

# What Support Truly Means to Students With Learning Disabilities: Centering Student Voices in Developing the Winston Support Questionnaire

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## Abstract

Teacher and family support play an essential role in students' academic and social-emotional development, yet few self-report instruments exist to measure this support, particularly for students with learning disabilities (SwLD). This article reports on the outcome of two studies conducted to develop and validate an instrument to assess the perceived support from families and teachers among SwLD. In Study 1, SwLD's descriptions of how their teachers and families supported them were analyzed via content analysis to develop the Winston Support Questionnaire (WSQ). Study 2 used the results of Study 1's analysis to determine the reliability and validity of the WSQ. Factor analyses confirmed a two-factor structure, representing teacher and family support, both with high internal reliability. Additionally, the WSQ's subscales correlated positively with related measures of home and school atmosphere, supporting its convergent validity. These findings provide evidence that the WSQ is a promising tool for assessing perceived support from parents and teachers. Because the findings are preliminary, they should be interpreted cautiously and replicated in larger and more diverse samples before broader conclusions can be drawn. Nevertheless, the WSQ may offer a quick and practical way to assess how much teachers and families are supporting SwLD, which could be useful for intervention and longitudinal research.

*Keywords:* Teacher support, family support, learning disabilities, self-report, scale development

Supportive relationships with teachers and families are widely recognized as foundational to students' academic, social, and emotional development, particularly in the general student population (Ma et al., 2023; Roorda et al., 2011; Rucinski et al., 2018). In general education contexts, students who perceive consistent encouragement, high expectations, and advocacy from families demonstrate greater academic persistence, stronger socioemotional functioning, and more adaptive responses to school-related stress (El Nokali et al., 2010; Gordon-Hollingsworth et al., 2015; Nichols & Islas, 2016; Sheridan & Kim, 2015a). Similarly, positive teacher-student relationships are linked to enhanced engagement, persistence toward graduation,

and psychosocial adjustment (Frisby et al., 2020; Noble et al., 2021; Pham & Murray, 2016). Decades of research, including multiple meta-analyses, confirm that these caring, responsive relationships foster security and understanding in learning environments (Cornelius-White, 2007; Hamre & Pianta, 2001; Magro et al., 2023; Quin, 2016; Roorda et al., 2011).

Yet, despite this robust evidence base, schools and researchers still lack comprehensive, student-centered measures that assess and compare these vital sources of support, especially for students with learning disabilities (SwLD) whose subjective experiences may differ markedly in meaning and impact across home and school contexts (Donaire et al., 2024; Roeden et al., 2012).

For SwLD, the quality of support from teachers and families may not only be beneficial but also decisive in shaping academic and emotional outcomes (Capern & Hammond, 2014; Heiman & Berger, 2008; Pérez-Salas et al., 2021; Sheridan & Kim, 2015b). That is, teachers who express empathy, tailor instruction to students' individual learning needs, and maintain high expectations can cultivate self-efficacy, social-emotional competence, and adaptive coping skills, while engaged families often reinforce these same skills through encouragement and consistent expectations at home. Yet, many of the findings come from adult perspectives or aggregate data that overlook SwLD's own views on what effective support looks and feels like. Without reliable assessments of how these students perceive and experience support across both home and school contexts, interventions risk missing the relational dynamics most critical to their growth and well-being.

### Measuring Support From Families and Teachers

Despite their potential predictive power, students' perceptions of family and teacher support remain undermeasured relative to adult or aggregate reports, even though student appraisals often outperform these in forecasting motivation, engagement, and wellbeing (André et al., 2020; DeBono et al., 2023; Magro et al., 2023). Among established instruments, the Student-Teacher Relationship Scale (STRS; Pianta & Nimetz, 1991) evaluates student-teacher closeness, conflict, and dependency; the Parent-Teacher Relationship Scale-II (PTRS-II; Vickers & Minke, 1995) captures joining and communication in parent-teacher partnerships; and the Parent-Caregiver Relationship Scale (PCRS; Elicker et al., 1997) assesses parent-provider confidence, collaboration, and caring. Further, multidimensional family-school engagement tools such as the Family Involvement Questionnaire (FIQ; Fantuzzo et al., 2000) and the Parent-Teacher Involvement Questionnaire (PTIQ; Kohl et al., 2000) measure home-school communication, school-based involvement, and learning at home, while the more recent Parent-Teacher Relationship Quality Scale (PTRQS; Andoni et al., 2022), derived from the PTIQ, indexes warmth, mutual respect, and collaborative alliance across parent and teacher reports (Phillippo et al., 2017; Wang & Eccles, 2013).

