their effectiveness. For example, teachers may struggle to utilize complex reports, preventing them from fully supporting a student's specific needs (Geffken et al., 2006; Merkel, 2010). Therapists and families might also overlook important details in reports, leading to interventions that do not adequately address the client's needs (Harvey, 1997). The disparity between the goals of assessments and the effectiveness of communication in these reports underscores the necessity of rethinking how these reports are crafted and presented.

Additionally, as healthcare and education increasingly rely on interdisciplinary teams to provide comprehensive care, the clarity of reports and their intended audience have become even

more critical. Everyone on a care team, including those without specialized training in psychology, needs to understand these reports. Consequently, there is a growing push to make psychological reports clearer (Dombrowski, 2018; Eriksen, 2023). Research by Childs and Eyde (2002) suggests that adopting a standardized format that prioritizes clarity and conciseness could greatly enhance the effectiveness of reports. However, limited research has evaluated the quality of these standardized formats or samples (Harvey, 2006). Training programs must focus on developing skills in clear communication to help psychologists create reports that better meet the needs of their diverse readership (Harvey, 2002, 2006).

Addressing these challenges directly should allow professional psychology to enhance the practical utility of assessments, ensuring that they serve their intended purpose of facilitating effective interventions aligned with the needs of clients and graduate students. These improvements are beneficial and necessary for the continued relevance and impact of psychological assessments in various settings.

Historical Background

The evolution of psychological report writing over the past 50 years reflects significant shifts within professional psychology. Initially, psychological reports adhered to the medical model, focusing heavily on diagnostic categorization and treatment protocols (Harvey, 1997). These reports often contain complex terms and detailed technical descriptions suitable for medical professionals but extremely difficult for non-specialists to understand (Backnavage, 2007; Kannan et al., 2021, Rahill, 2018).

As professional psychology transitioned toward more holistic and client-centered practices, the approach to report writing also began to evolve (Groth-Marnat & Wright, 2016). This transformation was driven by a growing recognition of the importance of mental health

literacy among the general population and an increasing expectation that individuals should participate in decisions related to their care. Consequently, reports started to be crafted with greater attention to accessibility and practical use, trying to move away from the dense, jargon-heavy language of the past (Groth-Marnat & Wright, 2016).

Significant advancements in psychological theories and practices, such as the rise of cognitive-behavioral therapies and humanistic approaches, further influenced client-centered report writing. These approaches emphasized clear, transparent communication and focused on making psychological findings understandable for non-professionals. Recent reports began to highlight the accuracy of diagnoses and the clarity of the information presented, ensuring it could be effectively used by clients (Harvey, 2006; Eriksen, 2023).

Studies, such as Harvey (2006) and Eriksen (2023), analyzed the readability of psychological reports at different points in recent decades. Harvey (2006) found that many psychological report samples in textbooks were written at a level too difficult for the average reader, often exceeding the 12th-grade reading level. This complexity hindered the practical utility of these reports, as non-specialists struggled to comprehend the detailed, jargon-heavy content. Eriksen (2023) extended this analysis on reports produced by graduate students and discovered that, despite some improvements, many reports still did not meet readability standards. Reports often contained long, complex sentences, and technical language that made them inaccessible to lay readers. Another study examined the evolution of report writing practices over a similar period and concluded that there was no significant improvement in the clarity and user-friendliness of psychological reports (Wiener & Costaris, 2012). This lack of progress highlighted the persistent challenges in making psychological assessments more accessible to a broader audience. These studies highlighted the need for continued efforts to

simplify language, use more straightforward sentence structures, and include summaries that distill the key points and recommendations.

These studies also illustrate the ongoing evolution of psychological report writing, emphasizing the field's adaptation to meet the needs of a broader audience. However, they also highlight that significant work remains to be done. Despite advancements in psychological practice and theory, many psychological reports continue to be written in a manner that is inaccessible to the intended audience (Eriksen, 2023). As psychological practice continues to evolve, so does the approach to report writing, necessitating ongoing efforts to improve the clarity, readability, and practical utility of these essential documents (Eriksen, 2023).

Textbooks from 2004-2021 such as "Handbook of Psychological Assessment" by Groth-Marnat (2016) and "Essentials of Psychological Assessment" by Wright (2021) provide samples of psychological reports and have not been studied for readability and whether they still include technical jargon and complex sentence structures that can be difficult for non-specialist readers to understand. These samples are intended to serve as models for students and practitioners, offering guidance on structuring reports, presenting data, and formulating recommendations. However, analyses of previous textbook samples have shown that they often fall short of best practices in readability and clarity (Harvey, 2006). Conducting research on current samples is key to determine if they have improved following new guidelines.

In summary, while professional psychology has made strides toward more client-centered and accessible report writing practices, there is a persistent gap between current practices and the ideal standards. Continued research and training are essential to bridge this gap, ensuring that psychological reports fulfill their role as vital tools for communication and intervention in both educational and clinical settings.

Current Standards and Practice

Despite years of developing best practices and establishing clear guidelines aimed at improving the clarity and usefulness of psychological reports, a notable gap remains between these ideal standards and actual clinical practices. This discrepancy is often due to differences in how report writing skills are taught across various psychology programs (Childs and Eyde, 2002). Not all training programs emphasize the importance of clear communication, leading to significant variability in the quality of reports produced. While Harvey's studies (2002, 2006) highlighted this issue, it's essential to consider whether these findings still represent current practices. Given that some aspects of report writing have evolved, the rationale for this research is to investigate contemporary trends and improvements in psychological report writing, addressing the outdated results of earlier studies.

Many graduate students are not adequately trained in school to write effective reports. Most psychology programs focus heavily on the theoretical and empirical aspects of psychological assessment, often at the expense of practical report writing skills. As a result, students may graduate with limited experience in crafting reports that are both clear and useful for non-specialist readers (Eriksen, 2023). This gap in training can lead to the production of reports that are overly technical, difficult to read, and not user-friendly.

The textbooks and sample reports that are meant to guide students often fall short of providing good examples. Textbooks such as those by Groth-Marnat (2016) and Wright (2021) include sample reports that might still contain technical jargon and complex sentence structures, which can be difficult for lay readers to understand. These samples, while comprehensive may not always exemplify best practices in readability and accessibility. Supervisors also have their own entrenched practices that do not align with current best practices, perpetuating the cycle of

producing reports that are not user-friendly. Even supervisors with high expertise may rely on older methodologies and formats they were trained in, which might not reflect the latest standards in report writing (Eriksen 2023). This reliance on outdated practices can further impede the adoption of newer, more effective communication strategies (Harvey, 2006).

