

## A CASE STUDY OF GAMIFIED VOCABULARY INSTRUCTION FOR YOUNG EFL LEARNERS IN UZBEKISTAN: AN INTERVENTION DESIGN

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**Abstract.** The paper presents the design stage of a single-case study of gamified vocabulary instruction in a Pre-A1–A1 primary English classroom in Uzbekistan. It reports the case boundaries, the design rationale, the instructional cycle, the materials and the observation protocol; it deliberately reports no outcomes, since the purpose at this stage is to make the intervention replicable and its measurement auditable before any claim about effect is advanced. Four design principles are derived from the setting: the intervention must be low-technology, because device access cannot be assumed; the rule layer must operate in the learners' home language, because at Pre-A1 English cannot carry it; grouping must be temporary, to avoid converting differentiation into labelling; and the reward must be non-comparative, since public ranking is the element most consistently associated with harm. A five-stage weekly cycle and a matching data-collection protocol are set out in tabular form.

**Keywords:** *case study, intervention design, gamification, vocabulary instruction, young EFL learners, Uzbekistan, Pre-A1, A1, multilingual classroom, low-technology materials, observation protocol.*

### 1. Context of the case

Uzbekistan moved the start of compulsory English instruction from the fifth to the first grade under Presidential Decree No. PQ-1875 of 10 December 2012, which also adopted the Common European Framework of Reference as the national descriptive standard [1; 2]. A very large cohort of six- and seven-year-olds therefore now begins English at Pre-A1, and the descriptors of the CEFR Companion Volume, which introduced that level formally, are the apparatus against which their progress is to be described [3].

The classroom that results has four features relevant to any intervention design. It is multilingual: pupils bring Uzbek and, by region, Russian, Karakalpak or Tajik, so English is a third or fourth language. It is large, which constrains any technique requiring individual attention. It is heterogeneous in prior exposure, since pre-school provision is uneven. And it cannot assume one device per learner, which excludes the application-based gamification dominating the published literature.

Vocabulary was selected for three reasons: it is the component of early language learning most dependent on distributed repetition rather than explanation [4; 5]; it is measurable at Pre-A1 with instruments a class teacher can administer; and it is where the gap between pupils with and without pre-school exposure is widest, so any differentiating effect should appear there first.

### 2. Case boundaries and design principles

The study is designed as a single instrumental case in Yin's sense: the unit of analysis is one classroom over one instructional term, and the case is of interest as an instance of the wider problem of vocabulary retention at Pre-A1 in a multilingual, low-resource setting [6]. The design stage reported here specifies the intervention and the measurement before implementation, so that the eventual account can be audited against a fixed protocol rather than

reconstructed after the fact. Four principles govern the design, each derived from a feature of the setting rather than from general enthusiasm for gamification.

P1 — Low technology. All materials are printable on ordinary paper and usable without electricity, internet or learner devices. This is a constraint of the setting, not a stylistic preference; it also makes the intervention transferable to rural schools without modification.

P2 — Home language in the rule layer. Game elements carry meaning through numbers, positions, symbols and groupings, but any rule that must be stated is stated in the pupils' home language, while English is reserved for the target items. This follows the argument against monolingual instructional strategies [7] and the treatment of the repertoire as a single resource [8]; at Pre-A1 it is a condition of the mechanic working at all.

P3 — Temporary grouping. Level-based groups are re-formed for every topic on the basis of that topic's pre-check, so that a pupil's position is a property of the week rather than of the pupil.

P4 — Non-comparative reward. Progress is displayed against the pupil's own previous state and a whole-class total, never as a public ranking of individuals. Leaderboards are the element most frequently implicated in documented negative effects of gamification in education [9] and are excluded on that basis.

### 3. The instructional cycle

The intervention is a five-stage weekly cycle built around eight to ten target items. It distributes encounters with each item across the week rather than concentrating them in one lesson, in line with what is known about spaced, repeated retrieval in vocabulary learning [4; 5]. Each stage is paired with a single game element, so that the element performs a defined instructional function rather than serving as decoration [10; 11].

**Table 1. The five-stage weekly cycle**

| Stage        | Vocabulary operation                | Game element               | Rule layer    | Function                                |
|--------------|-------------------------------------|----------------------------|---------------|-----------------------------------------|
| 1. Pre-check | Which items are already known       | Blank collection card      | Home language | Sets starting point and weekly grouping |
| 2. Encounter | First presentation: picture + sound | Collectible card per item  | Home language | Makes the set visible and finite        |
| 3. Retrieval | Recall from picture, then word      | Points on a personal track | Non-verbal    | Distributed retrieval practice          |
| 4. Use       | Item used in a spoken frame         | Team task with shared goal | Home language | Recognition → production                |
| 5. Review    | Delayed recall of earlier items     | Class total bar            | Non-verbal    | Counters forgetting; non-comparative    |

*Source: developed by the author. "Rule layer" = the language in which the rule of the element is stated; "non-verbal" = the element requires no stated rule.*

Materials are three printed items per topic. First, a set of graded task cards at three levels, in which the same items are met through a supported, a standard and an extended task; levels are marked by a symbol, not a word, so the marking makes no linguistic demand. Second, a collectible card set of eight to ten items per topic, whose visible incompleteness supplies a goal the pupil holds independently of the teacher. Third, a class-total wall bar recording cumulative

group progress. Treating these as designed pedagogical objects rather than accessories follows the position that principled adaptation is constitutive of teaching materials [12].