Many of these tools rely on parent-teacher perspectives, with student adaptations validated primarily in general education or neurotypical samples

(Andoni et al., 2022; Mautone et al., 2015; Roorda et al., 2011; Wang & Degol, 2014). Indeed, SwLD are frequently understudied or statistically controlled for as confounding variables – both in the development of the assessments described above and in student assessments more broadly – which obscures their unique lived experiences and distinctive relational needs (DeBono et al., 2025; Eisenhower et al., 2007; Haft et al., 2023; Morgan, 2021; Sheridan & Kim, 2015a). These needs may include individualized communication, emotional responsiveness, clear instructional support through manageable steps, explicit encouragement, and autonomy-supportive feedback – qualities that generic, neurotypical-oriented measures often neglect. Notably, these needs are typically inferred from adult reports, observational data, or small-scale studies rather than elicited directly from SwLD themselves, highlighting a critical gap in student-centered measurement.

Without direct input from SwLD, measurement models risk reinforcing deficit narratives, overlooking strengths unique to this population, or underestimating distinctive relational preferences. Although the field increasingly recognizes relational qualities like trust, empathy, and encouragement over observable adult-valued behaviors (e.g., compliance, homework help), most existing tools remain focused on the latter rather than student-defined markers of meaningful support (Magro et al., 2023; Schulte et al., 2016). Few published measures are co-produced with youth, and even fewer center the authentic voices of SwLD or alumni, limiting insights into relational factors that foster true belonging and growth (Davison et al., 2022; Liu, 2022).

### Study Site and Overview

Clearly, despite decades of research affirming supportive relationships' importance for student success (Cornelius-White, 2007; Emslander et al., 2025; Endedijk et al., 2021; Quin, 2016; Roorda et al., 2011), existing tools too often exclude perspectives of SwLD or use neurotypical-validated instruments. To address this gap – a gap that obscures how SwLD experience and define family/teacher support through their own voices (Davison et al., 2022; Valcke et al., 2022) – the present study draws on data from Winston Preparatory School (Winston), an independent U.S. school with nine campuses dedicated exclusively to SwLD. Winston's model emphasizes individualized instruction and academic/social-emotional competency development (Winston Preparatory School, 2023).

The Lives Over Time Study (LOTS), a longitudinal research initiative since 2013, tracks alumni to understand how their educational experiences at Winston impact their long-term outcomes (e.g., academic achievement, employment, and life satisfaction) (DeBono et al., 2023). The present research utilized responses to support-related questions posed within LOTS. Study 1 explored how alumni characterize support received from teachers and families, providing crucial insights for developing a student-centered self-report measure that authentically reflects SwLD's experiences. Study 2 detailed the development and validation of this self-report instrument, contributing a reliable and valid tool for assessing family and teacher support tailored to SwLD.

## Study 1

### Method

A total of 91 alumni ( $M_{age} = 23.06$ ,  $SD_{age} = 4.45$ ) from Winston participated in the 2021–2022 phase of the LOTS. Participants were recruited via email and postcards and were provided a \$50 gift card as compensation for their participation. This sample identified their gender as female (35.9%), male (56.5%), and non-binary/third gender, transgender, agender, and genderqueer (6.6%), with one participant preferring not to state their gender. Their racial identification was predominantly White (80.4%) but also included participants identifying as Black/African American (4.3%), Asian (3.3%), American Indian/Alaskan Native (3.3%), or another race/ethnicity/origin (1.1%). Some selected “prefer not to say” (6.5%).

The study was administered online using Qualtrics (<https://www.qualtrics.com>) with approval from an Institutional Review Board, and used informed consent procedures consistent with ethical research standards (American Psychological Association, 2020). The consent form and all survey items were presented with optional audio recordings so that the survey could be read aloud to participants. In addition to other items in the LOTS, all participants responded to two open-ended questions: “What are some ways your Winston teachers made you feel supported?” and “What are some ways your families (or other people living in your home) have made you feel supported?”

Prior to conducting the qualitative analyses, all data were deidentified. Following Braun and Clarke's (2006, 2020) six-phase reflexive thematic analysis framework, the primary investigator first familiarized herself with all responses to the two open-ended questions. From this iterative process,

a codebook was developed capturing commonly occurring themes across participant responses, enabling systematic and replicable qualitative analysis. These human-generated themes, along with the deidentified open-ended responses, were then entered into Perplexity Artificial Intelligence (Perplexity AI, 2025) to conduct an AI-assisted inductive qualitative thematic analysis to examine the fit and consistency of the themes with the data (Naeem et al., 2025). More specifically, human-generated themes (see Table 1) and deidentified participant responses were entered into Perplexity AI using the prompt: “Are the following themes appropriate to code this data for a thematic analysis?”

