



SEÇÃO ARTIGOS LIVRES

Typology of deafblindness: an integrated model aligned with the stages of sensory development

Tipologia da surdocegueira: um modelo integrado e alinhado às etapas do desenvolvimento sensorial

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ABSTRACT

Human perception is mediated by multiple senses, with particular emphasis on vision and hearing, both in technological development and in language use. This reliance poses significant challenges for individuals with deafblindness, affecting their emotional well-being, health, social interaction, and knowledge acquisition. Language development and social abstraction in this context follow progressive stages — from pre-verbal communication (0–12 months) to the senior stage (60+ years) —, which shape how meaning is constructed and expressed throughout life. However, traditional classifications of deafblindness often fail to reflect this complexity, treating the condition as a homogeneous disability. This limits both theoretical understanding and the design of effective interventions. In response, this paper proposes a more inclusive model that acknowledges the diverse dimensions of deafblindness. The model organises individuals into two main groups (congenital and acquired disability), encompassing six categories and 2,256 distinct profiles. These profiles are critical to understanding the individual needs and potentials of deafblind persons, enabling the development of more tailored and effective strategies for their social and educational inclusion. Recognising the nuanced experiences of this population is essential for advancing assistive technologies, inclusive public policies, and educational practices that reflect the realities of deafblind individuals. This model offers a transformative perspective on how we approach inclusion, grounded in complexity and respect for diversity.

Keywords: Critical Period. Deafblindness. Inclusive Education. Language Acquisition. Typologies Of Deafblindness.

RESUMO

A percepção humana é mediada por múltiplos sentidos, com ênfase na visão e na audição, tanto na tecnologia quanto na linguagem. Isso representa um desafio significativo para o bem-estar emocional, saúde, interação social e construção de conhecimento de pessoas com surdocegueira. O desenvolvimento da linguagem e das abstrações sociais nesse contexto ocorre por meio de estágios, que vão do pré-linguístico ao pós-linguístico, indo da comunicação pré-verbal (0–12 meses) até a fase sênior (60+ anos), moldando como o significado é absorvido e expresso. No entanto, as classificações tradicionais de surdocegueira frequentemente falham em capturar essa complexidade, tratando a deficiência de forma homogênea, o que limita tanto a compreensão quanto as intervenções adequadas. Isso gerou a necessidade de um modelo mais inclusivo, que reconhece as diferentes dimensões da condição e organiza a população em dois grupos principais (nascidos com e sem deficiência), com seis categorias e 2.256 perfis distintos. Esses perfis são essenciais para compreender as necessidades e potencialidades individuais de pessoas surdocegas, permitindo o desenvolvimento de abordagens mais personalizadas e eficazes para a sua inclusão social e educacional.

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Reconhecer as nuances dessa condição é crucial para a criação de estratégias que promovam uma inclusão verdadeira, respeitando as experiências únicas de cada pessoa. Com a adoção desse modelo, podemos avançar na implementação de tecnologias assistivas, políticas públicas e práticas educacionais mais eficazes, garantindo uma inclusão genuína que leva em conta as diversas necessidades e contextos vividos pelos indivíduos surdocegos. Esse enfoque pode, portanto, transformar a forma como entendemos e abordamos a inclusão dessa população.

Palavras-chave: Aquisição da Linguagem. Educação Inclusiva. Período Crítico. Surdocegueira. Tipologias da Surdocegueira.

Introduction

I began my career as an interpreter in 1994, following a Brazilian Sign Language course offered by a church. The following year, I deepened my studies at ADEFAV (Resource Centre for Multiple Disabilities, Deafblindness, and Visual Impairment), where I had my first contact with the deafblind community. Since then, I have been dedicated to understanding the modes of communication and the challenges deafblind community face. In 2000, I participated in the 3rd National Meeting of Deafblind People, which significantly broadened my engagement with the subject.

During my postgraduate specialisation in Interactive Media (2014–2016), I developed—with support from UFG (Federal University of Goiás)—a prototype of a wearable vest for deafblind individuals. Although the device did not perform as expected, the experience led me to pursue a Master's degree at PUC-SP (Pontifical Catholic University of São Paulo), where I explored technologies for sensory substitution (Gimenes, 2019).

The deafblind population cannot be meaningfully addressed as a homogeneous group. Individuals with comparable sensory impairments may exhibit substantially different communicative, cognitive, and social outcomes depending on their developmental timing and linguistic trajectories. In response to this heterogeneity, this study proposes a classificatory framework consisting of two major groups, six categories, and 2,256 distinct profiles, providing a more precise foundation for educational strategies, assistive technologies, and public policy development (Batista, 2025).

To better contextualise this classificatory framework, it is necessary to consider how language develops across the lifespan. Understanding language development across the lifespan requires an approach sensitive to multiple forms of human perception and expression. In this study, language development is understood as a staged process encompassing pre-linguistic, linguistic, and post-linguistic phases, each associated with distinct communicative, cognitive, and social capacities. The research takes into account these developmental stages together with the diversity of sensory experiences, such as those of individuals with deafblindness.



2 Theoretical background

Understanding language development across the lifespan requires an approach sensitive to multiple forms of human perception and expression. In this study, language development is understood as a staged process encompassing pre-linguistic, linguistic, and post-linguistic phases, each associated with distinct communicative, cognitive, and social capacities. The research takes into account these developmental stages together with the diversity of sensory experiences, such as those of individuals with deafblindness.

2.1 Stages of language development

Language has traditionally been understood as a universal and innate human capacity, capable of emerging even with limited input (Chomsky, 2000). More recent research, however, has expanded this perspective by highlighting the importance of sensory and multimodal diversity in the constitution of language (Bickel, 2014; Cader-Nascimento; Costa, 2010; Veliz; Riffo; Arancibia, 2010).

