

FROM READING TO ACTION: HOW DIGITAL TEXT TRANSFORMS INTO PRACTICAL SKILLS IN LEARNERS WITH F70

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ABSTRACT	KEYWORDS
<p>The progressive digitisation of public services, healthcare, commerce, and civic participation across Central Asia has reconfigured the foundational conditions of social competence. For learners diagnosed with mild intellectual disability (F70 per the ICD-10 classification of the World Health Organization), the capacity to navigate digital interfaces-to read on-screen instructions, interpret system notifications, and execute algorithmically structured sequences of practical actions-constitutes both a formidable cognitive challenge and a non-negotiable prerequisite for autonomous community participation. This article investigates the psycho-pedagogical mechanisms through which comprehension of instructive and informational digital texts is converted into reproducible, transferable practical skills within the curricular framework of Social-Domestic Orientation (SBO) instruction in the Republic of Uzbekistan. Drawing upon Vygotsky’s cultural-historical theory, Gal’perin’s theory of the stepwise formation of mental actions, Paivio’s dual-coding theory, and the Universal Design for Learning (UDL) framework developed by CAST, the study proposes a five-component didactic model-comprehension, algorithmic execution, self-regulation, digital safety, and skill transfer-and presents empirical evidence from a quasi-experimental intervention involving 64 learners across four educational institutions in the Tashkent region. Results demonstrate statistically significant gains in algorithmic accuracy ($p < 0.01$), a measurable reduction in characteristic error patterns, and improved generalisation of digital skills to previously unfamiliar interfaces. The findings contribute to the critically under-researched intersection of special education and digital literacy in post-Soviet Central Asian educational contexts.</p>	<p>Digital literacy, mild intellectual disability, F70, instructive digital text, functional literacy, social-domestic orientation, algorithmisation, inclusive education, Uzbekistan, activity theory, scaffolding, Universal Design for Learning.</p>

Introduction

Contemporary civilisation is defined by an unresolved structural paradox: the very mechanisms designed to expand universal access to essential services-digital platforms for medical enrolment, public transport scheduling, utility payment, and governmental petition-simultaneously erect invisible yet formidable barriers for individuals whose cognitive architecture does not align with the implicit assumptions embedded in user-interface design. For a neurotypical adult, the on-screen instruction “Enter the verification code sent to your phone” is a transparent, self-explanatory directive requiring no deliberate analytical effort. For a learner with mild intellectual disability (F70), the same instruction constitutes a multi-layered cognitive task demanding lexical decoding of specialised terminology, cross-modal attention shifting between the mobile device and the application screen, retention of a numerical sequence in working memory, spatial localisation of the input field, sequential motor execution, and evaluative self-monitoring of the outcome. The gap between reading a digital text and acting upon it is, for this population, not merely quantitative-it is qualitatively and structurally distinct. The Republic of Uzbekistan provides a particularly instructive and timely context for investigating this phenomenon. Over the past five years, a series of legislative and infrastructural initiatives have accelerated the digitisation of public services to a degree unprecedented in the Central Asian region. The unified electronic government portal (my.gov.uz), mobile banking ecosystems (Uzcard, Humo, Payme, Click), telemedicine platforms, and electronic ticketing systems have become the default channels through which citizens access fundamental social goods. Simultaneously, the government has undertaken comprehensive reform of its inclusive and special education infrastructure, codified in the Law on Education (No. ZRU-637, 23 September 2020) and the Presidential Decree on Measures to Further Improve the System of Education and Upbringing of Children with Special Educational Needs (No. PP-4860, 13 October 2020). The Concept for the Development of Inclusive Education in the System of Public Education for 2020–2025, approved under this decree, explicitly mandates the creation of conditions enabling learners with disabilities to acquire competences relevant to contemporary life (State Committee of the Republic of Uzbekistan on Statistics, 2023). These parallel trajectories-digital transformation of services and expansion of inclusive educational provision-create an urgent and largely unaddressed pedagogical demand.

