

# Online Vocabulary Recycling: An Institutional Trial

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## Reference Data:

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In this study we examined an institution-wide trial of a commercially available online vocabulary recycling program. Participants were given a 30-item pretest before repeated instruction using the program. The same test instrument was administered again at the end of the semester as a posttest and a final time following the summer holidays as a delayed posttest. The tests revealed the extent of gains during use of the program as well as attrition occurring over the summer holidays. Participants completing at least 50 sessions of between 20 and 30 minutes over the course of a semester improved their test scores by about 30%. Equally important, participants demonstrated through survey results and through an in-class reflection activity that they found the program to be beneficial, helpful in developing vocabulary skills, and an important part of the course. The authors discuss challenges in implementing a new program along with interventions to help learners.

本研究は、市販のオンライン語彙リサイクル・プログラムの大学全体での試用を分析したものである。プログラムを使用して繰り返し学習する前に、参加者は30問のプレテストを受けた。学期末にポストテストとして、また最後に夏休み後にディレイド・ポストテストとして、再度同じテストが実施された。それらのテストにより、プログラム使用中の理解語彙の増加と夏休み中の理解語彙の減少の範囲がわかった。20~30分のセッションを学期中に少なくとも50セッション完了した参加者は、テストの得点が約30%伸びた。同じく重要なのは、調査結果や自由回答式の評価タスクを通じ、このプログラムが語彙力向上に有益で役に立ち、また授業の重要な一部であると、参加者が気付いたことである。筆者は、新しいプログラム実施の際の課題や、学習者を手助けする方法について論じている。

**T**HE CENTRALITY of vocabulary to language learning is very well established (see Stockwell, 2011). It has been widely acknowledged, however, that reading alone is generally insufficient for long-term acquisition of new L2 vocabulary (Laufer, 2003; Peters, Hulstijn, Sercu, & Lutjeharms, 2009). However, reading generally requires more extensive vocabulary knowledge than speaking (Cobb, 2007). For these reasons, the explicit instruction of vocabulary is increasingly being viewed as necessary.

With regard to explicit instruction, Schmitt (1997) created a taxonomy of 58 different vocabulary learning strategies varying from interacting with native speakers to analyzing affixes and roots. More recently, however, much attention has focused upon Computer Assisted Language Learning (CALL) administered approaches (Godwin-Jones, 2010; Hirschel & Fritz, 2013; Nakata, 2011). Unfortunately, systematic research to investigate the efficacy of such approaches has been limited.



The English program at our university requires students to engage with an online vocabulary recycling program, Praxis Ed (Miles, McCarthy, & Glass, 2010). We wanted to know the extent to which the program enabled gains among our students, or if it had not. The study examined gains through use of a pre-, post-, and delayed posttest. A follow-up questionnaire and an in-class reflection activity were utilized to understand student perceptions of the program and how they were using it. This study should be relevant to any institution considering use of a similar program.

### Literature Review

Empirical research into the efficacy of CALL approaches to vocabulary learning has been scant. Research has shown promise for CALL programs, but with limitations concerning the generalizability of the results (Horst, Cobb, & Nicolae, 2005; Kilickaya & Krajka, 2010). Three more recent studies, Oberg (2011), Fehra et al. (2012) and Hirschel and Fritz (2013), present mixed results regarding the use of CALL for vocabulary study.

Oberg (2011) investigated the efficacy of a simple CALL program versus picture cards (flash cards). No statistically significant differences were found in the performance of participants using the two methods. As both groups made gains and “responded positively on a post-treatment survey” (Oberg, p. 131), the author recommended that either approach be utilized in the learning of L2 vocabulary. The study, however, focused on only 10 treatment vocabulary items which were studied in the two respective methods over five separate sessions for 10 minutes each. These five study sessions took place in class and involved the instructor using a projector each time to display definitions in the students’ L1. The tests, posttests, and delayed posttests yielding the data comprised only seven items with answers chosen from among 10 choices. The time invested in studying these items may be unrealistic for extensive vocabulary study.

Additionally, the tests yielding the data were probably too short and simplistic to discern much difference between the two methods. Furthermore, the CALL program used apparently did not include any multimedia functions, spaced repetition, or individualized instruction after errors, items which are common in many modern CALL vocabulary programs (Nakata, 2011).