Given the dataset, the AI concurred that these themes were appropriate by independently evaluating their fit and consistency with the data using advanced natural language processing and an inductive thematic analysis approach. After this verification step, a single human coder (a trained research assistant), in line with recommendations for reflexive thematic analysis, completed the thematic analysis by systematically coding each response to one or more of the finalized themes (Braun & Clarke, 2020). The primary investigator reviewed how participant responses were coded and determined that all responses were accurately coded per the thematic codes (see themes in Table 1). Finally, thematic frequencies were calculated to indicate the relative prevalence of each theme in the data set (Miles et al., 2014).

## Results

### Teacher Support Themes

Content analysis of responses to the question “What are some ways your Winston teachers made you feel supported?” identified five major themes (see Table 1). The most prevalent was helping students while fostering independence (44%); that is, teachers supported students' problem-solving without completing tasks for them, as illustrated by responses like “helped me learn how to solve problems myself.” Personal conversations with teachers accounted for 29% of responses, highlighting open, confidential dialogues (“Mr. [X] ... would allow me to come to him to talk all the time if I needed to ... He was a very strong confidant.”).

Another 21% reported that teachers were highly accessible and generous with their time (“Always had an open door policy and were always willing to stay late”). Investing in the development of the whole student and showing interest beyond academics appeared in 15% of responses (“Ms. [X] would be

there for me ... when stuff was getting really hard at home.”). Finally, 10% cited teachers’ encouragement and high expectations as supportive, with comments about being pushed to succeed and built up with positive feedback (“They pushed me to do well in my studies instead of letting me do substandard work”).

### Family Support Themes

The question “What are some ways your families (or other people living in your home) have made you feel supported?” revealed some similar patterns (see Table 1). Encouragement and steadfast support was the most frequently mentioned (46%), where students credited family members for advocacy, emotional perseverance, and never giving up (“She supported me by helping me get into Winston and never gave up on me when everyone else did.”). Communication, characterized by active listening and mutual understanding, comprised 35% of entries (“My parents have always been understanding ... creating a clearer line of communication.”).

Helping behaviors, including direct assistance with school or major transitions, made up 19% of

the responses (“They helped me with the college process”). Provision of resources (10%) included facilitating access to programs and paying for extra-curriculars or college (“My mom has always funded and supported my musical dreams”). Expressions of love and caring accounted for 8% of responses, with statements centering on unconditional support for health and overall well-being (“They care about my health and the overall quality of my life.”).

### Discussion

The findings from Study 1 deepen our understanding of how SwLD experience support, not only by confirming the importance of teacher and family relationships, but also by identifying the specific interactional qualities they perceive as genuinely supportive (Audet et al., 2023; Hamre & Pianta, 2001; Pérez-Salas et al., 2021). Rather than viewing “support” as a generic construct, these data reveal it as a dynamic process. Specifically, SwLD emphasized a balance between independence-fostering guidance (44% of responses for teacher support), such as teachers helping them “solve problems myself,” and responsive avail-

**Table 1**  
*WSQ Development: Exploratory Factor Analysis, Structure Matrix*

Subscale	Theme From Study 1	WSQ Items	Factor 1	Factor 2
Teacher	Helping while fostering independence	How much did your Winston teachers help you (without doing what you could do on your own)?	<b>.71</b>	.29
	Personal conversations	How often did you have personal conversations with your Winston teachers?	<b>.63</b>	.26
	Accessible and generous with time	How much were your Winston teachers available to you when you needed them?	<b>.84</b>	.37
	Interest beyond academics	How much were your Winston teachers interested in you beyond your schoolwork?	<b>.81</b>	.27
	Encouragement	How much did your Winston teachers encourage you?	<b>.83</b>	.34
Family	Encouragement	While attending Winston, how much did your family encourage you?	.38	<b>.81</b>
	Communication	While attending Winston, how well did your family communicate with you?	.33	<b>.72</b>
	Helping behaviors	While attending Winston, how much did your family help you?	.36	<b>.69</b>
	Provision of resources	While attending Winston, how much did your family financially support you?	.18	.48
	Expressions of love	While attending Winston, how much did you feel loved by your family?	.24	<b>.79</b>

Note. Bolded factor loadings indicate that these items should be retained on their respective factor ( $\geq .50$ ; Hair et al., 2019).

ability, including open-door accessibility (21%) and personal conversations (29%). This balance may be critical for building agency and competence among SwLD, extending prior work by showing how overly directive aid falls short compared to trust in student effort paired with emotional attunement (Pianta et al., 2012; Shogren et al., 2015).

