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Home literacy environment. Profile analysis by socio-economic status

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Abstract

The confinement resulting from the COVID-19 health crisis limited opportunities for social interaction and access to formal schooling, particularly affecting children of low socioeconomic status. In this context, the family was the only agent of socialisation and direct interaction with written culture. Because of its importance in literacy development, this study aimed to identify profiles of the literacy home environment. In addition, the relationship between these profiles and the family's socioeconomic level was assessed. The home literacy environment (HLE) questionnaire was administered to 326 families of kindergarten students in urban and rural schools of high, medium, and low socioeconomic levels. Based on a cluster analysis, the results show the existence of two groups of families, characterised by a high and a low level of literacy practices, beliefs about literacy, and the value of reading, respectively. Contrary to expectations, the reading profiles at this stage of development do not show any association with the socioeconomic level of the families. Finally, the implications of these findings for educational interventions in the post-pandemic period are discussed.

Keywords: Family literacy; family environment; family influence; emergent literacy; Kindergarten.

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Ambiente alfabetizador del hogar. Análisis de perfiles según nivel socio-económico

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Resumen

El confinamiento producto de la crisis sanitaria de Covid-19 limitó las oportunidades de interacción social y acceso al aprendizaje formal escolar, lo que afectó de manera particular a los niños de nivel socioeconómico bajo. En este contexto, la familia constituyó el único agente de socialización e interacción directa con la cultura escrita. Por su relevancia en el desarrollo de la literacidad, este estudio tuvo por objetivo identificar perfiles de ambiente alfabetizador del hogar. Junto con lo anterior, se evaluó la relación entre estos perfiles y el nivel socioeconómico de la familia. Se aplicó el cuestionario de ambiente alfabetizador del hogar (AAH) a 326 familias de estudiantes que cursaban kínder en establecimientos educativos urbanos y rurales de nivel socioeconómico alto, medio y bajo. A partir de un análisis de conglomerados, los resultados muestran la existencia de dos grupos de familias caracterizados por altos y bajos niveles de prácticas de literacidad, creencias sobre literacidad y valor por la lectura, respectivamente. Contra lo esperado, los perfiles lectores en esta etapa del desarrollo no muestran una asociación con el nivel socioeconómico de las familias. Finalmente, se discuten las implicancias de estos resultados para la intervención educativa en tiempos de postpandemia.

Palabras clave: Alfabetización familiar; entorno familiar; influencia familiar; alfabetización emergente; Educación Infantil.

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INTRODUCTION

There is ample evidence of the impact of early interactions on child development in its different dimensions (Center on the Developing Child at Harvard University, 2007). However, important disparities are observed in children's development, even before they enter school, due to differences in family environments (Bonal & González, 2020; Melhuish, 2010) and socioeconomic status (Mendive et al., 2022; Sénéchal & LeFevre, 2014; Suskind et al., 2016).

The home literacy environment (HLE) has been recognised as an important predictor of children's early literacy and language development (Burgess et al., 2002; Georgiou et al., 2021; Silinskas et al., 2019). Various research has shown that a home promoting literacy experiences provides significant benefits for literacy development long before school entry (Burgess et al., 2002; Farver et al., 2006).

Despite the substantial benefits that HLE could have on child development, socioeconomic status can affect its impact. For example, families with lower incomes or with low or incomplete educational levels tend to have less access to books and educational materials (Sénéchal & LeFevre, 2014), lower frequency of literacy experiences (Suskind et al., 2016), and less-favourable beliefs about their children's literacy (Mendive et al., 2022).

Recently, the COVID-19 pandemic had great repercussions on different dimensions of family life and child development, another variable that may have conditioned the effects of HLE on children's development. In this context, it was observed that children from the most vulnerable socioeconomic sectors were the most affected in their learning during this period (Abufhele & Bravo, 2021; Bonal & González, 2020; Goudeau et al., 2021).

With this in mind, the objective of this study was to characterise the types of literacy environments of Chilean families with preschool children in a post-pandemic context. In addition, it was proposed to test the hypothesis that these groups would be directly related to the SES to which they belong.

