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# Evaluating teachers' perceptions of the social validity of psychological report writing styles

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Evaluating teachers' perceptions of the social validity of psychological report writing styles

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Psychologists spend a significant portion of their time writing psychological reports. Oftentimes these reports are highly technical and written at a level which the literature has suggested is often difficult for teachers to utilize in their classrooms. Several previous research studies have examined psychological report writing practices and offered suggestions for improvement. One of these suggestions (theme or referral-based report writing) has not been as thoroughly examined in the literature. The purpose of this study was to examine this report writing style compared to more traditional report writing practices. This study utilized a novel approach to assessing teachers' perceptions of these report writing styles which was adapted from the social validity literature (e. g., ARP-R). This study investigated both differences between each report writing style as well as a potential interaction effect between teacher experience and report type. Overall, the study did not find significant differences in teachers' ratings between each report style. The readability of the psychological reports was hypothesized to be a confounding variable which may have impacted teachers' views of the social validity of each report. Results, limitations, implications, and future research are also discussed.

## DEDICATION

To Grandma Carol, you were a giving soul and left an indelible mark on my life. I miss you dearly.

ACKNOWLEDGEMENTS

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CHAPTER I

INTRODUCTION

In the school setting, educators are exposed to psychological reports for a variety of reasons (e.g., eligibility decision making, grade placement, and universal screening of student progress) and the most common purpose for their use is to make data-based decisions (Sattler, 2014). Broadly speaking, assessments assist school professionals by providing information which can be used to leverage resources or to effect change (Walser, 2013). In school settings, psychological reports are the basis for determining suitable adjustments, supports, and accommodations for students. Psychological reports are also important because they help decision makers (e.g., teachers, principals, therapists, etc.) view individual students with an accurate understanding and the reports encourage decision makers to take effective action (Schneider et al., 2018). Given this, it is essential school psychologists have the ability to communicate effectively when sharing assessment results, not only with the spoken word, but also with the written word in psychological reports. These effective communication skills are a bridge between what is required by educational law/regulation and the educational settings in which administrators, teachers, students, and other educational specialists function (Squire, 2019).

Conducting a comprehensive evaluation requires specialized skills and it can be time consuming for school psychologists. In addition to good writing skills, psychological assessment report writing requires specialized training in the ability to interpret, integrate, and prioritize the

findings of the assessment report (Eriksson & Maurex, 2018). It is this specialized set of skills which takes a significant amount of time to produce high quality reports (Harvey, 2006). School psychologists spend a great deal of their time translating these assessment results into a psychological report (Rahill, 2018). Given the amount of time school psychologists commit to this area of practice, it is important that school psychologists do this effectively and efficiently.

Specialized training required to write reports involves knowledge not only as an expert in the area of assessment by understanding the technical aspects of assessment measures and the results obtained from them, but also other matters related to the practice of school psychology. Child development, cultural and linguistic diversity, special education law, consultation, interventions, diagnosis and identification, and how school systems operate are all areas school psychologists need to understand to write reports (Walrath et al., 2014). Novice school psychologists hone and practice these skills initially in graduate programs via didactic courses and during practicum activities. As school psychologists enter independent practice, they further develop their own report writing styles.

There is perhaps no one model or single set of best practices for report writing (Walrath et al., 2014) or for graduate training in assessment for that matter (Mihura et al., 2017). New graduates from psychology programs have expressed concerns about graduate textbooks, professors, and field supervisors who they suggest have contributed to several problems with reports. Common criticisms include sample reports which are hard to read by non-psychologists, excessive jargon, providing data without interpretation, an over emphasis on scores, limited client context, and a lack of instruction on how to incorporate complex psychological terminology into reports in a clear and succinct manner (Harvey, 2006). Even though it is clear in the literature there have been recommendations for changes in how psychologists write reports

going back decades (Harvey, 2006; Rahill, 2018; Teglasi, 1983), reports continue to have significant issues to address.

A multitude of report writing styles are addressed in the literature, such as test-by-test, domain-based, integrated style, and referral or theme-based assessment reports. The various styles/formats each stake claims to be either the most common, the most preferred, or the most effective. Perhaps the most commonly used style for writing reports is a test-by-test approach which has continued to be one of the most frequently used styles even though the report writing literature has soured on its use (Pelco et al., 2009). Using an integrative style and/or a theme-based report style has been suggested as an alternative to the test-by-test approach (Rahill, 2014, 2018).

With the time spent and the specialized training required to write reports, it is not immediately clear how useful the reports are to the average layperson such as parents, teachers, and administrators. After having briefly explained the training and expertise required to compose reports it might be concluded teachers may have a difficult time being able to use the psychological report to effect change. It may be helpful to ask if teachers lack the skills to understand technical reports which are often written at a level only another psychologist could understand (Hass & Carriere, 2014).

Johnson (2018) proposed that teachers often enter the profession with little knowledge about classroom behavioral management strategies. On the job, work experience helps develop these skills. Some research has supported that the same thing is true for teachers as they learn how to effectively utilize psychological reports (Pelco et al., 2009). In other words, could teachers' lack of experience with reviewing psychological reports have an impact on how they view their effectiveness, utility, understandability, and/or acceptability?

One method of addressing these concerns is by examining the social validity of assessment techniques. While most of the work with regards to social validity has been conducted to ensure various treatments are acceptable, it has also been expanded to the assessment domain (Eckert et al., 1999). Specifically, previous researchers have adapted measures of social validity in intervention to measure aspects of assessment such as measuring the social validity of curriculum-based measurements compared to traditional norm referenced psychological assessments (Eckert et al., 1999). Others have investigated some aspects of social validity such as acceptability of two separate types of report writing styles (Bender, 2007).

## Statement of Problem

Collectively, psychologists working in the school setting are using a wide variety of report writing models and styles based upon their training experiences. Psychologists in the field have developed recommendations for best practices in assessment and report writing. The literature suggests that some report writing models and styles are easier to understand, useful for informing interventions, and allow for better integration of information (Rahill, 2018). Considering the amount of time and effort school psychologists spend writing reports and the important decisions made from assessment results, it would be highly beneficial for others (i.e., parents, administrators, and teachers) to use the report in a meaningful manner.

Limited research has been conducted on teachers' perspectives on psychological report writing (Umaña et al., 2020), particularly acceptable, feasible, or usefulness for teachers in the classroom. The current literature has yet to explore teachers' perceptions of the social validity of psychological reports across various report writing models and styles. Teachers' views of social validity may influence their use of psychological reports, and by doing so, influence how teachers select interventions and conceptualize students.

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## Justification and Purpose of the Study

A significant gap exists in the literature in two key areas. First, emerging literature supports the expansion of the definition of social validity, from being seen as primarily a tool used in the intervention modality to use with assessments. No specific literature has examined the use of social validity constructs with theme-based psychological reports. Second, in the literature it has emerged that a theme-based approach may be more preferred by teachers, but no resolution has been made in the literature with regards to this particular report writing style.

The purpose of the study proposes to address the above concerns by providing further support for changing how most school psychologists write their reports. More specifically, this study will evaluate differences of teachers' ratings of social validity across various psychological report writing styles. Also, this study will examine whether teacher experience influences preferences of psychological report writing style.

## Research Questions

By better understanding teachers' perspectives on psychological reports styles, school psychology training programs and professionals out in the field can potentially alter the way they construct psychological reports and thereby serve the students they work with (through the teacher) more effectively. If the teachers are potentially able to navigate and use the reports to improve their practices, perhaps school psychologists can change the way they write reports to meet the needs of all readers. This study builds upon research in social validity, assessment report writing, and teacher experience levels by addressing the following research questions:

Question 1: Does teachers' ratings of social validity vary based on report writing styles?

Question 2: If there is a difference, does teacher experience contribute to a preference of report writing styles?

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CHAPTER II

LITERATURE REVIEW

Validity provides evidence or confirmation of the professional practice regarding

interpretation and use of intervention, consultation, and assessment procedures. In general,

validity impacts service delivery within the profession of school psychology and its use helps

provide credence to the work they do. Within the field of school psychology, the concept of

validity is an important construct in service delivery. Validity involves three key practice

domains of assessment, consultation, and intervention. Historically, the concept of validity is

applied to a wide range of interpretations and uses (Kane, 2013).

In the literature, there are various kinds of evidence and analysis for the validation of

service delivery for assessment (Kane, 2013) and interventions (Wolf, 1978). The various types

of evidence include content, criterion, and construct. Content-related validity is derived from a

review of the literature, the clinical, educational, and the research experiences of the test

publisher (Cicchetti, 1994) and is conducted by examining items on the instrument by asking

professionals in the field their opinion of questions and modifying any uncertain items (Vrbnjak,

et al., 2017). Further, criterion related validity is a broad term used to describe how strong the

relationship between a criterion measure is with some criteria of interest. An example of this is

using the Graduate Record Examinations to predict future success in graduate school (Salkind,

2010).  Construct validity involves an examination of how well an instrument measures what it is

claiming to measure and the degree to which inferences can be made based on the constructs of

the study (Mathison, 2005). The emphasis on validating instruments is an important part of

psychological practice, especially conducting comprehensive assessments.

Another aspect of validation focuses on the acceptability of an intervention strategy or

assessment measure to support social validation or social validity. Social validity has been

known by several different names and the understanding of what it means to have an intervention

procedure be socially valid has changed slightly over time. However, for the purposes of this

paper, Wolf's (1978) explanation of what makes an intervention socially valid will be used as a

guide. Wolf's definition of social validation included whether the intervention procedures were

valued by the client and those closest to them. Put a different way, this asks the question, does

the client and those close to them (i.e., the parents) believe the procedures will have an impact on

their overall life functioning? Given the complexities and various explanations of social validity,

a look at the past development of the concept is appropriate.

## Historical Perspective of Social Validity

Wolf (1978) in his seminal article made a case for subjective evaluation in the field of

applied behavioral analysis. Wolf postulated the purpose of applied behavior analysis was to

provide interventions that were of "social importance." The idea of social importance was a

challenging concept for behavior analysts who in the tradition of behaviorism, wanted to find a

way to measure this construct and pushed back on notions of subjectivity. The field of behavior

analysis had begun to separate themselves from other social sciences (e.g., psychology,

sociology, psychiatry) due to their strong reliance on objective observable data rather than

subjective data (Carter, 2010). Wolf grappled with how to define social importance as a

measurable component when evaluating treatments and for his audience of behavior analysts. In

general, Wolf found journal readers, article authors, and manuscript reviewers were willing to

accept an inexact definition of what social importance was while also recognizing if it was present or not (Carter, 2010).

Overall, Wolf (1978) found a strong desire to have interventions that were deemed socially acceptable by both practitioners and the people they served. Wolf noted the social importance of the work behavioral analysts performed was determined by the judgement of society. Judgements of social validity by society according to Wolf (1978) are made on three separate levels. First, objectives are assessed to determine the importance of key stakeholders in the community. Secondly, he notes it is important to determine the acceptability of the intervention procedures by evaluating the social appropriateness of the procedures. Finally, it is important to examine the social importance of the effects of treatment that includes all the results not just the intentional effects.

When evaluating different treatments, Wolf (1978) noted if interventions are not socially validated, the intervention can make the client retreat from therapy. Kazdin (1977) also noted a key component of social validation is determining whether behavioral change is important for the client. Previous conceptualizations of social validity (Baer et al., 1968) before Wolf (1978) focused on the systematic demonstration of how treatment affects the targeted behavior (Carter & Wheeler, 2019). Wolf (1978) proposed approaching consumers and soliciting their feedback with regards to their views on acceptability of treatment procedures. Further, he notes in addition to ethical reasons, it is important to ask about treatment acceptability because acceptability may be related to program effectiveness as well as increasing the likelihood the program is adopted and supported by others.

A series of articles (Kazdin, 1977, 1980, 1981) expanded upon Wolf's (1976; as cited in Kazdin, 1977) paper originally presented to the American Psychological Association which

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recommended clinical interventions be socially validated. This social validation when conducting behavioral interventions refers to assessing whether the program is socially acceptable (Kazdin, 1977). When referencing treatment acceptability, this refers to judgements by clients, parents, community members, and others about whether treatment procedures are appropriate, fair, and reasonable for the problem behavior or for those seeking services (Kazdin, 1981).

The concept of acceptability has many facets that are differentiated throughout the literature. Kazdin (1977) notes the first step of this is assessing the acceptability of the focus of the intervention. This involves intentional selection of behaviors for interventions that are important to the natural environment (i.e., the client, their parents, community members, etc.). The second component focuses on the procedures for the intervention. Kazdin (1977) notes the consumer satisfaction with the procedures used in the intervention are assessed and can be used to select between different evidenced-based interventions. When evaluating procedures for acceptability there may be multiple options available to the clinician to address the behavior. Assessing the acceptability of each option with the consumer (i.e., clients, parents, and teachers) increases the social validity of the intervention. Finally, examining the importance of behavior change in the client through treatment is validated by comparing the performance of nondisabled peers in the environment (Kazdin, 1977; Wolf, 1978). Given this historical perspective and early development of the concept of social validity, it is necessary to show how this idea has been applied to several domains of practice in school psychology.

## Social Validity and Intervention

Kazdin (1980) further emphasizes the importance of measuring acceptability within the service delivery area of intervention and treatment. He uses the term "acceptability"

interchangeably with Wolf's (1978) term of social validity. Kazdin (1980) notes that acceptability refers to judgements about the intervention procedures by the consumers of treatment such as the client, the client's parents, and other non-professionals who may interact with the client. He further explains that judgements of acceptability evaluate whether the intervention is appropriate for the presenting problem, whether the treatment is fair, reasonable, intrusive, and whether the intervention meets the conventional standards for what an intervention should be.

There have been a number of social validity measures which have been designed to evaluate interventions (Carter, 2007), such as the Intervention Rating Profile (IRP; Witt et al., 1984), the Usage Rating Profile for Interventions (URP-I; Chafouleas et al., 2008) and the Kids Intervention Profile (Eckert et al., 2017). For this study, one measure of notoriety and importance to discuss is the IRP (Witt et al., 1984). The IRP-20 was developed to evaluate the perceptions of key stakeholders' views on the acceptability of a particular intervention. It was originally geared towards teachers' views on acceptability.  In the development of the IRP, it was noted that acceptability was not a unitary concept. It was found to be composed of five separate dimensions. These included general acceptability, risk, teacher time required, effects on other children, and teacher skill required. Overall, the IRP-20 was found to be sensitive to a variety of variables that can have an impact on teachers' perceptions of interventions as well as the possible utilizations of interventions (Witt et al., 1984). Martens et al. (1985) quickly revised the original IRP-20 to create the IRP-15 which factored in new items and took out others. Both versions of the Intervention Rating Profile continue to be used in the literature.

There have been a number of studies which have utilized the IRP to measure the social validity (or acceptability) of particular interventions. Tarnowski and Simonian (1992) adapted

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the IRP-15 to create a new measure (The Abbreviated Acceptability Rating Profile) which averred to be more simplistic, contain enhanced readability, and a reduction in administration time. The IRP-20 was used to help assess teacher's perceptions of interventions during the development of a special education screening tool (VanDerHeyden et al., 2003). Finally, the IRP has been adapted to be used within the service delivery domain of assessment (Eckert et al., 1999). Taken together, the IRP (20 or 15) was found to be one of the most frequently used published measures employed in intervention studies (Silva et al., 2019).

## Social Validity and Consultation

Consultation as it relates to the concept of social validity has not been as thoroughly examined as it has with intervention acceptability. A key component of social validity is asking the following questions: What should we change, how should we change it, and how effective was the method for changing behavior (Gresham & Lopez, 1996)? To get feedback about an intervention, clinicians and researchers have often asked consumers about their satisfaction with a particular treatment procedure or approach (Baer & Schwartz, 1991). This idea of consumers can be applied to both direct and indirect consumers. Direct consumers of intervention could include students and adults who are intervening with the students.

While there has been less research conducted in the area of consultation as it relates to social validity, there have been a few studies that have looked at consultation while also indirectly examining intervention. A consultation relationship is a co-equal partnership. This involves one professional who is the consultant collaborating with another professional, the consultee, for the purposes of serving a client or student (Conoley et al., 1991). Consultation continues to be one of the most desirable and preferred job activities for school psychologists (Gresham & Lopez, 1996). The idea behind consultation is the consultant (e.g., school

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psychologist, behavioral analyst, or veteran teacher) works indirectly on behalf of a third individual (the client). Consultation is often seen as an efficient and an effective form of indirect service in schools (Gresham & Lopez, 1996). An intervention is designed collaboratively with the consultant and consultee, and the consultee implements the intervention. A key component in this process is obviously the effectiveness of the intervention, which brings in an aspect of social validity to the consultation process (Conoley et al., 1991).

The behavioral consultation process involves four systematic stages including the following: problem identification, problem analysis, treatment implementation, and treatment evaluation (Shipley, 2013). Witt and Elliott (1985) found four elements that lead a consultee toward the implementation of an intervention during the consultation process. They included acceptability, treatment use, integrity, and effectiveness. At least with acceptability and effectiveness, it should be noted these are two key concepts when looking at social validity, whether that be for assessment, intervention, or consultation. There are several factors that inhibit interventions that have been shown to be effective but are often impractical to implement in a typical classroom (Witt et al., 2017). They include interventions that require extra monitoring by a trained observer, which typically are not present in the standard classroom. The second is a lack of resources because there are several intervention materials that are not readily available in the class. Due to limitations in school budgets, these materials are often too expensive to obtain. Finally, there are some interventions that are deemed by teachers to be too time intensive. These are all important factors for school psychologists to keep in mind regarding social validity. If the teacher makes an acceptability judgment about an intervention during the consultation process it is important to consider the reason behind it. It is also essential to be aware of these challenges to better serve and work with your teacher colleagues.

As it relates to consultation, social validity assessments are just as imperative as they are during the intervention process. Asking for the opinion of the consultee is important as it guides the consultation process. Inquiring how the intervention promoted change and the degree of its effectiveness are valuable concepts in the consultative process. Consultation, at least in the schools, represents the marketing of psychological services and as such you need to identify all the key groups which will consume (use) your services (Gresham & Lopez, 1996). It is critical that school psychologists in their role as consultants consider the social validity of their services with teachers and other professionals to increase both the implementation and acceptability of interventions derived during the consultation process.

## Social Validity and Assessment

One method for establishing the social validity of school-based services is to measure consumer satisfaction, or consumers' acceptability of those services (Eckert & Hintze, 2000). The concept of acceptability is a component of the larger concept of social validity (Bender, 2007). Within the context of assessment, the issue of acceptability is particularly important and relevant to the concept of social validity, in general. While most of the research that has been conducted with acceptability has focused on the acceptability of behavior interventions, a few studies have examined the acceptability of the assessment process (Allinder & Oats, 1997; Eckert et al., 1997; Kern, 1999). Further, the acceptability of psychological report writing (Bender, 2007) has been scrutinized in the literature as aspects of social validity as it relates to the service delivery of assessment. Finally, there has been development of assessment measures for social validity, such as the Assessment Rating Profile- Revised (ARP-R) which captures the acceptability of assessment measures and the assessment process (Eckert et al., 1997).

**Assessment Process**

As mentioned previously, several studies (Allinder & Oats, 1997; Kern, 1999; Shapiro & Eckert, 1993; Shapiro & Eckert, 1994) have examined the acceptability of curriculum-based measurement (CBM). CBM refers to short frequent, equivalent forms of tests used to assess academic progress of interventions over time (Allinder & Oats, 1997). Allinder and Oats (1997) suggested that the plethora of work on measuring the acceptability of intervention procedures could also apply to the domain of assessment, in particular CBMs. The authors hypothesized that teachers who found CBMs more acceptable would be more likely to implement the CBM procedures. This hypothesized link existed because implementation with fidelity was linked to increased positive academic outcomes when compared to a control group which had implementation with inconsistent fidelity (Allinder, 1996). According to Kern (1999), CBM procedures in general have been shown to have higher levels of acceptability (i.e., social validity) among teachers when compared to traditional assessment procedures.

Kern (1999) is worthy of note as it was the first study to examine aspects of acceptability (i.e., social validity) using the ARP (plus five additional questions related to the ability to develop classroom interventions) within the assessment process. For this study, the assessment process variable included an examination of standardized assessment, curriculum-based assessment, and a combination of the two. For the purposes of this paper, standardized assessment will be used interchangeably with "traditional" assessment, while curriculum-based assessment will be synonymous with curriculum-based measurement. Kern's (1999) study used reports to assess each condition, but the author was more concerned about the assessment process rather than the report writing style. The author developed the reports using two separate

data gathering approaches (i.e., they used different measures to complete their fictitious evaluation).

Kern (1999) hypothesized assessment techniques using standardized assessments or a combination of the two (standardized and curriculum-based) would be more acceptable to school psychologists than solely a curriculum-based approach. The hypothesis was not borne out in the results as the inclusion of a cognitive measure was seen as irrelevant, the addition of a CBM in addition to the standardized battery increased acceptability, and finally a CBM alone was not more or less acceptable than using the other two conditions. The conclusions of Kern (1999) was in contrast to a previous study (Shapiro & Eckert, 1994) which found CBM techniques to be significantly more acceptable than standardized techniques.  Kern's (1999) study examined school psychologists' perceptions on the acceptability of the three techniques but did not investigate teachers' views. Teachers' perspectives are an important viewpoint to consider. While it may be helpful to understand the techniques school psychologists find most acceptable, the teacher's viewpoint is critical as they directly implement classroom interventions with students. Kern (1999) also provides some criticism for their own use of the original ARP asking if it was truly a measure of acceptability, but the author does not specifically provide reasons for this conclusion. Instead, Kern suggested an examination of the frequency of use by school psychologists would be a better measure of acceptability of various assessment procedures.