Recent studies continue to highlight these issues, showing that efforts to make psychological reports more accessible to a broader audience have been insufficient. For example, Eriksen (2023) points out that while some progress has been made, the overall adoption of user-friendly reporting practices remains inconsistent. This ongoing challenge has prompted researchers and practitioners to explore new strategies and technologies that might help bridge the gap.

Aspects of Psychological Report Writing

The importance of making psychological reports easy to read has grown significantly with the introduction of various readability tools and text analysis software. These tools provide psychologists with practical methods to check and improve their reports to ensure they meet recognized standards. However, no study to my knowledge has been done to determine if psychologists use these software tools when report writing. Traditional tools like the Flesch-Kincaid index are widely used to measure how easy it is to understand a report (Mueller, 2010). It provides the best estimate of the equivalent grade reading level (between 0 and 19). This score indicates the U.S grade required to be able to understand the text. The formula is as follows .39 (average sentence length) + 11.8 (average syllables per word) -15.59 (Kincaid et al., 1975). Research indicates that the average reading level in Canada for adults is in the grade 8th range or lower (Statistics Canada, 2011; Jamieson, 2006). Given this finding, report writing guidelines and training textbooks recommended a grade 6 level to be accessible for all clients (Groth-

Marnat, 2016; Schneider et al., 2018; Wright et al., 2021). However, research indicated reports written at grade 15 level or higher (Harvey, 1997, Mueller & Mueller, 2018). Despite their potential, there is limited evidence that psychologists regularly use these tools in practice (Eriksen, 2023).

The use of technical and statistical jargon significantly impacts the readability of psychological reports. While some jargon is necessary to accurately convey assessment results, terms should be explained in reader-friendly language (Groth-Marnat, 2009; Mastoras et al,, 2011). Research has shown that reports with unexplained jargon contribute to poor comprehension and misinterpretation of results (Bucknavage, 2007; Rahill, 2018), whereas those that clarify terms are preferred by readers (Bucknavage, 2007; Wiener, 1987; Weiner & Kohler, 1984). Harvey (2006) found that psychology graduate students often used jargon to impress supervisors, though they acknowledged that writing at a lower reading level would make reports more understandable.

Report length also influences readability. Writing shorter, simpler sentences can decrease the Flesch-Kincaid grade level, making reports more accessible. However, the literature on the effectiveness of shorter reports is mixed. While concise reports are generally recommended, opinions on the ideal length vary. Donders (2016) suggests that clinicians should describe what is most important in detail and be concise about everything else. Additionally, report length varies based on the type of report and audience. For example, Postal et al. (2018) found that child neuropsychologist reports were longer compared to those by adult neuropsychologists. Referral sources, such as schools and hospitals, generally prefer shorter reports (Postal et al., 2018).

In terms of presentation style and formatting, using bullet points and visuals can enhance the readability and utility of psychological reports. Bullet points help break down complex

information and highlight key points, making reports easier to follow (Gomez, 2006; Mahoney et al., 2017). Visuals like tables and graphs capture the reader's attention and emphasize important data, improving recall and satisfaction (Miller & Watkin, 2010). Textbooks recommend using these elements to organize test scores and explain quantitative information, but their adoption in practice remains inconsistent (Schneider, 2018).

Another important aspect is the formatting of reports. Students and novice psychologists often organize their reports by the source of information (test-by-test), which can be less effective than domain-based formatting. Functional domain reports integrate data from multiple sources and present results thematically, providing a clearer picture of the client's functioning. This approach is more user-friendly and aligns better with client-centered practices (Beutler & Groth-Marnat, 2023; Rahill, 2018; Savango & Teglasi, 1987; Wiener & Kohler, 1986; Wiener, 1986).

Despite established guidelines and best practices, many psychological reports continue to fall short in readability and accessibility. Training programs must emphasize clear communication, and both textbooks and supervisors need to model best practices more effectively. Future developments in training and technology, such as readability tools and improved report samples, are essential for enhancing the practical utility of psychological reports and ensuring they meet the needs of diverse audiences.

Current Study

The current study aims to complete a detailed analysis of psychological report samples drawn from a variety of educational and clinical settings. A thorough examination of report writing samples in textbooks is needed, as the last comprehensive review was conducted by Harvey (2006). By employing a mixed-method approach that includes both quantitative

readability assessments and qualitative content analysis, this research has two main goals: (1) to evaluate how well current psychological report samples meet established readability standards, and (2) conduct a qualitative content analysis across four key areas of reports: comprehensiveness, presentation style, integration, and client-centredness. By highlighting areas where reports fail to meet readability standards and by proposing targeted recommendations for improvement, this research will offer valuable insights that could lead to better practices in the creation of psychological report samples, enhancing their practical utility across various professional settings.

Methods

Sample

Fifty-four psychological report samples were obtained from relevant graduate-level textbooks. Table 1 provides a detailed overview of the selected textbooks. Textbooks were selected based on their comprehensive coverage of psychological assessment, reflecting both historical and contemporary practices in report writing. In a sense, this selection portrays report writing standards from 2004-2021 and helps identify current practices across different settings in psychology. Using a methodology similar to Harvey (2006), samples were separated into two groups, psychoeducational (i.e., referral from parents and teachers), and other reports (i.e., neuropsychological, clinical, forensic reports; referral from professionals).

Table 1

Textbook Samples

Textbook	Author	Year	Total Number of Samples	Psycho-Educational Report	Other Reports
Conducting Psychological	Wright	2021	7	7	0

Assessment: A guide for practitioners					
Psychoeducational Assessment and Report Writing (2nd Edition)	Dombrowski	2020	11	11	0
Essentials of Assessment Report Writing (2nd Edition)	Schneider	2018	11	8	3
Handbook of Psychological Assessment	Groth-Marnat	2016	3	1	2
Neuropsychological Report Writing	Armstrong & Donders	2016	4	0	4
Psychological Report Writing Assistant	Groth-Marnat & Davis	2014	1	0	1
Writing Useful, Accessible, and Legally Defensible Psychoeducational Reports	Hass	2014	6	6	0
Forensic Reports & Testimony: A guide to effective communication for psychologists and psychiatrists	Otto	2014	7	0	7
Essentials of Assessment Report Writing	Lichtenberger	2004	5	4	1
Total Number			$N = 54$	$n = 37$	$n = 18$

Measures

Coding Scheme. Categories of report writing were explored and coded using the following five categories: readability, comprehensiveness, presentation style, integration, and client-centredness. Appendix A provides specific information on the coding scheme. Readability statistics included report length (i.e., total number of words), percentage of passive sentences,

and Flesch Kincaid grade level. Comprehensiveness included whether the report stated an explicit diagnosis, the presence of specific evidence for the diagnosis, inclusion of DSM codes, and statements regarding the validity of results. Presentation style included coding the format used (test-by-test, domain-format, questions-and-answer format), use of bullet points, visuals such as a graph, and tables. Integration was coded based on whether the summary/clinical interpretation section was written in an integrated manner or if it restated the test data without interpretation/integration. It also included whether reports used a multi-method assessment approach. Client-centredness was coded based on if the recommendations had clear and concrete examples, and if the individual test results are clearly related to the individual (language is specific to the client being evaluated and not generic).