Analysing these inequalities is relevant and appropriate because it allows us to advance theoretical knowledge -fundamentally developed in Anglo-Saxon contexts- and contributes to designing strategies that promote more enriched literacy environments in contexts of greater vulnerability.

Home literacy environment

The home literacy environment (hereafter HLE) is the environment provided by the family in which early literacy activities, experiences, and attitudes are developed that enable children to enhance the development of the precursors of reading, writing, and language (Burgess et al., 2002; Mendive et al., 2020; Park, 2008; Sénéchal et al., 2017). At the same time, this environment involves a variety of material and personal resources, as well as the provision and opportunities provided by families to their children around literacy (Ergül et al., 2017; Sénéchal et al., 2017).

Home literacy environment variables

The HLE has been the subject of study due to its impact on “emergent literacy” skills (Burgess et al., 2002; Leseman & De Jong, 1998; Mendive et al., 2020; Sénéchal, 2006; Silinskas et al., 2020). However, its conceptualization and measurement are still debated, given its “multidimensional nature” (Lenhart & Lingel, 2023; Schmitt et al., 2011).

Similarly, one of the most studied variables in the HLE has been literacy experiences at home; however, researchers still differ in the nomination of these. Sénéchal et al. (1998) distinguish between “formal and informal literacy experiences”. The former are characterised by their focus on explicitly teaching the written code, as occurs when teaching letters. At the same time, informal experiences are related to meaning, as occurs when discussing the moral of a story. Informal literacy activities have been shown to relate to oral language skills, such as vocabulary development (Sénéchal, 2006, 2017), while

formal ones would be linked to early literacy skills, such as letter knowledge (Sénéchal, 2017; Silinskas et al., 2020).

On the other hand, Burgess et al. (2002) develop the distinction between "active processes and passive processes". Active processes involve direct parental participation in literacy activities, such as shared reading, and are related to early language development. In contrast, passive processes refer to situations where children observe their parents using print in functional contexts, such as reading for information.

Although these distinctions have been understood as equivalent in the literature, in line with the sociocultural approach to "emergent literacy" (Cook-Gumperz, 1986; Jaeger, 2017), it seems necessary to establish nuances to consider both processes. In this sense, code- and culture-oriented practices are proposed as complementary concepts.

Code-oriented practices focus on directly teaching letters/numbers or their writing, aligning with the formal experiences or active processes discussed above. In contrast, culture-oriented practices emphasise the child's relationship with writing in interactions mediated by his or her environment (family and/or caregivers). In this context, the notion of "culture" is a relative concept that allows us to understand practices in the context of a given social group. The practices performed make sense within these communities and are valued by their members (Barton & Hamilton, 2012). These would be equivalent to the informal practices or active processes mentioned previously (Burgess et al., 2002; Sénéchal, 2006) but highlight the different opportunities that writing offers the individual to connect with his or her cultural environment and explore the world.

This proposal is consistent with and makes explicit the framework of emergent literacy, where the child's development is conceived not only from an individual and passive point of view but as an interaction between the child and the environment in which he/she develops (Bronfenbrenner & Morris, 2007). It also highlights the cultural nature of the process of literacy development, as it requires mediating agents (e.g., parents and reading teachers) to guide and stimulate this process (Paradise & Rogoff, 2009; Rogoff, 1990). In short, this nomination allows us to broaden the vision of the experiences or activities within the family beyond their formal or informal nature, in addition to situating them as cultural mediators that transcend the concrete nature of the acquisition of the code from a formal point of view.

Likewise, it has been observed that the availability of literacy activities, experiences, and resources in the home is influenced by "parental beliefs" (Lai et al., 2022). These resources impact the precursors to reading and children's language skills (Niklas et al., 2020). Weigel et al. (2006) observed that families with greater positive beliefs about reading and greater initiative to encourage active participation of their children in literacy activities would create an atmosphere of interest in literacy and learning. Thus, the home literacy environment considers parental beliefs about literacy and their value on literacy practices.