**Assessment Report Writing**

Another important component of social validity in the assessment process is psychological report writing. Bender (2007) investigated the difference in individuals' perception of the acceptability, understandability, and utility of psychological reports across two report writing models. This study measured the quality of these reports by using as self-

developed social validity measure (e.g., The Acceptability, Understandability, and Utility Scale) with school psychologists and teachers. While this study did not term this social validity, at least two (acceptability and utility) are key components from the social validity literature (Carter, 2010; Wolf, 1978) and logically the third (understandability) may play a role in the other two constructs. The "alternative assessment report/problem-solving psychoeducational assessment report" was found to be more acceptable than the "traditional" psychological report. Based on an extensive review of the literature, this study by Bender (2007) appears to be the only one to date which researchers examined various aspects of social validity and psychological report writing.

**Assessment Measures**

To date there have been two psychometrically validated measures developed for the use of evaluating social validity within the assessment process, the CBM Acceptability Scale (Allinder & Oats, 1997) and the ARP-R (Eckert et al., 1999). The CBM Acceptability Scale was developed and adapted from the IRP. It is a 20-item Likert scale that assesses teachers' evaluations of how acceptable they perceived CBMs to be. This scale assists in addressing the major components of CBMs, judgements of effectiveness, time required, and the amount of skill or training needed to implement the procedures (Allinder & Oats, 1997).

*Assessment Rating Profile-Revised*

The original ARP was developed in an unpublished Kratochwill and VanSomeren 1984 study (as cited in Eckert et al., 1999). It was first developed and adapted from the IRP that was designed to assess the perceptions of teachers' views of classroom interventions. The original ARP measured the acceptability of assessment scales and methods. For example, the ARP was

used to measure and evaluate the acceptability of assessment procedures (Eckert et al., 1997; Shapiro & Eckert, 1994) when given a hypothetical case summary of the procedures.

The ARP-R has been used and modified in many different contexts. It has been used to evaluate the acceptability of disability identification models (Armendariz & Jung, 2016; O'Donnell & Miller, 2011) or procedures (Rowe et al., 2014). The ARP-R has been used to evaluate teacher's perceptions of functional assessment procedures (Bellone, 2013; Dufrene et al., 2007; LaBrot, 2015; LeGray et al., 2013; McLemore, 2014; Ness, 2017; O'Neill et al., 2015; Poole et al., 2012). It has also been used to evaluate the acceptability and validity of other instruments, such as the Integrated Screening and Intervention System Teacher Rating Form, the Brief Problem Monitor-Teacher, and the Direct Behavior Rating (Chafouleas et al., 2009; Daniels et al., 2016). Finally, researchers have used the ARP-R to assess the acceptability of data collection procedures (Goldman, 2016; Hojnoski et al., 2009). The majority of adaptations and modifications made to the ARP-R were minor and involved swapping words out like "school psychologist" for "teacher" or an elimination of one item to suit the particular study. It should be noted that while the adaptations may be considered slight, the resulting change could have an impact on the psychometric properties of the instrument (Riley-Tillman et al., 2008).

There were concerns with the psychometric properties of the original ARP which led to the creation of a revised measure (i.e., ARP-R). They noted the overall factor structure was not adequate as it had psychometric limitations. These included poor or bipolar factor loadings, poorly worded questions, and one item unrelated to acceptability. A desire to improve the construct validity also led to the development of the new measure (Eckert et al., 1999).

Further, Eckert et al. (1999) noted the original ARP attempted to create a two-factor acceptability measure, however there were questions raised about this solution. Their two-factor

solution identified two variables, "acceptability" and "intrusiveness", but concerns were raised over the validity of "intrusiveness" as one item had a poor factor loading and the other two items representing a factor was a questionable statistical practice. Given these limitations, it appeared the refinement of this measure was warranted. When the new measure was developed, it was thought to have one overall factor which was termed "General Assessment Acceptability" (Eckert et al., 1999).

One of the first studies examining the psychometric construction of the ARP-R was conducted by Shapiro and Eckert (1994) which surveyed a total of 500 school psychologists. A case scenario was used which described a student who was experiencing academic concerns and a protocol either presenting traditional assessment measures or curriculum-based measurements. On the first ARP, 15 of the 18 items loaded onto the General Assessment Acceptability factor, accounting for 55% of the variance, while the other three items loaded onto the secondary factor of Assessment Intrusiveness. This secondary factor contributed to less than 10% of the variance. Based on these results, the original ARP appeared to measure one overall unitary characteristic rather than a true two factor model (Eckert et al., 1999).

Investigations by Eckert et al. (1995) and Eckert et al. (1997) sought to further evaluate the properties of the original ARP. When using the ARP with general and special education teachers it was found to have a similar factor structure to the previous study by Shapiro and Eckert (1994) with one strong factor of "General Assessment Acceptability" with a secondary factor loading of "Assessment Intrusiveness" accounting for less than 10% of the variability. When Eckert et al. (1997) once again examined the ARP with school psychologists, they obtained a two-factor structure with an adequate fit of data using the Goodness of Fit Index and Tucker-Lewis Index. However, when further examining the "Assessment Intrusiveness" factor

using the standard residuals, there were additional problems noted. In addition, on the one item there appeared to have been mixed factor loadings which would indicate it was a potentially poorly worded item (Eckert et al., 1999).

Eckert et al. (1999) noted there were inherent weaknesses to the previous three examinations of the ARP. They noted the use of principal components analysis in (Eckert et al., 1995; Shapiro & Eckert, 1994) was potentially methodologically unsound. Further because the third study by Eckert et al. (1997) was based on the previous factor structure and it may have produced inaccurate results, there was a need for further evaluation and the development of the ARP-R.

In the development of the ARP-R three items were removed based on inconsistent or low factor loadings. In addition to this, an additional two items relating to the Assessment Intrusiveness were removed due to an uncertainty relating to the overall two-factor structure. This was in addition to the previously mentioned poorly worded item which was also taken out of the revised version. This produced a revised 12-item six-point Likert scale (Eckert et al., 1999). This six-point Likert scale is positively worded with a scale which ranges from Strongly Agree to Strongly Disagree.

The ARP-R was found to have an internal consistency of .99. There was also a coefficient alpha across assessment conditions for the two dependent variables (curriculum-based assessment and norm-referenced tests) of .96 and .97, respectively. These findings suggested the ARP-R has a high reliability (Eckert et al., 1999). Test-retest reliability was conducted across four intervals from 1 to 12 months and all measurements were found to be higher than the .80 range for establishing the minimal levels of reliability (Eckert et al., 1999). Taken together, the

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ARP-R is believed to be a sound and reliable instrument for measuring assessment acceptability and thus a component of social validity.

## Summary

In the field of school psychology, providing evidence for validity within the assessment process has been vital for the role and function of the school psychologist for several years (Kane, 2013). As social validity gained popularity in the best practices for interventions (Kazdin, 1977; Wolf, 1978), school psychologists began to explore social validity in other areas of practice, such as consultation (Gresham & Lopez, 1996) and assessment (Eckert et al., 1999). Within the context of assessment, the social validity is particularly important to service delivery. Regarding assessment, researchers have sought to examine the acceptability of the assessment process such as using various CBM procedures compared to traditional assessment practices. A review of the literature reveals that teachers have a higher preference for using CBM procedures than traditional practices (Kern, 1999). In addition, researchers have developed a couple of measures that have been developed and adapted from intervention-based social validity measures (Allinder & Oats, 1997; Eckert et al., 1999). Of these measures, the ARP-R is the most frequently used instrument for assessing social validity within the assessment process. The ARP-R has been used for various purposes including examining functional assessment procedures (Ness, 2017), validating other assessment measures (Volpe et al., 2018), and examining the acceptability of data collection techniques (Goldman, 2016). Finally, Bender's (2007) study appears to be the only one to date in which researchers examined various aspects of social validity with different psychological report writing models. This study revealed that school psychologists and teachers believed that the alternative problem-solving psychological report writing model was more socially valid than the traditional psychological report writing

model. Further investigation into the relationship between various aspects of psychological report writing and its relationship with social validity appears to be warranted to address this significant gap in the literature.

## Psychological Report Writing

Psychological report writing comprises a large portion of the time of school psychologists spend as part of their professional practice (Stomel, 2012). When done effectively and efficiently, psychological reports can be an important tool for impacting change. The value of a well-designed and focused report is often overshadowed by a poorly written and poorly organized one (Hass & Carriere, 2014). There is an extensive literature base in the field of psychology as well as school psychology regarding the effectiveness of psychological report writing. The question of the value and usefulness of psychological reports from the viewpoints of teachers, parents, and other psychologists has often been explored in previous literature (Rahill, 2018).

One of the issues with report writing is the huge variation in report writing styles and content within the field (Rahill, 2015). Psychologists being required to write reports for different reasons contributes to this variation within reports. Psychologists write to address referral concerns, to document observations, background information, and psychological testing. The report also provides recommendations for the client/student and serves as a legal document (Bradley-Johnson & Johnson, 1998). While there are many ways to write reports, it is important to consider how the profession views best practices for psychological report writing. By examining best practices, understanding theories behind report writing, and looking at emerging report writing models, psychologists can gain insight into report writing. By gaining insight,

psychologists are better able to assist clients/students as well as key stakeholders such as parents and teachers.

**Theoretical Foundations of Report Writing**

When examining best practices in psychological report writing, it is important to discuss the theories which help inform these key constructs. As psychological report writing is ultimately about the writing process, several of the theories are borrowed from the writing composition literature. Other theories are borrowed from other areas of psychology and applied to report writing. In addition to this, because psychologists must be trained in how to write reports, there are also theories which involve the developmental process. By examining the theoretical foundations of psychological report writing, we can better understand how the ideas behind many of the report writing styles can help facilitate future changes in how psychological reports are crafted.

*Hayes and Flower's Model*

The Hayes and Flower's (1980) model is a cognitive processing model of writing. The model proposed that writing consists of three major processes: planning, translating, and reviewing. With each major process there are subprocesses involved. The first process is planning which is to take in information from the task environment into long term memory to set goals and establish a writing plan. The second step of the translating process attempts to guide the writer to produce written language consistent with the writer's long-term memory. Finally, reviewing involves reading and editing the written product which improves the overall quality of the paper.

When novice report writers are in the planning stage, they need to develop a formation of the assessment case. Within this planning stage, the writer figures out what their core messages will be and conceptualizes how to organize the report to communicate those messages. When this is completed, the actual writing of the report occurs which relates to Hayes and Flower's translating phase. While writing, it is important to monitor the report to ensure they continue to meet the goals. Finally, with the reviewing section it is recommended to look over what was composed and receive feedback from the supervisor on the draft report (Wiener & Costaris, 2012). Revision can lead to substantial changes to the written product and can even help re-conceptualize the paper as a whole (Flower et al., 1986).

The Hayes and Flower (1980) model allows psychologists to draw from the composition literature to inform how they write their psychological reports. This model is an important consideration for both novice and professional writers; however, the level of processing and experience may impact the quality of report writing skills. It uses advanced planning strategies which can be utilized to generate ideas, organize observations, and make decisions about what information should be included in the report. From a cognitive perspective, it also helps explain difficulties novice report writers may have because they do not have the schema which makes report writing a challenge (Whitaker, 1994).

### *Elaboration Likelihood Model*

The Elaboration Likelihood Model (ELM) is important to discuss within the context of psychological reports. The model also assists by informing written communication as well as being persuasive. The ELM was developed by Petty and Cacioppo (1986) and is arguably the dominant theory of attitude change in contemporary social psychology and, as such, can facilitate our understanding of how school psychologists might increase their interpersonal

influence through psychoeducational reports. Essentially, the ELM proposes people's attitudes can be changed in response to communication. This is called the central route of persuasion, in which the recipient of a message evaluates it by considering the quality of the message itself. Variables such as the comprehension, complexity, and familiarity of a message, the informational implications of a message, and the quantity of messages, among others, are all believed to contribute to message quality (Petty & Cacioppo, 1986). In applying this model to report writing, the goal of attitudinal change is not achieved with reports if the quality of the message is poor. In other words, the goal(s) of psychological reports would not be achieved if the reader is not able to understand key themes or messages from the report.

Increasing the understandability of psychological reports has been an emphasis in the literature. This involves reducing reading level, the use of jargon, increasing levels of integration, identifying themes, and several others which have been previously discussed (Harvey, 1997, 2006). Perhaps by using this model, which was derived from social psychology, school psychologists can improve their report writing practices.

*Developmental Perspective*

Implications for the supervision of psychologists with regards to reports has also been discussed in the literature. Put broadly, developmental models in professional psychology provide markers for progressive readiness to assume independent responsibilities. Each psychology trainee exists on a continuum for the acquisition of knowledge, skills, and professional attitudes (Yalof & Abraham, 2006).

**Developmental Models for Report Writing.** As referenced previously, learning to write psychological reports can be a challenging process. A developmental approach to teaching

psychologists report writing has been suggested as one of the best ways to go about learning this skill (Finkelstein & Tuckman, 1997).

Finkelstein and Tuckman's (1997) model focuses on integrating the results of assessments into a coherent report which does justice to the individual. This model first focuses on teaching trainees about different assessment tools and how they are used. Next, based on the data, the trainee begins generating primary inferences. The supervisor works to explain less obvious conclusions about the case to the trainee. This explanation from the supervisor is key because it allows further explanation about how they came to those conclusions. Trainees are then asked to write a report which is coherent and consistent which covers the material fully and logically flows. While this may appear complicated, supervisors work with the trainee to keep them from drawing early conclusions and ignoring key information. This phase involves the writer moving from the outline of themes to a written composition. In this stage, trainees struggle the most with language, structure of the report, and sequencing. The model progresses by eventually reaching a stage at which psychologists are independent practitioners and become responsible for teaching their own trainees about the assessment process and report writing.

Another approach which could be used as a framework for assisting psychology students would be the CLEAR approach to psychological report writing. The acronym stands for child-centered perspective, linking to referral questions, enabling the reader with concrete recommendations, addressing strengths as well as weaknesses, and readability (Mastoras et al., 2011). This model echoes many of the recommendations for best practices which have already been suggested for psychological reports. This model could potentially assist psychologists in becoming more aware of what technical issues exist in report writing. It could also be used by psychologists in training who are learning how to write psychological reports. The CLEAR

approach to report writing assists practitioners and novice psychologists by providing them clear, practical guidelines for making reports more reader friendly and useful to those who are responsible for implementing the findings (i.e., teachers) and recommendations. While the guidelines in this approach are not new, the framework can be helpful for psychologists with a wide range of experience levels.

**Berliner's Pedagogical Developmental Stages.** Berliner (1988) first proposed a theory of how teachers gain expertise in pedagogy. In other words, how teachers learn to teach. He postulated a five-stage developmental model or continuum from which pre-service teachers move from being novices on how to teach to eventually becoming experts in instruction. According to Berliner (1988), this model was derived from other disciplines' views of how people develop expertise but was one of the first to apply it to the field of education. This theory helps provide a conceptual framework for understanding how an individual can overcome inexperience about a certain topic and how expertise or mastery can be gained in a field of study.

Berliner's first stage of pedagogical development is the novice stage. The novice stage is comprised of pre-service teachers, student teachers, and beginning first year teachers. According to Berliner, the novice stage is characterized by learning context-free rules. This is a stage where teachers may learn objective facts and features about particular situations. Berliner provides the example of the teacher learning to wait at least three seconds after asking a higher order question for a response. For novice and pre-service teachers involved in the assessment process, it could be learning about different components of the Individualized Educational Program (IEP) process (i.e., developing goals, progress monitoring, writing educational reports, etc.). Berliner (2004) notes that these types of components would fall under procedural knowledge which in isolation

does not allow novice teachers to be able to teach at a high level. Therefore, this stage is characterized as a learning phase.

The second stage Berliner proposed was the advanced beginner. In this stage, experience can be melded with procedural knowledge. The ability to use strategic knowledge like when to follow rules and when to break them is developing at this stage and it is used to guide behavior. Berliner provides an example of praising appropriate behavior as not always being successful such as when a lower performing child interprets this as setting low expectations for them. During the previous stage this may have been engrained in the teachers during their training programs but exceptions to the rules emerge.

Teachers at this stage who are involved in the assessment process may have their first exposure to psychological assessment reports. They may be asked to interpret the psychological report's meaning to help guide programmatic choices for their student (Knoetze & Vermoter, 2007). This could involve reading psychological reports to develop intervention strategies or using data obtained from the psychological report to target specific skills. At this stage, the ability for teachers (particularly novice and beginner) to understand psychological reports is questionable at best (Harvey, 2006).

Berliner's next stage of pedagogical development is competence. The characteristics of competence are distinguished by being able to make conscious choices about what they are undertaking.  These teachers can set goals and choose rational means for making them. Berliner noted that based on their experience these teachers know what to attend to and what to ignore. Teachers at this stage are also able to control events in their classroom, follow their own plans, and respond to the information they choose. Because of this, they are likely to feel more responsibility for the things that happen in their classroom. They feel more strongly about their

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successes and failures. In this stage they are also not likely to be able to be fast, fluid, or flexible in their behavior. Based on Berliner's theory, it is likely teachers at this stage would be able to pick out the important parts of psychological reports. It would likely not be with the automaticity which is experienced at higher levels of pedagogical skill development.

The next stage of Berliner's theory is proficiency. At this stage, the "know how" or a teacher's intuition begins to emerge. At this stage, the proficient teacher intuitively knows the reasons behind much of the behaviors within their classrooms. While the teachers at this stage have the ability to identify patterns within their classroom, they are still analytical and deliberative when deciding what to do. As it relates to teacher's experiences with psychological reports, it is likely at this stage the teacher could take the information provided to them in a psychological report and be able to draw some of their own conclusions about what the report was conveying.

Berliner's final stage of teacher pedagogical development is the expert phase. At this stage teachers are rational and proficient in their skills. As Berliner describes it, they are "arational", they have an intuitive grasp of circumstances and can quickly and appropriately react to situations in the classroom which present themselves. Expert teachers usually choose and implement effective methods.  If on rare occasions these methods are unsuccessful, they are able to adjust quickly and efficiently. With regards to psychological assessment, these expert teachers would likely be able to extrapolate information for program purposes from psychological reports without too much difficulty regardless of the style of the assessment report. It is not clear if novice teachers also have this ability, and it is hypothesized they would likely have difficulty identifying key information in certain report writing styles.

Taken together, it might be reasonable to conclude there is a continuum of experience levels based on the years one has been teaching. Berliner (2004) concluded teachers can acquire a high level of skills around five to seven years of teaching experience. He terms this his competence stage. It is thought that at this sage the teacher's ability to impact the academic performance of students reaches a climax and it stays stable for the next several years of teaching before declining slightly as the teacher reaches the end of their career.

## Theoretical Basis for Report Writing

It is also important to discuss theoretical orientations with regards to how psychological reports are used and written. Most psychologists are more than likely going to have to compose a psychological report during their career. Psychologists have a wide range of theoretical orientations in which they base their practice. Psychological report writing is not an exception to this, with each perspective taking a slightly different approach.

Lanza (2015) noted depending on your theoretical orientation, psychologists place different weight on certain types of assessment procedures. The author provides a detailed description about what each theoretical orientations' report writing experiences are. From a behavioral perspective, reports written by a psychologist with this orientation are likely to focus on previous psychological reports and observations. Those psychologists who are influenced by the social learning viewpoint may wish to understand the student's social and behavioral history. The school record is important as is the history of the child's behavioral responses to environmental stimuli. Those psychologists who follow the ecological model are less likely to conduct a classroom observation. They are more likely to consider or conclude that the problem behavior was influenced by systems. Finally, psychologists who subscribed to a biological

perspective are more likely in their report to consider medical concerns as the basis for the behavior. They would also be the most likely group to look at medical reports.

This theoretical orientation discussion is important considering how different psychologists might be influenced by their own viewpoint and thus impact how they construct reports. Across multiple school psychologists of different theoretical orientations, it was found they had similar assessment practices amongst them. It also was found there was a less formal relationship between the orientation and practice of school psychologists within the realm of assessment. Depending on the orientation, the recommendations section of the report would likely have different interventions to address problem behavior (Lanza, 2015). This study focused more on the assessment process rather than report writing. Further exploration into how the orientation of psychologists impacts their report writing practices appears to be warranted.

## Summary

The literature had several recommendations for best practices in report writing, however this was often based on anecdotal information, professional experience, and clinical judgement. An examination of the theoretical foundations behind why psychologists write reports as well as the theories behind why and how they create reports was also discussed. The various models each contribute to psychologists' understanding of the key components of reports. The various theories explore how the start of the writing process for reports begins. They also help us conceptualize how reports can be written to be more persuasive and effective at conveying the information which needs to be communicated.

**Psychological Report Writing Considerations**

When examining aspects of report writing, previous literature has looked at the many different characteristics which lead to quality psychological reports (Mallin et al., 2012; Sweet, 2008; Wiener & Costaris, 2012). With these different components, one of the ways past research can be grouped focuses on organization of information (Ackerman, 2006; Pelco et al., 2009). Another way report writing literature has been examined, focuses on inclusion of relevant information (Allott et al., 2011; Brown-Chidsey & Steege, 2005; Duckworth et al., 2005). The literature has primarily focused on the former, which includes concepts such as providing a clear link to the referral concerns (Groth-Marnat, 2009), including concrete recommendations (Attard et al., 2016; Farmer & Brazeal, 1998; Wiener, 1987), and inclusion of strengths (Jimerson et al., 2004; Snyder et al., 2006). Finally, the literature for best practices in report writing includes environmental and cultural considerations which should be respected when writing reports (Walser, 2013).

**Organization**

*Integrative Interpretation*

It has been said that the accumulation of data does not constitute an assessment, rather the integration and interpretation of the data creates a comprehensive assessment (Cates, 1999). An integrated psychological report typically presents data according to domains, while also resolving any conflicting information. There are minimal references to test scores while maximizing references to the person and how the data gathered relates to the client's life (Groth-Marnat, 2009). An integrative approach to report writing also draws information from multiple sources and various assessment results to address concerns for the client (Ackerman, 2006; Farmer & Floyd, 2016). In general, taking an integrative approach to report writing increases the

comprehension of readers because the reader can organize and take in new information better (Pelco et al., 2009).

