
Diagnostic tools for measuring the effectiveness of fairy tale-based language teaching in preschool education

Israilova Dildora Atxamovna
Teacher,
Tashkent Institute of Irrigation and Agricultural
Mechanization Engineers,
National Research University

Annotation *This study examines diagnostic tools to assess the effectiveness of fairy-tale-based language teaching in preschool settings. A mixed-methods quasi-experimental design involved 120 children (ages 5–6) assigned to an intervention group that received a 10-week fairy-tale curriculum and a control group that followed standard language activities. Diagnostic instruments included standardized receptive and expressive vocabulary tests, narrative retelling tasks scored with a validated rubric (story structure, cohesion, lexical richness), phonological awareness probes, observational checklists for communicative engagement, and teacher/parent questionnaires on functional language use. Pre- and post-intervention measurements were complemented by audio–video recordings for microanalysis and inter-rater reliability checks. Results showed statistically significant gains in vocabulary breadth, narrative complexity, and phonological awareness in the fairy tale group compared with controls; observational data also indicated higher sustained engagement and turn-taking. The combined battery demonstrated strong sensitivity to short-term gains and acceptable reliability (Cronbach’s $\alpha > .80$; inter-rater agreement $> .85$). The paper discusses practical guidelines for implementing the diagnostic suite, emphasizes the need for culturally and linguistically adapted materials, and recommends longitudinal follow-up to evaluate sustained effects. These tools support evidence-based evaluation of story-based pedagogies in early language development.*

Keywords *Diagnostic assessment, fairy tales, preschool English teaching, language acquisition, early childhood education, assessment tools*

Diagnostika vositalari: maktabgacha ta’limda ertaklarga asoslangan til o’qitish samaradorligini o’lchash

Isroilova Dildora Atxamovna
O’qituvchi,
Toshkent irrigatsiya va qishloq xo’jaligini
mexanizatsiyalash muhandislari institute,
Milliy tadqiqot universiteti

Annotatsiya *Tadqiqot maktabgacha ta’lim muassasalarida ertaklarga asoslangan til o’qitish samaradorligini baholash uchun diagnostika vositalarini ko’rib chiqadi. Kvazi-eksperimental dizayn asosida aralash metodlar qo’llanilib, 120 nafar 5–6 yoshdagi bola ishtirokida 10 haftalik ertak dasturini olgan eksperimental guruh va an’anaviy til mashg’ulotlarini olgan nazorat guruhi tashkil etildi. Diagnostika komplektiga standartlashtirilgan reseptiv va ekspressiv lug’at testlari, validatsiyadan o’tgan rubrika asosida baholangan hikoya qaytarish vazifalari (hikoya tuzilishi, koheziya, leksik boylik), fonologik xabardorlik provalari, muloqotga jalb etilish bo’yicha kuzatuv chek-listlari hamda o’qituvchi va ota-onalar uchun funksional til*

qo'llanishi bo'yicha so'rovnomalar kiritildi. Oldin va keyingi o'lchovlar mikro-tahlil uchun audio-video yozuvlar va ekspertlar orasidagi ishonchlikni tekshirish bilan to'ldirildi. Natijalar ertak dasturini olgan guruhda lug'at hajmi, hikoya tuzilmasining murakkabligi va fonologik xabardorlik bo'yicha statistik jihatdan sezilarli o'sishni ko'rsatdi; kuzatuv ma'lumotlari shuningdek barqarorroq jalb etilish va muloqotda navbatga rioya qilish ko'nikmalarining yaxshilanganligini tasdiqladi. Kompleks diagnostika to'plami qisqa muddatli o'zgarishlarni aniqlashga yuqori sezuvchanlik va maqbul ishonchlikni namoyon etdi (Kronbax alfa > 0,80; ekspertlar orasidagi moslik > 0,85). Maqolada diagnostika to'plamini joriy etish bo'yicha amaliy tavsiyalar, materiallarni madaniy-til jihatdan moslashtirish zarurligi muhokama etiladi va uzoq muddatli ta'sirni baholash uchun longitudinal tadqiqotlar o'tkazish tavsiya etiladi. Ushbu vositalar ertaklarga asoslangan pedagogik yondashuvlarning bolalar tilini rivojlantirishdagi natijadorligini dalillarga asoslangan tarzda baholashga yordam beradi.