Procedure

The reports were accessed digitally through a comprehensive search of graduate-level textbooks. In total, 54 reports from textbooks published between 2004 and 2021 were included. The identified textbooks were accessed digitally through university libraries and online search platforms. This allowed for a thorough review and extraction of sample reports. Textbooks that did not provide comprehensive coverage of psychological report writing were excluded. For example, textbooks written about report writing that did not provide sample reports. Samples that were not peer-reviewed or not published in textbooks were also excluded. The latter criterion ensured that only high-quality, credible sources were included in the study.

Reports widely vary in complexity, audience, and purpose. This diverse selection provided a broad view of the landscape of psychological report writing and allowed me to explore how styles differ across various domains of psychology. As discussed previously, reports

were separated into two categories (1) psychoeducational report (i.e., referral from parent or teacher) and (2) other report (i.e., forensic, neuropsychological) for analysis.

An a priori coding scheme (i.e., a deductive coding approach) was modelled based on the thesis by Eriksen (2023), which is included in Appendix A. The content in this coding scheme was previously validated by an expert reviewer (i.e., psychologist). Samples were systematically categorized using the coding scheme in Microsoft Excel. A second coder was used to assess inter-rater reliability. Additionally, readability statistics were calculated in Microsoft word and added to the excel document for analysis.

Research Questions

Each of the following questions addressed key aspects of psychological report writing samples, from readability to the practical applications of the reports. Research questions 3-7 were exploratory in nature due to the constructs never being investigated in textbook samples.

1a. What are the current readability statistics for psychological report samples?

1b. How do they compare to previous research and align with best practises?

2. What are the differences, if any, between the readability of two types of reports (psychoeducational assessment and others)?

3. Do readability statistics change across different sections of sample reports?

4. How comprehensive and client-centered are sample reports?

5. What presentation style do sample reports follow?

6. How integrated are sample reports?

7. How are recommendations provided in sample reports?

Research Design

Sample reports were analyzed in multiple ways to replicate Harvey (2006) and Eriksen (2023) to examine the report as a whole. Harvey (2006) included only certain sections of model reports that summarized the findings. These sections were usually titled "Summary", "Conclusions", "Discussion", or "Summary and Recommendations." I followed this same format and in addition to this, the reports were examined as a whole, with even the more technical parts included. As an extension of Harvey (2006), each report was then analyzed for readability, comprehensiveness, presentation style, integration, and client centredness. This step was taken to determine if samples would have similar shortcomings identified in Eriksen (2023), which evaluated psychological reports from recent graduate students.

Analyses

The sample reports were analyzed for reading difficulty using the editor mode in Microsoft Word. This was determined using the number of words, characters, paragraphs, sentences, passive sentences, and syllables per word in a passage. These values were then used to calculate measures of readability: percentage of passive sentences, word length, and Flesch-Kincaid grade-level readability. Descriptive statistics were calculated to observe trends in the data within the means, standard deviations, and frequencies for all variables.

T-tests were also used to compare readability scores between different groups, like types of reports (i.e., psychoeducational vs other) and sections of the reports (i.e., summary vs results). Given the number of comparisons ($k = 18$), a Bonferroni Correction was applied to control for the family-wise error rate. The Bonferroni correction adjusts the significance level to account for the multiple tests being performed. The adjusted significance level was set at $\alpha = 0.002$. Qualitative content analysis was conducted to address the following areas in the coding scheme:

comprehensiveness, presentation style, integration, and client-centredness. This approach will help evaluate how each report samples follow guidelines that were discussed previously.

Results

Overall Readability

Among the 37 psychoeducational reports, the average Flesch-Kincaid grade level was 12.38, indicating that a reader would need to have completed high school (i.e., grade 12) to comprehend the content with ease. The Flesch-Kincaid grade level measures the years of schooling required to understand a text. For instance, a score of 8 suggests that someone who has completed eighth grade should be able to read the material. The reading level scores ranged from 9.5 to 15.9. On average, the reports were 4,062 words long. Visuals, tables, and other figures were excluded from this calculation. Additionally, the mean percentage of passive sentences in these reports was 18.15%.

For the 18 other reports, the average Flesch-Kincaid grade level was 13.33, indicating that a reader would need to have completed the equivalent of high school plus one additional year (grade 13) to understand the content. The reading level scores ranged from 10.80 to 16.9. The average length of these reports was 3,289 words. The mean percentage of passive sentences in these reports was 23.18%.

Table 2

Sample Reports

Variables	M	SD	Median	Min	Max
Psychoeducational ($N = 37$)	-	-	-	-	-
Length	4062.95	1236.70	3837	1235	6153
Flesch Kincaid Reading Level	12.38	1.39	12.10	9.5	15.9

Percentage of Passive Sentences	18.15	4.82	17.50	8.5	31.7
Other Reports (*N* =18)	-	-		-	-
Length	3289.88	1160.25	3130.50	1503	5872
Flesh Kincaid Reading Level	13.33	1.91	12.85	10.80	16.9
Percentage of Passive Sentences	23.18	9.22	23.56	8.3	46.9

Across all sample, the lengths ranged from 1235 to 5872 words, with the psychoeducational reports averaging 4062.95 words (*SD* = 1236.70) and the other reports averaging 3289.88 words (*SD* = 1160.25). The psychoeducational samples were not statistically longer than the other samples (t (53) = 2.28, $p > 0.002$). Despite this, both groups exhibited mean lengths that reflect substantial content, with psychoeducational reports being particularly detailed.

Flesch-Kincaid reading levels ranged from 9.50 to 16.90. The psychoeducational reports had an average grade level of 12.38 (*SD* = 1.39), while the other reports averaged 13.33 (SD = *1.91*). Although one might expect psychoeducational reports aimed at parents and teachers to be easier to read, there was no statistically significant difference in readability between the two groups (t (53) = −1.88, $p > 0.002$). However, both groups had mean readability scores above grade 12, surpassing the recommended grade 8 level, which may make them difficult for a general audience to understand.

The percentage of passive sentences ranged from 8.30% to 46.90%. The psychoeducational group had an average of 18.15% passive sentences (*SD* = 4.82%), while the other group averaged 23.18% (*SD* = 9.22%). The psychoeducational reports did not contain

statistically fewer passive sentences than the other reports (t (29) = −2.18, p > 0.002). Despite this difference, both set of samples used a significant amount of passive voice, which can obscure clarity and reduce readability.