Studies involving individuals with deafblindness demonstrate how language adapts to different perceptual modalities, revealing its symbolic flexibility (Gimenes, 2019; Miles; Riggio, 1999). In this light, it becomes evident that language is deeply connected to the distinct stages of its development and is increasingly understood as a multimodal phenomenon, adaptable to varying sensory and social conditions (Bickel, 2014; Chomsky, 2000).

Human language development unfolds across three major stages: pre-linguistic, linguistic, and post-linguistic, encompassing everything from non-verbal expressions (such as crying and babbling) to the formulation of complex sentences and argumentative discourse. However, given that demographic studies often use ten-year intervals, the present study adapts this scale to linguistic development in ten stages—ranging from pre-verbal communication (0–12 months) to the senior phase (60+ years), marked by fluency, memory, and an appreciation for language. This segmentation enables a clearer observation of how language evolves throughout the lifespan, reflecting the cognitive, social, and professional demands of each stage (López-Espejo; Ruz, 2024; Miles; Riggio, 1999; Demographic yearbook, 2024; Warnicke *et al.*, 2022; Wittich; Dumassais, 2025).

2.2 Typology of deafblindness

Existing approaches to the typology of deafblindness commonly classify individuals according to the sequence of sensory loss or its presence from birth. Within this framework, four main categories are typically identified:



- (a) individuals who are blind and later become deaf;
- (b) individuals who are deaf and later become blind;
- (c) individuals who acquire deafblindness during the course of life; and
- (d) individuals who have been deafblind since birth or early childhood, often without access to early communicative stimuli (Cader-Nascimento; Costa, 2010; Dammeyer, 2014; McInnes; Treffry, 1988; Organização Pan-Americana da Saúde, 2019; Schembri *et al.*, 2018; Veliz; Riffo; Arancibia, 2010; World Federation of the Deafblind, 2018; World Health Organization, 2019, 2021).

While these classifications provide an important descriptive foundation, they remain largely centred on impairment chronology and do not systematically incorporate developmental timing, linguistic trajectories, or functional variability. Consequently, individuals with similar sensory losses may be grouped together despite presenting substantially different communicative and cognitive outcomes. This reveals a conceptual gap in current typologies, particularly regarding the role of language development and lifespan progression in shaping deafblind experience.

3 Methodology

This study adopts a theoretical and descriptive methodological approach aimed at constructing a conceptual classification model. No empirical data were collected at this stage; instead, the framework was developed through systematic integration of variables identified in the literature on deafblindness, language development, and sensory impairment. The objective is not to interpret findings, but to formally structure the main analytical dimensions that shape deafblind experience. Within this approach, the proposed model is grounded in three primary axes:

- 1. Condition at birth** – the individual's status at birth:
 - (1) no apparent disability, (2) deaf, (3) blind, (4) deafblind.
- 2. Acquisition of the disability** – the stage at which the disability was acquired:
 - (5) pre-linguistic, (6) linguistic, (7) post-linguistic, defined as:
 - (a) Pre-linguistic (0–12 months);
 - (b) Linguistic I (1–3 years);
 - (c) Linguistic II (3–6 years);
 - (d) Post-linguistic I (6–12 years);
 - (e) Post-linguistic II (12–20 years);



(f) Post-linguistic III (20–30 years);

(g) Post-linguistic IV (30–40 years);

(h) Post-linguistic V (40–50 years);

(i) Post-linguistic VI (50–60 years);

(j) Post-linguistic VII (60+ years).

3. Degree of impairment – level of sensory loss:

(8) Deafness: (a) mild, (b) moderate, (c) severe, (d) profound;

(9) Blindness: (a) mild visual impairment, (b) moderate, (c) severe, (d) total blindness.

By systematically cross-referencing these three axes, the model generates two overarching groups (those born with or without apparent disabilities), distributed into six main categories (A–F), resulting in a total of 2,256 distinct profiles.

4 Conclusion

Deafblindness is a complex condition that goes beyond the mere sum of deafness and blindness. Its impact varies depending on the time of onset, the degree of sensory impairment, and the individual's personal history. These factors directly influence the development, communication, and identity of deafblind individuals.

Therefore, personalised approaches that incorporate assistive technologies and tactile systems to ensure accessibility and autonomy are essential. The proposed typology—comprising 2,256 profiles distributed across 2 categories and 6 groups—aims to provide a more accurate model to inform public policy, educational practices, and the development of effective solutions (refer to Tables 1—12) (Batista, 2025).

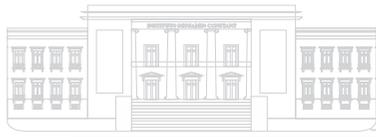


Table 1. Category A: Individuals born without apparent disabilities who first acquire deafness, followed by mild visual impairment, subdivided into 220 profiles