Effect of family on emergent literacy stage

Although not all studies have found the same pattern of significant relationships, most indicate that family literacy environment is related to children's later reading achievement. According to the meta-analysis by Dong et al. (2020), HLE is positively correlated with reading comprehension, with a moderate effect size (z= .32). Likewise, parents' years of schooling, parents' beliefs about literacy, and parental involvement in children's literacy activities showed similar effect sizes on children's reading comprehension ($z_{schooling}$ = .27; $z_{beliefs}$ = .32; $z_{participation}$ = .30); although resources present in the home had a small effect (z = .21).

For their part, Zhang et al. (2020) found that the more access families have to literacy resources, the better their children perform in emergent literacy skills (e.g., vocabulary, phonological awareness, and letter knowledge). In turn, shared story reading has been recognised as one of the literacy experiences with the highest correlation with reading and writing development (Canfield et al., 2020; Susperreguy et al., 2007), even up to third grade (Sénéchal & LeFevre, 2002). Finally, Weigel et al. (2006) observed that

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families with greater positive beliefs about reading and greater initiative to encourage their children's active participation in literacy activities would create an atmosphere of interest in literacy and learning.

Determinants of family impact on emergent literacy stage

Despite the accumulated evidence on the relationship between the home literacy environment and the development of children's emergent literacy and language, assessing the effect of the family on children's literacy in the stage immediately prior to formal reading instruction is complex, especially because of the difficulty of isolating the effect of formal preschool experiences and the influence of the families' socioeconomic status.

Socioeconomic status has been extensively studied for its influence on different dimensions of HLE. In this regard, it has been observed that only 45.7% of mothers without post-secondary education read to their children at least once a week, which is lower than the rates observed in families with higher educational levels (Strasser & Lissi, 2009). These results coincide with Mendive et al. (2020) who found that families with less access to books and a low frequency of reading and writing practices at home were composed of mothers with a low probability of higher education and a very high probability of having incomplete primary education.

Parental beliefs and value of reading may also be influenced by socioeconomic status. For example, parents with less schooling start reading stories later than parents with more schooling (Mendive et al., 2022; Susperreguy et al., 2007). In addition, lower SES families consider learning to read moderately tricky or very difficult (Mendive et al., 2022). They would also place a lower value on reading, as there is less awareness of the importance of reading practice for children's development (Ni et al., 2021).

For its part, the Covid-19 pandemic challenged all educational systems worldwide. This event limited opportunities for formal access to reading learning, especially for low SES children (Shaul et al., 2024). In Chile, schools were closed 147 and 112 days during 2020-2021, respectively, placing it as the nation that experienced the most school closure days among OECD countries (Centro de Estudios MINEDUC, 2022). In this context, the family constituted the only agent of socialisation and direct interaction with written culture.

Thus, this context of a generalised lack of formal school education provides an opportunity to evaluate the net contribution of the HLE during the period of emergent literacy, since these are schoolchildren who only enter preschool education after the end of their confinement due to the COVID-19 pandemic, at the beginning of the Chilean school year. The above is relevant since the literature reports that the most socioeconomically vulnerable children were the most affected in their learning during the pandemic (Abufhele & Bravo, 2021; Bonal & González, 2020; Goudeau et al., 2021).

The present study

Based on the background presented, our study aims to characterise the types of profiles that are possible to identify from variables that have been of interest to assess the influence of HLE (namely, code-oriented and cultural practices, parental beliefs about literacy, and value of reading). In addition, considering that SES may impact the conformation of these profiles, we intend to evaluate whether SES explains in identified HLE profiles.

METHOD

Participants

The study participants were 326 families with children enrolled in Pre-Kindergarten (PK) during 2022 who had no previous preschool experience due to COVID-19 confinement. Of these families, 59% had

daughters (n=135) and 59% had sons (n=194). The average age of the children at the time of the study was 4.69 years (range 3-5 years). The children attended different types of educational establishments in the Maule Region (VII region, Chile). The sample was composed of families of students from low (n=104, 31.9%), middle (n=107, 32.8%) and high (n=118, 36.2%) socioeconomic status, determined according to the administrative dependence of the educational establishments, an indicator widely used in Chile for being a good proxy of SES (González, 2017). Most families were of Chilean origin (89.7%), while 11.1% came from other countries. The average years of education of the mothers was 14.35 (SD=3.98), while that of the fathers was 11.43 years (SD=3.37). In addition, 93.9% of the participants reported speaking only Spanish at home, while 5.8% reported speaking two or more languages at home, the main one being Spanish.