### *Reading Level*

When writing reports, psychologists are tasked with writing for multiple audiences including administrators, teachers, and parents. Given this, it is important to consider what reading level psychological reports are being written at (Groth-Marnat, 2009). There have been several formulas used to calculate the readability of written text such as the Flesch Reading Ease score and the Flesch- Kincaid Grade-Level readability score (Harvey, 2006). An improved reading level would be indicated by a lower reading level score. To improve this comprehension of reports by teachers and parents, it has been suggested psychologists reduce the amount of technical terms or jargon when they write their reports. Other suggestions for improvements have included shortening sentences, minimizing difficult words, reducing acronyms and gaining feedback from other professionals (Harvey, 1997).

Previous research investigating the reading level found psychological reports were written at a level commensurate with a late college or similar to their own education level (Harvey, 1997; Weddig, 1984). In addition to this, there have been suggestions that consumers of psychological reports prefer them to be jargon free. Jargon often makes it more difficult to understand the report (Groth-Marnat & Horvath, 2006). While increased levels of jargon did change participants' level of self-reported understanding of psychological reports, perceptions of usefulness, educational relevance and student behavioral characteristics were unchanged (Bucknavage, 2007). This last point is perhaps an important concept to explore in future research, because despite changing levels of understanding, the usefulness of the report did not

change. This is of course with the assumption participants would have found reports to be useful in the first place.

### Length

The length of psychological reports can often be intimidating for parents and teachers. It also is intuitive to think readers of psychological reports would prefer shorter, more concise reports rather than elaborative lengthy ones (Mastoras et al., 2011). Report length differs considerably from a one-page report to twenty or more pages (Donders, 2001; Schwean et al., 2006). Reports differ in length based on the purpose of the evaluation, quantity of information reported (i.e., measures given), institutional policy, and clinician preference (Schwean et al., 2006).

There is no set agreement on how long psychological reports should be and perhaps there will never be universal agreement. Length will often be dependent on the context of the assessment. Some clinicians advocate for a brief report which provides efficient access to the results and the implications for intervention. While others prefer a comprehensive report which provides detailed descriptions of the client, descriptions of the results and a recommendation section (Groth-Marnat & Horvath, 2006).

Several studies have examined the effects of particular report writing models on the overall report (Bucknavage, 2007; Mallin et al., 2012). Mallin et al. (2012) found the report style preferences may be related to differing lengths overall and different relative lengths in the testing observations and results sections. Another study examined the comprehension of psychological reports with summary-length versus full length versions (Bucknavage, 2007). It was found that length is often a confounding variable with regards to psychological report writing. Constructs

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such as comprehension of psychological reports as well as preference for report style were

impacted by length. This is an issue which should be further evaluated within the literature.

### *Individualization*

One of the chief complaints from consumers about reports was psychologists' failure to

individualize them (Brenner, 2003; Schwean et al., 2006). A solution to this problem is to

include a child-centered perspective in psychological reports. A child-centered perspective

places an emphasis on individual descriptions of the child's abilities and less on scores (Mastoras

et al., 2011). The use of a child centered approach also avoids generic descriptions of the child or

client and instead provides child centered examples obtained throughout the assessment process

(Farmer & Floyd, 2016). With this approach, information is organized by theme rather than by a

test-by-test style (more on this later).

Ultimately a good psychological report describes the child while also increasing the

understanding of the reader to best inform intervention. This is done by including information

from all sources including existing records, interviews, observations, and other evaluation data

(Schwean et al., 2006). The ability to translate the scores into actual real life implications is an

important component of psychological reports (Wiener & Costaris, 2012). With

individualization, psychologists are better able to communicate the results of the assessment to

the consumers and help inform empirically based interventions. This makes individualization and

client context an important component of psychological reports.

**Relevant Information**

*Strengths*

Traditionally, clinical psychological assessments have explored the "south side" of mental health by identifying symptoms, deficits, and disorders. More recently there has been an increased emphasis on incorporating strengths into assessment practices such as report writing (Rashid & Ostermann, 2009). Using a strength-based perspective with psychological reports is not merely a paradigm shift from emphasizing deficits or flaws. Rather, it allows the psychologist to conceptualize the child using a contextual approach (Rhee et al., 2001). With the inclusion of strengths in the assessment process, psychologists can better meet the standards of their profession by assisting children with skill building to meet life's challenges (Jimerson et al., 2004).

A strength-based approach to assessment not only includes strengths which the name implies, but weaknesses as well. The idea of this approach to the assessment process is to integrate the findings of the assessment so strengths can help overcome the weaknesses (Rashid & Ostermann, 2009). Including strengths in the assessment gathering process as well as the subsequent written report has been an important addition to clinical practice. Specifically, it has been recommended that during an assessment the clinician should look at four key areas. These include: strengths in the child's psychological make up, weaknesses in the child's psychological makeup, the strengths of the child's environment and weaknesses in the child's environment (Snyder et al., 2006).

Further research is needed around strength-based psychological assessment and psychological report writing. Further exploration is needed to support a strength-based model of assessment which considers a balance of a child's needs and skills, and provides more

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comprehensive information than the traditional deficit-focused models (Jimerson et al., 2004).

While there have been several assessment measures which have been developed with the goal of

identifying strengths (Rashid & Ostermann, 2009), fewer have examined what strength-based

assessment means for the written report (Jimerson et al., 2004).

*Link to Referral Concern*

Consumers of psychological reports have expressed the desire to have the assessment

results answer their referral questions explicitly (Brenner, 2003). This process starts with making

it clear to the reader what the referral question was at the outset of the report (Brown-Chidsey &

Andren, 2012). By accurately identifying the problem, psychologists can better inform

intervention (Batsche et al., 2008). In addition to this, the referral concern helps provide a guide

for the assessment and a direction for the assessment battery selection (Schwean et al., 2006).

Readers of psychological reports should always be clear about what the referral questions

are, what the answers to those questions include, and how those answers were derived (Groth-

Marnat, 2009). An example of a referral from a parent might be whether their child meets the

criteria for a disability. In the report the psychologist would note the child does meet the criteria

for intellectual disability, while also noting the data in the report which led to this ruling or

diagnosis.

*Recommendations*

Of all the sections and components of the psychological report, recommendations are

perhaps the most important thing to consider. With this importance, the readability and

usefulness of the recommendation section is crucial (Brown-Chidsey & Steege, 2005). The

recommendations section of the report represents the culmination of the assessment process and

it should be based on data taken from the assessment (Schwean et al., 2006). Within the field of psychology, particularly with psychology in the schools, there is a growing dissatisfaction with the recommendations in reports (Lewis, 1998). Given this, it is important to examine how psychologists write recommendations and their effectiveness at informing interventions.

There have been several studies which have made useful commentaries on the importance of recommendations and the need to improve their overall quality (Attard et al., 2016; Harvey, 1997; Harvey, 2006). Other studies have empirically evaluated recommendations as a part of psychological reports. The usefulness of recommendations has been evaluated with teachers (Borghese & Cole, 1994; Lewis, 1998; Mallin et al., 2012; Salvagno & Teglasi, 1987), parents (Farmer & Brazeal, 1998) and psychologists (Borghese & Cole, 1994; Pryzwansky & Hanania, 1986). Both approaches to recommendations, commentaries and empirical investigations, have furthered the discussion in the field of psychology about the importance of including them in psychological reports. Recommendations have also been highlighted as a section in reports which needs to be adapted by psychologists to better meet the needs of the readers and students and/or the clients they work with.

Attard et al. (2016) noted recommendations should be concrete and feasible, so they can be implemented by those working with the child/client. In fact, recommendations which were seen as most concrete were the easiest recommendations to implement (Salvagno & Teglasi, 1987). Conversely, while concrete recommendations are important, it has also been suggested simply providing them is not sufficient. Selecting the most appropriate recommendations has often been a focus of training in report writing and thus a key consideration for the field of psychology (Wiener & Costaris, 2012).

Teachers have been shown to value report recommendations. However, there are several key issues to consider. One of these considerations is the amount of recommendations which are being implemented. Six variables were identified as affecting whether report recommendations were being implemented including time, ease of implementation, classroom considerations, feasibility, workload expectations, and whether the recommendations could be implemented with current classroom programing (Borghese & Cole, 1994). Both classroom teachers and psychologists agreed these factors were important regarding the ability to implement the recommendations from psychological reports.

There have been fewer studies which have examined parents' and psychologists' satisfaction with recommendations. One study examined parental satisfaction with specific concrete recommendations, and this was found to be positively correlated with overall satisfaction with psychological reports. The same study also found parents' overall satisfaction was negatively associated with feelings of distress during the assessment process (Farmer & Brazeal, 1998). This could mean when the quality of recommendations are increased, parents perceived the overall report in a much more favorable light. This underscores the overall significance that recommendations have on the psychological report as a whole.

Finally, the recommendation section of reports has been investigated using psychologists' views of reports. One study investigated different report writing styles. One of these report writing styles was a traditional report writing style and the other was a style organized around a problem-solving model. Within the problem-solving model, recommendations in each section are centered around a problem observed in the assessment process. The results of this study indicated an overwhelming preference of the more traditional assessment report style (Pryzwansky & Hanania, 1986). While this is an older study, it is important to conceptualize the

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history of report writing preferences and how recommendations influence those models. There will be a further in-depth discussion of these report writing models further on in the paper.

**Environmental and Cultural Considerations**

Research has emphasized three specific purposes of psychological reports (Mastoras et al., 2011). Reports are meant to describe the individual child's or client's current level of functioning. The second is communicating recommendations and interventions which help teach skills. Third is that reports support an overall improvement in the child's or client's functioning. There are some concerns with this as report writing does not always support these purposes. It is critical to examine how well psychologists are developing effective psychological reports. To accomplish this, it is important to investigate report writing challenges as well as other considerations which need to be grasped while writing reports.

Psychologists write reports for multiple audiences including parents, teachers, outside professionals, and other psychologists. This presents a unique challenge for report writers as everyone who reads the report does so for different reasons and purposes (Rahill, 2014). When writing for parents a special emphasis is placed on providing a complete picture of the child with low levels of psychological jargon (Bucknavage, 2007). Teachers, administrators, and others would like psychological jargon to be reduced, but often believe technical information is a necessity for the report. Finally, when writing for other professionals the assumption is the reader needs technical information to provide context to the situation. It is not clear if the belief that technical information is necessary actually influences teachers' perceptions of the report.

Another important consideration is the inclusion of aspects of culture within the psychological report. Issues of culture should be addressed throughout the entire report. Reports should also identify any relevant language issues. If necessary, the report should be translated

into the family's first language. This awareness of multicultural issues is paramount because a multicultural evaluation which is written poorly will undermine the work the family and psychologist have done (Aldalur et al., 2022; Walser, 2013). This contributes to the ability of the psychologist to communicate the assessment results in a developmentally and culturally appropriate way.

Finally, being able to write the report is just part of the communication which occurs between the psychologist and key stakeholders. The feedback session is the opportunity for the school psychologist to present their report to parents, teachers, and sometimes the client or student themselves. This ultimately assists the client and other stakeholders in understanding the child and can help them improve their lives (Pilgrim, 2010).

In most settings, psychologists are required to complete a feedback session as part of the assessment process. There have been a few studies which have examined feedback sessions. One found there was more stress in those clients who did not receive a feedback session compared to those who did (Finn & Tonsager, 1997). There were also concerns with the overview during the feedback being too broad and not providing specific and useful information (Knoetze & Vermoter, 2007). These are all valid concerns which psychologists must keep in mind as they conduct feedback sessions. By identifying concerns of the consumer, psychologists can help tailor the feedback session to the needs of the teachers and parents. This allows some level of personalization during these feedback sessions. Another area which is informed by the understanding of key terminology and best practices was report writing styles. The section which follows will discuss key report writing styles and how they relate to the best practices.

**Summary**

All of these considerations for best practices in psychological report writing can directly and indirectly affect the social validity and/or consumer satisfaction of assessment procedures. A well-organized psychological report may impact a consumer's ability to understand the assessment results. When school psychologists include relevant information in the psychological report, consumers may view the reports as more useful. If the school psychologist fails to consider environmental and cultural factors, then the consumer of the report may be less likely to find the results acceptable.

**Report Writing Styles**

An individual's theoretical orientation, training, and level of experience often influences their selection of reporting style. Within the literature, there are several report writing styles identified, such as test-by-test (Harvey, 2006), integrated style (Groth-Marnat, 2009), and referral or theme-based assessment reports (Pelco et al., 2009; Rahill, 2018). Given this, it is fitting psychologists would examine how effective their traditional report writing strategies are. This can be accomplished by examining styles of report writing (Rahill, 2018). For the purpose of this study, only the test-by-test, integrated, and theme/referral-based report styles will be discussed.

**Test-by-Test**

In an older study by Bagnato (1980), the researcher came to the conclusion that how psychologists organized and communicated information in traditional report writing styles contributed to the lack of utility at informing intervention practices. This leads to an important consideration about what "traditional" psychological reports are. Perhaps the best synonym for

traditional reports would be a test-by-test construction. For the purposes of this paper, the terms traditional report and test-by-test style will be used interchangeably.

Pelco et al. (2009) provided perhaps the best definition of a test-by-test report style. The authors created a test-by-test style which they noted represented the best practices in the field of psychology which included technical terms and with the results organized one test after another. The sections of the report are organized by section headings including a description of the test, some sort of reference chart which included standard scores, percentile ranks and confidence intervals. It also included a description of behaviors observed during the assessment as well as a discussion about the child's strengths and weaknesses. In these reports technical jargon is often included in these types of reports with an explanation typically given as well as explaining what the jargon means.

In general, a test-by-test report construction communicates results with a chronological presentation of each assessment measure. This can often make it the easiest report style to write in for novice report writers (Carriere, 2010). This is due to ease of use in presenting the data from the assessment. However, the presenting of data in this style often does not lead to good quality interpretation. This is where the concept of integration in psychological reports becomes an important discussion, which was mentioned previously.

Within a test-by-test style, the style of the results does not readily link to intervention strategies. This may be due to an emphasis on scores in this report writing model rather than a focus on the individual. These concerns might not necessarily be related to the report writing style, rather it could be more related to the assessment process in general (Stomel, 2012). Another challenge to this approach to report writing is the high level of reading difficulty.  In

general, a test-by-test approach has been found to have higher reading levels than other report writing styles (Harvey, 1997; Weddig, 1984; Whitaker, 1994).

It is this last point which has drawn much of the discussion. Psychologists and researchers have recognized that reports will probably have some jargon and challenging constructs, including the diagnosis which may be difficult for the average non-psychologist to understand. This however does not mean psychologists cannot construct a report which is written at a comprehensible level which communicates essential information (Harvey, 1997). While there has been a push in psychology away from the test-by-test construction style of writing to a more integrative style, the test-by-test style of writing continues to be widely used within the field (Rahill, 2018).

**Integrated Report Style**

As mentioned previously, writing in an integrative report writing style takes the ability to resolve contradictory information, while placing less of an emphasis on test scores and psychological jargon. This can be accomplished by writing reports which provide context for the child's life. Specific behaviors from the evaluation are referred to in the report and how the behaviors connect to the everyday life of the person (Groth-Marnat, 2009). As an example, an integrative section of a report might involve making a broad interpretive statement such as "Jane has significant memory concerns". As described by Groth-Marnat (2009) this typically includes comments about subcomponents related to the broad statement like "Jane performed slightly better on measures of long-term memory than on short-term memory". Further Groth-Marnat (2009) notes another strategy to increase integration is to provide specific behaviors observed during testing which relate back to the broad statement (i.e., Jane could only recall 2 of 20 words

from a common word list).  Finally, a fourth suggestion to increase integration was to describe behaviors from the child's history which relate to this interpretation currently and in the future.

**Theme or Referral Based Reports**

Pelco et al. (2009) first proposed a concept called theme-based report writing. This concept has also been called referral-based assessment reports because they attempt to answer the referral question and the whole report is framed around answering these questions (Hass & Carriere, 2014). These terms will be used interchangeably throughout. This was expanded upon by Rahill (2014, 2015, 2018) which noted theme based psychological reports interpret assessment data and integrate findings of formal and informal assessment measures into specific themes. Each of these themes is organized to reflect a child centered approach which assists the clinician in understanding specific difficulties the child is experiencing, while also assisting in planning for further evaluation. For example, a theme could have been inattentive behaviors and how they impact the student in the classroom. Assessment results which support or contradict this theme will be discussed in this section. Within this model, after the report is organized by theme or referral question, each paragraph can begin by discussing the theme in child-centered language. This is followed by a description of how the theme may impact the child, with supporting examples provided (Rahill, 2014). The organization of assessment results into themes assists school psychologists in the problem-solving process.

## Teacher Experiences and Preference for Report Writing Styles

**Defining Preference in Relation to Social Validity**

Before beginning a discussion on how teacher experience impacts their preferences for certain report writing styles, it is important define the word preference and explore how this

relates to the previous literature discussion of social validity. Preference for a particular report writing style has been a common examination within the literature for several years (Gomez, 2005; Rahill, 2018; Wiener & Kohler, 1986). Based on this literature, preference could simply be defined as liking one report over another. Wiener and Kohler (1986) utilized adjectives such as informative or helpful when raters were rating what they termed "preference" for a particular report writing style. Rahill (2018) conflated the terms "usefulness" and "understandability" with "prefer" and/or "preference" when evaluating report writing styles. In addition to this, Gomez (2005) also utilized "preference statements" which were developed to assess organization, language use, readability, clarity, and content presented about the child. Taken together, the term preference has been widely used in the report writing literature. It is clear the literature has expanded the term preference to include many different components when evaluating psychological reports.

A similar expansion of the concept of social validity may also be appropriate. As previously discussed, the concept of social validity initially centered around the acceptability of interventions (Wolf, 1978). Social validity concepts have now expanded into other domains further expanding the definition of social validity (Bender, 2007; Eckert et al., 1999). Given this, social validity may be a component of preference for a particular report writing style or preference may be a part of social validity as both concepts utilized similar terms.

**Teacher Experiences and Report Writing Styles**

For school-age children, teachers represent a particularly important role within the psychoeducational assessment process. Pelco et al. (2009) noted teachers play an important role in the assessment process. They play an active role in developing and implementing classroom interventions which are often derived from psychological reports. Research investigating teacher

experience levels has typically examined the contrasting actions and reflections of expert

teachers with that of novice teachers (Emmer & Stough, 2001). Broadly speaking, more highly

trained and experienced teachers should be equipped with more extensive skills when compared

to less experienced novice teachers to deal with a wide variety of challenges within the

educational environment (Egyed & Short, 2006). It is also generally accepted that teachers exist

on a continuum from a novice experience level to an expert level but less is known about how a

teacher moves from being a novice to an expert.

As Pelco et al. (2009) note, there appears to be a disconnect when linking assessment

results to empirically supported interventions which are useful to teachers. With this concern in

mind, it is important to examine how theme-based psychological reports compare to the more

traditional test-by-test style with regards to utility of informing intervention and increasing the

understandability by consumers. It is also important to consider how likely or how well report

recommendations are being implemented once the report writing process is completed.

Previous literature suggested there may have been support for the hypothesis that the

structure of the text (e.g., theme-based reports) maybe more important than simply reducing

technical terms. This was accomplished by using three report styles including two theme-based

psychological reports. One of which was written with technical language while the other was

categorized as non-technical because it had less psychological jargon. The third report style was

written in a traditional test-by-test style. Teachers' ratings of the two theme-based reports found

no difference. There was however a difference between the two theme-based report writing

styles and the traditional report (Pelco et al., 2009). This is an important finding with regards to

reports written in a theme-based style. Before this, it was thought reducing the technical terms

and jargon was the main tool for improving the readability and understandability of

psychological reports. This new insight provides credence to the push to change how psychologists present their data.

Pelco et al. (2009) advanced the literature in a couple of different ways. First the authors note the change to a theme-based report writing style from a test-by-test style did not change teachers' satisfaction or comprehension of the reports. No information was lost between the test-by-test style and the theme-based report writing style.  Due to a reduction in reading level between the report writing styles, the conclusion was tentatively drawn that a report without psychological jargon (and thus lower reading level) was recommended as a best practice. Within this article the discussion of usefulness centered around the teachers' abilities to generate recommendations for students based on the assessment report writing style. The report styles in this study did not contain recommendations, instead the study relied on the teachers to provide them as the dependent variable.  This methodology has its weaknesses as the readers of the reports in this study did not have knowledge of the hypothetical student being referred to in the various assessment report styles and perhaps not as invested as a typical teacher would be. Based on the authors' suggestion, a direction for future research was to evaluate the role teacher experience has on their preference for one report writing style over the other. In general, it was thought this study heavily sampled from highly educated and veteran teachers.

Many of the same challenges exist with the theme-based writing style which exist when psychologists integrate their reports (Rahill, 2014, 2015, 2018). While theme-based reports (which are integrated) are rated highly and result in an increased understanding for the readers (Pelco et al., 2009), they are often some of the most difficult reports to write (Rahill, 2015). According to Rahill (2015), this is due to several factors including a lack of research on how specifically training programs are teaching their students to write reports. In addition to this,

what is known is that students are often presented with models of reports which are used to guide them as they learn.  However, part of the concern with this is there are few reports which are written in this theme-based report writing style. Finally, Rahill (2015) postulates part of the problem with implementing this style is that the reduced emphasis on jargon and technical terms may lead to a less legally defensible report. However, this has been shown to be an unfounded concern as writing in this model does not necessarily make the psychologist's report any less defensible.

In Rahill's series of articles (2014, 2015, 2018) the author introduces a blueprint for school psychologists to adopt a theme-based assessment report writing style by moving away from older perhaps less useful styles such as the test-by-test style. Rahill's first two articles (2014, 2015) were commentaries on best practices in report writing and a further expansion of the idea of theme-based reports which were discussed by Pelco et al. (2009). Rahill (2018) involved a brief survey of teachers' and parents' views of psychological reports. The conclusions of this study indicated teachers continue to believe psychological reports contain a high amount of psychological jargon and have a focus on tests and test scores, rather than information to assist in understanding the child. The author also notes teachers preferred to be provided with results in a manner which are simple to understand with an increased focus on intervention. This series of articles continues an extensive discussion in the literature about a general dissatisfaction of teachers with the way school psychologists write their reports. The group of articles also provides steps practicing school psychologists can take to address these concerns. The author does not specifically address (at least experimentally) differences in teachers' perceptions about individual report writing styles.