The international scholarly community has extensively theorised the construct of digital literacy. Gilster’s (1997) foundational definition emphasised the ability to understand and use information presented through digital sources. Eshet-Alkalai (2004) proposed a multi-dimensional model encompassing photo-visual, reproduction, branching, information, and socio-emotional literacies. The European Commission’s Digital Competence Framework for Citizens (DigComp 2.2), authored by Vuorikari, Kluzer, and Punie (2022) and published by the Joint Research Centre, identifies five competence areas-information and data literacy, communication and collaboration, digital content creation, safety, and problem solving-each differentiated across eight proficiency levels. The UNESCO Institute for Statistics (2018) has developed a Global Framework of Reference on Digital Literacy Skills for monitoring Sustainable Development Goal indicator 4.4.2. These instruments, however, are calibrated for the general population and presuppose intact executive function, abstract reasoning capacity, and metacognitive self-regulation-precisely the cognitive domains that are characteristically compromised in individuals with F70 (World Health Organization, 2019).

The field of special education, for its part, has developed robust instructional methodologies—systematic task analysis, errorless learning procedures, prompting hierarchies, and reinforcement-based skill acquisition protocols (Browder & Spooner, 2011; Westling & Fox, 2009). Yet these traditions have only nascent and fragmented engagement with the specific semiotics, pragmatics, and interface logic of digital text as an instructional medium. The dominant body of research on digital accessibility focuses on sensory disabilities (visual, auditory) and physical motor impairments, while the cognitive accessibility demands of individuals with intellectual disabilities have received comparatively scant empirical attention (Chadwick et al., 2013; Lussier-Desrochers et al., 2017).

This article occupies the intersection of these two disciplinary streams. Its central thesis is that the transformation of digital text comprehension into practical skill in learners with F70 is not a spontaneous by-product of repeated exposure but a pedagogically engineered process requiring: (a) explicit decomposition of the reading–action interface into discrete, teachable micro-operations; (b) externalisation of covert algorithmic structures that are invisible to the untrained reader; and (c) graduated, criterion-referenced withdrawal of scaffolding supports aligned with the learner’s expanding zone of proximal development (Vygotsky, 1978). The study pursues four interrelated objectives: first, to delineate the psycho-cognitive mechanisms that mediate the reading–action transition in digital environments for learners with F70; second, to construct a didactic model grounded in activity theory and dual-coding principles; third, to present empirical findings from an intervention conducted within SBO lessons across Uzbekistani special and inclusive educational settings; and fourth, to derive actionable implications for curriculum design, teacher preparation, and the development of accessible digital instructional resources.

2. Theoretical Framework

2.1. The Reading–Action Gap in Digital Environments

Classical reading pedagogy operates within a paradigm in which the terminal goal of textual engagement is comprehension—the construction of a coherent mental representation that can be stored, retrieved, and verbally reported. Comprehension, in this framework, is simultaneously the process and the product (Kintsch, 1998). Digital instructive texts, however, impose a fundamentally different pragmatic contract upon the reader. Reading is not an end but a preparatory operation whose value is realised exclusively through a subsequent motor or decisional act: pressing a button, selecting a menu option, entering alphanumeric data into a designated field, or confirming a financial transaction. The text itself is episodic and transient; it exists on screen only until the corresponding action is performed, at which point the interface refreshes and a new textual-motor cycle commences. This recursive structure—read, act, verify, read again—demands sustained executive control over an extended temporal sequence, a capacity that is characteristically attenuated in individuals with mild intellectual disability (Danielsson, Henry, Messer, & Rönnerberg, 2012; Henry & Winfield, 2010).

The consequence is what we term instructive opacity: the digital text, far from functioning as a transparent window onto the required action, becomes a semi-opaque barrier whose traversal requires cognitive resources that exceed the learner’s unscaffolded capacity. This opacity arises from the convergence of three interacting deficits characteristic of F70: (1) a restricted receptive and expressive lexicon that renders technical interface terminology (“authentication,” “verification code,” “cashback”) semantically vacant; (2) impaired processing of complex logical-grammatical

constructions, particularly conditional (“If you agree to the terms, press Continue”) and temporal (“Before confirming, check the amount”) sentence types (Abbeduto, Warren, & Conners, 2007); and (3) weak spatial-referential mapping that renders locative directives (“in the upper right corner,” “below the search bar”) unreliable as guides to action (Memisevic & Sinanovic, 2014).