In a study of “summer school students entering grades 2-4 [approximately ages 7 to 10] from a racially diverse, economically disadvantaged . . . suburban elementary school” Fehra et al. (2012, p. 7) found that L1 and L2 learners using *The First 4000 Words* CALL program outperformed their counterparts studying vocabulary in a traditional classroom. The results for grades 2 and 3 were statistically significant. The CALL program included multimedia reading with sentences appearing underlined as the computer “read” to students, target vocabulary items appearing in red font, the ability for students to reread desired passages, voice recognition software to identify correct and incorrect student pronunciation, images for each lexical item, and increased practice for items incorrectly answered on the section pretest. Although the study was promising, it was short in duration (2 weeks), included a small sample size ( $N = 22$  for the experimental condition;  $N = 21$  for the control conditions), and had no delayed posttest to account for longer term retention.

Hirschel and Fritz (2013) examined the relative effectiveness of a CALL program versus vocabulary notebooks versus incidental learning (control group) of 36 targeted vocabulary items found in university students’ L2 coursework. Posttests demonstrated that students maintaining vocabulary notebooks and students using the CALL program significantly outperformed the control group. There was no statistically significant difference between these two pedagogical approaches after one semester of use. However, the delayed posttest administered after the summer holidays revealed that the CALL participants outperformed the vocabulary notebook participants by a small

but statistically significant effect size. The CALL participants essentially forgot less over the summer holidays.

One important aspect of CALL innovations that the aforementioned study did not investigate was the students' perceptions of the CALL activity. The current study is a mixed method investigation that includes both quantitative data measuring vocabulary gains and student appreciation, and qualitative data indicative of more general student sentiment.

## Research Questions

The specific research questions for this study were the following:

1. To what extent are students making gains in their vocabulary knowledge as measured by the test instrument?
2. How do students feel toward using an online vocabulary recycling program?

## Methodology

### Research Context

The research was carried out at a science and engineering university of approximately 3,000 students in southern Japan. There are no English majors, but 1st- and 2nd-year students are required to attend two 90-minute communicative English classes per week. The use of an online vocabulary recycling program constitutes part of students' homework grades. Students were asked to complete between four and six sessions per week. Within a 3-month time frame, students should have completed at least 50 sessions on the program, a description of which is provided below. The vocabulary program instructs students in high frequency English words that are not otherwise explicitly addressed in the curriculum.

## Participants

All 1st-year students (approximately 830 students in 29 classes) were required to use the online vocabulary program. We selected 15 first-year classes of varying abilities to take a series of tests. The total number of test participants was 423, all between 18 and 20 years old. Of these, 417 were Japanese and 6 were Chinese students with a high level of Japanese proficiency. As part of the survey analysis, two classes comprising 52 students of average ability were asked to complete an in-class reflection. Finally, 664 students completed the end-of-course survey.

## Online Vocabulary Recycling Program

Praxis Ed (Miles, McCarthy, & Glass, 2010), the vocabulary program used for this study, was developed to provide effective vocabulary learning and retention among its users. We chose this program because it allows flexibility in the creation and use of vocabulary lists, provides multiple item types for each vocabulary word, presents words at spaced intervals, and provides learners and teachers with robust feedback.

Students using the program can complete one session each day comprising activities for seven new words, along with review activities for previously introduced words. Each new word presented includes a recording of the pronunciation, definitions and examples in both English and Japanese, along with a short list of common collocations as shown in Figure 1.

The program then presents various exercises to practice the items. These exercises include both receptive (translation to Japanese, true/false, listening) and productive (translation to English, completing partial cloze, choosing a sentence where the word fits best) tasks. It is believed that through a variety of exercise types, word learning effectiveness will improve (Nation, 2013). Figure 2 shows a screenshot of an exercise in which



Figure 1. Screen capture of program definition page.

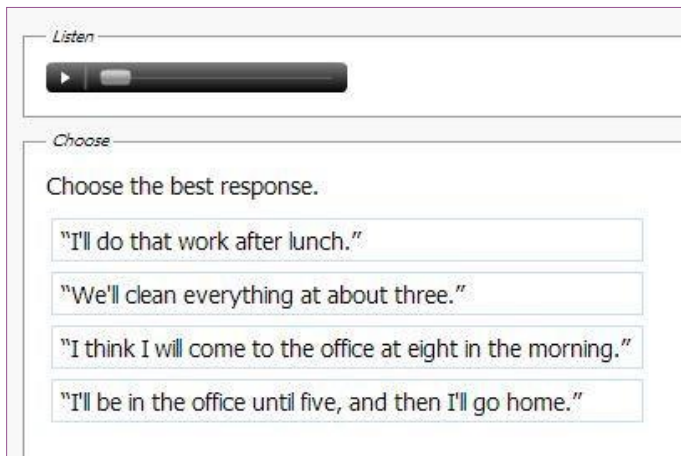


Figure 2. Screen capture of correct response activity.

students hear the phrase, “What time will you leave the office?” and must choose the correct response.