Umaña et al. (2020) provided a systematic literature review regarding teachers' perceptions and preferences for psychological report writing. The study sought to answer two research questions. The first research question investigated what formats and features teachers prefer in psychological reports in studies extending back the last forty years. The second question related to what format and features aid teachers' comprehension and understanding of psychological reports from the last forty years.

Important implications from this study included a preference for reports which were organized by functional domain or organization by headings such as cognitive functioning, behavior, & social/emotional. Teachers were noted to have positive views for report formats which answered referral questions. This study appears to have a slightly different definition of theme-based report style than previously discussed, as it appears to lump them in with the functional domain report writing style. What is not clear from this research is any sort of discussion about what writing in a theme-based psychological report includes. Primarily any references to theme-based reports indicated they were preferred by teachers. Consistent with previous discussions, teachers also preferred recommendations which were informative, written in behavioral terms, included explanations, and examples relevant to individualized educational programming. Canned nonspecific recommendations were not seen as useful to teachers. The authors of this study noted that a limitation of their research was to explore how years of teaching experience impacted teachers' views of psychological reports.

### Summary

In summary, there have been several previous studies examining teachers' views of psychological reports. Teachers' experience level was thought to have an impact on preference for one report writing style, although other literature has been inconclusive. Broadly speaking,

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the literature has continued to urge school psychologists to change the way they write reports to be more useful and effective for teachers and parents. Key complaints in the literature included reports being filled with jargon, being overly complex, being difficult to understand, and lacking utility. It has been suggested one of the ways to address these teacher concerns was by writing in a theme-based report writing style.

## Purpose of the Study

There have been multiple studies dating back several decades related to psychological report writing. Almost all the previous studies emphasized the importance and significance of the reports on the client's or child's life. Various authors have suggested improvements to the way psychologists write reports (Harvey, 2006; Pelco et al., 2009, Rahill, 2018). While there has been no consensus in the field which says that psychologists must write reports a certain way, there have been several broad recommendations to follow when writing reports. There have also been various report writing styles which have been discussed in the literature. A strong push in the literature has been to adopt a theme or referral-based report writing style which is often diametrically opposed to a traditional test-by-test approach. Social validity was seen as a way to provide further support for teachers' preferences of one report writing style over another. It is also thought the level of teacher experience in the classroom may have an impact on this as well.

The present study will address how different report writing styles (i.e., test-by-test, integrated, and theme or referral-based) are perceived by teachers. This study will employ an approach using social validity to examine teacher preferences for one report writing style or another. This will help address the gap in the literature of how teacher experience levels impact their views of different report writing models. In the literature it will also help address how

changes in psychological report styles impact teachers' views of how useful, acceptable,

understandable, feasible, and thus socially valid the reports are.

CHAPTER III

METHODOLOGY

This research study examined teachers' views of social validity of three distinctly

different report writing styles. Information gathered from this study may assist school

psychologists in being able to tailor their report writing style to teacher preferences. This chapter

details the method which was utilized to compare the three report writing styles and it is divided

into four sections. The first section explains the research design and includes a) a description of

and rationale for the research design, b) outline of the variables, c) statement of the research

questions, and d) specific research hypotheses and e) the statistical approach to data analysis.

The second section includes a) a description of the study participants, b) participant demands,

and c) the approach to the recruitment of participants. The third section describes the materials

needed for this study and they included a) the demographic information questionnaire, b) a

description of the psychological reports, and c) a description of the social validity measure. The

fourth details procedures of the study including a) a rationale for including an expert panel and b)

a description of the expert panel procedures in developing the psychological reports.

**Research Design**

The current study employed a quantitative survey methodology which examined

teachers' preference (i.e., social validity), teacher experience, and report writing styles. This

study examined two research questions: Does teachers' ratings of social validity vary based on

report writing styles and if there is a difference, does teacher experience contribute to a

preference of report writing styles? To answer both research questions, a mixed factorial analysis of variance (ANOVA) was utilized. The within-subjects factor investigated the effects of report style (i.e., test-by-test, integrated, and theme-based) and the between-subjects factor investigated teacher experience level (i.e., pre-service teachers/novice, early career teachers, and expert teachers). Both factors' effect on the teachers' perceptions based on social validity ratings were investigated. After the data were collected they were assessed for normality and homogeneity of variance.

Two independent variables' effects on one dependent variable were examined in this study. Report writing style was the first independent variable. Report writing style was defined as the unique presentation of the data in each written psychological report that may be driven by the writer's theoretical orientation, training background, and best practices. For the purpose of this study, there were three levels of report writing styles identified (e.g., test-by-test, integrated, and theme-based). The second independent variable was teacher experience level which is defined as years of classroom teaching experience and this variable also had three levels (i.e., pre-service teacher/novice, early career, and expert). The dependent variable was teacher preference as measured by the social validity measure, ARP-R. The ARP-R leads to an overall total score and examines the perceived usefulness, utility, acceptability, and understandability of the psychological reports. Higher scores obtained on the ARP-R represented that teachers view the psychological report as more socially valid. This study was chiefly interested in a main effect for report type and if this was significant, a potential interaction effect for teacher experience level and report type on the teachers' views of social validity.

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**Participants**

Prior to the completion of the study at G*Power analysis (Faul et al., 2007) was conducted to determine the appropriate sample size for the study. When utilizing a medium effect size (partial $\eta^2=.06$) a targeted sample size of 144 is sought. An initial sample of 250 participants were recruited and voluntarily initiated participation in the current study. Out of the 250 participants who initiated the study, 202 participants completed all the study components resulting in a 19.2% dropout rate. The final 202 participants within the sample included 18.9% ($N=38$) novice teachers, 55.4% ($N=112$) early career teachers, and 25.7% ($N=52$) expert teachers.

The participants in the study were a heterogenous group across several demographic characteristics. This included a relatively equal representation of gender (100 males, 95 females, and one who identified as "other" categorization). It also included broad cross-sections of ages and ethnicities. The typical participant was aged 28-47 and identified as White or Caucasian.

Regarding experiences with psychological reports, most participants (176) had read a psychological report prior to the study. Relatively few (18) participants indicated this was their first experience reading psychological reports. Consistent with this, a significant portion (20.3%) of the participants were special education teachers. General education teachers represented 43.6% of the sample. It is likely the general education teachers were the most frequently sampled participants between direct email recruitment on school websites and on social media posts on groups which targeted teachers who taught a specific general education subject (i.e., Mississippi Science Teachers). Additionally, 57.9% had worked primarily in public schools, 29.2% had worked in the private school setting, and 9.9% had worked in both.

Table 1 fully details the demographic characteristics of the participants. While a few of these participants did not fully complete all items on the demographic questionnaire, their results

were included in the final data analysis as the variables of primary interest (social validity and

teaching experience level) were completed. This missing demographic information was coded as

"not reported" within the demographic characteristics.

Table 1

*Demographic Characteristics of Study Participants*

| Demographic Characteristics | Participants | |
|---|---|---|
| | *N* | % |
| Number of years working as teacher | | |
| 1 year or less | 38 | 18.8 |
| 1 to 7 years | 112 | 55.4 |
| 8 or more | 52 | 25.7 |
| Gender | | |
| Male | 100 | 49.5 |
| Female | 95 | 47.0 |
| N/A Other | 1 | .5 |
| Not reported | 6 | .03 |
| Age | | |
| 18-27 | 18 | 8.9 |
| 28-37 | 86 | 42.6 |
| 38-47 | 64 | 31.7 |
| 48-57 | 26 | 12.9 |
| 58-67 | 4 | 2.0 |
| 68 or older | 3 | 1.5 |
| Not reported | 1 | .5 |
| Ethnicity | | |
| Hispanic | 16 | 7.9 |
| American Indian or Alaska Native | 34 | 16.8 |
| Asian | 12 | 5.9 |
| Black or African American | 17 | 8.4 |
| Native American or Other Pacific Islander | 13 | 6.4 |
| White or Caucasian | 105 | 52.0 |
| Two or More Races | 3 | 1.5 |
| Not Reported | 2 | 1.0 |

Table 1 (continued)

| Demographic Characteristics | Participants | |
| --- | --- | --- |
| | *N* | *%* |
| Degree of Familiarity with | | |
| Psychological Reports | | |
| Never have read a report | 18 | 8.9 |
| 1-3 reports read per year | 70 | 34.7 |
| 4-9 reports read per year | 72 | 35.6 |
| 10 reports read per year | 34 | 16.8 |
| Not Reported | 8 | 4.0 |
| Area of Educational | | |
| Focus/Licensure | | |
| Special Education | 41 | 20.3 |
| General Education | 88 | 43.6 |
| ESL/Bilingual | 37 | 18.3 |
| Specialist | 30 | 14.9 |
| Other | 3 | 1.5 |
| Not Reported | 3 | 1.5 |
| Work Experience | | |
| Primarily Public Schools | 117 | 57.9 |
| Primarily Private Schools | 59 | 29.2 |
| Both Public and Private | 20 | 9.9 |
| Currently Enrolled in Teacher | 3 | 1.5 |
| Preparation Program | | |
| Not Reported | 3 | 1.5 |
| Highest Education Level Obtained | | |
| High School Diploma | 5 | 2.5 |
| Associates | 5 | 5.4 |
| Bachelors | 43 | 21.3 |
| Masters | 56 | 27.7 |
| Specialist | 28 | 13.9 |
| Doctorate | 40 | 19.8 |
| Post Doctorate | 18 | 8.9 |
| Not Reported | 1 | .5 |

**Expert Panel Membership**

As with Gomez's (2005) methodology, an expert panel of three (school) psychologists involved in the training and supervision of graduate students and/or interns working in the schools read all three report writing styles. Per Berliner's suggestions of what constitutes an

"expert", to qualify for participation in the expert panel the psychologists must have had at least eight years of professional work experience to read the psychological reports. The expert panel was recruited using a convenience sample methodology consisting of current and former supervisors. As part of the expert panel recruitment, the researcher contacted potential participants via email and through personal contacts. A brief description of the study and of the report styles was provided to each expert panelist. In person and over the phone follow-up occurred with participants 1-2 times as necessary.

**Materials**

*Demographic Questionnaire*

Demographic information (Appendix A) was collected from participants including a) number of years of experience, b) highest education level obtained, c) gender, d) age, e) ethnicity, f) degree of familiarity with psychological reports, g) area of educational focus/licensure endorsements, and h) site of work experience (public or private). No specific identifying information was collected during the course of this study (with the exception of optionally providing an email for a randomized incentive which is discussed later in full). Participants first completed Question 1 (number of years of experience) before reading the psychological reports. The participants then completed the remaining questions on the demographic questionnaire after reading all psychological reports and their associated ARP-R.

*Sample Psychological Reports*

For this study, three different writing styles (i.e., test-by-test, integrated, and theme-based) of psychoeducational reports were developed by the researcher yielding three separate reports. All participants in this study read all report writing styles. All reports were based on a

case study for the assessment of an 8-year-old female who was referred due to the suspicion of having an intellectual disability according to the Individuals with Disabilities Education Improvement Act (IDEA). Using Pelco et al. (2009) recommendation for using a common referral concern when conducting research on assessment procedures, intellectual disability was chosen as the disability category due to its familiarity to teachers and other professionals within school districts. Also, intellectual disability is the fifth most common disability category under IDEA for students ages 6-21 (U.S. Department of Education, 2015). The U.S. Department of Education (2018) noted that an intellectual disability was characterized by sub average general intellectual functioning which has coexisting deficits in adaptive behavior. Based on the work by Rae et al. (2011), teachers of all experience levels had relatively little baseline knowledge about intellectual disability criteria. While all teachers had this lack of knowledge about the intellectual disability diagnostic criteria, in Ho and Liu (2005) there was a difference in how expert and novice teachers assessed abilities and made decisions about these students. As it relates to teachers' perceptions of psychological reports, it may be helpful to further explore these differences.

     **Test-by-Test Style.** A test-by-test model report (see Appendix B) was developed to represent the style most used by psychologists, while also conforming to best practices. As Rahill (2018) suggested, the test-by-test style was written using a test-first language with an emphasis on scores of various assessment measures rather than a child-first model of presenting data. The test-by-test report also leaves interpretation of data up to the reader. As Rahill (2014) expressed concern for, the results from the tests were presented independently of each other. Little to no integrative statements were made between assessment results until getting to the summary section. As described in Ackerman (2006), the results of the various assessment instruments

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were organized and presented in a test-by-test style which meant the report was written so the results of each test were reported one after another.

Each individual assessment measure in the report was introduced with a brief description of the instrument. This test description included a brief explanation of what the test measured and what age range it was appropriate for. Test score ranges (e.g., average scores were from 85-115) and score explanations were also included in this introduction. A chart with the scores from each of the assessment instruments was included after this introduction section. Finally, this section was followed by the interpretation of the scores.

As with Pelco et al. (2009), the psychological report also contained descriptions of the child's testing behavior and classroom behavioral observations. A description of the child's strengths and weaknesses was also included in the report. Information about strengths and weaknesses were placed in the background information section which contained information from the teacher or the parent. As Groth-Marnat and Horvath (2006) described, the test-by-test report was written to rely heavily on test scores and ignored any contradictions and various connections between the different assessment methods. A set of general recommendations followed the summary at the end of the report.

**Integrated Style.** The integrated psychological report (see Appendix C) was written to address some concerns raised in the test-by-test report writing style. While the results of the assessment were presented in the same sequential style as the test-by-test style, the integration and interpretation of the assessment data were not left to the reader which helped to address concerns made by Rahill (2018). Integrative statements such as "Jane's performance on the academic achievement test was consistent with previous assessment reports" were included, and they were followed by the presentation of data under each assessment measure. Within the

integrated report, less of an emphasis was placed on the scores of each assessment tool, instead specific details from the assessment measure were included. For example, statements such as "Jane was able to demonstrate her ability to count items up to three", helped give the report a child-centered context as described in Rahill (2018).

  **Theme-Based or Referral-Based Style.** A theme-based or referral-based psychological report (Appendix D) was written using the various suggestions and sample reports provided from several previous studies (Hass & Carriere, 2014; Pelco et al., 2009; Rahill, 2018). The theme-based psychological report is distinctly different from the previous two psychological report styles. Instead of being formatted around an approach which presents data in a sequential test-by-test style, data is presented based on referral concerns and themes. Each of the themes is supported by data obtained from various parts of the assessment.

  As Rahill (2018) suggested, referral questions are asked and answered within each section of the report. Specific emphasis was placed on developing the referral questions. As Hass and Carriere (2014) noted, specific concerns were required in this approach rather than making broad statements such as "Jane was referred for behavioral concerns", which was a nonspecific statement. The assessment results are directly linked to the classroom performance and/or home-based performance. The linked data are followed directly by recommendations to address concerns identified in the report. Recommendations were formed to provide ideas for how the school personnel or parent could assist in helping the child.

**Social Validity Measure**

  The ARP-R (Eckert et al., 1999) was adapted for use in this study (see Appendix E). The twelve individual items described by Eckert et al. 1999 were kept in the ARP-R adaptation. A six-point Likert Scale was maintained in the revision. Per the authors' suggestions during this

adaptation, minor modifications of the wording were made to fit the context of this study. For example, on questions number two and four the words "school psychologist" were replaced with the word "teacher". Additional words such as "report" were added to provide clarity to the participants. The minor adjustments were not thought to impact the overall validity of the instrument. The psychometric properties of this measure are discussed in Chapter 2.

**Validity Measures**

The current study included the use of two validation tools to examine the content of the type of reports. First, the Expert Equivalency Report Rating form (see Appendix F) was used to examine the equivalency of the content between the three psychological report writing styles. The Expert Equivalency Report Rating form consisted of six items in a "Yes" and "No" response format. The items evaluated the equivalency of the reports across basic information, interpretation, conclusion, terminology, and structure. Secondly, three content rating forms (Appendix G) were utilized to examine the structure of the reports in adherence to the report writing styles (i.e., test-by-test, integrated, and theme-based). Each content rating form was labeled by type and consisted of 10 items. All content rating forms (Appendix G) were such that it would be expected that a response of "yes" or "no" could be a correct response. The items and correct responses were based on descriptions provided by Rahill (2018).

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**Procedures**

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**Institutional Review Board**

Approval from the Institutional Review Board (IRB) was sought and obtained prior to completing this research study (Appendix H).

**Readability**

It would be an omission to not address the readability of the three report writing styles. One of the most common complaints in the literature was the readability of psychological reports (Harvey, 1997). It is with this complaint in mind that the three reports were all written at a similar reading level to conform with the best practices in report writing. According to the Flesch Kincaid formula, all reports were written at a grade level consistent with a high school level of education. This was done to ensure any differences in the reports could be attributed to the differences in organizational style rather than the readability of the reports.

**Content Validation of Reports**

Similar to Gomez (2005), an expert panel was convened to read the psychological report writing styles. The expert panel was asked to complete the Expert Equivalency Rating of Reports form (see Appendix F) to ensure the equivalency between the three psychological report writing styles, and three report content rating forms (Appendix G) for each psychological report writing style. First, the expert was asked to review one report writing style followed by the completion of its associated content rating form. This step was repeated twice with the additional report writing styles. After reading all three reports, the expert panel completed a combined rating with the Expert Equivalency Rating form. Two formal reviews from the expert panel members occurred to ensure the best adherence to each report writing style. Edits to the reports occurred based on the first round of feedback from the expert panel.

When all expert ratings were completed, the researcher calculated the percentage of agreement for each rating form (i.e., content rating and equivalency rating forms). For the content rating, the expert panel resulted in an average of 80% across all raters (with 70, 70, and 100%) for accuracy (or agreement with the "correct answer" on the content rating form) on the

test-by-test report, an average of 73.3% across raters (with 70, 70, and 80%) for accuracy on the integrated report, and an average of 96.6% (with 90, 100, and 100%) for accuracy on the theme-based report. This included one item (#8) on the integrated report on which both yes and no responses were counted as "correct" due to qualitative feedback from expert panel members which suggested that this item may be a poor item or have bipolar factor loadings.

The Expert Equivalency Ratings of Reports yielded varied qualitative results across all three raters. Across the six items the raters produced the following equivalency scores:16%, 50%, and 66%. Following an item analysis of all three ratings, several notable qualitative findings emerged. First, all raters endorsed being able to draw the same conclusions about the student's strengths and weaknesses. Next, all raters agreed that the reports did not contain similar descriptions and interpretations. The raters also agreed that all three reports were not similar in terms of complexity of vocabulary, technical terms, and word usage. Taken together, the Expert Equivalency Ratings of Reports provided qualitative data which supported the conclusion that while the reports would allow the reader to make similar conclusions about the student, there were several important differences between the reports.

**Participant Recruitment**

Participant recruitment procedures varied between each level (i.e., novice/pre-service, early career, and expert levels). To reduce confounding variables such as regional differences between teachers, recruitment was sampled from groups within the state of Mississippi. Solicitation attempts to participate were sent out a maximum of three times in two-week intervals when the required number of participants was not obtained on the first or second attempts. This ensured the best response rate for participants. The required number of participants was received for the teachers (i.e., early career & expert teachers) after the second round of solicitation.

Therefore, a third round of recruitment attempts was conducted only for the pre-service teachers. No additional group limiting procedures occurred as part of the study.

All participants were offered the chance to be randomly selected to receive one of four 25-dollar Amazon gift cards for their participation in the study. Participants who were interested in submitting for a chance to win the gift cards submitted their email as part of the survey. This demographic information was kept separately from participant data to ensure confidentiality.

### Novice/Pre-service

Teacher education candidates (the novice teachers) were recruited with online survey technology with direct email solicitation of teacher education preparation programs and state associations. This included state level associations (e.g., The Mississippi Association of Colleges for Teacher Education) and student associations (e.g., Educators Rising). Participants were also solicited for participation in this study via individual education courses and through the professors who teach those classes. At least one point of contact was solicited at all 15 colleges and universities in Mississippi with a teacher education program.

Over 200 recruitment emails were sent to professors of education at these colleges and universities (with the request to send the recruitment email to their students). Initially, several of these recruitment emails were returned as "undeliverable", which led to fewer points of contact. Due to the additional steps required with this procedure, it is unclear how many professors forwarded the research opportunity to their students. Anecdotally, several professors responded acknowledging that they had done so, although this was not likely the best gage of how many pre-service teachers received the recruitment email.

### *Early Career and Expert*

For the purpose of this study, both the early career teachers and the expert teachers were recruited in the same manner. Similar to the novice teachers, an online survey methodology was used to collect information. Email and social media posts were used to solicit participation from both groups of teachers. Direct email solicitation occurred with contact information obtained from individual school websites. Teacher associations (e.g., Mississippi Association of Educators and Mississippi Professional Educators) were also solicited for participation in this study. Finally, social media posts in specific state-level teacher groups were also made (i.e., Mississippi Science Teachers & Mississippi Social Studies Teachers).

Over 2600 recruitment emails were sent to teachers in 7 school districts across the state of Mississippi. Similar to the pre-service recruitment, several emails were returned "undeliverable", and this reduced the overall number of points of contact. Due to the anonymous nature of the responses (with the recruitment emails and the social media posts), the response rate from each of these approaches could not be calculated.

### Participant Procedures

Upon seeing the online social media post (Appendix I) or email link (Appendix J), participants clicked on the online link where they reviewed the informed consent. Having read the informed consent page, participants were asked if they agree to participate in the study. Consent for participation in this study was entirely voluntary and passive. Participants were given the choice not to participate in the study. If participants did not wish to continue with the survey, they were allowed to discontinue it at any time with no penalty. Incomplete surveys were not included in the final data analysis.