2.2. Activity Theory and the Micro-Structure of Digital Action

Leont’ev’s (1978) hierarchical model of human activity-comprising the levels of activity (motivated by a need), action (directed toward a conscious goal), and operation (determined by the conditions of execution)-provides a theoretically rigorous framework for decomposing the complexity of digital interaction. Consider a paradigmatic socially significant digital scenario: booking a medical appointment through a regional health portal. At the highest level, this constitutes an activity motivated by the preservation of health. The activity is realised through a determinate chain of goal-directed actions: launching the application, navigating to the appointment section, selecting the medical speciality, choosing an available date and time, entering personal identification data, and confirming the booking. Each action, in turn, is composed of automatised operations: tapping specific screen coordinates, swiping to scroll, entering text via a virtual keyboard, and interpreting visual confirmation signals.

For a digitally competent user, operations are phenomenologically transparent-they are executed without conscious deliberation and consume negligible attentional resources. For a learner with F70, by contrast, these operations remain effortful, opaque, and vulnerable to disruption at every level of the hierarchy. The pedagogical implication, derived directly from the activity-theoretical framework, is that instruction must proceed in a rigorously bottom-up sequence: operations must be explicitly taught, practised to criterion, and consolidated before they can be reliably chained into actions; and actions must be individually rehearsed before they can be integrated into purposeful, self-directed activity. This micro-to-macro progression constitutes the structural spine of the didactic model proposed in the present article.

2.3. Gal’perin’s Theory and the Orienting Basis of Action

Gal’perin’s (1969) theory of the stepwise formation of mental actions offers a precise developmental grammar for the reading–action transition. According to this framework, the acquisition of any new action proceeds through an invariant sequence of stages: (1) formation of the orienting basis of the action (OBA)-a representation of the goal, the conditions, and the operational composition of the task; (2) materialised action with physical objects and external supports; (3) verbalised action, in which the learner articulates each step aloud, deploying speech as a self-regulatory instrument; (4) internalised action, executed silently in the mental plane. For neurotypical individuals interacting with familiar interfaces, this progression is compressed and often occurs below the threshold of conscious awareness. For learners with F70, however, the transition characteristically stalls at the boundary between the materialised and the verbalised stages: the learner can imitate a physically demonstrated action sequence but cannot independently reconstruct that sequence from a written digital instruction, because the verbal-symbolic code fails to activate the corresponding motor programme (Vygotsky, 1978).

The construction of a complete, explicit OBA is therefore the central pedagogical task when teaching digital skills to this population. In the context of the present study, OBA construction involves four mandatory components: (a) goal clarification (“What must appear on the screen when I finish?”); (b) topological orientation (“Where on the screen is the element I need?”); (c) sequential algorithmisation (“In what order do I perform the steps?”); and (d) anticipation of feedback (“What will the screen show if my action is correct? What if it is wrong?”). Each component must be made externally visible through instructional supports-annotated screenshots, colour-coded step cards, and tactile checklists-before it can be gradually internalised.

2.4. Dual-Coding and Multimodal Compensation

Paivio’s (1986) dual-coding theory posits that information processed simultaneously through verbal and imaginal representational systems yields superior encoding, storage, and retrieval compared to information processed through either system alone. For learners with F70, whose verbal-logical processing is constitutionally compromised, the imaginal channel assumes a compensatory significance that cannot be overstated. In practical didactic terms, this principle entails that every written instruction encountered in a digital interface must be systematically paired with a visual analogue: a screenshot with the target element highlighted in a contrasting colour, a pictographic step marker, or a schematic arrow indicating the direction of the required gesture. The instructional design principle may be stated as a rule: no verbal element of the digital text should be presented to the learner without a simultaneous non-verbal visual anchor.

This principle aligns with the Universal Design for Learning (UDL) framework (CAST, 2018), which organises accessibility provisions around three pillars: multiple means of engagement (motivational scaffolding), multiple means of representation (multimodal information delivery), and multiple means of action and expression (flexible response options). For the population under consideration, the second pillar-representation-is of paramount importance, as it directly addresses the barrier of instructive opacity described above. The UDL framework further stipulates that accessibility is not achieved through one-time adaptation but through a dynamic, responsive instructional architecture that adjusts the level of support in real time based on learner performance.

3. Methodology

3.1. Research Design

The study employed a quasi-experimental pre-test–post-test control group design. The independent variable was the didactic model integrating adapted digital texts into SBO instruction; the dependent variables were: (a) algorithmic accuracy-the proportion of correctly executed steps in a standardised digital task; (b) error profile-the frequency and typology of characteristic errors; (c) self-regulation-the degree of independence from external prompting, measured on a five-point scaffolding withdrawal scale; and (d) skill transfer-the ability to execute a functionally analogous algorithm on a previously unseen interface.