Family support themes mirrored the teacher-support findings, moving beyond generic “involvement” to emphasize persistent encouragement (46%) and clear communication (35%). Helping behaviors (19%) and providing financial resources (10%) were valued; in addition, participants also mentioned feeling loved and cared for (8%) as a source of support. Across both home and school, these patterns challenge deficit-focused views by showing that what families do can actively build students’ sense of themselves as capable and autonomous, helping them reject and resist internalizing low expectations.

These participant-defined specifics address a key gap: Existing tools often overlook SwLD-voiced relational nuances, such as non-academic check-ins or institutional advocacy (Valcke et al., 2022). By translating lived experiences into observable behaviors, this analysis served as the basis for the Winston Support Questionnaire (WSQ) in Study 2, in hopes of determining that the WSQ accurately and reliably measures teacher and family support for SwLD.

## Study 2

### Method

Participants included 225 alumni ( $M_{\text{age}} = 24.56$ ,  $SD_{\text{age}} = 5.63$ ) from Winston who participated in the LOTS from 2023–2025. This sample size is sufficient to support both exploratory and confirmatory factor analyses, providing adequate power for stable factor extraction and model testing (Comrey & Lee, 1992; Wolf et al., 2013). In this sample, 35.0% identified as female, 50.4% as male, 5.5% reported a combination of genders, 2.0% as non-binary/third gender, 1.5% reported being transgender, and 2.0% did not report a gender. The sample’s racial composition was primarily White (80.4%); the remainder identified as multiple races (4.5%), Black/African American (3.5%), Asian (3.5%), American Indian/Alaskan Native (0.5%), or other race/ethnicity/origin (2.0%), with 5.0% skipping the question or stating that they preferred not to respond. Hispanic alumni constituted 9.9% of the sample.

Participants were recruited via email and postcards and received a \$50 gift card as compensation

for their participation. They completed an informed consent and responded to a demographic questionnaire, in addition to other questions in the LOTS. Similar to Study 1, audio recordings were included so that participants had the option to have the survey read aloud to them. In addition to other assessments in the LOTS, participants completed the newly developed WSQ, which included 10 items derived from the qualitative content analysis conducted in Study 1 (see Table 1 for a complete list of items). As seen in Table 1, items measured perceived support from teachers (e.g., “How much were your Winston teachers available to you when you needed them?”), and five parallel items assessed support from family while attending Winston (e.g., “While attending Winston, how much did your family encourage you?”). The WSQ items were rated on a 5-point scale, from *not at all* (1) to *a great deal* (5).

To assess convergent validity, participants also completed an adapted version of the Emotional Home Atmosphere Survey (Elsayed et al., 2020). Four items assessed the perceived emotional atmosphere at home (Home Atmosphere subscale; Cronbach’s  $\alpha = .91$ ), and four items assessed atmosphere at school (School Atmosphere subscale; Cronbach’s  $\alpha = .93$ ). Example items included “My home is warm, caring” to assess Home Atmosphere and “My teachers were trusting, understanding” to assess School Atmosphere. All items were rated on a 5-point scale, from *strongly disagree* (1) to *strongly agree* (5). Responses to the items from the Home Atmosphere, School Atmosphere, WSQ Family Support and WSQ Teacher Support were averaged for each subscale. The Home Atmosphere and School Atmosphere subscales were expected to be positively correlated with the WSQ’s Family Support and Teacher Support subscales, respectively.

### Results

Descriptive statistics indicated that participants generally felt supported at home and school: Home Atmosphere ( $M = 4.10$ ,  $SD = 0.88$ ), School Atmosphere ( $M = 4.35$ ,  $SD = 0.69$ ), WSQ Family Support ( $M = 3.35$ ,  $SD = 0.64$ ), and WSQ Teacher Support ( $M = 3.95$ ,  $SD = 0.83$ ). All item-level data met accepted normality criteria, with skewness ranging from -2.0 to +2.0 and kurtosis within -7 to +7, ensuring suitability for further analysis (West et al., 1995).