Initially, participants completed the first question on the demographic questionnaire. They then read all three report writing conditions and the order participants received them was randomized. Study participants received their randomized report writing style immediately followed by the completion of the ARP-R for that report style. This was repeated twice for the other report writing styles. The participants then completed the remaining items on the demographic questionnaire. Participants were asked to complete the questionnaire via an online survey through (Qualtrics, 2020) an online software company.  All participants were provided an online survey link to participate. Optionally, after completing the survey the participants were asked for their email address to be considered for the random Amazon gift card giveaway. This identifying information was kept separate from any demographic data on an independent email collection site (Jotform) and this was used to select the four winners.

CHAPTER IV

RESULTS

The present study examined psychological report writing practices and teachers'

perceptions of three distinctly different report writing styles from a social validity perspective. A

total of 202 online surveys were completed as part of the study. This chapter summarizes the

data related to participant responses, social validity assessments of each report writing style, and

the statistical analysis utilized to investigate the research questions.

**Analysis of Assessment Rating Profile-Revised (ARP-R) Responses**

A frequency analysis was conducted across all ARP-R report writing styles and

individual items. Based on this review, the most common item response on the 6-point Likert

scale was a "5" indicating the raters "agreed" with the question. This was the most frequent

response across all ARP-R for all report writing styles and individual items. The second most

common response was "4" or that raters indicated they "slightly agreed" with specific social

validity questions across report types. In general, most raters (i.e., greater than 75 percent) had a

positive view of each report writing style. For example, the majority of participants provided

ratings on the positive side of the Likert scale which indicated all reports were generally viewed

favorably. Given the relatively few ratings of "6" or ratings of "strongly agree", it was thought

that the ARP-R wasn't suffering from ceiling effects (i.e., a high number of ratings of 6 might

have been an indication of social desirability).

Table 2 provided an overview of responses to individual items on the ARP-R across all three report writing styles. When the ratings for all three report writing styles were combined there was not a high level of variability between individual items. Generally, this confirmed (or supported) two conclusions previously discussed. First as discussed in the literature review, the most recent version of the ARP-R was determined to be a one factor model of "General Assessment Acceptability" and the results of this frequency analysis appear to lend support to this conclusion. With the assumption that all items are measuring the same construct, it would be unsurprising like-items were rated similarly. Second, the results of this frequency analysis visually depict positive ratings across all items consistent with frequent 4's and 5's on the Likert scale.

Table 2

*Comparison of ARP-R Items Across all Three Report Styles*

| ARP-R Items | Descriptives | | |
|---|---|---|---|
| | $M$ | $SD$ | $\sigma^2$ |
| 1. This would be an acceptable assessment report writing style for the child's problems. | 12.56 | 3.23 | 10.43 |
| 2. Most teachers would find this approach to assessment report writing style appropriate for problems in addition to the ones described. | 12.77 | 3.08 | 9.46 |
| 3. This assessment report writing style should prove effective in identifying the child's problems. | 13.25 | 2.81 | 7.88 |
| 4. I would suggest the use of this assessment report writing style to other teachers. | 13.38 | 2.74 | 7.50 |
| 5. I would be willing to receive assessment results using this writing style such as those described with a student transferring into my school district. | 13.83 | 2.62 | 6.87 |
| 6. This assessment report writing style would be appropriate for a variety of children. | 13.39 | 2.71 | 7.36 |

Table 2 (continued)

| ARP-R Items | Descriptives | | |
|---|---|---|---|
| | *M* | *SD* | $\sigma^2$ |
| 7. The assessment report writing style was a fair way to identify the child's problems. | 13.36 | 2.68 | 7.19 |
| 8. This assessment report writing style was reasonable for the problems described. | 13.54 | 2.58 | 6.64 |
| 9. I like the assessment report writing style used in this assessment. | 13.60 | 2.61 | 6.79 |
| 10. This assessment report writing style was a good way to handle the child's problems. | 13.61 | 2.46 | 6.05 |
| 11. Overall, this assessment report writing style would be beneficial for the child. | 13.69 | 2.54 | 6.45 |
| 12. This assessment report writing style is likely to be helpful in the development of intervention strategies. | 13.91 | 2.52 | 6.36 |

*Note. M* (Mean), *SD* (Standard Deviation) & $\sigma^2$ (Variance)

## Statistical Assumptions

As part of the statistical analysis of the data, assumption testing was conducted.

Mauchly's test of sphericity was used to assess whether or not the assumption of sphericity was

met. A violation of this assumption would have meant potential distortions in variance

calculations and thus an increase in the potential of a Type I error. However, this assumption was

met (*p=*.006*)* indicating this assumption was satisfied and the data could be analyzed without

any corrections. The Levine's test of equality of error variances was also completed. This second

assumption was used to evaluate if there were equal variances between groups. These

assumptions were non-significant across the within-subjects variable (report types). This meant

the assumption of homogeneity of variance was met. Taken together, the tests of homogeneity of

variance and tests of sphericity indicated the assumptions were not violated. Given this, the results of ANOVA are likely a reliable good representation of the sample.

**Research Question One: Social Validity of Psychological Report Writing Styles**

The first research of the current study is as follows: Does teachers' ratings of social validity vary based on report writing styles? The first research question examined teachers' (and pre-service teachers) perceptions of the social validity of three psychological report writing styles.

To examine the first research question, a mixed factorial ANOVA was conducted. The within-subjects factor evaluated the effects of report style (i.e., test-by-test, integrated, and theme-based) on the social validity assessment (ARP-R). All raters read all three psychological report writing formats and completed a social validity assessment for each report type. The ANOVA examining the social validity of each report writing style was not statistically significant $F(2, 398) = .294$, $p=.745$. In addition, participants viewed each report writing style similarly: test-by-test, integrated, and theme-based. As previously mentioned, each report was generally rated positively without a significant difference between the reports.

Table 3

*3(Report Type) by 3(Teacher Experience Level) Means and Standard Deviations*

| | Teacher Experience Level | | | | | | | |
| | Novice | | Early Career | | Expert | | Marginal | |
| | M | SD | M | SD | M | SD | M | SD |
|---|---|---|---|---|---|---|---|---|
| Report Type | | | | | | | | |
| Test-by-Test | 51.84 | 8.45 | 54.02 | 9.94 | 53.90 | 9.00 | 53.58 | 9.43 |
| Integrated | 50.16 | 11.88 | 54.25 | 9.80 | 54.21 | 9.77 | 53.47 | 10.29 |
| Theme Based | 50.84 | 11.49 | 54.47 | 10.30 | 54.71 | 10.33 | 53.85 | 10.59 |
| Marginal | 50.95 | 1.43 | 54.25 | .84 | 54.28 | 1.23 | | |

## Research Question Two: Teacher Experience Level and Perceptions

The second research question for the current study is as follows: If there is a difference, does teacher experience contribute to a preference of report writing styles? The second research question evaluated if teacher experience levels impacted their perceptions of psychological report writing styles. The second research question related to both the between-subjects factor which investigated teacher experience level (i.e., pre-service teachers/novice, early career teachers, and expert teachers) and the potential interaction effect between psychological report type and teacher experience level. Each level of experience was grouped for the purpose of this analysis. Consistent with the results of the first research question, the results of this ANOVA were not statistically significant $F(2, 199) = 2.16$, $p=.118$ for main effect of teacher experience level. The interaction effect between the report type and teacher experience was also a nonsignificant result $F(4,398) = .485$, p=.746. Broadly, teacher experience level did not appear to impact teachers' perceptions of social validity.

Regarding descriptive statistics, when the overall group means (pairwise comparisons) were compared (for the experience level) there was a significant difference between pre-service teachers' ratings ($M_{diff} = 3.30$, $SD_{diff}=1.66$, $p=.048$) and the 1-7 years of experience group. The result of the comparison between preservice teachers and teachers with 8 years or more of experience was approaching significance for 8 or more years of experience and the pre-service teachers ($M_{diff} = 3.328$, $SD_{diff}=1.887$, $p=.079$). No difference was found between teachers with more than 1 year of experience ($M_{diff} = 0.29$, $SD_{diff}=1.484$, $p=.985$). Overall, this suggested that the pre-service teachers viewed all reports slightly less favorably than teachers who had 1 to 7 years of experience.

CHAPTER V

DISCUSSION

The purpose of this study was to evaluate teachers' perceptions of psychological report

writing styles. Specifically, this study utilized a novel approach to assess the usefulness, utility,

acceptability, and understandability of three different report writing styles. Research dating back

over 40 years has often complained about traditional report writing practices (Bagnato, 1980;

Harvey, 1997; Weddig, 1984). Oftentimes these complainants have centered around a test-by-test

report writing style which was described in the literature as being filled with jargon (Pelco et al.,

2009), written at a high reading level (Groth-Marnat, 2009), and often lacking critical

interpretation (Rahill, 2018). Integrated reports address many of these concerns by interpreting

assessment data rather than a recitation of scores with the results of each specific assessment

instrument common in test-by test reports (Rahill, 2018). Theme or referral-based report writing

techniques purported to increase the usefulness and overall quality of the reports by making a

variety of structural changes to the integrated report writing format. These included structuring

reports around referral questions, directly linking the assessment results to school/home

functioning, and intervention recommendations which are derived directly from the assessment

results (Hass & Carriere, 2014).

The present study utilized the literature to develop sample reports. These sample reports

were used to examine teachers' perceptions of each style.  A preexisting social validity

assessment (ARP-R; Eckert et al., 1999) was adapted for use in this study, and it was used to

assess if there were differences in how teachers viewed each report writing style. It was hypothesized higher social validity ratings would be given by teachers on the theme-based reports when compared to the integrated and the test-by test report. Additionally, it was hypothesized teacher experience level would impact social validity ratings for report writing style as more experienced teachers may have developed familiarity or preference for the traditional test-by-test report writing style. Related to this, it was hypothesized pre-service (or novice) teachers would prefer theme-based psychological reports as the literature indicated this report writing style would provide information directly relevant to classroom instruction with interventions directly linked to the assessment results (Rahill, 2018).

In total 202 participants completed the study. All participants read all three report writing styles and completed the associated social validity assessment for each report. The results and implications are discussed below.

## Summary and Integration of Results

### Research Question 1

The primary research question was whether social validity ratings vary based on report writing type. As previously mentioned, it was hypothesized the usefulness (i.e., social validity) of reports would be higher with a theme-based report writing style compared to more traditional report writing styles (e.g., integrated and test-by-test). Based on previous research (Pelco et al., 2009; Rahill, 2018), the test-by-test style was believed to have many challenges which would make it less socially valid compared to the newer theme-based psychological reports. Difficulties identified with the test-by-test report writing style included an overemphasis on scores, high levels of jargon, and a lack of integration/interpretation of the data. Theme-based (and to a lesser extent integrated) reports (Rahill, 2018) were purported to address these concerns and were

thought to be more socially valid for teachers. This study found non-significant results for this research question generally suggesting that all report styles were rated as equally socially valid by teachers which does not support previous findings.

**Research Question 2**

The second research question examined teacher experience level on the preference for report writing style. Previous research on teacher experience level and pedagogical skills suggested teachers are able to process and respond to different classroom situations with varying levels of effectiveness based on their years of experience (Berliner, 1988). It was hypothesized that the same could be true when teachers are asked to utilize psychological reports to help inform educational programming. It was also hypothesized more experienced and expert teachers would have a preference for the test-by-test report or integrated report writing styles for a couple of different reasons one of these was familiarity with this type of report. The second was having the expertise to take information (e.g., score on a particular test) and develop instructional strategies for the student based on their past teaching experiences. It was believed the teachers with little experience (i.e., pre-service teachers) would prefer theme-based reports on which this assessment data was more directly linked to instructional strategies and recommendations.

Based on the results of this study there was no significant interaction effect between preference for psychological report writing style and teacher experience level. This was consistent with the results of the first research question. All three levels of teacher experience (novice, early career, and expert) viewed reports similarly across report writing types. In general, this was on the positive side of the Likert scale, suggesting all reports were viewed favorably.

**Additional Findings**

An additional significant finding was related to the social validity assessment (ARP-R). As discussed in Chapter 4, the majority of participants (greater than 75 percent) rated each report in a generally positive direction (i.e., on the positive side of the Likert scale). This included frequent ratings of "slightly agree" and "agree" across raters. In general, it was thought based on the distribution of responses that the ARP-R was not thought to be suffering from ceiling effects as there were fewer "strongly agree" responses.

Regarding the ARP-R responses overall, there are a few potential interpretations for the high level of positive responses on the Likert scale. A straightforward explanation of this could be consistent with the previously discussed research questions as there was no significant difference between the reports regarding social validity. An additional consideration could have been instrumentation concerns. The ARP-R may have not been able to differentiate between report styles. Perhaps with the changes from its original purpose (evaluating the acceptability of interventions) and with the minor adjustments made for the adaptation in this study, there could be additional confounding variables impacting the study's results. A final possibility was related to the readability of the report styles. Given the fact all reports were generally rated positively, a potential explanation for this was related to the adjustments made to the readability of each report writing style. In general, all reports were written at a high school reading level. Perhaps suggesting that higher levels of social validity were potentially more related to reading level rather than an organizational style.

## Integration of Findings with Previous Literature

In general, the results of the literature have varied in previous research examining psychological report writing. The results of the current study may be interpreted similarly.

Similar to the results of Gomez (2005), the present study did not find significant differences in teacher ratings regarding report writing styles. This was for what Gomez termed "preference" and for the current study's social validity ratings. Similar to the current study, Gomez also hypothesized well defined terms and limiting professional jargon (and thus lowering the overall reading level) contributed to the nonsignificant difference between report writing styles.

Additionally, Carriere (2010) examined the concept of usefulness and attempted to define/measure this as it related to psychological report writing styles. While the current study may have expanded upon Carriere's definition of usefulness by broadly examining social validity, the results of the current study did not find significant results. This may have suggested the current study's approach to examining psychological reports (and social validity) was also not able to accurately measure the construct or may lend support to the results of Carriere's study which indicated there was not a significant difference in report writing styles based on usefulness (or other social validity constructs).

A separate study by Hite (2017) did have significant results when examining the perceived usefulness of two report writing types, one a "traditional" report and the second a "consumer-focused" report. The results of this study indicated parents had a strong preference (or high levels of usefulness) for reports which were written in a consumer-focused style. In general, consumer-focused reports had similar definitions as the theme-based report in the current study. While Hite found significant results, the study again emphasized how differences in reading level may have contributed to a preference for the "consumer-focused" report over the traditional report writing model.

In general, the results of this study do not significantly alter past literature recommendations regarding best practices for psychological report writing (Harvey, 2006;

Rahill, 2018). Previous suggestions for improving report writing practices in the literature such as writing reports at a lower reading level, integrating information, and reducing technical jargon all stand as prominent recommendations for psychologists attempting to improve their report writing practices. Based on the results of the current study, when these concerns are addressed less importance/emphasis is needed on specific organizational formats as all report writing styles were endorsed by teachers as having a positive view of each report writing style's social validity.

**Significance and Contribution of the Present Study**

While the current study yielded nonsignificant statistical results, it makes several important contributions to the literature. One of these included extending Bender's (2007) study which was the first to use social validity terms (i.e., acceptability, understandability, and utility) to compare an emerging report writing style to more traditional report writing practices. The current study expanded upon this social validity research by adapting the ARP-R for use in evaluating psychological reports. A similar approach was utilized by Bender (2007), but with the Acceptability, Understandability, and Utility Scale (AUUS). This instrument was more extensive when compared to the ARP-R (21 questions on the AUUS compared to 12 questions on the ARP-R). When the current study was compared to Bender's study several key findings were noted. In Bender's (2007) study school psychologists and teachers rated both traditional reports and "problem solving" reports as equally acceptable, but significantly different regarding treatment utility. Additionally, teachers rated understandability as statistically significant between the two report writing styles.

As this relates to the current study's contributions, it is important to reflect on the initial development of the ARP-R and the implications of the current study. In the development of the ARP-R (Eckert et al., 1999) it was determined to be a one factor instrument which assessed

"General Assessment Acceptability". In general, it is assumed that the same "acceptability" was maintained with the slight changes to the ARP-R for the purpose of this study. With this assumption taken into consideration, the current study's results and Bender's may suggest social validity (as it relates to reports) needs to have a more thorough approach to social validity beyond acceptability.

**Implications for Psychological Practice**

While the results of the current study were not statistically significant, the findings from the current study suggested and confirmed several recommendations from previous literature (Groth-Marnat, 2009; Harvey, 2006; Rahill, 2018). As previously mentioned in the results section, all reports were written at a high school reading level. As a result, a potential conclusion of the study could have been the reports were all acceptable (or socially valid) for the participants due to this adjustment. This suggested that reports should be written at a level which is easily understood by the reader. As Groth-Marnat (2009) explains, these recommendations included shortening sentences, minimizing longer words, and reducing technical jargon. While the organization of psychological reports was hypothesized to play a role in report quality as outlined in the first research question, the reading level of the psychological report was thought to be a more significant variable. In general, psychologists should aim to write reports at a high school reading level or below, rather than the graduate school reading level they are often currently written at (Groth-Marnat, 2009).

Regarding theme-based psychological reports, while the results of the current study indicated teachers viewed both test-by-test and integrated reports similarly this had implications for psychological practice. The results of the current study indicated all reports were rated highly

by a wide variety of participants. This perhaps suggested all reports would be acceptable to teachers if consideration is given to the reading level.

Regarding teacher experience level or the second research question, the nonsignificant results of the ANOVA indicated experience level does not play a significant role in determining how social valid teachers view psychological report writing styles. One minor finding related to the experience level was preservice teachers viewed all reports slightly less favorability than teachers with 1-7 years of experience. This may imply that psychologists give additional consideration when writing for preservice teachers who are beginning to enter the profession such as during their student teaching year.

## Limitations of Study

As with other studies described in the literature, the design of this study was subject to limitations. It is therefore appropriate to examine the factors which may impact the study's ability to draw conclusions about the research questions. Given the primary research questions involved with this study, it is important to acknowledge potential limitations regarding the development and the authentication of each report writing style. Additionally, specific demographic characteristics of the participant sample may impact the ability to generalize the results to the overall population.

### Report Construction

The current study utilized sample reports developed based on the characteristics of each writing style as described in the literature. The process involved with creating these reports was described in detail in Chapter 3, but in general this involved multiple steps which could impact the study's ability to make conclusions about the report writing styles. While the literature

provides suggestions for what constitutes each report writing style, there is likely variability in how one psychologist would write the report compared to another. The same would likely be true when developing reports for research purposes. While the reports developed for the purpose of this study adhered to the criteria of each writing style, variability would likely be present in any study involving psychological reports. In general, it is thought the multiple components (structure, client context, the psychologist's training, etc.) involved in writing psychological reports would likely make it difficult to exactly replicate a report writing style from study to study.

**Report Validation**

As part of the current study's methodology detailed in Chapter 3, after completing all three report writing styles the expert panel was recruited to read all three reports and to determine adherence to the particular report writing style. A potential limitation of this study was the level of agreement between the experts' content rating forms or the adherence to the particular report writing style after two rounds of edits and follow up with the experts. In general, the goal was to ensure at least an average of 80 percent adherence across raters for each report writing style. While this was achieved for the test-by-test report and the theme-based psychological report, the integrated report fell just below this requirement, and thus this may not have fully represented the psychological report writing style described in the literature.

Obviously, deviations from the literature regarding adherence to the report writing style could impact this study's ability to draw conclusions about the results. While this was an important consideration, there are several significant factors to consider when determining the validity of this study's conclusions. While the integrated report did not meet the ideal adherence to the report writing style, this was thought to be relatively minor as it was only one of the three

reports used in the study. It is thought there may have been some overlap in characteristics between the test-by-test report and integrated reports which could have also impacted lower adherence to this report writing style identified by the expert panel. As an additional note (in support of accepting the conclusions of the study), there was not a significant difference between the test-by-test report and the theme-based report which both adhered to their respective content rating forms. This in general supported the idea that there was no difference between teachers' social validity ratings on the ARP-R.

**Generalizability of Sample**

The current study had some limitations regarding its generalizability to the overall population. The participant sample was obtained from direct solicitation of teachers and pre-service teachers from the state of Mississippi via direct email solicitation and social media posts. While this approach may have limited generalizability to other states outside of Mississippi, there was no literature to suggest regional differences would impact teachers views of psychological report writing styles.

Further, the current study's participant sample may not have been a true representation of teachers (and preservice teachers) in the state of Mississippi based on a comparison of demographic characteristics. Differences between the results of the demographic questionnaire and publicly available state and federal educational statistics may suggest the current study would have trouble generalizing to the overall population. According to statistics from the from the 2020-2021 school year (Southern Regional Education Board, n.d.) the Mississippi teacher population was predominantly female (79.8%) which was not consistent with the present study's recruitment (47.0% female).

Additionally, the ethnicity breakdown of all the teachers in Mississippi may not have been reflected in the current study. Based on a national sample (Taie et al., 2022), the current study deviated slightly from national norms in ways which could impact generalizability. Based on Taie et al. (2022), nationally teachers are predominantly White or non-Hispanic (80.3%). Teachers who identified as Hispanic (9.3%), Black/African American (5.8%), Asian (2.4%), and American Indian/Alaska Native (.4%) were also represented in the national sample. In the current study, similar numbers of teachers who identified as Black/African American (8.4%), Hispanic (7.9%), and Asian (5.9%) were observed. Differences were observed in the current study's representation of White/Caucasian (52.0%) and 23.2% for American Indian, Alaska Native, Native American, and Pacific Island (combined for the purposes of comparison) which may impact this studies ability to make generalizations about the sample.

As previously discussed, the majority of teachers in the current study were aged 27-48. Similar national numbers were observed in a national sample. Nationally, 54.6% of teachers were aged 30-49 (Taie et al., 2022). In general, the varied ages obtained in the current study were believed to be representative of the broad teacher population.