Condition at birth: No Visible Disability – Category: A – Profiles: 1–220																	
1 st Deafness		2 nd Mild visual impairment										2 nd Mild visual impairment					
DEGREE	Linguistic period of 1 st disability onset	Linguistic period of 2 nd disability onset										Linguistic period of 1 st disability onset	Linguistic period of 2 nd disability onset				
		Pre ¹	L1 ²	L2 ³	P1 ⁴	P2 ⁵	P3 ⁶	P4 ⁷	P5 ⁸	P6 ⁹	P7 ¹⁰		P3	P4	P5	P6	P7
Mild	Pre	0001	0002	0003	0004	0005	0006	0007	0008	0009	0010		0161	0162	0163	0164	0165
Moderate		0011	0012	0013	0014	0015	0016	0017	0018	0019	0020	P3	0166	0167	0168	0169	0170
Severe		0021	0022	0023	0024	0025	0026	0027	0028	0029	0030	0171	0172	0173	0174	0175	
Profound		0031	0032	0033	0034	0035	0036	0037	0038	0039	0040	0176	0177	0178	0179	0180	
Mild	L1		0041	0042	0043	0044	0045	0046	0047	0048	0049		0181	0182	0183	0184	
Moderate			0050	0051	0052	0053	0054	0055	0056	0057	0058	P4	0185	0186	0187	0188	
Severe			0059	0060	0061	0062	0063	0064	0065	0066	0067	0189	0190	0191	0192		
Profound			0068	0069	0070	0071	0072	0073	0074	0075	0076	0193	0194	0195	0196		
Mild	L2			0077	0078	0079	0080	0081	0082	0083	0084			0197	0198	0199	
Moderate				0085	0086	0087	0088	0089	0090	0091	0092	P5		0200	0201	0202	
Severe				0093	0094	0095	0096	0097	0098	0099	0100			0203	0204	0205	
Profound				0101	0102	0103	0104	0105	0106	0107	0108			0206	0207	0208	
Mild	P1				0109	0110	0111	0112	0113	0114	0115					0209	0210
Moderate					0116	0117	0118	0119	0120	0121	0122	P6				0211	0212
Severe					0123	0124	0125	0126	0127	0128	0129					0213	0214
Profound					0130	0131	0132	0133	0134	0135	0136					0215	0216
Mild	P2					0137	0138	0139	0140	0141	0142						0217
Moderate						0143	0144	0145	0146	0147	0148	P7					0218
Severe						0149	0150	0151	0152	0153	0154						0219
Profound						0155	0156	0157	0158	0159	0160						0220

Source : author-produced. ***Linguistic Periods:** ¹Pre-linguistic, ²Linguistic I, ³Linguistic II, ⁴Post-linguistic I, ⁵Post-linguistic II, ⁶Post-linguistic III, ⁷Post-linguistic IV, ⁸Post-linguistic V, ⁹Post-linguistic VI, ¹⁰Post-linguistic VII.



Table 2. Category A: Individuals born without apparent disabilities who first acquire deafness, followed by moderate visual impairment, subdivided into 220 profiles

Condition at birth: No Visible Disability – Category: A – Profiles: 221–440																	
1 st Deafness		2 nd Moderate visual impairment										2 nd Moderate visual impairment					
DEGREE	Linguistic period of 1 st disability onset	Linguistic period of 2 nd disability onset										Linguistic period of 1 st disability onset	Linguistic period of 2 nd disability onset				
		Pre ¹	L1 ²	L2 ³	P1 ⁴	P2 ⁵	P3 ⁶	P4 ⁷	P5 ⁸	P6 ⁹	P7 ¹⁰		P3	P4	P5	P6	P7
Mild	Pre	0221	0222	0223	0224	0225	0226	0227	0228	0229	0230	P3	0381	0382	0383	0384	0385
Moderate		0231	0232	0233	0234	0235	0236	0237	0238	0239	0240		0386	0387	0388	0389	0390
Severe		0241	0242	0243	0244	0245	0246	0247	0248	0249	0250		0391	0392	0393	0394	0395
Profound		0251	0252	0253	0254	0255	0256	0257	0258	0259	0260		0396	0397	0398	0399	0400
Mild	L1		0261	0262	0263	0264	0265	0266	0267	0268	0269	P4		0401	0402	0403	0404
Moderate			0270	0271	0272	0273	0274	0275	0276	0277	0278			0405	0406	0407	0408
Severe			0279	0280	0281	0282	0283	0284	0285	0286	0287			0409	0410	0411	0412
Profound			0288	0289	0290	0291	0292	0293	0294	0295	0296			0413	0414	0415	0416
Mild	L2			0297	0298	0299	0300	0301	0302	0303	0304	P5			0417	0418	0419
Moderate				0305	0306	0307	0308	0309	0310	0311	0312				0420	0421	0422
Severe				0313	0314	0315	0316	0317	0318	0319	0320				0423	0424	0425
Profound				0321	0322	0323	0324	0325	0326	0327	0328				0426	0427	0428
Mild	P1				0329	0330	0331	0332	0333	0334	0335	P6				0429	0430
Moderate					0336	0337	0338	0339	0340	0341	0342					0431	0432
Severe					0343	0344	0345	0346	0347	0348	0349					0433	0434
Profound					0350	0351	0352	0353	0354	0355	0356					0435	0436
Mild	P2					0357	0358	0359	0360	0361	0362	P7					0437
Moderate						0363	0364	0365	0366	0367	0368						0438
Severe						0369	0370	0371	0372	0373	0374						0439
Profound						0375	0376	0377	0378	0379	0380						0440

Source: author-produced. ***Linguistic Periods:** ¹Pre-linguistic, ²Linguistic I, ³Linguistic II, ⁴Post-linguistic I, ⁵Post-linguistic II, ⁶Post-linguistic III, ⁷Post-linguistic IV, ⁸Post-linguistic V, ⁹Post-linguistic VI, ¹⁰Post-linguistic VII.