Instruments

The home literacy environment (HLE) was assessed from a self-report questionnaire intended for parents and/or caregivers, developed by this research team, considering its multidimensionality and from the review of measures with better fit reported in previous studies (cf. Martini & Sénéchal, 2012; Niklas et al., 2016). In Spanish-speaking countries, although we found at least one inventory on factors associated to HLE (cf. "Dominios de Alfabetización Emergente" en Manosalba-Torres & Arancibia-Gutiérrez, 2022), this instrument does not consider dimensions such as beliefs or value of reading, aspects that previous research has highlighted as fundamental when characterising HLE (Lai et al., 2022; Susperreguy et al., 2007; Weigel et al., 2006).

The questionnaire is structured in five sections. A first section of sociodemographic characterisation of the family and four Likert-type subscales ranging from 1 to 6 that evaluate 1) family practices oriented to the code, 2) family practices oriented to the cultural experience of writing, 3) parental beliefs about literacy and 4) the value assigned to reading (see Appendix).

Code-oriented practices were assessed using six Likert-type items organised into a single factor. The confirmatory factor analysis shows adequate fit indices: $x^2(9)=11.27$, $p=.258$; CFI=.992; TLI= .987; SRMR=.007; RMSEA=.028 [.00, .07]. The reliability shows acceptable ranges (Cronbach's α .80 and McDonald's ω of .80). An example of an item for this scale is: “I teach letters to my child”.

Culture-oriented practices were assessed using five Likert-type items organised into a single factor $x^2(5)=2.47$, $p=.78$; CFI=1; TLI= 1.01; SRMR=.030; RMSEA=. 00 [.00, .05]. The results show Cronbach's α reliability = .76 and McDonald's ω = .78. An example of an item for this scale is: “I worry about correcting him/her when he/she says a word wrong”.

Parental beliefs around literacy were assessed from eight items. Confirmatory factor analysis shows adequate fit $x^2(20) = 11.2$, $p=.94$; CFI=1, TLI= 1.04, SRMR=0.9, RMSEA=.00[.00, .11] and high reliability de Cronbach = .88 y de McDonald = .84. and high-reliability Cronbach's α = .88 and McDonald's ω = .84. An example item for this scale is: “How important is it for your child to see you read?”.

The value of reading was evaluated through a unidimensional scale of six items. The construct validity evidences a fit between the model and the data $x^2(9)=3.44$, $p=.944$; CFI=.1; TLI= 1.092; SRMR=.08; RMSEA= .00 [.00, .01]. The level of reliability is adequate (Cronbach's α= .85; McDonald's ω= .83). An example of an item for this scale is: “For me, reading is time well spent”.

Procedures

The study was conducted following an ethical protocol approved by the Ethics Committee of the sponsoring institution (Act n°40/2022). The families were contacted through their children's schools. Once authorised by the schools, the project and conditions of participation were socialised in the context of parents' meetings. The families' participation was voluntary and ratified by signing an informed consent form, which explicitly stated that all responses would be strictly confidential, and their use would be exclusively for academic purposes.

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The questionnaire was printed and sent to the homes of the participating families, accompanied by a brief instruction on its purpose. The response rate was 99%, with mothers completing the vast majority of the surveys (86.3%), followed by fathers (12.2%), grandparents, or other responsible adults (1.4%). Since three participating families consisted of twin siblings, this analysis did not consider duplicate family questionnaires.

Data Analysis

The instrument's psychometric characteristics were evaluated with a confirmatory factor analysis, using *Diagonally Weighted Least Squares* (DWLS) as the estimator. DWLS is more robust for multifactor tests, even in the presence of data that do not meet the assumptions of multivariate normality, as occurred in this case. Likewise, reliability analyses were performed for both Cronbach's α and McDonald's w.

Then, a K-Mean cluster analysis (Seol, 2023) was used to identify HLE profiles. Finally, the Chi-square test was used to assess the association between SES and HLE profiles (x^2). Data was analysed using Jamovi (The Jamovi Proyect, 2022) and Jasp (JASP Team, 2021) software.