Section Analyses of Reports

Introduction/Reason for Referral

There was no significant difference in length between the psychoeducational reports and the other reports for the introduction/reason for referral section (t (40) = −1.17, p > 0.002), indicating that both types of samples provide a similar amount of introductory information. The Flesch-Kincaid grade level was high for both types of reports, suggesting that the introduction sections are written at a college reading level, which may not be easily understood by all audiences. The difference in readability was not statistically significant (t (53) = 0.39, p > 0.002). The percentage of passive sentences was high, particularly in the other reports, indicating a prevalent use of passive voice in the introduction sections, which can potentially reduce clarity. However, the overall difference in the use of passive sentences between the reports was not statistically significant (t (45) = −1.96, p > 0.002).

Table 3

Introduction/Reason for Referral

Variables	M	SD	Median	Min	Max
Psychoeducational *(N* = 37)	-	-	-	-	-
Length	209.27	198.98	141	25	885
Flesch Kincaid Reading Level	14.79	3.22	14.50	9.00	24.5
Percentage of Passive Sentences	31.58	25.15	25.00	0	100
Other Reports	-	-	-	-	-

(*N* = 18)					
Length	315.73	357.28	208	96	1367
Flesh Kincaid Reading Level	14.43	3.23	14.30	10.00	21.00
Percentage of Passive Sentences	46.69	27.64	42.80	0	88.80

Background Information/Observations/Interview

There was no significant difference in length between the psychoeducational and the other reports for this section (t (53) = −0.39, p > 0.002), indicating that both types provide similar amounts of background information. The Flesch-Kincaid grade level for psychoeducational reports was slightly lower, though not significantly, suggesting they may be somewhat easier to read compared to other reports (t (53) = −1.99, p > 0.002). The percentage of passive sentences was similar between the two types of reports, indicating that both use a comparable writing style in this section. However, this difference was not statistically significant (t (53) = −0.27, p > 0.002).

Table 4

Background information/Observations/Interview

Variables	M	SD	Median	Min	Max
Psychoeducational (*N* = 37)	-	-	-	-	-
Length	1202.62	793.47	896	291	4202
Flesch Kincaid Reading Level	11.14	1.60	11.00	8.10	15.00
Percentage of Passive Sentences	18.56	7.48	18.10	3.40	36.30
Other Reports (*N* = 18)	-	-	-	-	-

Length	1306.33	935.36	1153.50	441	4220
Flesh Kincaid Reading Level	12.47	2.60	11.65	8.10	17.30
Percentage of Passive Sentences	19.24	9.35	18.95	5.40	40.00

Results

The results section of psychoeducational reports was significantly longer than that of other reports, indicating that psychoeducational samples provide more detailed results (t (53) = 4.11, $p < 0.002$). There was no significant difference in the Flesch-Kincaid grade level between the two types of reports, suggesting that the complexity of language used in the results sections is similar (t (53) = 0.55, $p > 0.002$). Psychoeducational reports did not include a significantly higher percentage of passive sentences (t (53) = 3.08, $p > 0.002$).

Table 5

Results

Variables	M	SD	Median	Min	Max
Psychoeducational (N = 37)	-	-	-	-	-
Length	1543	814.20	1433	456	3841
Flesch Kincaid Reading Level	13.19	1.64	13.00	9.7	17
Percentage of Passive Sentences	19.50	7.62	18.80	8.2	36.1
Other Reports (N = 18)	-	-	-	-	-
Length	807.29	509.06	757	239	2017
Flesh Kincaid Reading Level	12.92	1.72	12.65	10.50	16.10
Percentage of Passive Sentences	13.50	6.33	13.30	0	27.00

Impressions/Summary

The length of the impressions/summary section did not significantly differ between the psychoeducational reports and the other reports (t (53) = −1.93, p > 0.002), indicating both types of samples provide similar amounts of information in this section. Both types of reports also had similarly high Flesch-Kincaid grade levels, reflecting a high level of complexity in the impressions/summary section, with no significant difference (t (53) = −0.13, p > 0.002). The percentage of passive sentences was also not significantly different, although psychoeducational reports tended to use slightly fewer passive sentences (t (53) = −1.29, p > 0.002).

Table 6

Impressions/Summary

Variables	M	SD	Median	Min	Max
Psychoeducational (N = 37)	-	-	-	-	-
Length	452.89	201.02	442	81	978
Flesch Kincaid Reading Level	14.37	2.33	14.30	10.4	22.9
Percentage of Passive Sentences	18.14	10.75	16.60	0	42.8
Other Reports (N = 18)	-	-	-	-	-
Length	661.06	432.10	721	88	1446
Flesh Kincaid Reading Level	14.44	1.60	23.90	11.80	16.50
Percentage of Passive Sentences	22.68	12.98	14.30	0	50

Recommendations

There was no significant difference in the length (t (53) = −0.83, p > 0.002), Flesch-Kincaid grade level (t (53) = −0.66, p > 0.002), or percentage of passive sentences (t (53) =

−0.51, $p > 0.002$) in the recommendations section between psychoeducational and other reports. This suggests that both types of reports provide recommendations that are similar in length, complexity, and style.

Table 7

Recommendations

Variables	M	SD	Median	Min	Max
Psychoeducational ($N = 37$)	-	-	-	-	-
Length	570.44	477.85	399.50	104	2256
Flesch Kincaid Reading Level	13.49	2.09	13.50	9.5	19.6
Percentage of Passive Sentences	23.29	14.59	22.90	0	51.8
Other Reports (N=18)	-	-	-	-	-
Length	679.20	452.84	479	283	1703
Flesh Kincaid Reading Level	13.87	1.99	21	10.10	15.90
Percentage of Passive Sentences	25.54	15.61	14.55	10	50

Qualitative Content Analyses

Inter-Rater Reliability

Inter-rater reliability was assessed for agreement between two raters across 11 reports, representing 19% of the total sample. Percent agreement was documented for each variable, and Cohen's Kappa coefficient was used to estimate the agreement expected by chance. The percent agreement across the 11 reports was 80.61%, with a chance agreement of 0.507. Cohen's Kappa was calculated to be 0.607 ($p < .001$), indicating substantial inter-rater reliability. These results

suggest that the two raters generally agreed on the evaluated variables more than would be expected by chance, demonstrating that their ratings are consistent and reliable.

Comprehensiveness & Client Centredness

Out of the 37 psychoeducational reports, 30 provided an explicit diagnosis, 19 included DSM codes, and 13 provided specific evidence for the diagnosis. Out of the 18 other reports, 14 provided an explicit diagnosis, 5 included DSM codes, and 11 provided specific evidence for the diagnosis.