Each study session lasts approximately 20 to 30 minutes. In addition to the seven new words and exercises to consolidate

knowledge, items previously introduced are reviewed for recycling purposes. This is based on the principle that each time new vocabulary is reviewed, learning and memory are strengthened and the intervals between review sessions can become longer (Pimsleur, 1967).

All 1st-year students register on the Praxis Ed program at the start of the academic year and select a vocabulary list for study. In the context of this research project, the 15 classes were assigned to study from lists A and B, considered appropriate to the students’ level. List A comprised 166 words and list B 200 words, largely taken from the 2,000 most commonly spoken English words as determined by the Corpus of Contemporary American English (COCA; Davies, 2008-13). Teachers provided support in an initial in-class training session in each of their classes. For students encountering difficulties, the English center ran a drop-in session once a week for 1 hour.

### Procedures Test Data

In order to measure the effectiveness of the program, participants were given a pretest after the start of the first semester in late April, a posttest in mid-July, and finally a delayed posttest in late September. The same 30 items were used for each test, each item testing one of the words to be studied in List B of the program. The 30 words were chosen from the 1,000 to 2,000 band of the COCA because they were anticipated to be relatively new for the non-English major participants. Though test-retest effect is a valid concern, the 3-month intervals between tests partially mitigates this problem. It is also important to note that the students never saw the instrument outside the test conditions and therefore had no way of knowing whether they had, in fact, answered correctly. The pretest was administered after the students had begun using the program but before the introduction of the 30 target items.

The test instrument (see Appendix) comprised 10 best-fit items and 20 partial cloze items, measuring both receptive and productive knowledge. The two item types appear in Figure 3. Each item was worth one point for a possible total score of 30 points. The tests were administered in an online format in the students' regular English classes. Participants were given 20 minutes to complete the unannounced tests without using any reference materials.

patient

Where does the word *patient* fit best?

- A doctor is a highly respected \_\_\_\_\_.
- Kids these days just don't have the same \_\_\_\_\_ that we had growing up, like responsibility and honesty.
- I arrived in this country as a \_\_\_\_\_ after I escaped from my country's civil war.
- I first met Doctor Hollows as a \_\_\_\_\_ when he treated me for eye disease.

狭い通り → na \_\_\_\_\_ street

Figure 3. Screen capture of best-fit and partial cloze items from the test instrument.

### Survey Data: End-of-Semester Survey

An end-of-semester survey, based on the Intrinsic Motivation Inventory (University of Rochester, n.d.) and validated in the context of our institution by Lee and Rowberry (2013) was administered to all 1st-year students, with 664 responding. The survey covered a range of topics about the English center, including the use of this program. The survey was in Japanese to ensure that students fully understood the questions. It was administered on the last day of the semester, in class, and in an online format.

### Qualitative Data: In-Class Reflections on Program

In an effort to collect more specific information about students' perceptions of the program, two classes of students of average ability were asked to reflect on their experience with these as-

signments. This subsample of participants was asked to respond to the following question: *In this course, we've used a program called Praxis Ed. What do you think about this program? Please give your honest opinion in English.* This question was provided in Japanese to ensure students' comprehension. Asking for English answers from the less proficient students obviously presents a concern about validity, but for pedagogical reasons we intended for this to be an in-class English activity. Fifty-two students responded to the in-class reflection activity and were able to give valuable insights about their experiences with the program.