3.2. Participants

A total of 64 learners diagnosed with F70 (ICD-10, World Health Organization, 2019) participated in the study, recruited from four educational institutions in the Tashkent region of Uzbekistan

implementing inclusive or specialised curricula. Participants ranged in age from 13 to 17 years ($M = 15.1$, $SD = 1.3$). The experimental group ($n = 32$) received SBO instruction augmented with the proposed didactic model over a period of 16 weeks (two 45-minute sessions per week). The control group ($n = 32$) received standard SBO instruction without systematic integration of adapted digital texts. Groups were matched on age, gender distribution, IQ range (50–69 as per diagnostic documentation), and baseline digital skill levels assessed during the pre-test phase. Informed consent was obtained from parents or legal guardians of all participants in accordance with ethical protocols.

3.3. Instruments

Four categories of measurement instruments were employed. First, a Digital Task Performance Protocol consisting of six standardised digital scenarios of graded complexity, each decomposed into discrete algorithmic steps. Scenarios were drawn from socially significant domains: sending a message via a messenger application (6 steps), checking a transport schedule (8 steps), registering for a medical appointment via a simulated portal (10 steps), paying a utility bill through a simulated banking interface (12 steps), navigating a governmental services portal to locate a specific document (9 steps), and responding safely to a simulated phishing notification (5 steps). Second, a Checklist for Error Classification, developed on the basis of prior observational data collected during a pilot phase, categorising errors into three types: regulatory (step omission, sequence violation, warning ignoring), semantic (misinterpretation of feedback, goal substitution), and rigidity-based (failure to transfer algorithm to modified interface). Third, a Scaffolding Withdrawal Scale (SWS), a five-level ordinal instrument recording the degree of external support required: Level 1-full physical guidance; Level 2-verbal step-by-step prompting; Level 3-visual cue card available; Level 4-initial orientation only; Level 5-fully independent execution. Fourth, a Transfer Assessment Protocol, in which learners were presented with a functionally equivalent digital task on an interface with altered visual design (different colour scheme, icon placement, and button labelling) to assess the generalisability of acquired skills.

3.4. Intervention: The Five-Component Didactic Model

The experimental intervention operationalised the five-component model as follows. The first component, Comprehension, involved systematic pre-teaching of interface vocabulary using a dedicated pictographic glossary of 48 digital terms (e.g., “verification,” “confirmation,” “balance,” “notification”), each paired with a photographic image of the corresponding screen element. The second component, Algorithmic Execution, entailed decomposition of each digital scenario into a linear sequence of micro-steps, each presented on an individual cue card with a screenshot and a single-sentence instruction in simplified language conforming to the Easy-to-Read standard (Inclusion Europe, 2009). The third component, Self-Regulation, introduced a structured self-monitoring protocol requiring the learner to physically mark each completed step on a printed checklist and to verbalise the expected outcome before proceeding (“After I press this button, I should see...”). The fourth component, Digital Safety, embedded safety decision points within each scenario—for example, a simulated pop-up requesting the learner’s password, to which the correct response was refusal and reporting to the teacher. The fifth component, Skill Transfer, required periodic repetition of mastered algorithms on simulator interfaces with systematically varied visual design, cultivating the ability to extract the invariant logical structure of an action from its variable surface features.

3.5. Data Analysis

Pre-test and post-test scores were compared using the Wilcoxon signed-rank test for within-group comparisons and the Mann–Whitney U test for between-group comparisons, given the ordinal nature of the SWS data and the non-normal distribution of error counts. Effect sizes were calculated using the rank-biserial correlation coefficient (*r*). Qualitative analysis of error patterns employed a content-analytic coding scheme applied independently by two researchers, with inter-rater reliability assessed via Cohen’s kappa ($\kappa = 0.87$).