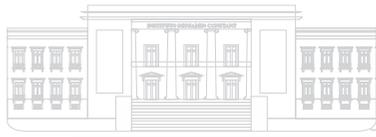


Table 3. Category A: Individuals born without apparent disabilities who first acquire deafness, followed by severe visual impairment, subdivided into 220 profiles

Condition at birth: No Visible Disability – Category: A – Profiles: 441–660																	
1 st Deafness		2 nd Severe visual impairment										2 nd Severe visual impairment					
DEGREE	Linguistic period of 1 st disability onset	Linguistic period of 2 nd disability onset										Linguistic period of 1 st disability onset	Linguistic period of 2 nd disability onset				
		Pre ¹	L1 ²	L2 ³	P1 ⁴	P2 ⁵	P3 ⁶	P4 ⁷	P5 ⁸	P6 ⁹	P7 ¹⁰		P3	P4	P5	P6	P7
Mild	Pre	0441	0442	0443	0444	0445	0446	0447	0448	0449	0450	P3	0601	0602	0603	0604	0605
Moderate		0451	0452	0453	0454	0455	0456	0457	0458	0459	0460		0606	0607	0608	0609	0610
Severe		0461	0462	0463	0464	0465	0466	0467	0468	0469	0470		0611	0612	0613	0614	0615
Profound		0471	0472	0473	0474	0475	0476	0477	0478	0479	0480		0616	0617	0618	0619	0620
Mild	L1		0481	0482	0483	0484	0485	0486	0487	0488	0489	P4		0621	0622	0623	0624
Moderate			0490	0491	0492	0493	0494	0495	0496	0497	0498			0625	0626	0627	0628
Severe			0499	0500	0501	0502	0503	0504	0505	0506	0507			0629	0630	0631	0632
Profound			0508	0509	0510	0511	0512	0513	0514	0515	0516			0633	0634	0635	0636
Mild	L2			0517	0518	0519	0520	0521	0522	0523	0524	P5			0637	0638	0639
Moderate				0525	0526	0527	0528	0529	0530	0531	0532				0640	0641	0642
Severe				0533	0534	0535	0536	0537	0538	0539	0540				0643	0644	0645
Profound				0541	0542	0543	0544	0545	0546	0547	0548				0646	0647	0648
Mild	P1				0549	0550	0551	0552	0553	0554	0555	P6				0649	0650
Moderate					0556	0557	0558	0559	0560	0561	0562					0651	0652
Severe					0563	0564	0565	0566	0567	0568	0569					0653	0654
Profound					0570	0571	0572	0573	0574	0575	0576					0655	0656
Mild	P2					0577	0578	0579	0580	0581	0582	P7					0657
Moderate						0583	0584	0585	0586	0587	0588						0658
Severe						0589	0590	0591	0592	0593	0594						0659
Profound						0595	0596	0597	0598	0599	0600						0660

Source: author-produced. ***Linguistic Periods:** ¹Pre-linguistic, ²Linguistic I, ³Linguistic II, ⁴Post-linguistic I, ⁵Post-linguistic II, ⁶Post-linguistic III, ⁷Post-linguistic IV, ⁸Post-linguistic V, ⁹Post-linguistic VI, ¹⁰Post-linguistic VII.



Table 4. Category A: Individuals born without apparent disabilities who first acquire deafness, followed by total blindness, subdivided into 220 profiles

Condition at birth: No Visible Disability – Category: A – Profiles: 661–880																	
1 st Deafness		2 nd Total blindness										2 nd Total blindness					
DEGREE	Linguistic period of 1 st disability onset	Linguistic period of 2 nd disability onset										Linguistic period of 1 st disability onset	Linguistic period of 2 nd disability onset				
		Pre ¹	L1 ²	L2 ³	P1 ⁴	P2 ⁵	P3 ⁶	P4 ⁷	P5 ⁸	P6 ⁹	P7 ¹⁰		P3	P4	P5	P6	P7
Mild	Pre	0661	0662	0663	0664	0665	0666	0667	0668	0669	0670	P3	0821	0822	0823	0824	0825
Moderate		0671	0672	0673	0674	0675	0676	0677	0678	0679	0680		0826	0827	0828	0829	0830
Severe		0681	0682	0683	0684	0685	0686	0687	0688	0689	0690		0831	0832	0833	0834	0835
Profound		0691	0692	0693	0694	0695	0696	0697	0698	0699	0700		0836	0837	0838	0839	0840
Mild	L1		0701	0702	0703	0704	0705	0706	0707	0708	0709	P4		0841	0842	0843	0844
Moderate			0710	0711	0712	0713	0714	0715	0716	0717	0718			0845	0846	0847	0848
Severe			0719	0720	0721	0722	0723	0724	0725	0726	0727			0849	0850	0851	0852
Profound			0728	0729	0730	0731	0732	0733	0734	0735	0736			0853	0854	0855	0856
Mild	L2			0737	0738	0739	0740	0741	0742	0743	0744	P5			0857	0858	0859
Moderate				0745	0746	0747	0748	0749	0750	0751	0752				0860	0861	0862
Severe				0753	0754	0755	0756	0757	0758	0759	0760				0863	0864	0865
Profound				0761	0762	0763	0764	0765	0766	0767	0768				0866	0867	0868
Mild	P1				0769	0770	0771	0772	0773	0774	0775	P6				0869	0870
Moderate					0776	0777	0778	0779	0780	0781	0782					0871	0872
Severe					0783	0784	0785	0786	0787	0788	0789					0873	0874
Profound					0790	0791	0792	0793	0794	0795	0796					0875	0876
Mild	P2					0797	0798	0799	0800	0801	0802	P7					0877
Moderate						0803	0804	0805	0806	0807	0808						0878
Severe						0809	0810	0811	0812	0813	0814						0879
Profound						0815	0816	0817	0818	0819	0820						0880

Source: author-produced. ***Linguistic Periods:** ¹Pre-linguistic, ²Linguistic I, ³Linguistic II, ⁴Post-linguistic I, ⁵Post-linguistic II, ⁶Post-linguistic III, ⁷Post-linguistic IV, ⁸Post-linguistic V, ⁹Post-linguistic VI, ¹⁰Post-linguistic VII.