Demographic characteristics such as educational level may also provide meaningful context. It also could provide a potential limitation for the sample and the results of the study. State level data from Mississippi indicated 43.1% of teachers had a bachelor's degree, 46.4% had a master's degree, and 8.1% had advanced degrees (i.e., doctorates). The majority of the current sample was highly educated (a master's degree or higher) with 61.4% having a master's degree or higher. The current study may have under sampled bachelor's degree holders (21.3%) and master's degree holders (27.7%). The current study may have over sampled teachers holding a doctorate (19.8%). An over or under sampling of teacher education level could also lead to

generalization concerns. This could also be a sign of selection bias (i.e., the highly educated teachers appeared to be more likely to respond to the survey compared to teachers with bachelor's degrees and below).

Additionally, the exact number of participants who were presented with the opportunity to participate in this study could not be calculated due to the anonymous social media survey links and the indirect way pre-service teachers were recruited. Even with this estimate (and the amount of known direct solicitation of Mississippi teachers), there appeared to be a lower-than-expected response rate which may impact generalizability which may have been indicative of selection bias.

**Procedural Fidelity**

Another limitation of the current study was related to procedural fidelity. This study asked participants to read three psychological reports, an associated form for each report, and a brief demographic questionnaire. The time intensive research demands may have led to some participant fatigue while completing the online survey. The limitation with this involved a lack of a guarantee that participants fully considered all research materials. Perhaps the best measurement of procedural fidelity was the Qualtrics time of completion metric. The average participant took 8 minutes and 42 seconds to complete the entire survey. This was over two times faster than what was estimated in the recruitment materials (Appendix I). Given the wide range of participant completion times (32 seconds to 42 minutes), it is clear there were participants who completed the tasks very quickly while others who took their time. Given this, there was a clear limitation as there was no assessment of procedural fidelity ensuring participants spent the needed time to thoroughly evaluate the report writing styles.

**Social Validity and Preference**

A final potential limitation of this study related the application, measurement, and use of terminology. As mentioned in the literature review, the term social validity has primarily been used within the literature to measure acceptability of the interventions. These same techniques have expanded into other domains of practice as well (Bender, 2007; Eckert et al., 1999). Another closely related term was "preference" which has been utilized in the report writing literature (Gomez, 2005; Rahill, 2018; Wiener & Kohler, 1986). Given the potential overlap and the possibility of one construct contributing to another (i.e., preference falling under the umbrella of social validity or vice versa), it may have been reasonable to use them interchangeably throughout the study as the above-mentioned literature appears to have done.

Conversely, it could be argued the expansive definition of social validity taken within this study including terms like preference, utility, usefulness, understandability, and acceptability were not fully captured with the adapted ARP-R utilized for this study. As discussed in the review of the psychometric properties of the ARP-R (Eckert et al., 1999), there was one "general acceptability" factor. The 12 items on this scale such as the acceptability of the report writing style and how reasonable the report writing style was for the problems described may not have been able to fully capture the concept of social validity in its expanded definition.

**Directions for Future Research**

As a result of this study, several areas of follow up in the psychological report writing and social validity research are recommended. Primarily these involve the intersection of these two variables. While the results of this study were largely nonsignificant, there are several different directions future research could explore with these variables. Future research could explore more thoroughly the concept of social validity of theme-based psychological reports.

While the current study's findings solely examined social validity using an adapted ARP-R, further and more thorough exploration of social validity concepts such as utility, and understandability may be beneficial. These social validity concepts may not have been as clearly assessed by the ARP-R which generally was thought to have assessed report acceptability. Utilizing the AUUS (Bender, 2007) to evaluate report writing styles may provide a more thorough examination of this concept.

While this study focused on teachers' perceptions of psychological report writing types, further examination of parents' social validity ratings for various psychological report writing styles may be warranted. Previous research (Hite, 2017) indicated parental ratings for "usefulness" varied between a traditional report and one which was "consumer-focus". Further research on the specific differences between how teachers and parents view psychological reports may assist school psychologists in tailoring reports for multiple audiences.

Consistent with Hite's (2017) recommendations, a further analysis of the research to practice gap on understanding why improvements to school psychological reports are not being implemented in a significant way. This could include an examination of training in graduate school, implementation challenges of report changes in practice, and applying other best practice recommendations such as lowering the reading level of psychological reports.

Finally, an emerging area of focus in the report writing literature was multicultural considerations when writing. Areas for further research could include writing reports for linguistically diverse clients, changes to in-person verbal feedback sessions, and several of the same concerns described in this study as applied to this unique population (Aldalur et al., 2022). Further report writing research could examine the social validity of reports when these considerations are addressed as part of the assessment process.

## Conclusion

As previously mentioned, frequent complaints dating back several years about psychological reports have included high levels of technical language, an overreliance on scores, lack of child context, and a reading level which is written consistent with the psychologist's graduate school education level rather than the audience reading the report. This study examined report writing styles and teachers' perceptions of each style.

The current study utilized a novel approach to assessing the social validity of more traditional report writing styles and a theme-based report. It was hypothesized with the characteristics of the theme-based report such as having a strong link between the referral concerns, the assessment results, and intervention recommendations it would have an increased level of social validity (acceptability, understandability, utility, etc.) compared to more traditional report writing practices. Additionally, it was hypothesized teacher experience level would impact teachers' social validity for certain report writing styles. Based on the results of this study, these hypotheses were incorrect as all teachers viewed the three reports similarly (generally in the positive direction). Similar levels of readability may have contributed to these findings, perhaps suggesting this was more important compared to the organizational structure of the psychological report.

In general, the results of the current study may encourage psychologists to examine their current report writing practices. It will be important for psychologists to continue to improve the way they write reports regardless of the report writing style to better communicate essential findings to a variety of key stakeholders. Further investigation into various aspects of report writing and the interaction with social validity appear to be warranted. This could include future research on implementation challenges for report writing changes, multicultural report writing,

and further investigation into the relationship between report writing and broad aspects of social

validity.

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APPENDIX A

DEMOGRAPHIC QUESTIONNAIRE

Thank you for agreeing to participate in this research study on psychological assessment reports.

Please select the box that best describes yourself:

1. Number of years working as a teacher

   a. I have less than 1 year of teaching experience, or I am currently enrolled in a teacher education program with at least sophomore status.
   b. I have 1-7 years of teaching experience.
   c. I have 8 or more years of teaching experience.

2. Highest Education Level Obtained

   a. Associates
   b. Bachelors
   c. Masters
   d. Specialist
   e. Doctorate
   f. Post Doctorate

3. Gender

   a. Male
   b. Female
   c. N/A or Other

4. Age

   a. 18-27
   b. 28-37
   c. 38-47
   d. 48-57
   e. 58-67
   f. 68 or older

5. Ethnicity

   a. Hispanic
   b. American Indian or Alaska Native
   c. Asian
   d. Black or African American
   e. Native American or Other Pacific Islander
   f. White or Caucasian
   g. Two or more races
   h. Other

       i.   I prefer not to respond.

6.  Degree of Familiarity with Psychological Reports

    a.  I have never read a psychological report prior to today.
    b.  I read psychological reports infrequently (1-3 reports in a school year).
    c.  I read psychological reports sometimes (4-9 reports in a year).
    d.  I read psychological reports frequently (At least 10 reports in a school year).

7.  Area of Educational Focus/Licensure Endorsements

    a.  Special Education
    b.  General Education
    c.  ESL/Bilingual Teacher
    d.  Specialist (Art, Health, P.E., Music, Vocational, etc.…)
    e.  Other_____

8.  Which best describes your work experience?
    a.  I have primarily worked in public schools.
    b.  I have primarily worked in private schools.
    c.  I have worked in both. Please specify years of experience in each: _____
    d.  I am currently enrolled in a teacher preparation program.

APPENDIX B

TEST-BY-TEST PSYCHOLOGICAL REPORT

## PSYCHOLOGICAL REPORT

| Name: | Jane Doe | Date of Test: | 11/20/19, 12/18/18, 1/8/20, 1/15/20, 1/17/20 |
|---|---|---|---|
| Birthdate: | 08/05/2011 | School: | Anywhere Elementary |
| Age: | 8 | Grade: | 3rd |
| Sex: | Female | Teacher: | Ms. Maria Montessori |
| Parent(s): | Sally Doe | Principal: | Mr. George Feeny |
| Address: | 123 Farmers Lane | Examiner: | Sigmund Freud, Psy.D. |
| Telephone: | 555-5555 | | |

### REASON FOR REFERRAL:
Jane was referred for a comprehensive evaluation by the Special Education Committee due to a suspicion that she met the criteria for a different disability category. The assessment was requested to assist in determining special education eligibility in the areas of Specific Learning Disability and Intellectual Disability.

### BACKGROUND INFORMATION:
At the time of this assessment Jane Doe was an 8-year-old student at Anywhere Elementary who is primarily served in Ms. Montessori's 3rd grade self-contained classroom. She was initially found eligible for special education services under the category of Developmental Delay in December 2013. In September of 2018, she met the criteria for a Specific Learning Disability.  Jane receives special education services 250 minutes per day five times a week. She attends lunch, recess, and P.E. with her general education peers. She receives Speech/Language Therapy for 20 minutes twice per week and Occupational Therapy for 20 minutes once per week. Based on her Quarter 1 progress report, Jane was receiving Developing Proficiency in all academic and behavioral areas.

Jane's previous psychological report indicated cognitive abilities which fell within the Extremely Low range as well as academic achievement scores which were in the Very Low to Low range. Ratings of Jane's adaptive functioning at home and at school revealed greater areas of difficulty in the school setting than when compared to the home setting. Within the home setting, she was in the Average to High Average range. Ratings of her teacher had some variability with her overall adaptive score being in the Below Average range.

Ms. Montessori noted that one of Jane's strengths is her ability to work independently even if her work is not always correct and sometimes off topic. She reportedly can stay on task and is kind to her classmates. Academically, Jane currently knows four letters and their corresponding sounds. According to Ms. Montessori she is not able to identify sight words and has difficulty retaining information which is taught to her. Jane has difficulty with recalling information in a story that has been read to her and reportedly has difficulty sequencing story information. Ms. Montessori reported that Jane has trouble counting 1-15 and has not yet been able to identify all numbers between 1-10. Jane becomes frustrated in the classroom and has difficulty expressing her emotions.

Reportedly she will growl and yell at teachers when asked to complete difficult tasks. She does have access to a calm down corner if needed. Ms. Montessori also indicated Jane struggles with peer interaction. She indicated she will follow peers around and invade their personal space. Her mother reported that Jane wants to be like other kids with regards to her ability to learn. She indicated that within the home and school environment she will shut down frequently. Ms. Doe noted that she believed this was when she was getting used to new people. Her mother noted that loud noises bother her. She also stated that when presented with more than one step directions she only is able to do the first step. She noted medical concerns for Jane included febrile seizures. Ms. Doe did not report any other medical or genetic concerns. Ms. Doe expressed interest in having Jane go to a behavior specialist in the future.

## BEHAVIORAL OBSERVATIONS:
### Classroom Observations
Jane was observed in Ms. Montessori's classroom for approximately 20 minutes. There were three total students in the classroom. Jane was initially observed during a math task. When prompted with a math task she was observed to growl and say no. In response to a teacher redirection she put her head briefly on the desk. Later Jane was observed to be working on the computer with her headphones on. Ms. Montessori set a timer for her as a countdown to her transition to reading. Jane continued to stare at her computer screen. When the timer went off, she was observed to close her computer and go over to Ms. Montessori for individual instruction on reading. Jane received positive praise for completing this transition. Ms. Montessori was observed to use a multi-component intervention to address letter/sound knowledge. Ms. Montessori worked on letter sounds, letter names, writing letters, and tactile letter recognition. Ms. Montessori was observed to provide frequent visual prompts as she was teaching a set of four letters. When Jane wrote the letter incorrectly, she was observed to laugh when told it was incorrect.

### Testing Observations
Jane was observed to come with the examiner willingly for multiple testing sessions. During the assessment Jane was observed to wear a sweatshirt which was too large for her but was generally dressed appropriately for the weather. Jane was observed to provide short one or two-word responses to the questions posed by the examiner which did not always fit the context of the question. As an example, she was unable to give the month or day of the week. During the actual administration of the assessment she was observed to provide answers immediately. As tasks increased in difficulty her responses were observed to become quieter and often difficult to understand. When corrected on teaching items, she was observed to laugh when corrected. Jane was generally observed to be compliant with testing and no obvious signs of frustration were observed during the assessment. When offered the opportunity to continue testing or return to her classroom she was able to make the choice to return to her classroom.

## ASSESSMENT INSTRUMENTS:
Records Review
Behavioral Observations
Woodcock Johnson Fourth Edition, Tests of Achievement, (WJ-IV ACH)
Kaufman Assessment Battery for Children, Second Edition Normative Update (KABC-2 NU)
Adaptive Behavior Assessment System, Third Edition (ABAS-3)

## ASSESSMENT RESULTS:

### *Academic Achievement*

The Woodcock Johnson Fourth Edition Tests of Achievement (WJ-IV ACH) is a comprehensive set of individually administered tests designed to measure educational achievement in the areas of reading, mathematics, and written language. The WJ-IV ACH is used to identify academic strengths and weaknesses and can be used to assist in the identification of learning disabilities. The WJ-IV ACH is appropriate for use in people ages 2 to 90 and above. Scores are presented in standard scores with a mean of 100 and a standard deviation of 15. Selective subtests were administered from the WJ-IV ACH.

| Results of the WJ-IV ACH | | | | |
|---|---|---|---|---|
| Subtest | Standard Score | Percentile Rank | 68 %Confidence Interval | Descriptor |
| **Basic Reading Skills** | <40 | <1 | <40-<40 | Very Low |
| Letter Word Identification | <40 | <1 | <40-<40 | Very Low |
| Word Attack | <40 | <1 | <40-<40 | Very Low |
| **Reading Comprehension** | -- | -- | -- | -- |
| Passage Comprehension | 45 | <1 | 40-50 | Very Low |
| **Mathematics** | <40 | <1 | <40-45 | Very Low |
| Applied Problems | 43 | <1 | <40-48 | Very Low |
| Calculation | <40 | <1 | <40-40 | Very Low |
| **Written Language** | <40 | <1 | <40-71 | Very Low |
| Spelling | <40 | <1 | <40-45 | Very Low |
| Writing Samples | <40 | <1 | <40-101 | Very Low |

The Basic Reading Skills Cluster was composed of Letter Word Identification (reading real letters and words) and Word Attack (reading nonsense words). This was found to be in the Very Low (SS=<40) range which was significantly behind same age peers. Jane was able to identify some letters, but had difficulty identifying other letters and had trouble identifying nonsense words. On Passage Comprehension (SS=45) a measure of reading comprehension, Jane had significant difficulty using context clues to solve problems.

Mathematics provided a broad measure of Jane's *mathematical* ability and it was found to be in the Very Low range (SS=<40). Jane's written expression ability was also assessed to be in the Very Low range (SS=<40). Overall, these skills were noted to be significantly behind her same age peers.

### *Cognitive Functioning*

The Kaufman Assessment Battery for Children, Second Edition Normative Update (KABC-II NU) is an individually administered instrument designed to measure cognitive and processing abilities in children and adolescents ages 3-18. The KABC-II NU is a theory-based instrument which

contributes to a culturally fair assessment. Average scores on the KABC-II NU fall between 85-115. The Fluid-Crystallized Index provided an overall view of cognitive functioning, which was composed of five processing areas.

| Results of the KABC-II NU | | | | |
|---|---|---|---|---|
| *Scale Indexes/FCI* | **Standard Score** | **95% Confidence Interval** | **Percentile Rank** | **Descriptor** |
| *Sequential/Short Term Mem.* | 57 | 53-70 | .2 | Lower Extreme |
| *Simultaneous/Visual Spatial* | 66 | 61-76 | 1 | Lower Extreme |
| *Learning/Long Term Mem.* | 58 | 54-64 | .3 | Lower Extreme |
| *Planning/Fluid Reasoning* | 72 | 67-82 | 3 | Below Average |
| *Knowledge/Crystallized Intel.* | 75 | 70-82 | 5 | Below Average |
| **Fluid-Crystallized Intelligence** | 60 | 57-65 | .4 | Lower Extreme |

Jane obtained scores which were in the Lower Extreme to Below Average range. Jane obtained a Fluid-Crystallized Index (FCI) score which was in the Lower Extreme (SS=60). Her true score likely falls between 57-65 with a confidence interval of 95 percent. This provided an overall view of her mental processing and cognitive abilities. This indicated Jane would be significantly behind same age peers in using these abilities. While there was some variation in her cognitive abilities, in general these were grouped around this overall measure of her ability.

Sequential was a measure of short-term memory ability. Jane was presented with a series of numbers and asked to briefly keep them in her memory. She was also asked to remember sequential patterns and to respond by pointing. Jane had significant difficulty in being able to keep this information briefly in her short-term memory. Jane's overall ability in this area fell in the Lower Extreme (SS=57) better than .2 percent of same age peers.

Simultaneous or visual-spatial thinking includes spatial orientation, the ability to analyze and synthesize visual stimuli, and the ability to survey a spatial field quickly and accurately. This ability was assessed by having Jane reproduce a model and printed designs using colored objects. Jane was also asked to move an object across a board in the fewest number of moves. Jane's overall ability on this fell in the Lower Extreme (SS=66) better than 1 percent of same age peers.

Learning was a measure of long-term memory or Jane's ability to store information over an extended period of time. Jane was required to remember the names of a series of pictures after being told the name by the examiner. She was also required to remember words which were associated with various symbols used to complete sentences. Her overall ability in this area fell in the Lower Extreme range (SS=58) better than .3 percent of same age peers.

Planning, also called fluid reasoning, involves the ability to reason and solve problems that often involve unfamiliar information or procedures. Fluid reasoning involves an individual's ability to

recognize, transform, and use information. This was in the Below Average (SS=72) range better than 5 percent of same age peers.

Knowledge was a measure of crystallized intelligence or Jane's ability to use previously learned information. Knowledge measured her understanding of words and facts using verbal and pictorial stimuli and requiring a verbal or pointing response. While this was a personal strength she was still within the lower end of the Below Average (SS=75) range better than 5 percent of same age peers.

*Adaptive Functioning*
The *Adaptive Behavior Assessment System, Third Edition (ABAS-3)* is a norm-referenced assessment of adaptive skills for individuals from birth to 89 years of age. The ABAS-3 measures adaptive skills such as the ability to care for effectively and independently oneself, respond to others, and meet the demands at home, school, and in the community. It can be used with a variety of respondents including parents or family members, teachers, caregivers, and self. There are 3 adaptive domains: Conceptual, Social, and Practical. The domains have a mean of 100 with a standard deviation of 15. The different adaptive skills areas have a mean of 10 and a standard deviation of 3. The General Adaptive Composite (GAC) summarizes performance across all skill areas and has a mean of 100 with a standard deviation of 15.

| Results of the ABAS-3 – Parent Rating | |
|---|---|
| **Composite**/Subscale | **Score/Percentile** |
| **Conceptual** | **56 (.2)** |
| Communication | 2 |
| Functional Academics | 2 |
| Self-Direction | 3 |
| **Social** | **68 (2)** |
| Leisure | 6 |
| Social | 1 |
| **Practical** | **59 (.3)** |
| Self-Care | 1 |
| School Living | 1 |
| Community Use | 8 |
| Health and Safety | 1 |
| **GAC** | **57 (.2)** |

The General Adaptive Composite (GAC) summarizes performance across all adaptive skill areas. Jane obtained a GAC score of 57. Her true score is likely to fall within the range of 57-63 at a 95% confidence interval. Jane's current overall level of adaptive behavior is in the Extremely Low range better than .3 percent of same age peers. The GAC provides the most broad and complete picture of Jane's adaptive functioning. More detailed information about Jane's adaptive functioning may be obtained from examining Jane's unique performance within adaptive composites scores and individual subscale areas.

The Conceptual domain standard score provides a summary of performance across the subdomains of Communication, Functional Academics, and Self Direction. Jane's Conceptual domain standard score of 56 (95 percent confidence interval of 51-61) is in the Extremely Low range, performing better than .2 percent of same age peers.

The Social domain standard score provides a summary of performance across the subdomains of Leisure and Social. Jane's Conceptual domain standard score of 68 (95 percent confidence interval of 63-73) is in the Extremely Low range, which was better than 2 percent of same age peers.

The Practical domain standard score provides a summary of performance across the subdomains of Self-Care, School Living, Community Use, and Health and Safety. Jane's Practical domain standard score of 59 (confidence interval of 54-64) is in the Extremely Low range or better than .3 percent of same age peers.

## SUMMARY:
Jane Doe is an 8-year-old 3rd grader attending Anywhere Elementary School. She was referred due to the suspicion of her having a different disability than previously thought. Jane is currently served under the category of Specific Learning Disability for which she was found eligible in 2018. Suspected areas of disability are Specific Learning Disability and Intellectual Disability. When she was assessed in 2018, a discrepancy was found between her cognitive and academic abilities. When Jane was assessed in 2018, her cognitive abilities were assessed to be in the Extremely Low range, however adaptive measures from her parent were found to be higher than this in the Below Average to High range, respectively.

Jane spends most of her time within Ms. Montessori's self-contained classroom, although she attends P.E., lunch, and recess with her general education peers. Jane was observed in her classroom to be working on identifying her letters. This was noted to be a difficulty which was also observed during a measure of academic achievement. During testing, Jane was observed to speak in short responses which were often difficult to hear. She provided responses that did not always fit the context of the question.

Overall measures of academic achievement were found to be in the Very Low range. Measures of cognitive ability were found to be in the clinically significant range (<70). Based on Ms. Montessori's ratings of Jane's adaptive functioning, she was also found to be in this range. Overall, Jane demonstrated significant deficits in her cognitive, academic, and adaptive functioning which impacts her educational performance.

## RECOMMENDATIONS:
The following are offered as recommendations for Jane's teachers and mother.
1. These results should be considered with other components by the Special Education Committee when considering Jane's eligibility for special education.
2. Due to Jane's noted difficulty with coming into the personal space of other students, it may be helpful to teach her what spacing is appropriate. One suggestion which may be helpful is to use a hula-hoop as a general guide for staying an appropriate distance from others.