RESULTS

Descriptive results

The first finding is the similar behaviour of the variables across socioeconomic status and the high mean and median scores. The above is consistent with the high rates of negative asymmetry observed in all variables, but especially in the questions related to beliefs about literacy and the value assigned to reading (see table 1) and, in particular, of middle SES families.

However, in all cases, a significant difference is observed concerning the upper value of the scale (p< .001), and there is no evidence of a ceiling effect in any of them.

Table 1

Descriptive data by variable and socioeconomic status

	SES	N	M	Med	SD	Mín	Máx	Skewness	Kurtosis
Code	Low	104	5.30	5.5	0.79	1	6	-2.01	7.41
	Medium	107	5.22	5.5	0.89	1	6	-1.96	5.25
	High	115	5.24	5.5	0.85	1.33	6	-2,02	5.96
Culture	Low	104	5.22	5.5	0.86	2	6	-1.08	0.81
	Medium	107	5.15	5.4	0.91	1.6	6	-1.33	2.06
	High	115	5.22	5.4	0.81	2	6	-1.60	3.18
Beliefs	Low	104	5.69	6.0	0.59	2.5	6	-2.74	9.03
	Medium	107	5.72	6.0	0.61	1.75	6	-3.79	18.34
	High	115	5.78	6.0	0.39	4	6	-2.62	7.57
Value of	Low	104	5.81	6.0	0.36	4.33	6	-2.16	4.24
reading	Medium	107	5.68	6.0	0.67	1.17	6	-3.78	19.49
	High	115	5.78	6.0	0.42	3.5	6	-2.93	10.55

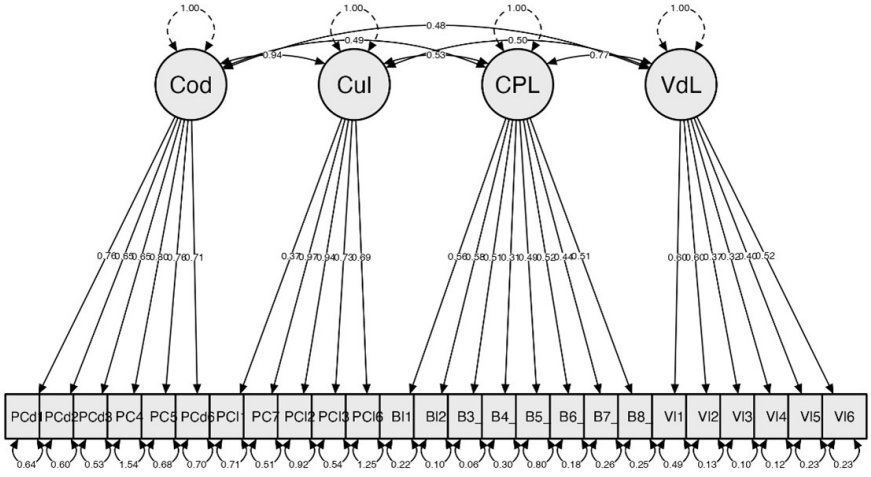
Note: SES= Socioeconomic Status; Code= Code-oriented practices; Culture= Culture-oriented practices; Belief= Literacy-oriented parental beliefs.

Psychometric characteristics of the Home Literacy Environment Inventory (HLE)

Based on the data obtained and after confirming that each scale has a unidimensional factorial structure, the structural model was tested, and the four central variables of the study were constituted as dimensions of the HLE. The four-factor scale shows evidence of validity that allows us to assume HLE as a latent construct of these four dimensions: $x^2(269)=99.70$, $p=1$; CFI=1; TLI= 1.07; SRMR=.067; RMSEA=. 00 [.00, .01].

Figure 1

Home literacy environment: factor model.



Note: Cod= Code-oriented practices; Cul= Culture-oriented practices; PB= Parental beliefs about literacy; VoR= Value of reading.

The above, added to the validity and reliability evaluated for each of the subscales, allows us to speak with the property of an HLE questionnaire and consider its sub-dimensions as valid and reliable variables.