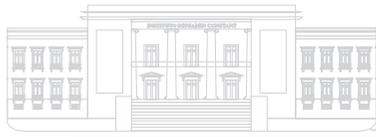


Table 5. Category B: Individuals born without apparent disabilities who first acquire blindness, followed by mild deafness, subdivided into 220 profiles

Condition at birth: No Visible Disability – Category: B – Profiles: 881–1100																	
1 st Blindness		2 nd Mild deafness										2 nd Mild deafness					
DEGREE	Linguistic period of 1 st disability onset	Linguistic period of 2 nd disability onset										Linguistic period of 1 st disability onset	Linguistic period of 2 nd disability onset				
		Pre ¹	L1 ²	L2 ³	P1 ⁴	P2 ⁵	P3 ⁶	P4 ⁷	P5 ⁸	P6 ⁹	P7 ¹⁰		P3	P4	P5	P6	P7
MiVI ¹¹	Pre	0881	0882	0883	0884	0885	0886	0887	0888	0889	0890	P3	1041	1042	1043	1044	1045
MoVI ¹²		0891	0892	0893	0894	0895	0896	0897	0898	0899	0900		1046	1047	1048	1049	1050
SVI ¹³		0901	0902	0903	0904	0905	0906	0907	0908	0909	0910		1051	1052	1053	1054	1055
BT ¹⁴		0911	0912	0913	0914	0915	0916	0917	0918	0919	0920		1056	1057	1058	1059	1060
MiVI	L1		0921	0922	0923	0924	0925	0926	0927	0928	0929	P4		1061	1062	1063	1064
MoVI			0930	0931	0932	0933	0934	0935	0936	0937	0938			1065	1066	1067	1068
SVI			0939	0940	0941	0942	0943	0944	0945	0946	0947			1069	1070	1071	1072
BT			0948	0949	0950	0951	0952	0953	0954	0955	0956			1073	1074	1075	1076
MiVI	L2			0957	0958	0959	0960	0961	0962	0963	0964	P5			1077	1078	1079
MoVI				0965	0966	0967	0968	0969	0970	0971	0972				1080	1081	1082
SVI				0973	0974	0975	0976	0977	0978	0979	0980				1083	1084	1085
BT				0981	0982	0983	0984	0985	0986	0987	0988				1086	1087	1088
MiVI	P1				0989	0990	0991	0992	0993	0994	0995	P6				1089	1090
MoVI					0996	0997	0998	0999	1000	1001	1002					1091	1092
SVI					1003	1004	1005	1006	1007	1008	1009					1093	1094
BT					1010	1011	1012	1013	1014	1015	1016					1095	1096
MiVI	P2					1017	1018	1019	1020	1021	1022	P7					1097
MoVI						1023	1024	1025	1026	1027	1028						1098
SVI						1029	1030	1031	1032	1033	1034						1099
BT						1035	1036	1037	1038	1039	1040						1100

Source: author-produced. ***Linguistic Periods:** ¹Pre-linguistic, ²Linguistic I, ³Linguistic II, ⁴Post-linguistic I, ⁵Post-linguistic II, ⁶Post-linguistic III, ⁷Post-linguistic IV, ⁸Post-linguistic V, ⁹Post-linguistic VI, ¹⁰Post-linguistic VII. ****Degrees:** ¹¹Mild visual impairment, ¹²Moderate visual impairment, ¹³Severe

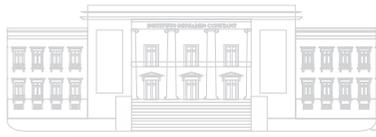


Table 6. Category B: Individuals born without apparent disabilities who first acquire blindness, followed by moderate deafness, subdivided into 220 profiles

Condition at birth: No Visible Disability – Category: B – Profiles: 1101–1320																			
1 st Blindness		2 nd Moderate deafness										2 nd Moderate deafness							
DEGREE	Linguistic period of 1 st disability onset	Linguistic period of 2 nd disability onset										Linguistic period of 1 st disability onset	Linguistic period of 2 nd disability onset						
		Pre ¹	L1 ²	L2 ³	P1 ⁴	P2 ⁵	P3 ⁶	P4 ⁷	P5 ⁸	P6 ⁹	P7 ¹⁰		P3	P4	P5	P6	P7		
MiVI ¹¹	Pre	1101	1102	1103	1104	1105	1106	1107	1108	1109	1110	P3	1261	1262	1263	1264	1265		
MoVI ¹²		1111	1112	1113	1114	1115	1116	1117	1118	1119	1120		1266	1267	1268	1269	1270		
SVI ¹³		1121	1122	1123	1124	1125	1126	1127	1128	1129	1130		1271	1272	1273	1274	1275		
BT ¹⁴		1131	1132	1133	1134	1135	1136	1137	1138	1139	1140		1276	1277	1278	1279	1280		
MiVI	L1	1141	1142	1143	1144	1145	1146	1147	1148	1149	P4	1281	1282	1283	1284	P5	1297	1298	1299
MoVI		1150	1151	1152	1153	1154	1155	1156	1157	1158		1285	1286	1287	1288		1300	1301	1302
SVI		1159	1160	1161	1162	1163	1164	1165	1166	1167		1289	1290	1291	1292		1303	1304	1305
BT		1168	1169	1170	1171	1172	1173	1174	1175	1176		1293	1294	1295	1296		1306	1307	1308
MiVI	L2	1177	1178	1179	1180	1181	1182	1183	1184	P6	1309	1310	P7	1317	P7	1318	P7	1319	
MoVI		1185	1186	1187	1188	1189	1190	1191	1192		1311	1312		1313		1314		1315	1316
SVI		1193	1194	1195	1196	1197	1198	1199	1200		1315	1316		1317		1318		1319	
BT		1201	1202	1203	1204	1205	1206	1207	1208		1317	1318		1319		1320			
MiVI	P1	1209	1210	1211	1212	1213	1214	1215	P7	1320	P7	1321	P7	1322	P7	1323	P7	1324	
MoVI		1216	1217	1218	1219	1220	1221	1222		1325		1326		1327		1328		1329	
SVI		1223	1224	1225	1226	1227	1228	1229		1330		1331		1332		1333		1334	
BT		1230	1231	1232	1233	1234	1235	1236		1335		1336		1337		1338		1339	
MiVI	P2	1237	1238	1239	1240	1241	1242	P7	1340	P7	1341	P7	1342	P7	1343	P7	1344	P7	1345
MoVI		1243	1244	1245	1246	1247	1248		1346		1347		1348		1349		1350		
SVI		1249	1250	1251	1252	1253	1254		1351		1352		1353		1354		1355		
BT		1255	1256	1257	1258	1259	1260		1356		1357		1358		1359		1360		