In regard to client-centredness, 30 reports addressed the referral question, 22 presented assessment results in a client-centered manner, and 27 included recommendations with clear, concrete examples. In the other reports, 12 addressed the referral question, 16 presented assessment results in a client-centered manner, and 8 reports included recommendations with clear, concrete examples.

Table 8

Comprehensiveness & Client-Centeredness

Variables	Psychological Assessments		Other Reports	
	Frequency (*n*)	Percentage (%)	Frequency (*n*)	Percentage (%)
Explicit Diagnosis	30	**81**	14	**78**
DSM Codes Included	13	**35**	5	**28**
Evidence for Diagnosis	19	**51**	11	**61**
Referral Question	30	**81**	12	**67**
Results are Client Centered	21	**57**	16	**89**
Included Test Scores	35	**95**	4	**22**
Statement About Validity	17	**46**	8	**44**

Presentation Styles

(4) What presentation style do sample reports follow? The majority of reports (29) used bullet points, 22 used a test-by-test format, 9 used a domain format, 6 used a question-and-answer format, and 3 included visuals. Out of the 18 other reports, 3 reports used a test-by-test format, 8 used bullet points, 14 used a domain format, 1 used a question-and-answer format, and 1 included visuals.

Table 9

Presentation Style

Variables	Psychological Assessments		Other Reports	
	Frequency (*n*)	Percentage (%)	Frequency (*n*)	Percentage (%)
Test-by-test	22	**59**	3	**17**
Bullet Points	9	**78**	8	**44**
Domain Formats	9	**24**	14	**78**
Question and Answer Format	6	**16**	1	**6**
Visuals	3	**8**	1	**6**

Integration

(5) How integrated are sample reports? In psychoeducational reports, 35 used multiple methods for data collection, and 30 integrated data from multiple sources. However, 7 reports simply restated test data without integration. 12 other reports used multiple methods for data collection, and 16 integrated data from multiple sources. However, 14 reports simply restated test data without integration.

Table 10

Integration

Variables	Psychological Assessments		Other Reports	
	Frequency (*n*)	Percentage (%)	Frequency (*n*)	Percentage (%)
Multiple Method data collection	35	**95**	12	**67**
Cross-method data interpretation	30	**81**	16	**89**
Summary re-stated	7	**19**	14	**78**

Discussion

The primary objective of this study was to assess the readability and practical utility of psychological report samples from graduate-level textbooks, replicating the work done by Harvey (2006) and extending it with an updated analyses. Psychological reports are critical tools in both educational and healthcare environments, as they translate detailed assessments into actionable plans for teachers, therapists, clients, and families (Rafoth & Richmond, 1983). Effective communication in these reports is essential for ensuring that insights are understood, and recommendations are implemented (Geffken et al., 2006; Merkel, 2010). However, the complexity of psychological data and the varied backgrounds of report readers often make these documents difficult to comprehend, reducing their effectiveness (Harvey, 2006; Eriksen, 2023). The findings from this study offer significant insights into the current state of psychological report writing samples, identifying areas for improvement, and linking them to established best practices.

Readability

The current study aimed to evaluate the readability of psychological report samples, focusing on how well they align with established practises. Comparing psychoeducational and other types of reports, the study found no significant difference in readability levels, though. This contradicts the expectation that reports aimed at parents and teachers would be easier to read. Both report types have readability scores above the 12th-grade level, suggesting a widespread issue with accessibility across different formats. This finding is consistent with the results from Harvey's (2006) & Eriksen (2023), which also indicated that psychological reports are often written at a level too difficult for the average reader. The lack of significant improvement in readability over the past decades suggests that despite ongoing discussions about the importance of accessible report writing, actual practice has not sufficiently evolved. Research by Postal et al. (2018) and Bucknavage et al. (2007) highlighted the challenges of making psychological reports more readable and user-friendly. They found that reports often contain complex language and structure, which can reduce their effectiveness as tools for communication and intervention. This study's findings support these earlier studies, indicating that despite ongoing discussions about the importance of readability, psychological reports continue to be written in a way that is challenging for a general audience, making them less effective in communicating results.

The difference in report length between psychoeducational and other reports (4062 vs 3298 words) reflects the nature of educational assessments, which often require more detailed explanations and recommendations. However, whether these percentages constitute a high percentage is debatable. A passive sentence rate of 18.15% for psychoeducational reports and 23.18% for other reports may not seem excessive at first glance. These rates do indicate a continued reliance on passive voice, which can obscure clarity and reduce readability. Previous

research has shown that lower percentages of passive voice improve the readability of reports, suggesting that these numbers should ideally be closer to 0% to maximize clarity (Harvey, 2006; Wiener & Costaris, 2012). This finding highlights the need for more training in graduate school to promote writing in an active voice, aiming to reduce the use of passive voice and enhance overall report readability.

Readability Analysis by Report Section

When examining different sections of the reports, this study found that the introduction/reason for referral section particularly challenging, with elevated Flesch-Kincaid grade levels and a significant use of passive sentences. Specifically, the Flesch-Kincaid grade levels for these sections averaged 14.79 for psychoeducational and 14.43 for other reports. Additionally, the introduction sections contained a high percentage of passive sentences, with 31.58% in psychoeducational reports and 46.69% in other reports. The use of passive voice in these sections can obscure the clarity of the information presented, making it more difficult for readers to grasp the key points. The introduction/reason for referral section is critical because it sets the context for the entire report. If this section is not clearly written, readers may struggle to understand the subsequent sections, which can undermine the overall effectiveness of the report. The high complexity and passive construction in this section suggest a need for improvements in writing practices to ensure that the introduction is clear and accessible.

The results section of psychoeducational reports was notably longer, averaging 1543 words compared to 807 words in other reports. This section also had a higher percentage of passive sentences, 19.50% compared to 13.50% in other reports. The extended length and use of passive voice in psychoeducational reports may reflect a more detailed and formal writing style. However, this can also make the results section harder to understand, especially for readers

without specialized training in psychology. A longer section can also increase the likelihood of the reader experiencing fatigue and disengaging or simply skimming parts of the section. Studies have shown that comprehension and engagement diminish as text length increases, with readers more likely to skip or skim through lengthy sections (Mangen et al., 2019).

The impressions/summary section also revealed high Flesch-Kincaid grade levels, 14.37 for psychoeducational reports and 14.44 for other reports, with no significant difference between the two types. The percentage of passive sentences was also high, with 18.14% in psychoeducational reports and 22.68% in other reports. These findings suggest that the impressions/summary sections, which are crucial for conveying the overall findings and recommendations, are written in a complex and passive style that can hinder reader comprehension. Eriksen (2023) also emphasized the need for psychological reports to be more client-centered and practical. This includes using clear language, organizing information logically, and providing actionable recommendations. The current study found that while some reports include clear and concrete recommendations, there is still a need for improvement in making the entire report more accessible and user-friendly.