3. Continue to monitor Jane's response to her letter/sound intervention being implemented by Ms. Montessori. It may be helpful to build in a stimulus equivalence procedure to teach the various relationships between the letters (letter name, letter sound, written letters). This may assist in reducing the amount of relationships being taught to Jane. A focus on mastering one relationship (i.e., letter name-letter sound) may be helpful before advancing to a different relationship (i.e., letter sound-written letter). As part of this procedure untaught relationships should emerge.
4. Jane may benefit from instruction on asking for help. A direct lesson involving various steps could include looking at the person, asking the person for help, explaining what she needs help with, and thanking the person for help. This may also assist in reducing Jane's frustration and her tendency to growl.
5. Jane may benefit from explicit instruction on various aspects of adaptive functioning.


_____

Sigmund Freud, Psy.D.
Licensed Clinical Psychologist
Anywhere Public Schools

_____

Date

APPENDIX C

INTEGRATED PSYCHOLOGICAL REPORT

# PSYCHOLOGICAL REPORT

| Name: | Jane Doe | Date of Test: | 11/20/19, 12/18/19, 1/8/20, 1/15/20, 1/17/20 |
|---|---|---|---|
| Birthdate: | 08/05/2011 | School: | Anywhere Elementary |
| Age: | 8 | Grade: | 3rd |
| Sex: | Female | Teacher: | Ms. Maria Montessori |
| Parent(s): | Sally Doe | Principal: | Mr. George Feeny |
| Address: | 123 Farmers Lane | Examiner: | Sigmund Freud, Psy.D. |
| Telephone: | 555-5555 | | |

## REASON FOR REFERRAL:
Jane was referred for a comprehensive evaluation by the Special Education Committee due to a suspicion that she met the criteria for a different disability category. The assessment was requested to assist in determining special education eligibility in the areas of Specific Learning Disability and Intellectual Disability.

## BACKGROUND INFORMATION:
At the time of this assessment Jane Doe was an 8-year-old student at Anywhere Elementary who is primarily served in Ms. Montessori's 3rd grade self-contained classroom. She was initially found eligible for special education services under the category of Developmental Delay in December 2013. In September of 2018 she met the criteria for a Specific Learning Disability. Jane receives special education services 250 minutes per day five times a week. She attends lunch, recess, and P.E. with her general education peers. She receives Speech/Language Therapy for 20 minutes twice per week and Occupational Therapy for 20 minutes once per week. Based on her Quarter 1 progress report, Jane was receiving Developing Proficiency in all academic and behavioral areas.

Jane's previous psychological report indicated cognitive abilities which fell in the Extremely Low range as well as academic achievement scores which were in the Very Low to Low range. Ratings of Jane's adaptive functioning at home and at school revealed greater areas of difficulty in the school setting than when compared to the home setting. Within the home setting, she was in the Average to High Average range. Ratings of her teacher had some variability with her overall adaptive score being in the Below Average range.

Ms. Montessori noted that one of Jane's strengths is her ability to work independently even if her work is not always correct and sometimes off topic. She reportedly can stay on task and is kind to her classmates. Academically, Jane currently knows four letters and their corresponding sounds. According to Ms. Montessori she is not able to identify sight words and has difficulty retaining information which is taught to her. Jane has difficulty with recalling information in a story that has been read to her and reportedly has difficulty sequencing story information. Ms. Montessori reported that Jane has trouble counting 1-15 and has not yet been able to identify all numbers between 1-10. Jane becomes frustrated in the classroom and has difficulty expressing her emotions.

Reportedly she will growl and yell at teachers when asked to complete difficult tasks. She does have access to a calm down corner if needed. Ms. Montessori also indicated Jane struggles with peer interaction. She indicated she will follow peers around and invade their personal space. Her mother reported that Jane wants to be like other kids with regard to her ability to learn. She indicated that within the home and school environment she will shut down frequently. Ms. Doe noted that she believed this was when she was getting used to new people. Her mother noted that loud noises bother her. She also stated that when presented with more than one-step directions she only is able to do the first step. She noted medical concerns for Jane included febrile seizures. Ms. Doe did not report any other medical or genetic concerns. Ms. Doe expressed interest in having Jane go to a behavior specialist in the future.

In summary, Jane has a noted history of developmental delays and a history of receiving special education and related services since the age of 3 years old. Per parent report, Jane struggles with performing basic academic skills, displaying age-appropriate emotional control and socials skills and following two-step directions.

## BEHAVIORAL OBSERVATIONS:
### Classroom Observations
Jane was observed in Ms. Montessori's classroom for approximately 20 minutes. There were three total students in the classroom. Jane was initially observed during a math task. When prompted with a math task she was observed to growl and say no. In response to a teacher redirection, she put her head briefly on the desk. Later Jane was observed to be working on the computer with her headphones on. Ms. Montessori set a timer for her as a countdown to her transition to reading. Jane continued to stare at her computer screen. When the timer went off, she was observed to close her computer and go over to Ms. Montessori for individual instruction in reading. Jane received positive praise for completing this transition. Ms. Montessori was observed to use a multi-component intervention to address letter/sound knowledge. Ms. Montessori worked on letter sounds, letter names, writing letters, and tactile letter recognition. Ms. Montessori was observed to provide frequent visual prompts as she was teaching a set of four letters. When Jane wrote the letter incorrectly, she was observed to laugh when told it was incorrect.

### Testing Observations
Jane was observed to come with the examiner willingly for multiple testing sessions. During the assessment Jane was observed to wear a sweatshirt which was too large for her but was generally dressed appropriately for the weather. Jane was observed to provide short one or two-word responses to the questions posed by the examiner which did not always fit the context of the question. As an example, she was unable to give the month or day of the week. During the actual administration of the assessment she was observed to provide answers immediately. As tasks increased in difficulty her responses were observed to become quieter and often difficult to understand. When corrected on teaching items, she was observed to laugh when corrected. Jane was generally observed to be compliant with testing and no obvious signs of frustration were observed during the assessment. When offered the opportunity to continue testing or return to her classroom she was able to make the choice to return to her classroom.

In summary, Jane was observed to struggle with performing basic academic skills within the classroom and during the formal assessment process. Jane was observed to struggle with self-expression and responding within an age-appropriate manner socially.

**ASSESSMENT INSTRUMENTS:**
Records Review
Behavioral Observations
Woodcock Johnson Fourth Edition, Tests of Achievement, (WJ-IV ACH)
Kaufman Assessment Battery for Children, Second Edition Normative Update (KABC-2 NU)
Adaptive Behavior Assessment System, Third Edition (ABAS-3)

**ASSESSMENT RESULTS:**
*Academic Achievement*
The Woodcock Johnson Fourth Edition, Tests of Achievement (WJ-IV ACH) is a comprehensive set of individually administered tests designed to measure educational achievement in the areas of reading, mathematics, and written language. The WJ-IV ACH is used to identify academic strengths and weaknesses and can be used to assist in the identification of learning disabilities. The WJ-IV ACH is appropriate for use in people ages 2 to 90 and above. Scores are presented in standard scores with a mean of 100 and a standard deviation of 15. Selective subtests were administered from the WJ-IV ACH.

| Results of the WJ-IV ACH | | | | |
|---|---|---|---|---|
| Subtest | Standard Score | Percentile Rank | 68 % Confidence Interval | Descriptor |
| **Basic Reading Skills** | <40 | <1 | <40-<40 | Very Low |
| Letter Word Identification | <40 | <1 | <40-<40 | Very Low |
| Word Attack | <40 | <1 | <40-<40 | Very Low |
| **Reading Comprehension** | -- | -- | -- | -- |
| Passage Comprehension | 45 | <1 | 40-50 | Very Low |
| **Mathematics** | <40 | <1 | <40-45 | Very Low |
| Applied Problems | 43 | <1 | <40-48 | Very Low |
| Calculation | <40 | <1 | <40-40 | Very Low |
| **Written Language** | <40 | <1 | <40-71 | Very Low |
| Spelling | <40 | <1 | <40-45 | Very Low |
| Writing Samples | <40 | <1 | <40-101 | Very Low |

The Basic Reading Skills Cluster was composed of Letter Word Identification (reading real letters and words) and Word Attack (reading nonsense words). This was found to be in the Very Low (SS=<40) range which was significantly behind same age peers. Jane was able to identify some letters, but had difficulty identifying other letters and had difficulty identifying nonsense words. This was consistent with behavioral observations that Jane was still learning letter names and letter sounds, for which Ms. Montessori was providing specially designed instruction.

On Passage Comprehension (SS=45), a measure of reading comprehension, Jane had significant difficulty using context clues to solve problems. With Jane's difficulties on her basic reading skills, it was expected these difficulties would impact her ability to understand what she was reading.

Mathematics provided a broad measure of Jane's mathematical ability and it was found to be in the Very Low range (SS=<40). Jane was able to demonstrate an emerging skill in being able to count simple pictures up to three but struggled when asked to count higher than this. Jane was unable to answer any questions when written in an equation format. At Jane's instructional level, she has likely not been exposed to questions written in this format as Ms. Montessori's math curriculum is still focusing on the use of manipulatives.

Jane's written expression ability was also assessed to be in the Very Low range (SS=<40). Jane was able to copy the letter "H" and write the letter "A", but she had difficulty when asked to write the letters "t", "p" and "w". Jane was also asked to write her name and received credit for having at least two letters correct. Other letters in her name were unrecognizable. In general, her other written language work was difficult to decipher.

Overall, these skills were noted to be significantly behind her same age peers across all areas of academic achievement. Consistent with her previous evaluation, the results of the academic achievement measure indicate that Jane is functioning within the Very Low range in all areas without any noted personal strengths.

*Cognitive Functioning*
The Kaufman Assessment Battery for Children, Second Edition Normative Update (KABC-II NU) is an individually administered instrument designed to measure cognitive and processing abilities in children and adolescents ages 3-18. The KABC-II NU is a theory-based instrument which contributes to a culturally fair assessment. Average scores on the KABC-II NU fall between 85-115. The Fluid-Crystallized Index provided an overall view of cognitive functioning, which was composed of five processing areas.

| Results of the KABC-II NU | | | | |
|---|---|---|---|---|
| *Scale Indexes/FCI* | **Standard Score** | **95% Confidence Interval** | **Percentile Rank** | **Descriptor** |
| *Sequential/Short Term Mem.* | 57 | 53-70 | .2 | Lower Extreme |
| *Simultaneous/Visual Spatial* | 66 | 61-76 | 1 | Lower Extreme |
| *Learning/Long Term Mem.* | 58 | 54-64 | .3 | Lower Extreme |
| *Planning/Fluid Reasoning* | 72 | 67-82 | 3 | Below Average |
| *Knowledge/Crystallized Intel.* | 75 | 70-82 | 5 | Below Average |
| **Fluid-Crystallized Intelligence** | 60 | 57-65 | .4 | Lower Extreme |

Jane obtained scores which were in the Lower Extreme to Below Average range. Jane obtained a Fluid-Crystallized Index (FCI) score which was in the Lower Extreme (SS=60). Her true score

likely falls between 57-65 with a confidence interval of 95 percent. This provided an overall view of her mental processing and cognitive abilities which indicated Jane would be significantly behind same age peers in using these abilities. While there was some variation in her cognitive abilities in general, these were grouped around this overall measure of her cognitive ability. These overall cognitive scores were similar to previously obtained scores from Jane's evaluation in 2018.

The Sequential composite was a measure of short-term memory ability. Jane was presented with a series of numbers and asked to briefly keep them in her memory. She was also asked to remember sequential patterns and was asked to respond by pointing. Jane had significant difficulty in being able to keep this information briefly in her short-term memory. Jane's overall ability in this area fell in the Lower Extreme range (SS=57) and was better than .2 percent of same age peers. This area of weakness helps explain Jane's difficulty in responding to multiple step instructions. Jane appears to have difficulty keeping multistep instructions in her short-term memory to complete the task.

The Simultaneous composite or visual-spatial thinking includes spatial orientation, the ability to analyze and synthesize visual stimuli, and the ability to survey a spatial field quickly and accurately. This ability was assessed by having Jane reproduce a model and printed designs using colored objects. Jane was also asked to move an object across a board in the fewest number of moves. Jane's overall ability on this fell in the Lower Extreme (SS=66) better than 1 percent of same age peers. This is a skill often involved in things like copying from the board or a model in the classroom, which may be a challenge for Jane.

The Learning composite was a measure of long-term memory or Jane's ability to store information over an extended period of time. Jane was required to remember the names of a series of pictures after being told the names by the examiner. She was also required to remember words which were associated with various symbols used to complete sentences. Her overall ability in this area fell in the Lower Extreme range (SS=58) better than .3 percent of same age peers. This could be related to Jane's difficulty with retaining facts such as letter names and letter sounds.  It may appear like she has learned the connection between the letter and letter sound one day but has trouble the next.

The Planning composite, also called fluid reasoning, involves the ability to reason and solve problems that often involve unfamiliar information or procedures. Fluid reasoning involves an individual's ability to recognize, transform, and use information. This was in the Below Average (SS=72) range better than 5 percent of same age peers. This area involved Jane's ability to sequence a story pattern and while it was a weakness when compared to other same age peers, this was a personal strength for Jane.

The Knowledge composite was a measure of crystallized intelligence or Jane's ability to use previously learned information. Knowledge measured her understanding of words and facts using verbal and pictorial stimuli and requiring a verbal or pointing response. While this was a personal strength she was still within the lower end of the Below Average (SS=75) range, scoring better than 5 percent of same age peers. In this area, Jane was able to apply information she had learned in the classroom and at home to solve various problems.

Overall, the results of the cognitive assessment suggest that Jane is performing within the Lower Extreme to Below Average range when her cognitive abilities are compared to same aged peers. Jane demonstrates personal strengths within the areas of planning and knowledge which suggests that she performs best when presented with tasks involving reasoning and problem-solving unfamiliar information or procedures and previously learned information.  On the other hand, Jane demonstrates personal weaknesses when tasks include using her short-term and long-term memory. When comparing Jane's performance on KABC-II NU and WJ-IV ACH, her abilities are commensurate. This means that Jane was performing academically where one would expect based on her cognitive abilities.

*Adaptive Functioning*
The *Adaptive Behavior Assessment System, Third Edition (ABAS-3)* is a norm-referenced assessment of adaptive skills for individuals from birth to 89 years of age. The ABAS-3 measures adaptive skills such as the ability to care for oneself effectively and independently, respond to others, and meet the demands at home, school, and in the community. It can be used with a variety of respondents including parents or family members, teachers, caregivers, and self. There are three adaptive domains: Conceptual, Social, and Practical. The domains have a mean of 100 with a standard deviation of 15.  The different adaptive skills areas have a mean of 10 and a standard deviation of 3. The General Adaptive Composite (GAC) summarizes perform across all skills areas and has a mean of 100 with a standard deviation of 15. Ms. Montessori completed the ABAS-3 based on her knowledge of Jane in the classroom.

| Results of the ABAS-3 – Teacher Rating | |
|---|---|
| **Composite**/Subscale | **Score/Percentile** |
| **Conceptual** | **56 (.2)** |
| Communication | 2 |
| Functional Academics | 2 |
| Self-Direction | 3 |
| **Social** | **68 (2)** |
| Leisure | 6 |
| Social | 1 |
| **Practical** | **59 (.3)** |
| Self-Care | 1 |
| School Living | 1 |
| Community Use | 8 |
| Health and Safety | 1 |
| **GAC** | **57 (.2)** |

The General Adaptive Composite (GAC) summarizes performance across all adaptive skill areas. Jane obtained a GAC score of 57. Her true score is likely to fall within the range of 57-63 at a 95% confidence interval. Jane's current overall level of adaptive behavior is in the Extremely Low range better than .3 percent of same age peers. The GAC provides the most broad and complete picture of Jane's adaptive functioning. More detailed information about Jane's adaptive functioning may

be obtained from examining Jane's unique performance within adaptive composites scores and individual subscale areas.

The Conceptual domain standard score provides a summary of performance across the subdomains of Communication, Functional Academics, and Self Direction. Jane's Conceptual domain standard score of 56 (95 percent confidence interval of 51-61) is in the Extremely Low range, and she performed better than .2 percent of same age peers.

The Social domain standard score provides a summary of performance across the subdomains of Leisure and Social. Jane's Conceptual domain standard score of 68 (95 percent confidence interval of 63-73) is in the Extremely Low range, which was better than 2 percent of same age peers.

The Practical domain standard score provides a summary of performance across the subdomains of Self-Care, School Living, Community Use, and Health and Safety. Jane's Practical domain standard score of 59 (confidence interval of 54-64) is in the Extremely Low range or better than .3 percent of same age peers.

Overall, based on Ms. Montessori's ratings, Jane's performance in the area of adaptive functioning fell within the Extremely Low range and her performance in this area was commensurate with her cognitive ability obtained on the KABC-II NU and her academic performance. The results of the ABAS-3 suggest personal strengths within the area of social functioning, indicating that she performs best in social situations.

**JUSTIFICATION FOR INCONSISTENCIES:**

The results of the ABAS-3 in the current assessment were significantly lower than those obtained during Jane's last evaluation. While the previous evaluation found higher scores from both Ms. Doe and her former classroom teacher, it is believed based on the data (i.e., classroom observations, interviews, and direct assessment) that the current assessment provides a more accurate representation of Jane's adaptive ability. Given this, the Special Education Committee may wish to consider alternatives to her current eligibility category of Specific Learning Disability.

**SUMMARY:**
Jane Doe is an 8-year-old 3rd grader attending Anywhere Elementary School. She was referred due to the suspicion of her having a different disability. Jane is currently served under the category of Specific Learning Disability for which she was found eligible in 2018. Suspected areas of disability are Specific Learning Disability and Intellectual Disability. When she was assessed in 2018 a discrepancy was found between her cognitive and academic abilities. When Jane was assessed in 2018 her cognitive abilities were assessed to be in the Extremely Low range, however adaptive measures from her teachers and parent were found to be higher than this falling in the Below Average to High range, respectively.

Jane spends the majority of her time within Ms. Montessori's self-contained classroom, although she attends P.E., lunch, and recess with her general education peers. Jane was observed in her classroom to be working on identifying her letters. This was noted to be a difficulty which was

also observed during a measure of academic achievement. Overall measures of academic achievement were found to be in the Very Low range. During testing, Jane was observed to speak in short responses which were often difficult to hear. She provided responses that did not always fit the context of the question. Two measures of cognitive ability were found to be in the clinically significant range (<70). Based on Ms. Montessori's ratings of Jane, her adaptive functioning was also found to be in this range. Overall, Jane demonstrated significant deficits in her cognitive, academic, and adaptive functioning which impacts her educational performance.

**RECOMMENDATIONS:**
The following are offered as recommendations for Jane's teachers and mother.
1. These results should be considered with other components by the Special Education Committee when considering Jane's eligibility for special education.
2. Consistent with her lower adaptive functioning on the ABAS-3 (and Jane's noted difficulty with coming into the personal space of other students) it may be helpful to teach her what spacing is appropriate. One suggestion which may be helpful is to use a hula-hoop as a general guide for staying an appropriate distance from others.
3. Consistent with Jane's lower academic functioning, it will be important to continue to monitor Jane's response to her letter/sound intervention being implemented by Ms. Montessori. It may be helpful to build in a stimulus equivalence procedure in order to teach the various relationships between the letters (letter name, letter sound, written letters). This may assist in reducing the amount of relationships being taught to Jane. A focus on mastering one relationship (i.e., letter name-letter sound) may be helpful before advancing to a different relationship (i.e., letter sound-written letter). As part of this procedure untaught relationships should emerge.
4. Consistent with various social skills concerns expressed by Ms. Montessori, Jane may benefit from instruction on asking for help. A direct lesson involving various steps could involve looking at the person, asking the person to help, explaining what she needs help with, and thanking the person for help. This may also assist in reducing Jane's frustration and her tendency to growl.
5. Jane may benefit from explicit instruction on various aspects of adaptive functioning.

_____
Sigmund Freud, Psy.D.
Licensed Clinical Psychologist
Anywhere Public Schools

_____
Date

APPENDIX D

THEME-BASED PSYCHOLOGICAL REPORT

# PSYCHOLOGICAL REPORT

| Name: | Jane Doe | Date of Test: | 11/20/19, 12/18, 1/8/20, 1/15, 1/17 |
|---|---|---|---|
| Birthdate: | 08/05/2011 | School: | Anywhere Elementary School |
| Age: | 8 | Grade: | 3rd |
| Sex: | Female | Teacher: | Ms. Maria Montessori |
| Parent(s): | Sally Doe | Principal: | Mr. George Feeny |
| Address: | 123 Farmers Lane | Examiner: | Sigmund Freud, Psy.D. |
| Telephone: | 555-5555 | | |

## REASON FOR REFERRAL & ASSESSMENT QUESTIONS:

Jane was referred for a comprehensive evaluation by her teacher and the Special Education Committee due to a suspicion of her having significantly lower adaptive skills than identified in her previous assessment in 2018. She was initially found eligible for special education services under the category of Developmental Delay in December 2013. In September of 2018 she met the criteria for a Specific Learning Disability. Jane receives special education services 250 minutes per day five times a week. She receives Speech/Language Therapy for 20 minutes twice per week and Occupational Therapy for 20 minutes once per week. Based on her Quarter 1 progress report Jane was receiving Developing Proficiency in all academic and behavioral areas. Jane attends her general education class for lunch, recess, and P.E.

This comprehensive assessment is being conducted to answer the following questions.
1. How do previous schooling, environmental factors, and health impact Jane's educational performance?
2. What are Jane's current levels of intellectual and academic development?
3. How well developed are Jane's adaptive skills? For example, how independent is she in the school environment?
4. What are Jane's behavioral strengths and weaknesses in the classroom.
5. What if any additional educational supports are necessary for Jane to meet her educational goals?
6. Does Jane continue to qualify for special education services and if so what educational diagnosis or classification best fits the data?