An exploratory factor analysis (EFA) was performed on the WSQ items using maximum likelihood extraction and promax rotation in SPSS. Maximum likelihood extraction is preferred when

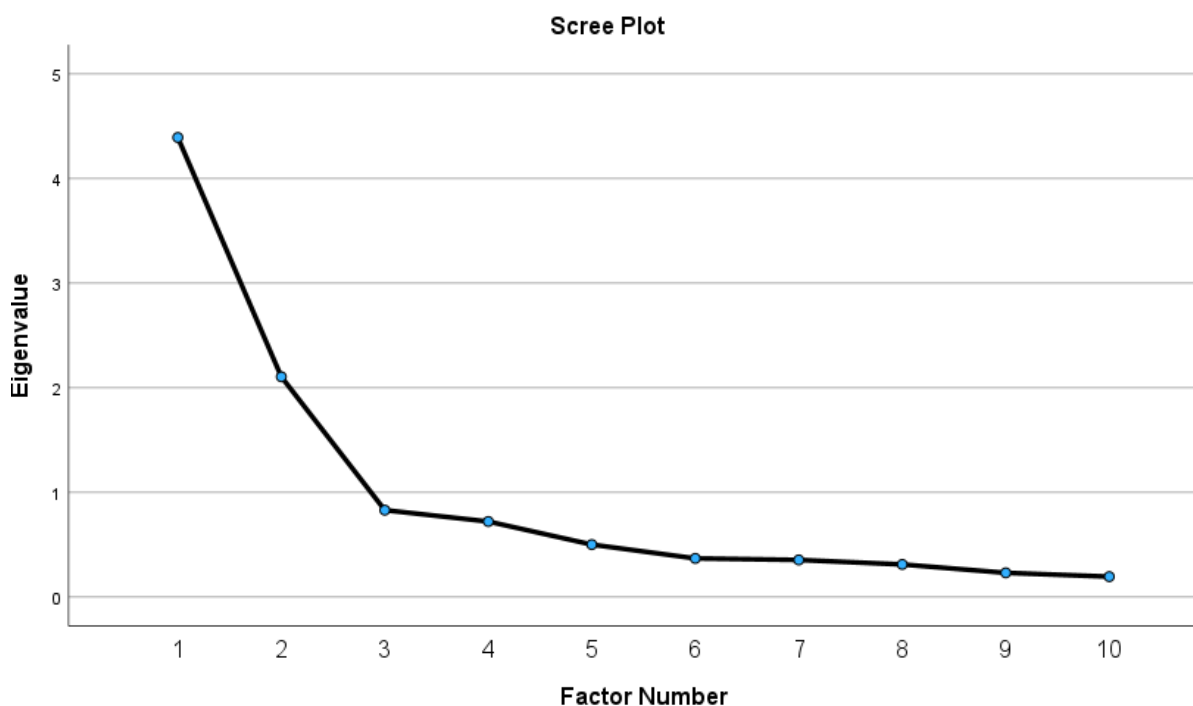
the data approximate multivariate normality and provides estimates that enable statistical testing and confidence intervals for model fit, offering advantages over other extraction methods for psychological scales (Costello & Osborne, 2005; Fabrigar et al., 1999). Promax rotation, an oblique technique, was chosen because the underlying constructs of teacher and family support were expected to be correlated, as both assess types of support. Furthermore, a promax rotation is recognized for efficiently achieving a simple oblique structure and is widely recommended for behavioral research (Fabrigar et al., 1999; Schmitt & Sass, 2011). These analytic approaches enhance both the accuracy and interpretability of the derived factors.

Examination of the eigenvalues supported a two-factor solution. Two clear factors emerged with eigenvalues of 4.39 and 2.10, together accounting for 65.96% of the total variance. According to the Kaiser criterion, only factors with eigenvalues greater than 1 should be retained, as these explain more variance than an individual item and thus represent meaningful underlying constructs (Auerswald & Moshagen, 2019; Kaiser, 1960; Zwick & Velicer, 1986). No additional factors in the analysis exceeded this threshold. In addition, an inspection of the scree plot indicated