## Results

### Test Data

Though 423 students participated in the test study, 103 participants had to be excluded from the analysis due to absence from one or more of the three classes during which the test instrument was administered. Because there was considerable variation in the remaining 320 students' completion of the online assignments, we analyzed pre-, post-, and delayed posttest performance across three categories of students. For the purpose of analysis, students who used the program sufficiently to experience at least four repetitions of each target word (approximately 50 sessions or more) were categorized as 4X+, those who encountered each target word three or four times (approximately 40 sessions or more) were categorized as 3X+, and the least frequent users of the program (0 to 39 sessions approximately) were categorized as 1X+. In calculating gains, we subtracted pretest scores from the maximum possible score of 30 to account for already known items. Though there was some variation in the groups' vocabulary knowledge from the outset (mean pretest scores were 11.31 for 4X+, 9.2 for 3X+, and 8.1 for 1X+), the repeated measures ANOVA performed takes into account such differences, allowing for a comparison of mean gains across

groups regardless of the varied starting points. It is interesting to note, however, that the more engaged groups had higher test scores from the start, perhaps indicating a link between previous knowledge and interest.

As shown in Table 1, students from the 4X+ and 3X+ groups both made gains of close to 32% between the pre- and post-tests, bookending the duration of the 3-month treatment period. These scores account for approximately six words learned as measured by the test. If we were to extrapolate those 32% gains to the 287 words encountered in the program through 50 sessions, then we could predict that students completing 50 sessions would have *learned* about 92 words during one semester of using the program. It must be taken into account, however, that four repetitions is not considered sufficient. The program is designed for multiple exposures with considerable practice and review. *Learning a word* is not a momentary event but a cyclical process that requires time (Nation, 2013). Thus, one would expect retention to increase along with the number of encounters.

The overall gains made during the course of the 5-month study are reported in the pretest to delayed posttest column of Table 1. The 4X+ group performed best at 29.53%; the 3X+ group performed nearly as well at 27.83%, whilst the 1X+ group enjoyed gains of only 10.67%. All participants had the option to use Praxis Ed from August to September. However, access to the target words via the program was restricted. Thus forgetting over the summer holidays likely accounts for the differences between the pre- to posttest scores and pre- to delayed posttest scores seen in the *negative gains* displayed in the last column of Table 1.

Table 1. Total Mean Test Gains on 30-Item Test

Students	N	Pretest to posttest	Pretest to delayed posttest	Posttest to delayed posttest
4X+	120	31.73% (5.93)	29.53% (5.52)	-2.26% (-0.42)
3X+	97	31.54% (6.56)	27.83% (5.79)	-3.65% (-0.76)
1X+	103	12.86% (2.82)	10.67% (2.34)	-2.14% (-0.47)

Note. 4X+ completed 50 sessions or more; 3X+ completed 40-49 sessions; 1X+ completed 0-39 sessions; (##) = number of items.

A repeated measures ANOVA found statistically significant differences between all groups,  $F(2, 319) = 31.94, p < .001$ . Perhaps unsurprisingly, 75% of the variation in student performance on the series of tests can be attributed to the differential number of sessions completed. Figure 4 graphically demonstrates the gains in vocabulary made by students.

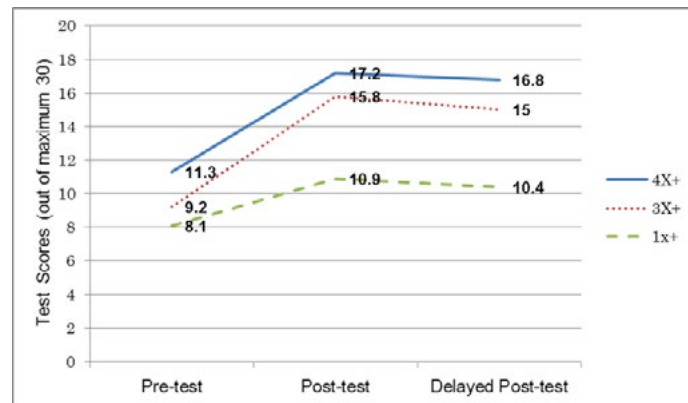


Figure 4. Mean test scores of students. 4X+ completed 50 sessions or more; 3X+ completed 40-49 sessions; less engaged completed 0-39 sessions.