Source: author-produced. ***Linguistic Periods:** ¹Pre-linguistic, ²Linguistic I, ³Linguistic II, ⁴Post-linguistic I, ⁵Post-linguistic II, ⁶Post-linguistic III, ⁷Post-linguistic IV, ⁸Post-linguistic V, ⁹Post-linguistic VI, ¹⁰Post-linguistic VII. ****Degrees:** ¹¹Mild visual impairment, ¹²Moderate visual impairment, ¹³Severe visual impairment, ¹⁴Total blindness.



Table 7. Category B: Individuals born without apparent disabilities who first acquire blindness, followed by severe deafness, subdivided into 220 profiles

Condition at birth: No Visible Disability – Category: B – Profiles: 1321–1540																	
1 st Blindness		2 nd Severe deafness										2 nd Severe deafness					
DEGREE	Linguistic period of 1 st disability onset	Linguistic period of 2 nd disability onset										Linguistic period of 1 st disability onset	Linguistic period of 2 nd disability onset				
		Pre ¹	L1 ²	L2 ³	P1 ⁴	P2 ⁵	P3 ⁶	P4 ⁷	P5 ⁸	P6 ⁹	P7 ¹⁰		P3	P4	P5	P6	P7
MiVI ¹¹	Pre	1321	1322	1323	1324	1325	1326	1327	1328	1329	1330	P3	1481	1482	1483	1484	1485
MoVI ¹²		1331	1332	1333	1334	1335	1336	1337	1338	1339	1340		1486	1487	1488	1489	1490
SVI ¹³		1341	1342	1343	1344	1345	1346	1347	1348	1349	1350		1491	1492	1493	1494	1495
BT ¹⁴		1351	1352	1353	1354	1355	1356	1357	1358	1359	1360		1496	1497	1498	1499	1500
MiVI	L1	1361	1362	1363	1364	1365	1366	1367	1368	1369	P4	1501	1502	1503	1504		
MoVI		1370	1371	1372	1373	1374	1375	1376	1377	1378		1505	1506	1507	1508		
SVI		1379	1380	1381	1382	1383	1384	1385	1386	1387		1509	1510	1511	1512		
BT		1388	1389	1390	1391	1392	1393	1394	1395	1396		1513	1514	1515	1516		
MiVI	L2	1397	1398	1399	1400	1401	1402	1403	1404	P5	1517	1518	1519				
MoVI		1405	1406	1407	1408	1409	1410	1411	1412		1520	1521	1522				
SVI		1413	1414	1415	1416	1417	1418	1419	1420		1523	1524	1525				
BT		1421	1422	1423	1424	1425	1426	1427	1428		1526	1527	1528				
MiVI	P1	1429	1430	1431	1432	1433	1434	1435	P6	1529	1530						
MoVI		1436	1437	1438	1439	1440	1441	1442		1531	1532						
SVI		1443	1444	1445	1446	1447	1448	1449		1533	1534						
BT		1450	1451	1452	1453	1454	1455	1456		1535	1536						
MiVI	P2	1457	1458	1459	1460	1461	1462	P7	1537								
MoVI		1463	1464	1465	1466	1467	1468		1538								
SVI		1469	1470	1471	1472	1473	1474		1539								
BT		1475	1476	1477	1478	1479	1480		1540								

Source: author-produced. ***Linguistic Periods:** ¹Pre-linguistic, ²Linguistic I, ³Linguistic II, ⁴Post-linguistic I, ⁵Post-linguistic II, ⁶Post-linguistic III, ⁷Post-linguistic IV, ⁸Post-linguistic V, ⁹Post-linguistic VI, ¹⁰Post-linguistic VII. ****Degrees:** ¹¹Mild visual impairment, ¹²Moderate visual impairment, ¹³Severe visual impairment, ¹⁴Total blindness.