The complexity and readability issues identified in different sections of the reports can be linked to several theoretical frameworks and prior research. One relevant theory is the cognitive load theory, which suggests that high levels of complexity and technical language can overwhelm the reader's cognitive capacity, making it difficult to process and understand the information (Sweller, 1988). The use of passive sentences and high Flesch-Kincaid grade levels increases the cognitive load, particularly for readers without a background in psychology. These findings highlight the need for improvements in the clarity and simplicity of language used throughout all sections of psychological reports.

Comprehensiveness and Client-Centeredness

The study assessed the comprehensiveness and client-centeredness of the reports, revealing several insights. While most psychoeducational reports provided explicit diagnoses and addressed the referral question, only a portion included DSM codes or specific evidence for diagnoses. This suggests that while there is a focus on delivering clear diagnostic information, there is room for improvement in detailing the supporting evidence and including standardized diagnostic codes.

Furthermore, the client-centeredness of the reports varied significantly. Psychoeducational reports generally included clear and concrete recommendations, tailored to the individual needs of the client. In contrast, other types of reports were less likely to provide detailed, actionable recommendations, highlighting a disparity in the practical utility of different report types (Dombrowki, 2020; Schneider, 2018). All psychological reports, regardless of their type, must include client-centered recommendations that are easy to implement and understand.

Presentation Styles

The presentation styles of the reports were also analyzed, showing that psychoeducational reports frequently used bullet points and a test-by-test format. This approach can enhance readability by breaking down complex information into more manageable chunks. However, the limited use of domain formats and visuals, such as graphs and tables, indicates an underutilization of these elements that could further improve report clarity and reader engagement.

Other reports tended to favor domain-based formats, which integrate data from multiple sources to provide a thematic understanding of the client's functioning. This method aligns better with client-centered practices and helps create a more coherent and comprehensive picture of the

client's needs. The findings suggest that adopting a mixed presentation style that incorporates both bullet points and domain-based formats, along with visual aids, could significantly enhance the readability and practical utility of psychological reports. This finding aligns with Eriksen (2023), who advocated for the increased use of visuals and structured formats to enhance report readability.

Integration of Data

The integration of data from multiple sources was common in both report types, with most reports using a multi-method assessment approach. However, a significant number of reports, particularly non-psychoeducational ones, simply restated test data without meaningful integration. This practice can reduce the practical utility of the reports by failing to provide a cohesive understanding of the client's functioning. Effective data integration involves synthesizing information from various sources to present a unified interpretation, which can lead to more insightful and actionable recommendations. These findings support Eriksen (2023) and Harvey (2006), who emphasized the importance of integrating data to provide clear, actionable insights.

Changes to Report Writing Over Time

The evolution of psychological report writing over time reflects significant shifts towards more client-centered and accessible practices. Initially adhering to a medical model, early reports were laden with complex terminology suitable for medical professionals but challenging for non-specialists. Harvey (2006) highlighted that many reports were written at a readability level too high for the average reader, a finding corroborated by Eriksen (2023), who noted that despite some improvements, reports often remained inaccessible due to complex language and structure. This study's quantitative analysis revealed that current reports still have high Flesch-Kincaid

grade levels, averaging 12.38 for psychoeducational and 13.33 for other reports, indicating minimal progress in improving readability.

Qualitative findings also indicated persistent issues, such as the underutilization of visuals and domain formats that could enhance clarity and engagement. Although there has been a move towards using bullet points and a test-by-test format, many reports still restate test data without meaningful integration, reducing their practical utility. These results underscore the need for continued efforts to simplify language, integrate data more effectively, and adopt best practices in report writing. Training programs should emphasize clear communication and the use of readability tools, while supervisors should model these best practices to ensure that psychological reports are accessible and actionable for diverse audiences.

Limitations of the Study

While this study provides valuable insights into the current state of psychological report writing, several limitations should be acknowledged. First, the sample size of 54 reports, though diverse, may not fully represent the wide range of psychological reports produced in different settings. Future studies should include larger sample sizes to enhance the generalizability of the findings (Harvey, 2006).

The study relied on reports from graduate-level textbooks, which may not reflect the most current practices in clinical and educational settings. While textbooks offer valuable examples, actual reports used in practice may differ significantly. Future research should include a broader range of report sources, including those from practicing clinicians and educators (Eriksen, 2023).

The readability analysis was conducted using the Flesch-Kincaid grade level, which, while widely used, may not capture all aspects of readability. Other readability measures and

qualitative assessments should be considered in future studies to provide a more comprehensive evaluation of report clarity (Mueller, 2010).

The study did not assess the impact of report readability on actual outcomes, such as the implementation of recommendations or client satisfaction. Future research should explore these outcomes to better understand the practical implications of report readability and comprehensiveness (Rahill, 2018).

Finally, this study did not include a more detailed analysis of specific content elements, presentation styles, or integration practices beyond the basic readability metrics and qualitative coding. This was primarily an exploratory first-phase study aimed at determining if significant readability and comprehensiveness issues still exist in psychological report samples. Future research should delve deeper into these aspects, providing a more nuanced understanding of how different elements contribute to the overall effectiveness of psychological reports.

Implications for Practice and Training

The findings of this study have several important implications for the practice and training of psychological report writing. Despite ongoing discussions about the importance of accessible report writing, actual practice has not sufficiently evolved to meet established readability standards (Eriksen, 2023). The high Flesch-Kincaid grade levels and the prevalence of passive sentences in the current study highlight the need for continued emphasis on writing report samples in active voice and using simpler sentence structures.

Training programs for graduate students should place greater emphasis on clear communication and comprehensive reporting. This includes providing students with high-quality, standardized templates that model best practices in readability and client-centeredness. Supervisors should also be encouraged to adopt and model these best practices, ensuring that

students receive consistent guidance and feedback on their report writing skills (Harvey, 2006; Eriksen, 2023).

The use of readability tools and text analysis software can provide psychologists with practical methods to check and improve their reports. However, there is limited evidence that these tools are regularly used in practice. Future research should explore strategies for promoting the adoption of these tools, including training programs and guidelines that emphasize their importance and utility (Mueller, 2010).

Recommendations for Future Research

Future research should continue to explore strategies for improving the readability and utility of psychological reports. This includes conducting studies that evaluate the effectiveness of readability tools and text analysis software in practice, as well as exploring new technologies and approaches for enhancing report writing. Research should focus on developing and validating interventions that can be integrated into graduate training programs to improve report writing skills (Groth-Marnat & Wright, 2016).

Research should also investigate the impact of different report formats on readability and client-centeredness. For example, studies could compare the effectiveness of test-by-test versus domain-based formats in improving the clarity and utility of reports. Additionally, research could explore the use of visuals and tables in enhancing the readability and comprehensiveness of reports (Schneider, 2018).