### Survey Data: End-of-Semester Survey

The end-of-semester survey yielded interesting results. In terms of access, the majority of students (92.6%) reported accessing the program at home, and 54.3% of students reported use at the university. In addition, students indicated that they used Praxis Ed on a computer (52.1%), on their mobile phone (18.8%), or both (40.2%). With regards to the use and benefits of the program, students were generally positive. The vast majority of students agreed or strongly agreed that Praxis Ed was beneficial to them, helped them develop their vocabulary skills, and gave them more confidence in using English. Table 2 displays these results. Students also reported that Praxis Ed was more effective than other vocabulary learning methods, that they put a lot of effort into using Praxis Ed, and most importantly, that they would continue using the program after their course was finished. However, students were more evenly split over whether or not they enjoyed using Praxis Ed (57% agreed, 42% disagreed) and whether or not they were satisfied with their performance using the program (59% agreed, 41% disagreed). These responses indicated two areas that need to be further addressed.

### Qualitative Data: In-Class Reflections on the Program

The written reflections collected from 52 participants were reviewed and coded. First, student responses were determined to be generally positive (P), negative (N), or not clearly identifiable (U). Of the 52 respondents, 30 gave generally positive feedback regarding Praxis Ed. Twelve of the 52 respondents gave generally negative feedback. Only 10 respondents were found to have ambivalent feelings about the program. Next, more specific positive and negative attributes of the program were identified and grouped as shown in Figure 5. Positively coded aspects included vocabulary, usefulness, time management, listening, desire to continue, memorizing, enjoyable, accessibility, perceive

Table 2. End-of-Semester Survey Results

Survey statement	Strongly agree	Agree	Disagree	Strongly disagree
I really enjoyed using Praxis Ed.	106 (16.0%)	<b>276 (41.6%)</b>	227 (34.2%)	55 (8.3%)
I am satisfied with my performance.	93 (14.0%)	<b>301 (45.3%)</b>	223 (33.6%)	47 (7.1%)
Praxis Ed is beneficial to me.	203 (30.6%)	<b>397 (59.9%)</b>	49 (7.4%)	14 (2.1%)
Praxis Ed is boring.	61 (9.2%)	224 (33.7%)	<b>302 (45.5%)</b>	77 (11.6%)
Praxis Ed helped me develop English vocabulary skills.	227 (34.2%)	<b>381 (57.5%)</b>	43 (6.5%)	12 (1.8%)
Praxis Ed is an important aspect of this course.	229 (34.4%)	<b>387 (58.2%)</b>	42 (6.3%)	7 (1.1%)
It is important for me to do well in Praxis Ed.	242 (36.4%)	<b>379 (57.1%)</b>	36 (5.4%)	7 (1.1%)
Praxis Ed has given me more confidence to use English.	150 (22.6%)	<b>395 (59.4%)</b>	103 (15.5%)	17 (2.6%)
Praxis Ed is more effective than other vocabulary learning methods.	175 (26.4%)	<b>381 (57.4%)</b>	92 (13.9%)	16 (2.4%)
I will continue using Praxis Ed after the end of this course.	128 (19.2%)	<b>308 (46.3%)</b>	187 (28.1%)	42 (6.3%)
I put a lot of effort into Praxis Ed.	197 (29.7%)	<b>319 (48.0%)</b>	112 (16.9%)	36 (5.4%)

Note. Boldfaced figures = mode.

progress as important, reasonable time commitment, grammar, and example sentences. Students also identified challenges and limitations of the program; these were coded difficult, rigid study schedule, long time commitment, punitive, price, insufficient explanations, prefer traditional study, speaking speed too fast, and boring. It should be noted that many students, while offering generally positive or generally negative feedback, identified both positive and negative aspects of the program in their responses.

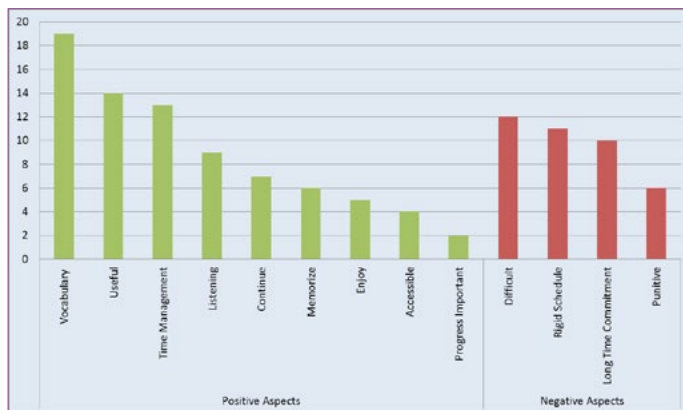


Figure 5. Number of students mentioning positive and negative aspects of Praxis Ed.  $N = 52$ . More than one answer was possible.