Table 2

Descriptive and correlations of study variables

Scale	Mean	SE	1.	2.	3.
1. Code-oriented practices	5.25	0.84	-		
2. Culture-oriented practices	5.20	0.85	.76***	-	
3. Value of reading	5.76	0.50	.38***	.41***	-
4. Literacy-oriented parental beliefs	5.73	0.54	.37***	.43***	.66***

*** $p < .001$

Types of home literacy environment (HLE)

Following the initial premise that HLE profiles could be associated with SES, a cluster analysis was conducted using the *K-means* method and the standardised scores of the four HLE subscales. An initial three-cluster solution was initially evaluated. However, this solution was discarded, as one of the profiles only included a single subject.

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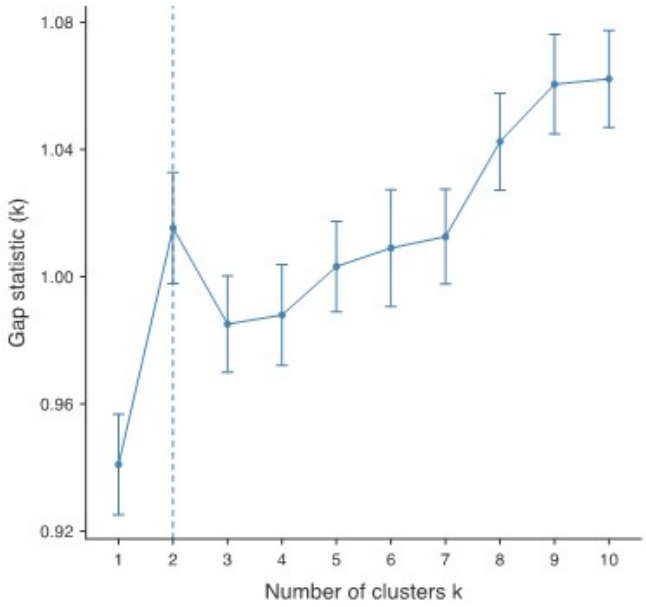
Therefore, we proceeded with an analysis using a two-cluster solution. This solution coincides with the suggestion of the optimal number of clusters calculated through Davies-Bouldin (.90), finding significant differences in all variables $p < .001$ (see figure 2).

Figure 2

Optimal number of clusters



The first cluster (n= 101), which we can call the "discreet profile", shows low scores on all dimensions of the HLE: code-oriented practices, culture-oriented practices, parental beliefs about literacy, and value of reading. On the contrary, the second profile, which we call "enriched" (n=225), corresponds to its opposite and shows high scores on all the variables.

Table 3

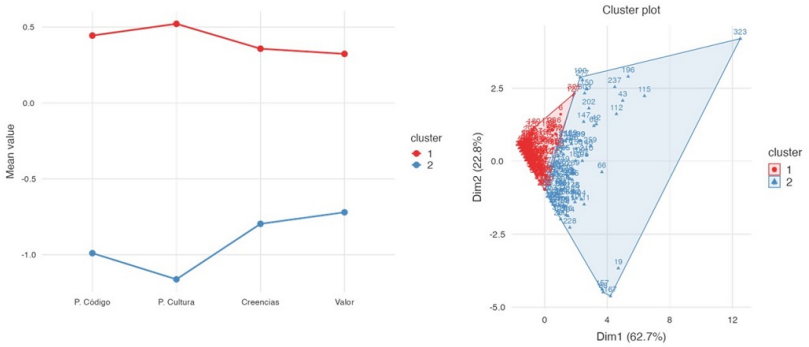
Centroids of the clusters (in standard deviations)

	Clúster	n	Code-oriented practices	Culture-oriented practices	Literacy-oriented parental beliefs	Value of reading
1	Enriched	225	0.444	0.522	0.357	0.323
2	Discreet	101	-0.989	-1.162	-0.796	-0.720

The families we have identified within the "enriched environment" group demonstrate, on average, a high coherence between practices, beliefs, and appreciation of reading. Indeed, they are families that demonstrate favourable beliefs about early literacy activities, such as storytelling and storytelling conversations (which we have identified as cultural practices). These families also exhibit a high frequency and valuing of code-oriented practices, such as explicitly teaching letters or teaching letter and/or word tracing. In contrast, family environments identified as "discreet" show an inverse profile. These are environments where parents have a relatively low reading valuation and whose practices are consistent with this valuation and beliefs.