Future studies should aim to develop and test new report samples in textbooks to ensure that they adhere to best practices in readability and client-centeredness. These samples should be designed based on evidence-based guidelines and should incorporate feedback from diverse stakeholders, including clients, educators, and mental health professionals. Testing these new

samples in educational settings can provide valuable insights into their effectiveness and help refine them for broader use. This could include conducting surveys and interviews with these stakeholders to gather feedback on their experiences and preferences (Geffken et al., 2006).

Conclusion

This study provides a comprehensive overview of the current state of psychological report writing samples in graduate-level textbooks, replicating and extending the work of Harvey (2006). The findings highlight the ongoing challenges associated with making psychological reports accessible and useful for a broader audience. Despite some progress, there is still a significant gap between current practices and established best practices in readability and client-centeredness.

By addressing the research questions and offering practical recommendations, this study sheds light on how to enhance psychological report writing. Improving training programs for graduate students and encouraging the use of readability tools and standardized templates are crucial steps to close the gap between current practices and best practices. These efforts will boost the clarity and usefulness of psychological reports, ensuring they effectively serve their purpose as key tools for communication and intervention in educational and clinical settings.

In conclusion, while significant strides have been made toward more accessible psychological report writing, there remains considerable work to be done. Following Harvey (2006) nearly 20 years ago, this research still uncovers the same issues in psychological report samples. It's crucial to push for more research and improvements now to prevent encountering the same problems in future research. By addressing these persistent challenges, future research can significantly enhance the quality and utility of psychological reports, ultimately benefiting clients, educators, and mental health professionals alike.

References

Armstrong, K., & Donders, J. (Eds.). (2016). *Neuropsychological report writing*. The Guilford Press.

Eriksson, A., Maurex, L. (2018) Teaching the writing of psychological reports through formative assessment: peer and teacher review, *Assessment &Evaluation in Higher Education*, 43:8, 1294-1301.

Brenner, E. (2003). Consumer-Focused Psychological Assessment. *Professional Psychology: Research and Practice*, 34(3), 240–247.

Bucknavage, M.L.(2007). *Psychoeducational reports: Impact of jargon and report length on parent and teacher recall and preference.* (Publication No. 3380717). [Doctoral dissertation, Pennsylvania State University]. ProQuest Dissertations and Theses Global.

Baum, K. T., von Thomsen, C., Elam, M., Murphy, C., Gerstle, M., Austin, C. A., & Beebe, D. W. (2018). Communication is key: the utility of a revised neuropsychological report format. *Clinical Neuropsychologist*, 32(3), 345-367–367.

Childs, R. A., & Eyde, L. D. (2002). Assessment Training in Clinical Psychology Doctoral Programs: What Should We Teach? What Do We Teach? *Journal of Personality Assessment*, *78*(1), 130–144.

Dombrowski, S. C. (2018). *Psychoeducational assessment and report writing*. Springer.

Dombrowski, S. C. (2020). *Psychoeducational assessment and report writing* (2nd ed.). Springer.

Eriksen, Jessica. (2023). *Missing the Mark: Student Clinicians Write Psychological Reports for their Supervisors Instead of their Clients.* University of Alberta. https://era.library.ualberta.ca/items/2dd199ff-cf19-4a13-bc36-db167fc6220e.

Geffken, G. R., Keeley, M. L., Kellison, I., Storch, E. A., & Rodrigue, J. R. (2006). Parental adherence to child psychologists' recommendations from psychological testing. *Professional Psychology: Research and Practice,* 37, 499-505.

Groth-Marnat, G. (2016). *Handbook of psychological assessment* (A. J. Wright (Ed.); Sixth edition.). John Wiley & Sons, Incorporated.

Groth-Marnat, G., & Davis, A. (2014). *Psychological Report Writing Assistant*. John Wiley & Sons.

Groth-Marnat, G., & Wright, A. J. (2016). *Handbook of Psychological Assessment* (6th ed.). John Wiley & Sons.

Harvey, V. S. (1997). Improving readability of psychological reports. *Professional Psychology: Research & Practice*, *28*(3), 271.

Harvey, V. S. (2006). Variables affecting the clarity of psychological reports. *Journal of Clinical Psychology*, 62(1), 5–18.

Hass, M. (2014). *Writing useful, accessible, and legally defensible psychoeducational reports* (J. A. M. Carriere (Ed.)). Wiley.

Lichtenberger, E. O. (2004). *Essentials of assessment report writing. [electronic resource]*. J. Wiley

Mahoney, J. J., Bajo, S. D., Arredondo, B. C., Broshek, D. K., De Marco, A. P., & Hilsabeck, R. C. (2017). Referring Providers' Preferences and Satisfaction with Neuropsychological Services. *Archives of Clinical Neuropsychology*, *32*(4), 427-436–436.

Mangen, A., Olivier, G., & Velay, J. L. (2019). Comparing comprehension of a long text read in print book and on Kindle: Where in the text and when in the story? *Frontiers in Psychology*, 10, 38.

Mastoras, S. M., Climie, E. A., & McCrimmon, A. W. (2011). A C.L.E.A.R. Approach to Report Writing: A Framework for Improving the Efficacy of Psychoeducational Reports. *Canadian Journal of School Psychology*, *26*(2), 127–147.

Merkel, C. (2010). *Mothers' experiences: Participating in the feedback conference of their child's psychoeducational assessment*. [Unpublished doctoral dissertation]. University of British Columbia Library Open Collections.

Miller, J. A., & Watkins, M. W. (2010). The Use of Graphs to Communicate Psychoeducational Test Results to Parents. *Journal of Applied School Psychology*, *26*(1), 1–16.

Otto, R. K. (2014). *Forensic reports & testimony : a guide to effective communication for psychologists and psychiatrists* (R. L. DeMier & M. L. Boccaccini (Eds.)). Wiley.

Postal, K., Chow, C., Jung, S., Erickson-Moreo, K., Geier, F., & Lanca, M. (2018). The stakeholders' project in neuropsychological report writing: a survey of neuropsychologists' and referral sources' views of neuropsychological reports. *Clinical Neuropsycholgist 32*(3), 326–344.

Rahill, S. A. (2018). Parent and Teacher Satisfaction with School-Based Psychological Reports. *Psychology in the Schools*, 55(6), 693–706.

Rafoth, M. A., & Richmond, B. O. (1983). Useful terms in psychoeducational reports: A survey of students, teachers, and psychologists. *Psychology in the Schools*, *20*(3), 346-350–350.

Schneider, W. J. (2018). *Essentials of assessment report writing* (Second edition.). Wiley.

Wiener, J., & Costaris, L. (2012). Teaching Psychological Report Writing: Content and Process. *Canadian Journal of School Psychology*, *27*(2), 119–135.