4. Results

4.1. Algorithmic Accuracy

At pre-test, the experimental and control groups did not differ significantly in mean algorithmic accuracy across the six digital scenarios (experimental: *M* = 38.4%, *SD* = 11.2; control: *M* = 39.1%, *SD* = 10.8; *U* = 487, *p* = 0.72). At post-test, the experimental group demonstrated a mean accuracy of 74.6% (*SD* = 9.7), representing a gain of 36.2 percentage points, while the control group achieved 45.3% (*SD* = 12.1), a gain of 6.2 percentage points. The between-group difference at post-test was statistically significant (*U* = 112, *p* < 0.001, *r* = 0.78), indicating a large effect.

Improvement was not uniform across scenario types. The greatest gains in the experimental group were observed in procedurally linear tasks (sending a message: +42.1 pp; checking a transport schedule: +39.8 pp), while tasks requiring conditional decision-making (responding to a phishing notification: +24.3 pp) showed smaller, though still significant, improvement. This gradient is consistent with the theoretical expectation that conditional operations impose higher demands on the abstract reasoning capacities that are most impaired in F70.

4.2. Error Profile Analysis

The total number of errors committed by the experimental group decreased from a pre-test median of 14.5 (IQR = 11–18) to a post-test median of 5.0 (IQR = 3–8), a reduction of 65.5%. The control group showed a reduction from 15.0 (IQR = 12–19) to 12.0 (IQR = 9–16), a decrease of 20.0%. The differential reduction was significant (*p* < 0.001).

Qualitative analysis revealed that the error profile shifted in composition. At pre-test, regulatory errors (step omission, sequence violation) accounted for 52% of all errors in the experimental group, semantic errors (feedback misinterpretation, goal substitution) for 31%, and rigidity errors (transfer failure) for 17%. At post-test, regulatory errors dropped to 24% of the reduced total, while rigidity errors rose proportionally to 38%, suggesting that transfer remains the most resistant dimension and requires sustained instructional attention beyond the 16-week intervention period.

Table 1. Pre-test and post-test error distribution in the experimental group (*n* = 32)

Error Type	Pre-test N	Pre-test %	Post-test N	Post-test %
Regulatory	241	52%	39	24%
Semantic	144	31%	62	38%
Rigidity	79	17%	62	38%
Total	464	100%	163	100%

4.3. Self-Regulation (Scaffolding Withdrawal)

On the SWS, the experimental group's median level shifted from 1.5 (full physical guidance / step-by-step verbal prompting) at pre-test to 3.5 (visual cue card available / initial orientation only) at post-test (Wilcoxon $Z = -4.81$, $p < 0.001$). Twelve learners (37.5%) in the experimental group achieved Level 4 or 5 (initial orientation or full independence) on at least three of the six scenarios by the end of the intervention. In the control group, the median shifted from 1.5 to 2.0, with only two learners (6.3%) reaching Level 4 on any scenario.

4.4. Skill Transfer

On the Transfer Assessment Protocol, experimental group learners achieved a mean accuracy of 58.2% (SD = 14.6) on the visually modified interfaces, compared to 31.7% (SD = 11.9) in the control group ($U = 168$, $p < 0.001$, $r = 0.67$). While this represents a meaningful advantage, the absolute level of transfer performance indicates that generalisation remains a partially achieved objective. Notably, learners who had reached SWS Level 4 or higher on the original scenarios performed significantly better on transfer tasks ($M = 69.4\%$) than those at lower SWS levels ($M = 48.1\%$), suggesting that the degree of internalisation of the algorithmic structure is a strong predictor of transfer success.

5. Discussion

5.1. From Instructive Opacity to Functional Transparency

The central finding of this study is that the reading–action gap characteristic of learners with F70 in digital environments is not a fixed, immutable consequence of intellectual disability but a pedagogically addressable barrier. When digital instructive texts are systematically decomposed into micro-operations, paired with multimodal visual supports, and embedded within a structured sequence of scaffolding withdrawal, the vast majority of participants demonstrate the capacity to execute complex, socially significant digital algorithms with substantially reduced error rates and diminished dependence on external prompting. The concept of instructive opacity, introduced in the theoretical framework, is thus reconceptualised as a variable property of the instructional context rather than a stable attribute of the learner.

This finding resonates with the fundamental premise of Vygotsky's (1978) zone of proximal development: what the learner cannot accomplish independently today can be accomplished with appropriate mediation, and what is accomplished with mediation today becomes the basis for independent performance tomorrow. The didactic model operationalises this principle by treating the scaffold not as a permanent prosthesis but as a temporary structure whose systematic removal is itself a pedagogical act.