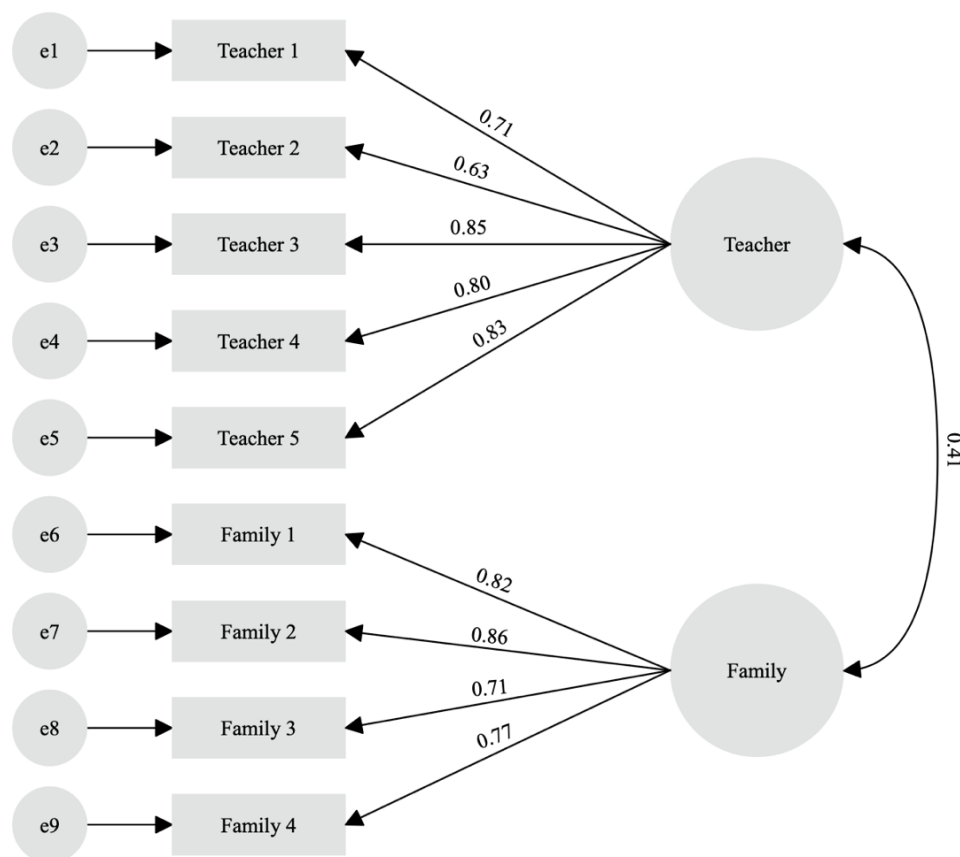
that Factor 3 marked the onset of the “scree” (see Figure 1), suggesting that the factors preceding this bend should be retained (Thompson, 2004). Although Factor 3 could also be retained based on Cattell’s (1966) scree test, its eigenvalue of 0.83 and the substantially smaller proportion of variance it accounted for (8.29%) supported the decision to retain only two factors.

Based on factor-loading criteria ( $\geq .50$ ; Hair et al., 2019), all five teacher-related items and four family-related items were retained, because the item regarding financial support was eliminated, which resulted in a model that aligned well with the intended two-factor structure (see Table 1). This analysis resulted in two distinct WSQ subscales – Teacher Support (Cronbach’s  $\alpha = .87$ ) and Family Support (Cronbach’s  $\alpha = .86$ ) – each demonstrating strong internal consistency (Hair et al., 2019).

A subsequent confirmatory factor analysis (CFA) using analysis of moment structures (AMOS) 30 provided support for the WSQ’s two-factor model, demonstrating an overall fit to the data (see Figure 2). The model yielded fit indices as follows: chi-square to degrees of freedom ratio ( $\chi^2/df = 3.48$ ,  $p < .001$ ; comparative fit index (CFI) = .94; adjusted goodness-of-fit index (AGFI) = .86; parsimony normed fit index (PNFI) = .66; standardized



**Figure 1**  
*Study 1: Exploratory Factor Analysis – Scree Plot*



**Figure 2**  
Study 2: Confirmatory Factor Analysis

root mean square residual (SRMR) = .05; and root mean square error of approximation (RMSEA) = .10. These values indicate adequate ( $\chi^2/df$  and RMSEA) to good (CFI; AGFI, PNFI; SRMR) model fit, with all indices falling within generally accepted ranges for psychological and educational measurement (Hu & Bentler, 1999; Schmitt & Sass, 2011). Overall, the CFA results confirmed that the WSQ's hypothesized two-factor structure fit the data while also providing a parsimonious model.