Figure 3

Clustered variable means and case clustering



Note: N=326; Cluster 1= "Enriched" n= 225; Cluster 2= "Discreet" n= 101. Values correspond to standardised scores.

Home literacy environment and socio-economic status

A third analysis aimed to verify whether any relationship between HLE and SES exists. The results show no association between a type of HLE profile and belonging to a given SES x^2 (2)=638, p=.727. Thus, it can be observed that the participation of families with discreet or enriched HLE profiles is distributed proportionally the size of each SES subgroup. Therefore, there is no evidence that any of the SES has an overrepresentation of any HLE profile (see table 4).

Table 4

HLE profile and their relationship with socioeconomic status

Clúster / NSE		Low	Medium	High	Total
Profile "Enriched"	Observed	72[a]	71[a]	82[a]	225
	Expected	71.8	73.8	79.4	225
	% of row	32%	31.6%	36.4%	100.0%
Profile "Discreet"	Observed	32[a]	36[a]	33[a]	101
	Expected	32.2	33.2	35.6	101
	% of row	31.7%	35.6%	32.7%	100.0%

Note: Each subscript letter denotes a subset of dependency categories whose column proportions do not differ significantly from each other at the .05 level.

It was also found that none of the individual variables of the HLE showed significant differences by SES (p> .727).

DISCUSSION

This study aimed to identify and characterise the literacy environments of Chilean families with preschool children in a post-pandemic context. It was also proposed to test the hypothesis that these groups would be directly related to the SES to which they belong.

The cluster analysis allowed us to identify two well-defined groups that show variations in the different dimensions of HLE, distinguishing between an "enriched environment" and a "discreet

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environment," which did not show differences by SES. The above contradicts previous findings that confirm differences in HLE, favouring high SES families. One explanation for this absence of differences is related to the conditions experienced by families during pandemic confinement.

Indeed, several studies report that the tasks of parenting and teaching their children increased parents' stress and anxiety levels as a product of confinement. For example, the study by Zambrana and Hart (2022) shows that parental stress was negatively associated with parental involvement in literacy at home but not with involvement in mathematics at home. We could think that in our sample families where both parents worked outside the home before the pandemic, the fact of having to reconcile the same time and space for the workload and parenting tasks could generate dynamics that would explain this absence of differences between the two groups; a different situation from those families (usually lower income), where the mother remains the central caregiver figure in the home.

In this regard, let us recall that the children in this study were infants who were confined at the age of approximately two years, with no formal education until the reopening of the schools, that is, by the time they were approximately four years old. Thus, we can infer that the child's interactions with their family were the only formal means of socialisation and initiation into written culture. In this sense, Bao et al. (2020) warns about the impact of confinement in the educational environment, observing a decrease in the social interaction of children during the closure of educational establishments, as well as a 31% decrease in reading ability.

For this reason, one of the strengths of this study is the development of a valid and reliable measure in Spanish to assess HLE. The instrument, easy to apply and low cost, presents a factorial structure with good adjustment indexes, in line with authors who propose the multidimensionality of HLE, as occurs when including parents' practices, beliefs, and evaluations of literacy within this construct (Lenhart & Lingel, 2023; Schmitt et al., 2011). This would allow for eliminating a limitation linked to the wide variety of indicators that had not been consistent in measuring HLE over time (Schmitt et al., 2011).

Considering the above, we can say that the HLE questionnaire is an instrument for identifying these four dimensions as predictors or covariates within the process of acquiring and developing literacy skills.

Likewise, this study constitutes a contribution by reporting a refined measure of the input that families are making to children's development of emergent literacy skills. This allows us to have a more objective view on the valuation of certain practices and the relative use of these practices by families.

This study has limitations. Although a ceiling effect was not observed in the measures, given that this is a self-report instrument, it is possible that some degree of social desirability could have influenced the families' responses (Marlow & Crowne, 1961). However, some safeguards, such as the individual application in their homes (interview type), could minimise the bias.