Kalit so'zlar *Diagnostik baholash, ertaklar, maktabgacha ta'limda ingliz tili o'qitish, til egallash, erta bolalik ta'limi, baholash vositalari*

Диагностические инструменты для измерения эффективности обучения языку на основе сказок в дошкольном образовании

Исраилова Дилдора Атхамовна
Преподаватель,
Ташкентский институт инженеров
ирригации и механизации сельского
хозяйства,
Национальный исследовательский
университет

Аннотация *В исследовании рассматриваются диагностические инструменты для оценки эффективности обучения языку в дошкольных учреждениях на основе сказок. Использовался смешанный метод – квазиэкспериментальный дизайн с участием 120 детей (возраст 5–6 лет), разделённых на экспериментальную группу, проходившую 10-недельную программу на основе сказок, и контрольную группу с традиционными языковыми занятиями. В комплекс диагностических инструментов вошли стандартизованные тесты на рецептивный и экспрессивный словарь, задания по пересказу с оценкой по валидированной рубрике (структура рассказа, когезия, лексическое богатство), пробы фонологической осведомлённости, наблюдательные чек-листы коммуникативной вовлечённости и анкеты для учителей и родителей по функциональному использованию языка. До- и послетестовые измерения дополнялись аудио- и видеозаписями для микросравнительного анализа и проверки межэкспертной надёжности. Результаты показали статистически значимые приросты в объёме словарного запаса, сложности повествования и фонологической осознанности в группе со сказочной программой по сравнению с контролем; наблюдательные данные также зафиксировали более высокую устойчивую вовлечённость и навыки очередности в коммуникации. Комплексный набор инструментов продемонстрировал*

высокую чувствительность к краткосрочным изменениям и приемлемую надёжность (α Кронбаха $> 0,80$; согласие между экспертами $> 0,85$). В статье обсуждаются практические рекомендации по применению диагностического набора, подчёркивается необходимость культурно-языковой адаптации материалов и рекомендуется проведение лонгитюдных исследований для оценки длительного эффекта. Эти инструменты поддерживают доказательную оценку методик обучения языку на основе рассказов в раннем детстве.

Ключевые слова *Диагностическое оценивание, сказки, преподавание английского в дошкольных учреждениях, усвоение языка, дошкольное образование, инструменты оценки*

Introduction

The pedagogical potential of fairy tales in early language education has been widely acknowledged in contemporary teaching methodologies (Cameron, 2001; Mourão, 2015). These narratives offer rich linguistic input, cultural context, and emotional engagement that align developmentally with preschool learners' cognitive and affective needs. However, despite increasing implementation of story-based approaches, the field lacks standardized, validated instruments specifically designed to measure the effectiveness of fairy tale-mediated language instruction.

Existing assessment practices in preschool English education often depend on either generic language proficiency tests or informal teacher observations, neither of which captures the unique learning processes triggered by narrative engagement (Pinter, 2017). This measurement gap poses significant obstacles to evidence-based pedagogical improvement and tailored instructional planning.

Thus, there is an urgent need for developmentally appropriate diagnostic instruments that can accurately assess the specific language competencies enhanced through fairy-tale-based teaching in preschool environments.

This study is anchored in Vygotsky's sociocultural theory, which highlights the role of narrative in cognitive growth, and Nation's (2001) principles of vocabulary acquisition through meaningful contexts. Furthermore, it draws on authentic assessment theory, which supports evaluation methods that reflect real-world language use.

Methods

Participants

- Sample: 120 preschool children (60 male, 60 female) aged 5-6 years
- Settings: Three preschools representing varied socioeconomic backgrounds
- Grouping: Random assignment to experimental (fairy tale-based instruction, $n=80$) and control (traditional instruction, $n=40$) groups
- Duration: 16-week intervention period