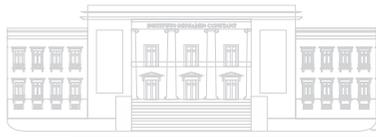


Table 8. Category B: Individuals born without apparent disabilities who first acquire blindness, followed by profound deafness, subdivided into 220 profiles

Condition at birth: No Visible Disability – Category: B – Profiles: 1541–1760																	
1 st Blindness		2 nd Profound deafness										2 nd Profound deafness					
DEGREE	Linguistic period of 1 st disability onset	Linguistic period of 2 nd disability onset										Linguistic period of 1 st disability onset	Linguistic period of 2 nd disability onset				
		Pre ¹	L1 ²	L2 ³	P1 ⁴	P2 ⁵	P3 ⁶	P4 ⁷	P5 ⁸	P6 ⁹	P7 ¹⁰		P3	P4	P5	P6	P7
MiVI ¹¹	Pre	1541	1542	1543	1544	1545	1546	1547	1548	1549	1550	P3	1700	1701	1702	1703	1704
MoVI ¹²		1551	1552	1553	1554	1555	1556	1557	1558	1559	1560		1705	1706	1707	1708	1709
SVI ¹³		1561	1562	1563	1564	1565	1566	1567	1568	1569	1570		1710	1711	1712	1713	1714
BT ¹⁴		1570	1571	1572	1573	1574	1575	1576	1577	1578	1579		1715	1716	1717	1718	1719
MiVI	L1	1580	1581	1582	1583	1584	1585	1586	1587	1588	P4	1720	1721	1722	1723		
MoVI		1589	1590	1591	1592	1593	1594	1595	1596	1597		1724	1725	1726	1727		
SVI		1598	1599	1600	1601	1602	1603	1604	1605	1606		1728	1729	1730	1731		
BT		1607	1608	1609	1610	1611	1612	1613	1614	1615		1732	1733	1734	1735		
MiVI	L2	1616	1617	1618	1619	1620	1621	1622	1623	P5	1736	1737	1738				
MoVI		1624	1625	1626	1627	1628	1629	1630	1631		1739	1740	1741				
SVI		1632	1633	1634	1635	1636	1637	1638	1639		1742	1743	1744				
BT		1640	1641	1642	1643	1644	1645	1646	1647		1745	1746	1747				
MiVI	P1	1648	1649	1650	1651	1652	1653	1654	P6	1748	1749						
MoVI		1655	1656	1657	1658	1659	1660	1661		1750	1751						
SVI		1662	1663	1664	1665	1666	1667	1668		1752	1753						
BT		1669	1670	1671	1672	1673	1674	1675		1754	1755						
MiVI	P2	1676	1677	1678	1679	1680	1681	P7	1756								
MoVI		1682	1683	1684	1685	1686	1687		1758								
SVI		1688	1689	1690	1691	1692	1693		1759								
BT		1694	1695	1696	1697	1698	1699		1760								

Source: author-produced. ***Linguistic Periods:** ¹Pre-linguistic, ²Linguistic I, ³Linguistic II, ⁴Post-linguistic I, ⁵Post-linguistic II, ⁶Post-linguistic III, ⁷Post-linguistic IV, ⁸Post-linguistic V, ⁹Post-linguistic VI, ¹⁰Post-linguistic VII. ****Degrees:** ¹¹Mild visual impairment, ¹²Moderate visual impairment, ¹³Severe visual impairment, ¹⁴Total blindness.



Table 9. Category C: Individuals born without apparent disabilities who acquire deafblindness, subdivided into 160 profiles

Condition at birth: No Visible Disability – Category: C – Profiles: 1761-1920											
Deafblindness degrees		Linguistic period of disability onset									
		Pre ¹	L1 ²	L2 ³	P1 ⁴	P2 ⁵	P3 ⁶	P4 ⁷	P5 ⁸	P6 ⁹	P7 ¹⁰
Deafness Mild	Mild visual impairment	1761	1762	1763	1764	1765	1766	1767	1768	1769	1770
	Moderate visual impairment	1771	1772	1773	1774	1775	1776	1777	1778	1779	1780
	Severe visual impairment	1781	1782	1783	1784	1785	1786	1787	1788	1789	1790
	Total blindness	1791	1792	1793	1794	1795	1796	1797	1798	1799	1800
Deafness Moderate	Mild visual impairment	1801	1802	1803	1804	1805	1806	1807	1808	1809	1810
	Moderate visual impairment	1811	1812	1813	1814	1815	1816	1817	1818	1819	1820
	Severe visual impairment	1821	1822	1823	1824	1825	1826	1827	1828	1829	1830
	Total blindness	1831	1832	1833	1834	1835	1836	1837	1838	1839	1840
Deafness Severe	Mild visual impairment	1841	1842	1843	1844	1845	1846	1847	1848	1849	1850
	Moderate visual impairment	1851	1852	1853	1854	1855	1856	1857	1858	1859	1860
	Severe visual impairment	1861	1862	1863	1864	1865	1866	1867	1868	1869	1870
	Total blindness	1871	1872	1873	1874	1875	1876	1877	1878	1879	1880
Deafness Profound	Mild visual impairment	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890
	Moderate visual impairment	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900
	Severe visual impairment	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910
	Total blindness	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920

Source: author-produced. ***Linguistic Periods:** ¹Pre-linguistic, ²Linguistic I, ³Linguistic II, ⁴Post-linguistic I, ⁵Post-linguistic II, ⁶Post-linguistic III, ⁷Post-linguistic IV, ⁸Post-linguistic V, ⁹Post-linguistic VI, ¹⁰Post-linguistic VII.