To evaluate convergent validity, correlations were computed in SPSS between the WSQ subscales and those of the adapted Emotional Home Atmosphere Survey. Consistent with predictions, the WSQ Teacher Support subscale was positively and significantly correlated with the School Atmosphere subscale ( $r = .62, p < .001$ ), but not with the Home Atmosphere subscale ( $r = .08, p = .229$ ). The WSQ Family Support subscale correlated significantly with the Home Atmosphere subscale ( $r = .54, p < .001$ ) and was also significantly correlated with the School subscale, although to a weaker extent ( $r$

$= .22, p < .001$ ). These findings provide evidence of convergent validity, as the WSQ subscales were associated with theoretically related constructs of perceived emotional support from teachers and families, consistent with established criteria for convergent validity in educational measurement research (Campbell & Fiske, 1959; Kline, 2015).

## Discussion

The CFA corroborated this two-factor model, with fit indices indicating acceptable to good model fit. Although the  $\chi^2/df$  and RMSEA indicated only a marginal or acceptable fit (Hu & Bentler, 1999; Steiger, 1998), the RMSEA, which was nearly unacceptable, often falsely suggests poor model fit (Kenny et al., 2014). Notably, all other fit indices indicated good model fit. Although conducting both EFA and CFA on the same sample is less than ideal, risking overfitting and inflated fit statistics (MacCallum et al., 1992), this approach was necessary given sample size constraints with our alum-

ni population. Together, these findings from Study 2 provide preliminary evidence for the WSQ's two-factor structure within this specific sample, though future cross-validation in independent and diverse samples is essential.

In conclusion, the WSQ is a promising, concise tool suitable for assessing critical sources of support for SwLD.

## General Discussion

### Summary of Findings

The present research aimed to define and measure how SwLD perceive support from teachers and families by centering their perspectives in the development of a new self-report instrument – the WSQ. Study 1's qualitative findings highlighted the relational and emotional dimensions of support most valued by SwLD, describing teachers as mentors who encouraged autonomy and showed genuine personal interest, and families as providing encouragement, emotional attunement, communication, and practical assistance. These themes directly informed the construction of the WSQ, ensuring that item content authentically reflected student perspectives rather than adult assumptions, thereby promoting greater equity in the construction of this questionnaire.

Study 2 empirically validated the WSQ. An EFA confirmed a two-factor structure representing Teacher Support and Family Support, consistent with both theoretical expectations and qualitative insights. Both subscales demonstrated strong internal consistency, indicating that the items in each reliably measure distinct constructs (Nunnally & Bernstein, 1994). Eigenvalue distribution and factor separation further supported the presence of two distinct subscales in line with best practices in EFA (Costello & Osborne, 2005). Subsequent correlation analyses with the adapted Home Atmosphere subscales confirmed the distinctness of the two factors and provided evidence for convergent validity, with each WSQ subscale correlating as expected with relevant measures of emotional support from teachers and families.

The CFA supported the WSQ's hypothesized two-factor model, with goodness-of-fit indices indicating an acceptable and parsimonious model fit (Hu & Bentler, 1999). Subsequently, these findings affirm the WSQ's structural validity, further strengthening confidence in its psychometric properties and applicability for assessing support experienced by SwLD within educational contexts.

### Theoretical Contributions

Studies 1 and 2 advance theoretical frameworks and address methodological gaps in the relational support literature, notably through self-determination theory (SDT; Deci & Ryan, 2000). SDT posits that optimal functioning requires meeting three basic psychological needs: autonomy (volitional action), competence (mastery), and relatedness (connection). The findings from Study 1 extend SDT for neurodiverse learners by specifying how autonomy support operates – a dynamic balance of independence-fostering guidance (44% of teacher support responses) and responsive availability (open-door accessibility [21%], personal conversations [29%]). This dynamic provides concrete behavioral examples of how autonomy support, central to SDT, operates for SwLD in real-world interactions, thereby enhancing their agency and sense of competence (Johansen et al., 2023; Shogren et al., 2015).

Previous research has often examined family and teacher support for SwLD separately, treating home and school contexts in isolation and overlooking their potential interplay (Álvarez-Guerrero et al., 2021; Piffner et al., 2013). Building on this foundation, the current study identified cross-context alignment through parallel themes across family and teacher support. For instance, both emphasize encouragement and high expectations (10% of teacher support responses, 46% of family support responses), while participants highlighted effective communication from their families (35%) and personal conversations with their teachers (29%). These overlaps indicate the value of these sources of support consistently across home and school settings. The WSQ's two-factor structure addresses limitations in prior work by enabling analysis of family and teacher support with the potential to assess their combined influence on outcomes for SwLD.