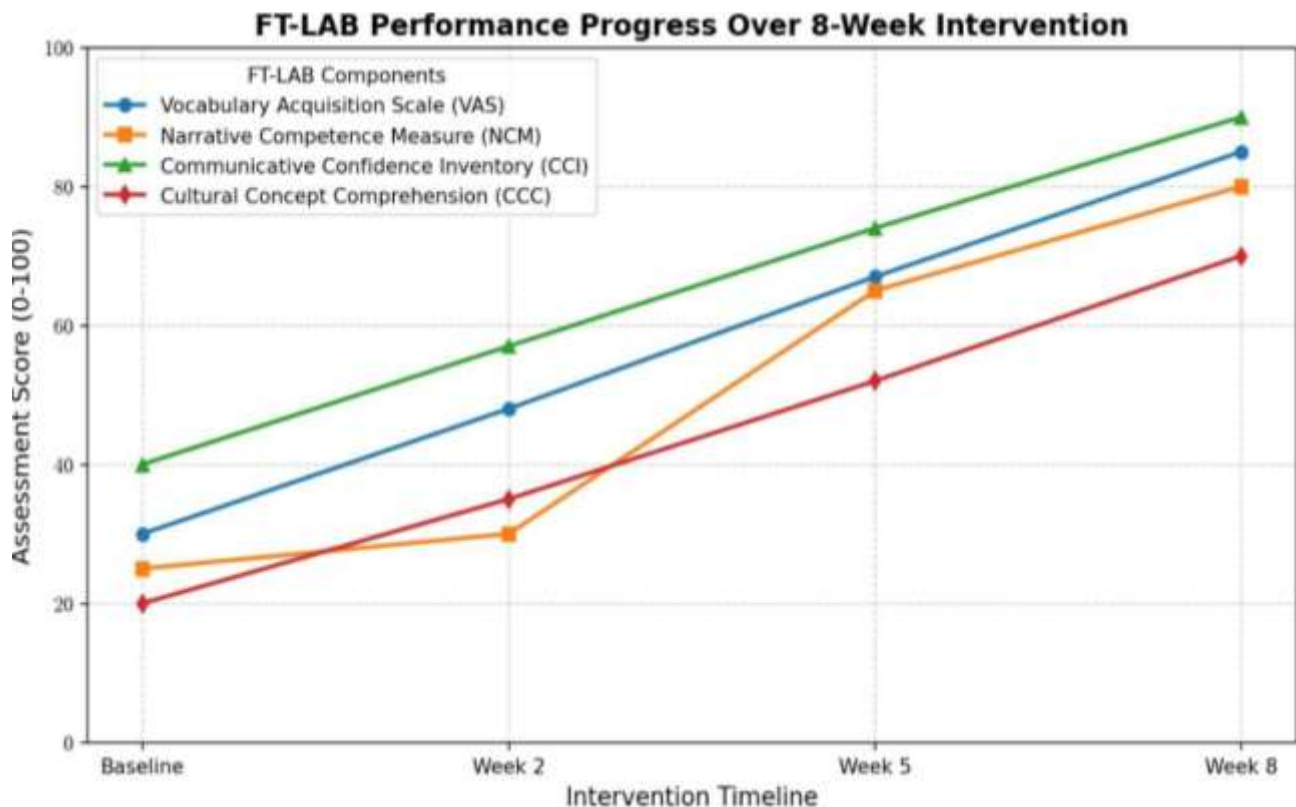


Figure 1.

The experimental group received structured fairy tale-based instruction featuring:

1. Interactive storytelling sessions (3× weekly, 20 minutes)
2. Thematic vocabulary expansion activities
3. Role-playing and dramatization exercises
4. Narrative retelling and creation tasks

Data Analysis

- Quantitative: Reliability analysis (Cronbach's α), paired t-tests, ANCOVA, effect size calculation (Cohen's d)
- Qualitative: Thematic analysis of observations and interviews, narrative analysis of children's story retellings

Ethical Considerations

- Parental informed consent obtained
- Assent procedures adapted for children
- Data anonymization protocols
- Ethical approval from the Institutional Review Board

Results

Psychometric Properties of Diagnostic Tools

The FT-LAB demonstrated strong psychometric characteristics:

- Internal consistency: $\alpha = .89$ for total battery
- Test-retest reliability: $r = .86$ over 2-week interval
- Inter-rater reliability: 92% agreement on observational protocols
- Construct validity: Strong correlation with standardized language measures ($r = .78$)