#### **4. Observation and data-collection protocol**

No outcomes are reported here. What is fixed is the protocol by which they will later be collected, so that the measurement is specified independently of the results it produces.

**Table 2. Data-collection protocol**

| <b>Indicator</b>           | <b>Instrument</b>                               | <b>When collected</b>      |
|----------------------------|-------------------------------------------------|----------------------------|
| Immediate recognition      | Picture-to-word matching (teacher-administered) | End of each weekly cycle   |
| Delayed retention          | Same instrument, earlier set                    | Four weeks after the cycle |
| Productive use             | Elicited spoken frame, checklist scoring        | End of each topic block    |
| Participation, lower group | Observation sheet, 3 lessons per block          | During stages 3–4          |
| Teacher workload           | Teacher preparation-time log                    | Weekly                     |
| Response to the elements   | Non-verbal preference task                      | End of term                |

*Source: developed by the author. Instruments are chosen for administration by the class teacher without additional equipment.*

Two features deserve comment. Delayed retention is measured separately from immediate recognition because the claim concerns retention, not performance at the moment of teaching, and these routinely diverge [4]. And teacher workload is an outcome rather than a cost external to the study, since an intervention that raises retention while doubling preparation time is not replicable in the setting it was designed for.

#### **5. Anticipated constraints**

Three constraints are recorded here so that they are not presented later as findings. First, a single case does not support generalisation; its function is to establish that the design is implementable and to make it available for replication. Second, the class teacher is also designer and observer, which risks the impartiality of the structured observation; the fixed instruments in Table 2 limit, but do not eliminate, that risk. Third, the cycle assumes a stable weekly timetable, and disruption will affect the spacing on which stages 3 and 5 depend — an implementation variable to be logged rather than smoothed over.

#### **6. Concluding statements**

1. In the Uzbek primary setting the binding constraints on gamified vocabulary work are device access, class size and the multilingual composition of the class; a design that ignores any of the three is not implementable, whatever its effect elsewhere.

2. Game elements here are assigned one instructional function each and tied to a stage of a spaced retrieval cycle, so the design can be evaluated stage by stage rather than as an undifferentiated package.

3. The rule layer operates in the pupils' home language by design, which makes the team and collection mechanics usable at Pre-A1 rather than merely nominal.

4. Reporting the protocol before the results is part of the design: it fixes what will count as evidence, including teacher workload as an outcome in its own right.

### **Adabiyotlar, References, Литературы:**

1. Presidential Decree of the Republic of Uzbekistan No. PQ-1875 “On measures to further improve the system of learning foreign languages”. – Tashkent, 2012.
2. Abdullaev R. The impact of national independence and globalization on the status of English language instruction within Uzbekistan // New Challenges to Education. Vol. 19. – Sofia: Bulgarian Comparative Education Society, 2021. – P. 133–137.
3. Council of Europe. Common European Framework of Reference for Languages: Learning, Teaching, Assessment. Companion Volume. – Strasbourg: Council of Europe Publishing, 2020. – 278 p.
4. Nation I.S.P. Learning Vocabulary in Another Language. – 2nd ed. – Cambridge: Cambridge University Press, 2013. – 624 p.
5. Schmitt N. Researching Vocabulary: A Vocabulary Research Manual. – Basingstoke: Palgrave Macmillan, 2010. – 371 p.
6. Yin R.K. Case Study Research and Applications: Design and Methods. – 6th ed. – Thousand Oaks: SAGE, 2018. – 352 p.
7. Cummins J. Rethinking monolingual instructional strategies in multilingual classrooms // Canadian Journal of Applied Linguistics. – 2007. – Vol. 10, No. 2. – P. 221–240.
8. García O., Wei L. Translanguaging: Language, Bilingualism and Education. – Basingstoke: Palgrave Macmillan, 2014. – 176 p.
9. Toda A.M., Valle P.H.D., Isotani S. The dark side of gamification: an overview of negative effects of gamification in education // Higher Education for All. Communications in Computer and Information Science, vol. 832. – Cham: Springer, 2018. – P. 143–156.
10. Deterding S., Dixon D., Khaled R., Nacke L. From game design elements to gamefulness: defining “gamification” // Proceedings of the 15th International Academic MindTrek Conference. – New York: ACM, 2011. – P. 9–15.
11. Sailer M., Hense J.U., Mayr S.K., Mandl H. How gamification motivates: an experimental study of the effects of game design elements on psychological need satisfaction // Computers in Human Behavior. – 2017. – Vol. 69. – P. 371–380.
12. Tomlinson B. Materials development for language learning and teaching // Language Teaching. – 2012. – Vol. 45, No. 2. – P. 143–179.