Finally, the findings identify student-defined behaviors typically overlooked by adult-generated instruments. Quotes like “never gave up on me when everyone else did” (family encouragement, 46%) and “would be there for me ... when stuff was getting really hard at home” (teacher interest beyond academics, 15%) highlight relational nuances, including persistent belief, non-academic check-ins, that measures like STRS or PTIQ miss. These findings directly informed WSQ items; for instance, capturing student-described behaviors like persistent encouragement, thereby providing an assessment grounded in students' lived experiences rather than adult assumptions. This student-centered approach

to develop the WSQ offers a potential assessment for interventions designed to enhance student support (Valcke et al., 2022).

### **Strengths and Limitations**

The WSQ is intentionally brief to minimize respondent burden, making it practical for large-scale studies, school settings, and repeated measures in special education research; however, this design choice carries both clear advantages and trade-offs for SwLD, many of whom face documented attention and reading challenges (Habib, 2021; Kost & Da Rosa, 2018). Shorter measures like the WSQ reduce fatigue and disengagement compared to longer established instruments such as the STRS (Pianta & Nimetz, 1991) or PTIQ (Kohl et al., 2000), enabling higher completion rates and more reliable self-reports from this population (Kost & Da Rosa, 2018). Nevertheless, this emphasis on efficiency may sacrifice depth or nuance in capturing subtler relational dynamics, potentially limiting the WSQ's sensitivity to detect meaningful variation in support quality relative to more comprehensive tools.

Convergent validity evidence from correlations with the modified Home Atmosphere Survey offered support for the WSQ's construct validity, revealing that teacher and family support are related, yet distinct. However, the decision to pair the WSQ with this brief measure was driven primarily by pragmatic constraints within the LOTS study battery, rather than strong theoretical alignment or established precedence in SwLD research. This choice, while reducing participant fatigue – a valid concern for individuals with attention and reading challenges (Ackerman & Kanfer, 2009; Habib, 2021) – likely weakened validation strength, as the Home Atmosphere Survey lacks the psychometric robustness of alternatives like the PTRS-II (Vickers & Minke, 1995) or PTRQS (Andoni et al., 2022). Administering more well-established measures, even if logistically challenging in longitudinal designs, would have provided stronger comparative evidence.

Although this research centers SwLD perspectives to address gaps in adult-centric measures (e.g., STRS; PCRS; FIQ), the contribution remains preliminary. The WSQ extends prior work by grounding items in the voices of SwLD, making it a novel assessment, but it remains unclear whether it truly captures unique variance or simply repackages known constructs in student-friendly language, potentially limiting its practical advancement in equity-focused assessment.

While these studies have notable strengths, they are tempered by methodological limitations that warrant acknowledgment. Both drew on modest sample sizes from a single independent school network with limited racial/ethnic diversity, a context that may not generalize to public schools or more diverse SwLD populations. Additionally, Study 2's use of the same sample for EFA and CFA risks overfitting and inflated fit statistics (MacCallum et al., 1992), but cross-validation with a larger and independent sample would strengthen factor structure claims. Alumni self-reports may further introduce response biases requiring cautious interpretation, such as social desirability, where participants favor socially acceptable responses, inflating perceptions of support among those with enduring school loyalty (Graham et al., 2019; Perinelli & Gremigni, 2016). Finally, the WSQ's Winston-specific wording (e.g., "your Winston teachers") limits immediate transferability; however, adaptation guidelines indicate simple substitutions should preserve validity (Cook & Odom, 2013; DeVellis & Thorpe, 2021), with empirical verification remaining essential.

### **Future Research and Conclusion**

Future research should build on the foundation from these two studies through replication in diverse public school samples, conducting comparisons with longer, well-established measures of relational and contextual support, such as the STRS (Pianta & Nimetz, 1991) and the PTIQ (Kohl et al., 2000), and assessing the WSQ's reliability and validity across demographics and contexts (Vandenberg & Lance, 2000). These steps may unlock the WSQ's potential as an efficient, student-centered tool that enables researchers studying SwLD to quickly assess nuanced teacher and family support in real-world settings, facilitating large-scale studies, intervention evaluation, and progress monitoring where longer measures may be impractical.

Given its focus on universal supportive relationship constructs, the WSQ shows promise for use with broader student populations, including both neurotypical and neurodivergent learners, to capture shared experiences of support in school contexts. Future research could examine its performance across these groups to identify similarities and differences in perceived support. Ultimately, by centering student voices and prioritizing equity, the WSQ may advance special education research and practice while promoting more supportive, responsive educational environments for SwLD.

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## NOTE

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