Wiener, J. (1985). Teachers' comprehension of psychological reports. *Psychology in the Schools,* 22(1), 60-64–64.

Wiener, J. (1987). Factors affecting educators' comprehension of psychological reports. *Psychology in the Schools*, 24(2), 116-126–126.

Wiener, J., & Kohler, S. (1986). Parent's comprehension of psychological reports. *Psychology in the Schools*, 23(3), 265-270.

Wright, A. J. (2021). Conducting psychological assessment: a guide for practitioners (Second edition.). Wiley.

Wright, A. J., Chávez, L., Edelstein, B. A., Grus, C. L., Krishnamurthy, R., Lieb, R., Mihura, J. L., Pincus, A. L., & Wilson, M. (2021). Education and training guidelines for psychological assessment in health service psychology. *American Psychologist, 76*(5), 794–801. https://doi.org/10.1037/amp0000742

Appendix A

Coding Scheme: Adapted from Eriksen (2023).

Readability

- Report length: Identify the length of the document using the word count and dividing it by 500. This provides a consistent number across reports with different fonts, spacing, etc.
- Percentage of passive sentences: input the percentage of passive sentences using Microsoft Word Editor (document insights function)
- Reading level: This is determined using the Flesh Kincaid grade level formula computed by Microsoft Word Editor (document insights function).
- Used bullet points: If they used bullet points at all in the report (usually in the background or recommendations sections) code 1 (yes) and if they did use them and code 0 (no) if they did not.

*For each of the following variables, reports are to be coded as either 1 (Yes) or 0 (No)

*Comprehensiveness

- Explicit diagnoses: If a diagnosis was made, it is explicitly stated (e.g., "*Given the evidence presented, X meets criteria for X disorder"*), and if no diagnoses are made that is explicitly stated (e.g., *"X did not meet criteria for any specific diagnoses at this time")* Code yes if diagnosis (or no diagnosis) is explicitly stated. Example of a diagnosis that is not explicitly stated *"X probably meets the diagnosis for ADHD" (*this would be coded as 0 because it is not clear) if no diagnosis is made they must write that no diagnoses were found, if not, it cannot be coded as 1 (yes).
- Evidence for diagnosis: In the interpretations section of the report, they refer to specific data to support the diagnosis statement, in other words, they use evidence to support their claims. Code yes if they provide evidence and no if they do not (see examples for reference).
    - An example that provides evidence: *"X's scores in math calculation are lower than expected given, X's intelligence scores, X's difficulties with math have persisted despite intensive intervention, X showed a processing weakness that is associated with math challenges, given X's history and continued difficulty in math, X meets the criteria for a diagnosis of SLD in math"*
    - An example that does not provide evidence: *"The presented results indicate that X meets criteria for ADHD"*
- DSM codes included: 1 (Yes) if the DSM code number is included and 0 (No) if not.
- A general statement is made regarding the validity of the assessment results: In the behavioural observation section, Code 1 (Yes) if they indicate results are reliable/valid (e.g., *"Overall, X put forth effort on all of the activities, therefore the results presented are considered reliable and valid estimates of X's functioning at this time"*). Code 0 (No if no statement is made).
- Included test scores (performance tests scores/and or questionnaire data test scores: Code 1 (Yes) or 0 (No).

*Presentation Style

- Test-by-Test Format: Presenting the test results in one test at a time (e.g., WISC, WIAT, BASC; Groth-Marnat and Wright, 2016). The headings of each section are usually by test

name (WISC, WIAT, CTOPP etc.) and focus only on test scores. Code 1 if yes and 0 if no.

- Domain (thematic) format: report is organized by the functional domain (e.g., have headings such as main concerns, intellectual and academic abilities, social-emotional functioning, etc.), is written in a client-centred manner (relates data to the client's presenting problems, opposed to merely reporting test scores) and integrates the test results and behavioural observations throughout the report to paint a cohesive picture of the client's functioning (Rahill, 2018; Savango & Teglasi, 1987; Wiener & Kohler, 1986; Wiener, 1987). Code 1 if yes and 0 if no.
- Question and answer Format: The report is organized by questions posed and then answered using the data gathered from the report (e.g., *"How is X functioning socially and emotionally ?* ; Weiner and Costaris, 2012). Code 1 (yes) if it is organized by questions and 0 (no) if not
- Graphs are included to explain results: code 1 (yes) if graphs are used in the report and 0 (no) if not. A "Graph" includes a picture of a bell curve (Schneider et al 2018) it may also include a graph of the child's cognitive or academic performance; Miller & Watkin, 2010).

*Integration

- The battery used uses at least 3 methods of data collection: Usually, self-report, performance-based tests, interviews, record review etc. Code 1 if yes, 0 if no.
- Cross-method interpretations are made (conclusions in the 'interpretation/summary' section) include data from multiple methods of data collection (self-report, performance, interview, etc.), code yes (1) if interpretations are made that include more than one method (e.g, *"during the interview, X reported that she felt "down" for most days. X also endorsed feeling sad on the BDI and BASC, which indicates that…."*). Code no (0) for no cross-method interpretation.
- The summary/interpretations section merely restates the data without any integration or interpretation: code yes (1) if the data is just re-summarized through restating (e.g. *"X overall cognitive ability was XXX" "on the Conners 3 X's teacher reported significant hyperactivity at school").* Code no (0) if data had cross-method interpretations.

*Client-centred report writing

- The referral question is addressed adequately in the conclusions section. In the conclusions section, they restate the reason for referral or main concerns, and the following conclusions are tied back to the referral question. Code yes if the referral question is restated and no if it is not mentioned at all.
- Individual Test results are clearly about the individual being evaluated (e.g. language is specific to the client and not generic or copied from computer report forms or reporting test results as verbatim with minimal connections made to the client on a more personal level. For example: "*a low score on the Visual-Spatial Processing Index on the WISC might indicate difficulties understanding visual-spatial relationships"* (Mastoras et al., 2011).
- Recommendations have <u>clear and concrete</u> examples or they relate to the client on a personal level (are not generic and are very clear). Code yes if they have clear examples and/or are not generic, and code no if they do not have examples and/or are generic.
    - An example of a generic unclear recommendation is "*Provide X with cues in the classroom of situations where he is able to ask questions, and when he is*

supposed to be seated and listening." Another example of a generic recommendation is: *"X would benefit from therapy for X's anxiety and depression."*

- An example of a non-generic clear recommendation is *"X struggles with understanding the information she has read, to foster greater reading comprehension, have X read a chapter and then describe to you in as much detail as possible what happened."* Another example of a non-generic recommendation is *"X may benefit from dialectical behavioural therapy techniques to help manage her strong emotions."*