## Discussion

The first research question was about student gains in vocabulary knowledge as measured by the test instrument. Results showed that students who had completed at least 50 sessions made gains of about 30% over the course of the 5-month study period. These results are consistent with those of similar studies showing longer term retention of 30-40% (Hirschel & Fritz, 2013).

The second question was about student feelings towards using an online vocabulary recycling program. The end-of-semester surveys showed more than 90% of participants reporting that Praxis Ed was beneficial, helped to develop vocabulary skills, was important for students to do well on personally, and was an important part of the course. The qualitative data from the in-class assignment revealed that most students were positive about the program, most frequently citing vocabulary development, usefulness, time management, and listening practice as positive attributes. We believe these results validate use of the program in the context of our English center.

The qualitative data elicited some of the concerns students had with the program. The most frequently cited concern was level of difficulty. We have addressed this matter by asking the program developers to create a new word list with vocabulary suitable for lower level learners. The developers have also selectively removed some item types (e.g., longer cloze items, some best fit items) that proved difficult for struggling students. Though rigidity of schedule was cited as a problem by 11 students, a similar number were probably responding to the same program structure when they indicated appreciation of time management (13 students). For this reason, we did not feel it necessary to ask the program developers to institute structural changes. Where we did make some concessions was in response to concerns about the length of the time commitment necessary for using the program. We asked the developers to change the number of new words introduced in each session from seven to five, thereby shortening the length of each session. Many of the teachers have additionally reduced the number of sessions they now require their students to complete each semester. With regard to the program's punitive nature (two additional items for each error), teachers have started to coach students on how to better use the program. The most important advice is for students to be aware of how the program works and to mindfully complete the activities without guessing, to make use of



the learners' word bank, and to take notes.

As with any research, there are some limitations to this study. One is the absence of a dedicated control group against which to measure the program's effectiveness, though the 1X+ group partially fulfills this role. Another concern is that we did not conduct an item analysis of the test instrument to make certain that the items were measuring what they purported to measure. A similar limitation was the inability of the blunt test instrument to measure the various aspects of *knowing* a word. It is possible that students knew words in some contexts but not necessarily in the context of a specific test item. Additionally, a student may have been introduced to a word, but did not experience sufficient exposure to adequately learn it to the satisfaction of the test item. A more exhaustive test measure with multiple items for each vocabulary word could yield more reliable data, but may not be practical in the classroom context. For these reasons, the test findings are best considered as estimates of potential rather than de facto measures of progress. Further studies, to the extent possible, should explore various gradations of *knowing a word* over a longer period of time.

## Conclusion

Participants who regularly engaged with the online vocabulary recycling program demonstrated modest but significant gains as measured by a blunt test instrument. The authors believe that with greater use of the program, effectively more repetitions of each word, participants will show greater gains. Reaction to the program's implementation, as measured by the survey and the in-class reflection activity, was generally very positive. There is an interesting disconnect between participants' sentiments toward the program and actual use. The answer may lie in the fact that our institution has no English major, that the English classes are nevertheless a requirement for graduation, and that many of our students have ambivalent feelings with regard to learning

the language. It would be very interesting to see a similar study with more carefully crafted test instruments carried out at other institutions, particularly those offering degrees in English.

## Bio Data

**Rob Hirschel** is currently a lecturer at Sojo University. He has enjoyed working with language learners in many different capacities including preschool, elementary, junior high, university, and preparatory programs for graduate school. His research interests include vocabulary, CALL, assessment, and affective factors in the language classroom. <rob.hirschel@gmail.com>

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## Appendix

### The Test Instrument

1. 19世紀 → the nineteenth c \_\_\_\_\_

2. ごく小さい部屋 → a ti \_\_\_\_\_ room

3. 出延する → appear in co \_\_\_\_\_

#### 4. prefer

Where does the word prefer fit best?

- In the mornings, most people \_\_\_\_\_ drinking coffee over soda.
- They \_\_\_\_\_ their car in the desert when the gas ran out.
- You need to clarify and \_\_\_\_\_ your argument so that it is clear and makes sense.

- You can expect problems to \_\_\_\_\_ because you didn't plan this thoroughly.

5. 学期の間中 → thr\_\_\_\_\_ the semester

#### 6. crime

Where does the word crime fit best?