5.2. The Persistence of Rigidity Errors and the Transfer Problem

The proportional increase of rigidity-based errors at post-test, even as the absolute number of errors decreased, warrants careful interpretation. It suggests that while the intervention was highly effective at establishing algorithmic competence within familiar interface environments, the capacity for flexible generalisation—extracting an invariant action structure from variable surface features—remains the most cognitively demanding dimension for this population. This is consistent with the well-documented

difficulty that individuals with intellectual disabilities experience with analogical reasoning and rule abstraction (Iarocci & Burack, 2007).

The implication for instructional design is that transfer cannot be assumed to emerge naturally from mastery of individual scenarios. It must be explicitly taught through a programme of systematic variation, in which the learner practises the same functional algorithm across a deliberately curated set of interfaces that differ in non-essential features (colour palette, icon style, button placement, label wording) while preserving the essential logical structure. This approach, which we term structured variability training, should be recognised as a distinct and essential component of digital literacy instruction for learners with intellectual disabilities, not an afterthought or a supplementary exercise.

5.3. Implications for the Curriculum of Social-Domestic Orientation

The traditional SBO curriculum in Uzbekistan and across the post-Soviet educational space was designed for an analogue world. Its content modules—personal hygiene, meal preparation, clothing care, use of postal services and public telephone—reflected the material conditions of social participation in the late twentieth century. The present study provides empirical justification for the systematic integration of digital competence modules into each thematic section of SBO. The principle of integration, rather than addition, is crucial: digital skills should not be taught as a separate, isolated topic (“computer class”) but embedded within the existing social-domestic scenarios that constitute the curricular backbone. Learning to book a medical appointment is not a computer exercise; it is a health management task whose digital mediation is an inherent, inseparable feature of the contemporary social environment.

This integration requires: (a) the development of a bank of adapted digital texts—simplified, multimodally scaffolded instructional materials corresponding to regionally relevant digital services (Payme, Click, my.gov.uz, local clinic portals); (b) the creation of safe simulation environments that replicate the functionality of real applications without financial or legal consequences; and (c) the professional development of SBO teachers, who in many cases possess limited digital competence themselves and require both technical training and methodological guidance in applying the didactic model proposed here.

5.4. Limitations

Several limitations constrain the generalisability of the findings. First, the quasi-experimental design, while appropriate for the educational setting, does not permit the same causal certainty as a randomised controlled trial. Second, the sample size ($N = 64$), though adequate for the statistical analyses employed, limits the power to detect interaction effects between learner characteristics (e.g., IQ within the F70 range, comorbid conditions) and intervention outcomes. Third, the 16-week intervention period, while sufficient to demonstrate significant gains, may not have been long enough to achieve ceiling-level transfer performance; longitudinal follow-up is needed to assess the durability and continued development of acquired skills. Fourth, the study was conducted in the Tashkent region, and the transferability of findings to rural areas with different levels of digital infrastructure and teacher preparation remains an open empirical question.

6. Conclusion

This study has demonstrated that the transformation of digital text comprehension into reliable practical action in learners with F70 is achievable through a theoretically grounded, empirically validated didactic model that integrates five interdependent components: comprehension of adapted digital texts, sequential algorithmic execution, development of self-regulatory capacity, cultivation of digital safety awareness, and systematic training for skill transfer across variable interface environments. The model, implemented within the curricular framework of Social-Domestic Orientation in Uzbekistan, produced substantial and statistically significant improvements in algorithmic accuracy, error reduction, and learner independence over a 16-week intervention period. The findings carry three principal implications. For educational policy, they provide evidence that digital literacy must be recognised as a core component of special and inclusive education curricula, not an optional supplement. For pedagogical practice, they offer a structured, replicable methodology that can be adopted by SBO teachers with appropriate professional development support. For the design of digital public services, they underscore the necessity of cognitive accessibility—the creation of interface architectures that accommodate the processing constraints of users with intellectual disabilities, in accordance with the principles of Universal Design (CAST, 2018) and the United Nations Convention on the Rights of Persons with Disabilities (2006), to which Uzbekistan is a signatory.

The zone separating reading from action is not a void; it is a pedagogical space—a space that can be structured, scaffolded, and ultimately traversed. The obligation of inclusive education is to ensure that no learner is left stranded on the far side of that divide.

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