Regarding SES, it is important to remember that educational dependency was used as a proxy. Including direct measures such as mothers' educational level and family income could construct a more comprehensive index of SES, following what has been proposed in other studies (Manosalba-Torres and Arancibia-Gutiérrez, 2022; Melhuish, 2010; Mendive et al., 2020).

Likewise, a relevant projection would be the consideration of a mixed approach in the study of the HLE, for example, through direct observation. Similarly, extending the HLE by incorporating an open-ended question would allow for establishing the existence of “vernacular practices” (Barton & Hamilton, 2012) within the family that are not being considered by the research.

The theoretical implications of this study are related to the evidence on the multidimensionality of HLE since considering that HLE is composed of variables in addition to parental practices, such as beliefs and value of reading, it is possible to identify risk profiles for learning to read. The description provided by the profiles allows for making pedagogical decisions based on the real needs of the children and the tools available in the immediate environment that facilitate the learning of reading in the initial cycle.

Finally, the practical implications are related to the information provided by this inventory concerning the AAH. This instrument could form part of the inputs that allow for the early identification of profiles of families with “discreet environments.” If educators use this resource, not only could they

contribute to reducing the gaps in reading development increased by the pandemic, but the role of the family as the first educational agent in children's lives would be highlighted.

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AUTHOR CONTRIBUTIONS

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APPENDIX

Home literacy environment (Translated from the spanish original)

Items included in the parental questionnaire*.
Please circle the number that best corresponds to your level of agreement with the following statements:

1 = Not at all frequent ---------- 6= Very frequent

Code-oriented practices

4.1 I teach my child letters (e.g., 'this is P for Peter').	1 2 3 4 5 6
4.2 I teach my child words when I read (e.g., 'slide is when you go down the slide').	1 2 3 4 5 6
4.3 When I read a story, I stop when my child does not understand a word and explain it to him/her.	1 2 3 4 5 6
4.4 When I read with my child, I point to the words in the story.	1 2 3 4 5 6
4.5 I teach my child to trace letters and numbers.	1 2 3 4 5 6
4.6 We play at writing letters or numbers.	1 2 3 4 5 6

Culture-oriented practices

4.7 I take care to correct my child when he/she says a word wrong.	1 2 3 4 5 6
4.8 I read with my child.	1 2 3 4 5 6
4.9 I play pretending reading with my child.	1 2 3 4 5 6
4.10 We talk about the story we are reading.	1 2 3 4 5 6
4.11 We play at saying tongue twisters or singing songs.	1 2 3 4 5 6

Parental beliefs about literacy

Please circle the number that best corresponds to your level of agreement with the following statements:

1 = Not at all important ---------- 6= Very important

I think it is important that:	
5.1 My child sees me reading.	1 2 3 4 5 6
5.2 I read to my child because it will help him/her to speak better.	1 2 3 4 5 6
5.3 I read to my child because it is good for his/her school development.	1 2 3 4 5 6
5.4 My child knows letters (their names and sounds).	1 2 3 4 5 6
5.5 My child knows how to write his/her name.	1 2 3 4 5 6
5.6 I talk or tell stories to my child for his/her reading development.	1 2 3 4 5 6
5.7 Sing songs to my child for reading development.	1 2 3 4 5 6

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5.8 Play games with my child for his/her reading development.	1 2 3 4 5 6

Value for reading

Circle the number that best corresponds to your level according to the following statements were

1 = Strongly Disagree ----- 6= Strongly Agree

In my opinion ...	
6.1 For me, reading is time well spent.	1 2 3 4 5 6
6.2 What I learn from reading is valuable to me and, therefore, to my child.	1 2 3 4 5 6
6.3 Reading to my child is valuable for his/her development.	1 2 3 4 5 6
6.4 Giving children's books or texts to my child is valuable for his/her reading development.	1 2 3 4 5 6
6.5 Searching for information in books with my child is valuable for his/her reading development.	1 2 3 4 5 6
6.6 For me, reading to my child is time well spent.	1 2 3 4 5 6

*To request the full instrument, please write to the principal investigator of the project (Carla Muñoz: cmunozv@ucm.cl).