- The policeman dedicated his life to fighting \_\_\_\_\_.
- As a \_\_\_\_\_ of not going shopping, we have nothing to eat for breakfast.
- It takes a lot of hard work and willpower to break a bad \_\_\_\_\_.
- As he accepted the award in front of the school, his parents' \_\_\_\_\_ was obvious.

7. 圧力を感じる → feel pres \_\_\_\_\_

8. 敬意を持って待遇する → treat with res \_\_\_\_\_

9. 疑いを起こす → raise do \_\_\_\_\_

10. 人口増加 → po \_\_\_\_\_ growth

11. ~の発展を促進する → en \_\_\_\_\_ the development of ~

#### 12. avoid

Where does the word avoid fit best?

- When representatives from Microsoft visited our company, I had a good chance to \_\_\_\_\_ my English skills in front of my boss.
- You need to \_\_\_\_\_ more carefully when planning for your future.
- It was difficult for them to \_\_\_\_\_ each other because they worked in the same building.
- Hiring a clown is a popular way to really \_\_\_\_\_ a children's party.

13. 時間を浪費する → wa \_\_\_\_\_ time

#### 14. suffer

Where does the word suffer fit best?

- I wish you wouldn't \_\_\_\_\_ every little mistake that I make.
- I \_\_\_\_\_ from frequent high fevers since I caught Malaria in the tropics.
- How did you \_\_\_\_\_ to get them out of the house for the party?
- People who \_\_\_\_\_ the laws should be punished.

#### 15. influence

Where does the word influence fit best?

- A good teacher can \_\_\_\_\_ a student to enjoy studying.
- Can watching too much television have a bad \_\_\_\_\_ on our eyesight?
- When the students started fighting, the teacher had to \_\_\_\_\_.
- One good \_\_\_\_\_ from listening to music is relaxation.

16. 長旅 → a long jo \_\_\_\_\_

#### 17. starve

Where does the word starve fit best?

- Her suggestion to enjoy chocolate seems to \_\_\_\_\_ her earlier advice about diet.
- Some girls are so worried about being overweight that they try to \_\_\_\_\_ themselves.
- Animals will die if they cannot \_\_\_\_\_ to the environment they live in.
- Bring your first \_\_\_\_\_ of your final paper to the next class for peer review.

**18. refuse**

Where does the word refuse fit best?

- If this problem continues, we'll have to \_\_\_\_\_ restrictions on what people can bring to the stadium.
- As my father gets older, even small changes seem to \_\_\_\_\_ him.
- You need to start saving now so that you can \_\_\_\_\_ enough money for your retirement.
- The cake was so delicious that I couldn't \_\_\_\_\_ another piece.

19. 恐れを抱いて生きる → live in fe \_\_\_\_\_

20. 乾燥肌 → dry sk \_\_\_\_\_

21. 持ち上げる → li \_\_\_\_\_ up

**22. value**

Where does the word value fit best?

- You should \_\_\_\_\_ the opportunities that you have while you are young.
- I'm sure I could \_\_\_\_\_ the man if I saw him again.
- Her suggestion to enjoy chocolate seems to \_\_\_\_\_ her earlier advice about diet.
- I drive slowly to \_\_\_\_\_ for my poor eyesight.

23. 誰かの判断を信頼する → tr \_\_\_\_\_ someone's judgment

24. 世界を支配する → ru \_\_\_\_\_ the world

25. 病気を広める → spr \_\_\_\_\_ the disease

**26. disease**

Where does the word disease fit best?

- She was guided by her \_\_\_\_\_ and stopped to help the injured cyclist.
- In the meeting I would like to take a direct \_\_\_\_\_ and make our demands clear.

- Polio is a serious \_\_\_\_\_ which makes it hard for some people to walk.
- Even on hand-written papers you should leave a \_\_\_\_\_ on both sides of your paper.

27. ~の質を判断する → ju \_\_\_\_\_ the quality of ~

**28. patient**

Where does the word patient fit best?

- A doctor is a highly respected \_\_\_\_\_.
- I first met Doctor Hollows as a \_\_\_\_\_ when he treated me for eye disease.
- Kids these days just don't have the same \_\_\_\_\_ that we had growing up, like responsibility and honesty.
- I arrived in this country as a \_\_\_\_\_ after I escaped from my country's civil war.

29. 狭い通り → na \_\_\_\_\_ street

30. 損害をもたらす → cause da \_\_\_\_\_