## ASSESSMENT PROCEDURES:
1. Review of educational records, which included prior assessments conducted by Anywhere School District in 2013 and 2018.
2. Jane was observed in Ms. Montessori's classroom and was observed over several testing sessions.
3. Ms. Montessori and Ms. Doe were interviewed as part of the assessment.
4. Ms. Montessori completed the Adaptive Behavior Assessment System 3rd Edition.

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5. Jane completed the Kaufman Assessment Battery for Children, 2<sup>nd</sup> Edition Normative Update and Woodcock Johnson Tests of Academic Achievement Fourth Edition.

**Assessment Results:**
**How do previous schooling, environmental factors, and health impact Jane's educational performance?**

Jane has an extensive history of intervention and receiving specially designed instruction through special education services. Jane has received services since she was found eligible under the category of Developmental Delay in December of 2013 and is currently served under the special education category of Specific Learning Disability. She has attended Anywhere Elementary School since Prekindergarten. This year Jane has received services targeted at addressing early phonemic reading skills and currently knows four letters and their corresponding sounds. She also receives early numeracy skills instruction as she is working on being able to count from 1-15 and being able to recognize these numbers.

Jane has been a generally healthy child and has attended school on a regular basis. Ms. Doe reported that Jane had a history of febrile seizures when she was younger. She reported no other medical or genetic concerns.  Ms. Doe and Ms. Montessori reported that she is happy to come to school every morning. Ms. Doe reported that she was interested in Jane receiving behavior therapy but had not begun this service at the time of the interview.

Her mother reported that Jane wants to be like other kids with regards to her ability to learn. She indicated that within the home and school environment she will shut down frequently. Ms. Doe noted that she believed this was when she was getting used to new people. Her mother noted that loud noises bother her.  She also stated that when presented with more than one step directions she only is able to do the first step.

**What are Jane's current levels of intellectual and academic development?**
Jane's intellectual and academic development were assessed using a multifaceted approach which included record reviews, teacher reports, classroom observations, work samples, and standardized assessment. Jane's overall intellectual development was found to be consistently behind same age peers from a young age. The results of this assessment were consistent with previous evaluations which found cognitive abilities to be in the Very Low range and this helps explain Jane's current and past academic difficulties.

When Jane's teacher Ms. Montessori was interviewed, she noted Jane has had particular difficulty with being able to retain information. For example, Ms. Montessori was observed to use a multi-component intervention to address letter/sound knowledge. Ms. Montessori worked on letter sounds, letter names, writing letters, and tactile letter recognition. Ms. Montessori was observed to provide frequent visual prompts as she was teaching a set of four letters. When Jane wrote the letter incorrectly, she was observed to laugh when told it was incorrect. While this intervention was a good example of Ms. Montessori providing Jane specially designed instruction, Jane continues to have difficulty with letter sound recognition.  As reported by her teacher and mother, she will be able to recognize letters one day, but when asked the next day she will be unable to say

the correct letter name or sound. The results of the standardized cognitive testing help explain these academic difficulties. Short-term and long-term memory concerns were noted, as measured by an individually administered standardized cognitive assessment.

Academically the results of this assessment (grades, record review, teacher interview, standardized testing, etc.) were also consistent with the previous data obtained in the assessment from 2018. For the first quarter this year Jane was receiving grades of DP or "developing proficiency" in all areas which means that while she was progressing to meet standards, she continued to have areas to improve upon. In Ms. Montessori's classroom, Jane receives differentiated instruction at a kindergarten level. Jane continues to make inconsistent progress towards her academic IEP (Individualized Education Program) goals. Standardized academic achievement measures all fell in the Very Low range. Given this, it may be helpful to examine Jane's academic data from the current assessment to further understand Jane's strengths and skills to teach her next.

In the area of reading, Jane is currently being taught many of the foundational skills required to be an effective reader. These included basic reading skills such as letter knowledge, letter sounds, phonological awareness, and sight word recognition. Based on the results of the assessment, Jane was inconsistent at being able to name various letters and their associated sounds. This was consistent with reports from her teacher that she was still acquiring these skills. Jane was unable to identify sight words or use reading decoding strategies to identify nonsense words. Jane was also noted to have difficulty using context clues to complete sentences on a test of reading comprehension. *Given Jane's current level of reading it is important to focus on a phonics approach to teaching reading. Until Jane masters the ability to identify letters and the associated sounds, it is important to focus on these skills before moving on to sight word recognition. Interventions such as stimulus equivalence have been shown to be effective at being able to establish these relationships.*

In the area of mathematics Jane is currently being taught foundational numeracy skills such as being able to identify numbers, counting, and using manipulatives. Jane was able to demonstrate an emerging skill in being able to count simple pictures up to three but struggled when asked to count higher than this. Jane was unable to answer any questions when written in an equation format. At Jane's instructional level, she has likely not been exposed to questions written in this format as Ms. Montessori's math curriculum is still focusing on the use of manipulatives. *In order for Jane to begin to make the association between the manipulatives and written equations it may be beneficial to pair these two together when Ms. Montessori works with Jane.*

In the area of writing and written expression, Jane was able to copy the letter "H" and then write the letter "A", but she had difficulty when asked to write the letters "t", "p" and "w". Jane was also asked to write her name and received credit for having at least two letters correct. Other letters in her name were unrecognizable. In general, her other written language work was difficult to decipher. While these skills were consistent with reports from Ms. Montessori, they were notably below grade level. *As part of the stimulus equivalence procedure described above, it may be helpful to include a written component when teaching Jane to write various letters. An emphasis should be placed on her ability to write basic letters before asking her to compose sentences.*

**How well developed are Jane's adaptive skills? For example, how independent is she in the school environment?**

Data obtained from the adaptive measure completed with Ms. Montessori was consistent with results obtained on the cognitive measure from this assessment. Overall, on this assessment Ms. Montessori rated Jane's adaptive abilities as falling in the Extremely Low range. Within the school environment, Jane's adaptive behavior was significantly behind same age peers. As part of this evaluation, Ms. Montessori completed an adaptive rating scale which rated Jane's ability to cope with everyday demands and her ability to take care of herself. Jane's previous psychological report's data from 2018 was also reviewed as part of this evaluation. In general, the results of those adaptive assessments from her former teacher and her mother were significantly higher than what was obtained in the current assessment. It is believed the current assessment data provides a clearer picture of Jane's adaptive skills.

Within the school environment, Jane has been able to show Ms. Montessori that she can do several behaviors. These are behaviors Jane can do by herself without help from adults. In the area of communication, Jane was able to demonstrate her ability to shake her head yes or no in response to simple questions. Jane is also able to arrive at her class and school on time. With regards to her play, she is able to wait her turn when playing games and other activities. Jane was rated as being able to show respect for school property. When in the cafeteria she is able to return her dirty dishes to the correct spot. *In order to continue to maintain these skills, Ms. Montessori is encouraged to occasionally reinforce these skills as she sees fit.*

Ms. Montessori identified several skills to teach Jane next, which can be areas to target for intervention in the classroom. Skills to teach next in the area of communication and academics included being able to use sentences which included both a noun and a verb. Another skill to teach next, included being able to speak clearly and distinctly. *Within the classroom, Ms. Montessori can continue to encourage and practice with Jane on speaking slowly. This can be done by prompting and modeling. Continued consultation with the Speech Language Pathologist as necessary is appropriate.*

Jane was rated as having difficulties with selecting free time activities independently. As rated by Ms. Montessori, Jane is unable to select activities without frequent prompting. Instead when free time becomes available Jane will sit at her desk rather than going to select an activity to play with. *It may be helpful initially to present Jane with two choices of free time activities, to make her choices clearer. The number of options may be increased over time.*

Jane was noted as having difficulty with being able to identify various community services such as the fire station, gas station, and hospital. Ms. Montessori also did not believe she would be able to call for help if someone needed assistance. *A "community helpers" lesson may be helpful for not only Jane, but others in her classroom. A focus on what each service does and how to access those services (e.g., dialing 911 in an emergency) will be an important life skill for Jane.*

**What are Jane's behavioral strengths and weaknesses in the classroom?**

When Ms. Montessori was interviewed, she discussed Jane's strengths as well as behavioral concerns. Ms. Montessori noted that one of Jane's strengths is her ability to work independently

even if her work is not always correct and sometimes off topic. She reportedly is able to stay on task and is kind to her classmates.  Jane has difficulty with expressing her emotions and often becomes frustrated in the classroom. Reportedly she will growl and yell at teachers when asked to complete difficult tasks. She does have access to a calm down corner if needed. *Jane would benefit from being provided direct instruction on alternatives to growling (e.g., asking for a break). While it is great that Jane does have access to the calm down corner, she may not be able to ask for it.*

Ms. Montessori also indicated Jane struggles with peer interaction. She indicated she will follow peers around and invade their personal space. *Jane may benefit from being paired with another student who demonstrates good peer interaction to serve as a positive role model. A hula hoop has been used before to help demonstrate the concept of personal space and may be beneficial in Ms. Montessori's classroom.*

**What if any additional educational supports are necessary for Jane to meet her educational goals?**
Prior to referring Jane for an evaluation, the Special Education Committee met and wanted to use this evaluation to assist in determining any additional supports which might be necessary for Jane. Jane is currently being served in a self-contained classroom with students who have various disabilities. While the previous evaluation from 2018 found adaptive scores in the average to below average range, the Special Education Committee believed these may not be accurate. The data from this current evaluation found significantly lower scores.  This may indicate the need for additional intervention in life skills areas.

While it is important for Jane to continue to receive academic interventions in the areas of early phonics and early mathematical skills, it is important to also consider Jane's need to receive functional life skills instruction. The results of this assessment emphasized the need to target several areas of adaptive functioning. *It is recommended that Jane's teachers consider the need to add additional services to better support Jane's educational progress.*

Ms. Doe indicated Jane's desire to be "just like" the other kids in her class. While Jane requires significant academic supports, she continues to attend P.E., lunch, and recess with her general education class. *It is recommended that Jane continue to attend these classes in order to develop her social skills with various peers.*

**Does Jane continue to qualify for special education services and if so what educational diagnosis or classification best fits the data?**
Jane currently receives special education services under the category of Specific Learning Disability, and she was referred due to a suspicion of her having an Intellectual Disability. While the data from previous assessment reports supported a Specific Learning Disability, the Special Education Committee believed the data may have been inaccurate, specifically in the adaptive functioning area.

While Jane technically still has a discrepancy between her intellectual ability and academic achievement, her cognitive ability continues to be significantly behind same age peers. Based on her performance on a measure of cognitive ability and an adaptive measure completed by Ms.

Montessori, Jane demonstrated significant difficulties in both areas. The state's definition of an intellectual disability stipulates concurrent presentation of a cognitive score which is 2.0 standard deviations below the mean, as well as significant impairment in adaptive functioning which is 2.0 standard deviations below the mean. Based on the results of this assessment, the data supports that Jane meets these criteria. However, the results of this assessment are just one component and should be considered with other components as part of the Special Education Committee.


_____

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Anywhere Public Schools

_____

Date

APPENDIX E

ASSESSMENT RATING PROFILE-REVISED

**Please circle the number that best describes your agreement or disagreement with each of the following statements.**

| | Strongly Disagree | Disagree | Slightly Disagree | Slightly Agree | Agree | Strongly Agree |
|---|---|---|---|---|---|---|
| 1. This would be an acceptable assessment report writing style for the child's problems. | 1 | 2 | 3 | 4 | 5 | 6 |
| 2. Most teachers would find this approach to assessment report writing style appropriate for problems in addition to the ones described. | 1 | 2 | 3 | 4 | 5 | 6 |
| 3. This assessment report writing style should prove effective in identifying the child's problems. | 1 | 2 | 3 | 4 | 5 | 6 |
| 4. I would suggest the use of this assessment report writing style to other teachers. | 1 | 2 | 3 | 4 | 5 | 6 |
| 5. I would be willing to receive assessment results using this writing style such as those described with a student transferring into my school district. | 1 | 2 | 3 | 4 | 5 | 6 |
| 6. This assessment report writing style would be appropriate for a variety of children. | 1 | 2 | 3 | 4 | 5 | 6 |
| 7. The assessment report writing style was a fair way to identify the child's problems. | 1 | 2 | 3 | 4 | 5 | 6 |
| 8. This assessment report writing style was reasonable for the problems described. | 1 | 2 | 3 | 4 | 5 | 6 |
| 9. I liked the assessment report writing style used in this assessment. | 1 | 2 | 3 | 4 | 5 | 6 |
| 10. This assessment report writing style was a good way to handle the child's problems. | 1 | 2 | 3 | 4 | 5 | 6 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 11. Overall, this assessment report writing style would be beneficial for the child. | 1 | 2 | 3 | 4 | 5 | 6 |
| 12. This assessment report writing style is likely to be helpful in the development of intervention strategies. | 1 | 2 | 3 | 4 | 5 | 6 |

APPENDIX F

EXPERT PANEL PROCEDURES AND EXPERT EQUIVALENCY RATINGS OF REPORTS

Instructions:

I am seeking your assistance with my dissertation related to the examination of social validity of various assessment report writing formats. As you know, school psychologists spend a large majority of their time completing assessments and specifically writing the accompanying report. Reports are often the vehicle which teachers can reference as they develop interventions to put in place in their classroom, therefore it is important our reports are written in a way which is useful for the consumer.

I wish to investigate three common assessment report writing formats to determine teachers' perceptions of the social validity of each format. Each participant will be asked to read all report formats and complete a measure of social validity for each format. The three formats are a test-by-test report format, an integrated style report, and a theme-based assessment report. Based on this, it is important to ensure each of these reports styles has similar content and each would provide an adequate representation of the different report writing styles.

It is therefore necessary to ask you as part of my expert panel to answer a twofold question. Are the three enclosed assessment reports equivalent and do they adhere closely to the literature on each report writing style? After reading the reports, kindly complete the items below. Thank you.

After reviewing all reports, mark the following statement that best describe your expert opinion

when comparing all three reports by marking your response as "Yes" or "No."

| | | |
|---|---|---|
| 1. The three reports contain similar information (e.g., reason for referral, background, observations, scores) for the child. | Yes | No |
| 2. The three reports contain equivalent descriptions or interpretations of test results. | Yes | No |
| 3. After reading the three reports, I drew the same conclusions about the child's strengths and weaknesses. | Yes | No |
| 4. The three reports are similar in terms of clarity in communicating ideas. | Yes | No |
| 5. The three reports are equivalent in complexity of vocabulary, technical terms, and word usage. | Yes | No |
| 6. The three reports are comparable in terms of length, organization, and use of appropriate headings and tables. | Yes | No |

When comparing the three assessment reports, did you have any significant concerns about their

equivalence? If so, what are these concerns?

_____

_____

_____

APPENDIX G

CONTENT RATING FORMS

**Please complete the following for each psychological report.**

| Test-by-Test Report Content Rating Form | | | Correct Response |
|---|---|---|---|
| 1. The report is organized based on referral concerns and themes, instead of in the order of tests given. | Yes | No | No |
| 2. The report is easily understood by a layperson without assessment experience. | Yes | No | No |
| 3. The report contains technical terms and/or jargon. | Yes | No | Yes |
| 4. The assessment results are directly linked to the interventions and recommendations. | Yes | No | No |
| 5. The emphasis of this report is on the student's characteristics rather than test scores. | Yes | No | No |
| 6. The information is well integrated across sources of data and taken from multiple sources throughout the assessment report. | Yes | No | No |
| 7. The student's strengths and weaknesses are well identified. | Yes | No | No |
| 8. Interpretation is well-explained and easy for the reader to understand without assessment experience. | Yes | No | No |
| 9. Contradictory information is explained and resolved. | Yes | No | No |
| 10. This report would increase the reader's understanding of the student. | Yes | No | No |

When reading the test-by-test report writing style, did you have any significant concerns about adherence to the model? If so, what are these concerns?

_____

_____

_____

| Integrated Report Content Rating Form | | | Correct Response |
|---|---|---|---|
| 1. The report is organized based on referral concerns and themes, instead of in the order of tests given. | Yes | No | No |
| 2. The report is easily understood by a layperson without assessment experience. | Yes | No | Yes |
| 3. The report contains technical terms and/or jargon, but it is sufficiently explained. | Yes | No | Yes |
| 4. The assessment results are directly linked to the interventions and recommendations. | Yes | No | Yes |
| 5. The emphasis of this report is on the student's characteristics rather than test scores. | Yes | No | No |
| 6. The information is well integrated across sources of data and taken from multiple sources throughout the assessment report. | Yes | No | Yes |
| 7. The student's strengths and weaknesses are well identified. | Yes | No | Yes |
| 8. Interpretation is well-explained and easy for the reader to understand without assessment experience. | Yes | No | No |
| 9. Contradictory information is explained and resolved. | Yes | No | Yes |
| 10. This report increases the reader's understanding of the student. | Yes | No | Yes |

When reading the integrated report writing style, did you have any significant concerns about

adherence to the model? If so, what are these concerns?

_____

_____

_____

| Theme Based Report Content Rating Form | | | Correct Response |
|---|---|---|---|
| 1. The report is organized based on referral concerns instead of in the order of tests given. | Yes | No | Yes |
| 2. The report is easily understood by a layperson without assessment experience. | Yes | No | Yes |
| 3. The report is free from technical jargon. | Yes | No | Yes |
| 4. The assessment results are directly linked to the interventions and recommendations. | Yes | No | Yes |
| 5. The emphasis of this report is on the student's characteristics rather than test scores. | Yes | No | Yes |
| 6. The information is well integrated across sources of data and taken from multiple sources throughout the assessment report. | Yes | No | Yes |
| 7. The student's strengths and weaknesses are well identified. | Yes | No | Yes |
| 8. Interpretation is well-explained and easy for the reader to understand without assessment experience. | Yes | No | Yes |
| 9. Contradictory information has been resolved. | Yes | No | Yes |
| 10. This report increases the teacher's understanding of the student. | Yes | No | Yes |

When reading the theme-based report writing style, did you have any significant concerns about

adherence to the model? If so, what are these concerns?

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APPENDIX H

INSTITUTIONAL REVIEW BOARD APPROVAL

**NOTICE OF DETERMINATION FROM THE HUMAN RESEARCH PROTECTION PROGRAM**

**DATE:** November 16, 2021

**TO:** Tawny McCleon, PhD, Counseling Ed Psyc & Foundations, Kayla Bates-Brantley;Kasee Stratton-Gadke;Tianlan Wei

Adam Weseloh, SSP, Counsel Ed Psych & Foundation, Kayla Bates-Brantley, PhD, Counseling

Ed Psyc & Foundations, Kasee Stratton-Gadke, PhD, T.K. Martin Ctr for Tech & Disab, Tianlan Wei, PhD, Counseling Ed Psyc & Foundations

**PROTOCOL TITLE:** Evaluating Teachers' Perception of the Social Validity of Psychological Report Writing

**FUNDING SOURCE:** Styles

**PROTOCOL NUMBER:** IRB-21-411

Approval Date: November 16, 2021          Expiration Date: November 15, 2026

EXEMPTION DETERMINATION

The review of your research study referenced above has been completed. The HRPP had made

an Exemption Determination as defined by 45 CFR 46.104(d)2. Based on this determination, and

in accordance with Federal Regulations, your research does not require further oversight by the

HRPP.

Employing best practices for Exempt studies is strongly encouraged such as adherence to the

ethical principles articulated in the Belmont Report, found at www.hhs.gov/ohrp/regulations-

and-policy/belmont-report/# as well as the MSU HRPP Operations Manual, found at

www.orc.msstate.edu/humansubjects. As part of best practices in research, it is the responsibility

of the Principal Investigator to ensure that personnel added after this Exemption Determination

notice have completed IRB training prior to their involvement in the research study.

Additionally, to protect the confidentiality of research participants, we encourage you to destroy

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private information which can be linked to the identities of individuals as soon as it is reasonable to do so.

Based on this determination, this study has been inactivated in our system. This means that recruitment, enrollment, data collection, and/or data analysis **<u>CAN</u>** continue, yet personnel and procedural amendments to this study are no longer required. **If at any point, however, the risk to participants increases, you must contact the HRPP immediately. If you are unsure if your proposed change would increase the risk, please call the HRPP office and they can guide you.**

If this research is for a thesis or dissertation, this notification is your official documentation that the HRPP has made this determination.

If you have any questions relating to the protection of human research participants, please contact the HRPP Office at irb@research.msstate.edu. We wish you success in carrying out your research project.

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**Review Type:**　　　　　EXEMPT
**IRB Number:**　　　　　IORG0000467

APPENDIX I

SOCIAL MEDIA RECRUITMENT

Are you a teacher or pre-service teacher in Mississippi? Consider helping me complete my dissertation research on psychological report writing practices with this 20-to-30-minute online survey! Four lucky participants will be randomly selected to receive a gift card.

APPENDIX J

DISSERTATION RECRUITMENT EMAIL

Hello,

I am writing to let you know about an opportunity to participate in a voluntary dissertation research study about psychological report writing practices. This study is being conducted by Adam Weseloh, Doctoral Candidate under the supervision of Tawny McCleon, PhD at Mississippi State University.

Participation includes reading three psychological report writing formats and completing a brief Likert scale about each report. It is expected to take 20 to 30 minutes of your time. As part of the study, we are looking for teachers of all experience levels as well as teacher education candidates currently enrolled in their program with at least sophomore level status. Participants must be working in or attending school in Mississippi. Participants will be randomly selected to receive one of four Amazon gift cards for their participation in the study. Please feel free to share with friends, colleagues, and students who meet the criteria for participation in this study.

If you would like additional information about this study, please contact us at aw2888@msstate.edu or tmccleon@colled.msstate.edu .

Thank you for your consideration, and once again, please do not hesitate to contact us if you are interested in learning more about this Institutional Review Board (IRB-21-411) approved project.

Thanks,

Adam Weseloh, SSP
Doctoral Candidate
Mississippi State University