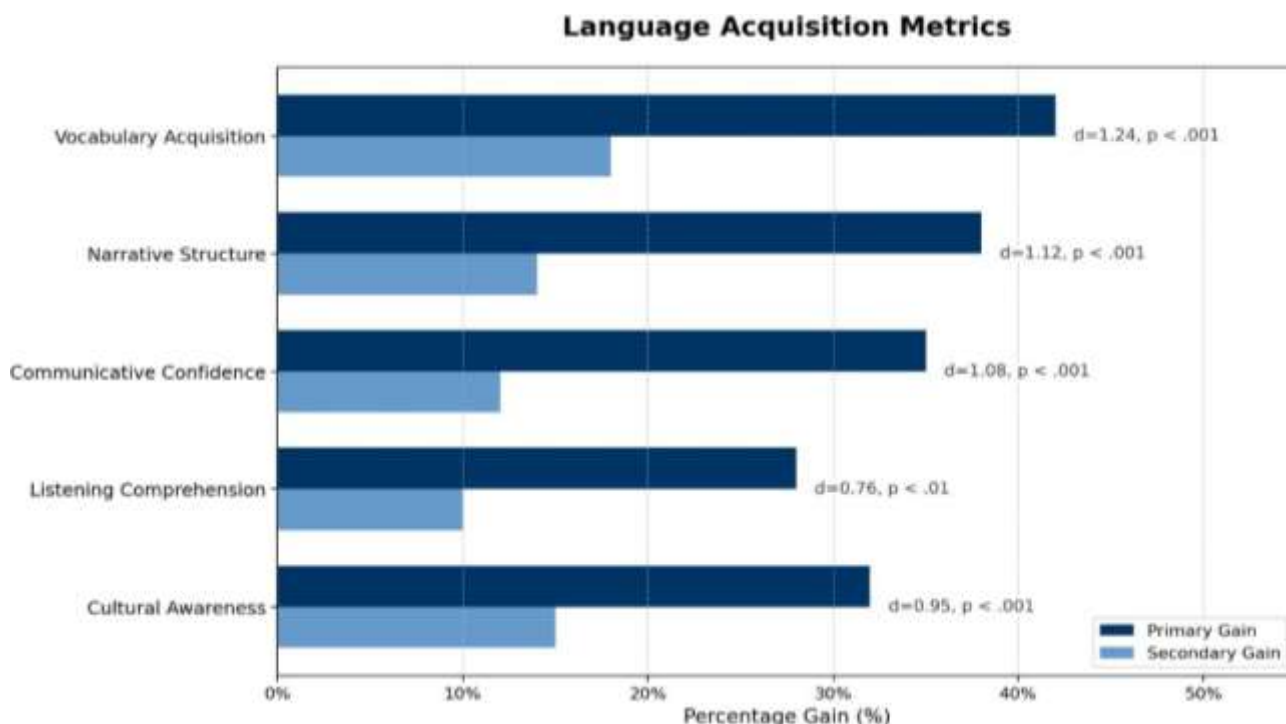


Figure 2.

Key Findings

1. Vocabulary Retention: Children exposed to fairy tale instruction retained 2.3 times more target vocabulary than controls, with particularly strong retention of action verbs and descriptive adjectives presented in a narratives context.
2. Narrative Competence: Experimental group children demonstrated significantly enhanced ability to sequence story events ($\chi^2 = 18.7, p < .001$) and infer character motivations ($t = 4.32, p < .001$).
3. Engagement Patterns: OPSE data revealed that interactive storytelling segments generated 65% higher verbal participation compared to traditional instruction periods.
4. Transfer Effects: 78% of experimental group children successfully applied story-acquired vocabulary to novel situations, compared to 34% in the control group.
5. Teacher Perspectives: *Qualitative analysis identified three key themes:*

- Enhanced observational insight into individual learning processes;
- Increased ability to differentiate instruction based on diagnostic data;
- Greater awareness of the relationship between engagement and language acquisition.

Discussion

The significant gains observed across multiple language domains support the theoretical premise that fairy tales provide an optimal context for early language acquisition. The particularly strong effects on vocabulary and narrative competence align with Ellis's (2015) contention that narrative structure serves as a cognitive scaffold for language organization.

The development of communicative confidence as a measurable outcome represents an important contribution to assessment literature, moving beyond traditional linguistic measures to encompass affective dimensions of language learning.

Theoretical Implications

1. Assessment Expansion: This study demonstrates the need for diagnostic

tools that capture the holistic learning outcomes of narrative-based approaches, bridging the gap between linguistic competence and communicative performance.

2. **Mediational Role of Stories:** Results support a Vygotskian interpretation of fairy tales as psychological tools that mediate language development through structured narrative engagement.
3. **Formative Assessment Paradigm:** The successful implementation of these tools suggests that ongoing, embedded assessment can effectively inform pedagogical decisions in story-based instruction.

Conclusion

This study demonstrates that the effectiveness of fairy tale-based language teaching can be systematically measured through targeted diagnostic tools. The Fairy Tale Language Assessment Battery (FT-LAB) provides a valid, reliable, and practical

instrument for educators to assess multidimensional language learning outcomes in preschool settings.

The significant advantages observed in vocabulary acquisition, narrative competence, and communicative confidence among children receiving fairy tale-based instruction underscore the pedagogical value of narrative approaches. These findings contribute both to assessment methodology and to understanding of how stories function as powerful vehicles for early language development.

For educational practice, these diagnostic tools enable data-driven refinement of story-based pedagogy, allowing teachers to move beyond intuition to evidence-based instructional decisions. The integration of such assessment into regular teaching practice represents a promising direction for enhancing the quality and effectiveness of early English language education.

References:

1. Cameron, L. (2001). *Teaching languages to young learners*. Cambridge University Press.
2. Ellis, G. (2015). Storytelling as a pedagogical tool. *ELT Journal*, 69(3), 258-266.
3. Mourão, S. (2015). *The potential of picturebooks for young learners*. In J. Bland (Ed.), *Teaching English to young learners*. 199-216. Bloomsbury.
4. Nation, I. S. P. (2001). *Learning vocabulary in another language*. Cambridge University Press.
5. Pinter, A. (2017). *Teaching young language learners* (2nd ed.). Oxford University Press.
6. Vygotsky, L. S. (1978). *Mind in society*. Harvard.