Table 10. Category D: Individuals born deaf who acquire blindness, subdivided into 160 profiles

Condition at birth: Deafness – Category: D – Profiles: 1921-2080										
Deafness at birth	Linguistic period of Blindness onset	Blindness				Blindness				
		Mild visual impairment	Moderate visual impairment	Severe visual impairment	Total blindness	Linguistic period of Blindness onset	Mild visual impairment	Moderate visual impairment	Severe visual impairment	Total blindness
Mild	Pre ¹	1921	1922	1923	1924	P3 ⁶	2001	2002	2003	2004
Moderate		1925	1926	1927	1928		2005	2006	2007	2008
Severe		1929	1930	1931	1932		2009	2010	2011	2012
Profound		1933	1934	1935	1936		2013	2014	2015	2016
Mild	L1 ²	1937	1938	1939	1940	P4 ⁷	2017	2018	2019	2020
Moderate		1941	1942	1943	1944		2021	2022	2023	2024
Severe		1945	1946	1947	1948		2025	2026	2027	2028
Profound		1949	1950	1951	1952		2029	2030	2031	2032
Mild	L2 ³	1853	1854	1855	1856	P5 ⁸	2033	2034	2035	2036
Moderate		1957	1958	1959	1960		2037	2038	2039	2040
Severe		1961	1962	1963	1964		2041	2042	2043	2044
Profound		1965	1966	1967	1968		2045	2046	2047	2048
Mild	P1 ⁴	1969	1970	1971	1972	P6 ⁹	2049	2050	2051	2052
Moderate		1973	1974	1975	1976		2053	2054	2055	2056
Severe		1977	1978	1979	1980		2057	2058	2059	2060
Profound		1981	1982	1983	1984		2061	2062	2063	2064
Mild	P2 ⁵	1985	1986	1987	1988	P7 ¹⁰	2065	2066	2067	2068
Moderate		1989	1990	1991	1992		2069	2070	2071	2072
Severe		1993	1994	1995	1996		2073	2074	2075	2076
Profound		1997	1998	1999	2000		2077	2078	2079	2080

Source: author-produced. ***Linguistic Periods:** ¹Pre-linguistic, ²Linguistic I, ³Linguistic II, ⁴Post-linguistic I, ⁵Post-linguistic II, ⁶Post-linguistic III, ⁷Post-linguistic IV, ⁸Post-linguistic V, ⁹Post-linguistic VI, ¹⁰Post-linguistic VII.



Table 11. Category E: Individuals born blind who acquire deafness, subdivided into 160 profiles

Condition at birth: Blindness – Category: E – Profiles: 2081-2240										
Blindness at birth	Deafness					Deafness				
	Linguistic period of Deafness onset	Mild	Moderate	Severe	Profound	Linguistic period of Deafness onset	Mild	Moderate	Severe	Profound
Mild visual impairment	Pre¹	2081	2082	2083	2084	P3⁶	2161	2162	2163	2164
Moderate visual impairment		2085	2086	2087	2088		2165	2166	2167	2168
Severe visual impairment		2089	2090	2091	2092		2169	2170	2171	2172
Total blindness		2093	2094	2095	2096		2173	2174	2175	2176
Mild visual impairment	L1²	2097	2098	2099	2100	P4⁷	2177	2178	2179	2180
Moderate visual impairment		2101	2102	2103	2104		2181	2182	2183	2184
Severe visual impairment		2105	2106	2107	2108		2185	2186	2187	2188
Total blindness		2109	2110	2111	2112		2189	2190	2191	2192
Mild visual impairment	L2³	2113	2114	2115	2116	P5⁸	2193	2194	2195	2196
Moderate visual impairment		2117	2118	2119	2120		2197	2198	2199	2200
Severe visual impairment		2121	2122	2123	2124		2201	2202	2203	2204
Total blindness		2125	2126	2127	2128		2205	2206	2207	2208
Mild visual impairment	P1⁴	2129	2130	2131	2132	P6⁹	2209	2210	2211	2212
Moderate visual impairment		2133	2134	2135	2136		2213	2214	2215	2216
Severe visual impairment		2137	2138	2139	2140		2217	2218	2219	2220
Total blindness		2141	2142	2143	2144		2221	2222	2223	2224
Mild visual impairment	P2⁵	2145	2146	2147	2148	P7¹⁰	2225	2226	2227	2228
Moderate visual impairment		2149	2150	2151	2152		2229	2230	2231	2232
Severe visual impairment		2153	2154	2155	2156		2233	2234	2235	2236
Total blindness		2157	2158	2159	2160		2237	2238	2239	2240

Source: author-produced. ***Linguistic Periods:** ¹Pre-linguistic, ²Linguistic I, ³Linguistic II, ⁴Post-linguistic I, ⁵Post-linguistic II, ⁶Post-linguistic III, ⁷Post-linguistic IV, ⁸Post-linguistic V, ⁹Post-linguistic VI, ¹⁰Post-linguistic VII.



Table 12. Category F: Individuals born deafblind, subdivided into 16 profiles

Condition at birth: Deafblindness – Category: F – Profiles: 2241-2256		
	Deafblindness degrees	Profiles
Deafness Mild	Mild visual impairment	2241
	Moderate visual impairment	2242
	Severe visual impairment	2243
	Total blindness	2244
Deafness Moderate	Mild visual impairment	2245
	Moderate visual impairment	2246
	Severe visual impairment	2247
	Total blindness	2248
Deafness Severe	Mild visual impairment	2249
	Moderate visual impairment	2250
	Severe visual impairment	2251
	Total blindness	2252
Deafness Profound	Mild visual impairment	2253
	Moderate visual impairment	2254
	Severe visual impairment	2255
	Total blindness	2256

Source: author-produced.



Future research and limitations

The systematization of the typology of deafblindness resulted in 2 main groups, 6 categories, and 2.256 profiles, providing a foundation for future research and interventions. While this study represents progress, future research may validate and refine the model, promoting more effective strategies for inclusion, accessibility, and support for the deafblind community.

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Recebido em: 18.8.2025

Revisado em: 2.2.2026

Aprovado em: 17.3.2026