

Korean Auditory Discrimination Test for Japanese Students

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1. Introduction

The aim of this paper is to assess the Japanese students' listening ability to distinguish Korean sounds by using the Korean Auditory Discrimination Test which was devised by the first author in 1998.

The KADT given below consists of 40 word pairs of which 31 pairs are minimal pairs and the rest homophonous synonyms. As the pair No. 33(자 --짜) was left out by a mere accident, only 39 word pairs were actually used in the present test. The ratio of vowel pairs and consonant pairs in the KADT for Japanese is 9 to 31.

2. Subjects for KADT

14 undergraduate students of Tokyo Gakugei University took part in the present KADT test in Tokyo. They were all Japanese students taking a beginners' Korean language course and at the time of this test had studied Korean language for 39 hours at Tokyo Gakugei University. They were asked to listen to Lee's recorded tape of the 40 word pairs listed in KADT. They were instructed to listen to each pair of words twice and mark the "same" or "different" column on the answer sheet. In addition the subjects were instructed to write down the words they heard either in spelling or in phonetic symbols.

3. Results of KADT

The results of KADT for Japanese students are summarily given in the following table, where the number of the correct answers(and percentage) for each word pair are

presented in the second column. In the fourth column of the table is given the percentage of the correct answers for each member of a word pair. One can also find the percentages of the correct answers for the first and the second word of each word pair in the fifth and sixth columns respectively. The results of the test can be presented in the following three parts, syllable final consonants, syllable-final consonants and vowels.

한국어 청취 판별 검사표

Korean Auditory Discrimination Test

성명: _____ 성별: _____ 검사일: _____

학교: _____ 학년: _____ 생년월일: _____

검사 낱말	다름	같음	검사 낱말	다름	같음
1. 딸 -- 쌀	다	같	21. 발 -- 팔	다	같
2. 큰 -- 끈	다	같	22. 덕 -- 독	다	같
3. 중 -- 충	다	같	23. 까기--깎이	다	같
4. 게 -- 개	다	같	24. 감 -- 곱	다	같
5. 맛 -- 만	다	같	25. 활 -- 할	다	같
6. 눈 -- 논	다	같	26. 고리--꼬리	다	같
7. 달 -- 딸	다	같	27. 씨 -- 시	다	같
8. 비 -- 배	다	같	28. 덕 -- 턱	다	같
9. 멋 -- 멧	다	같	29. 꿀 -- 풀	다	같
10. 봄 -- 몸	다	같	30. 참 -- 째	다	같
11. 팔 -- 팔	다	같	31. 고장--교장	다	같
12. 털 -- 틀	다	같	32. 불 -- 뿔	다	같
13. 마리--마디	다	같	33. 자 -- 짜	다	같
14. 들 -- 들	다	같	34. 산 -- 삼	다	같
15. 공 -- 공	다	같	35. 칼 -- 팔	다	같
16. 기 -- 귀	다	같	36. 용 -- 용	다	같
17. 말 -- 맛	다	같	37. 막다--맛다	다	같
18. 춤 -- 춤	다	같	38. 담 -- 담	다	같
19. 날 -- 말	다	같	39. 굴 -- 굴	다	같
20. 높다--늑다	다	같	40. 살 -- 쌀	다	같

Summary Table of KADT Results

	정답자(%)	1글자정답율%	오답(%)예: 왼쪽항	오답(%)예: 오른쪽항
1. 딸--살	3명(21)	딸64,살21	달(21),탈(7)	살(64)
2. 큰--큰	1명(7)	큰29,근14	쿤(21),궁(14)근,근,꿈,	근(43),군(29),꿈
3. 중--중	4명(29)	중29,총29	전(21),정(21),존(14), 총,천	천(21),청(21),촌(14),정,
4. 게--개	1명(7)	게14,개43	개(79),캐	게(50),캐
5. 맛--만	6명(43)	맛57,만71	맵(36),막	맵(21),망
6. 논--논	6명(43)	논50,논71	년(29),농(14),남	농(14),년,남
7. 달--달	11명(79)	달100,딸79		탈(21)
8. 비--베	6명(43)	비86,베38	베,브	베(50),뻬
9. 멧--멧	5명(36)	멧36,멧43	목(29),몹(14),몰(14),몹	몰(36),몹,목,몬
10. 봄--봄	5명(36)	봄43,봄36	범(21),본(14),봄,병,봉	몬(29),땀(14),만,몹,명
11. 팔--팔	4명(29)	팔29,팔29	발(43),빨(29)	발(64),빨
12. 털--털	0	털14,털7	덜(29),둘(29),툴(2), 땀,달	들(50),툴(29),둘(14)
13. 마리--마디	8명(57)	마리86,마디57	마디,마르	마리(14),마드,미디
14. 들--들	8명(57)	들71,들71	툴(14),둘	들(14),둘
15. 공--공	5명(36)	공43,공36	건(36),곤(14),경	건(29),곤(21),꿈,경
16. 기--귀	2명(14)	기79,귀14	그,히	히(36),회,비,호,괴,괴,휘
17. 말--맛	7명(50)	말87,맛43		맵(29),막(14),말
18. 춤--춤	2명(14)	춤14,춤7	춤(36),준(14),천,춘,촌,중, 듬	춤(29),준(14),춘(14), 중(14),둥,촌,침
19. 날--말	12명(87)	날100,말93		말
20. 높다--늑다	1명(7)	높다0,늑다14	노따(29),늑다(21),넌아 (14),넌다,늑다,넌다,나타	노따29,넌다29,늑다14,노타, 넌다
21. 발--팔	5명(36)	발100,팔36		빨(43),딸,탈
22. 덕--독	2명(14)	덕29,독14	덜(14),도(14),독,뎀,더,돈, 뎀,토,	도(43),더,뎀,덜,독,돈
23. 까기--깎이	1명(7)	까기29,깎이29	가기(50),꺼기	가끼(29),까기(29),까키
24. 감--곰	6명(43)	감57,곰43	간(14),강	검(14),경(14),곤(14)
25. 활--활	4명(29)	활43,활43	할(29),홀,환,하루	할(21),힐,하래,홀,윈
26. 고리--꼬리	4명(29)	고리50,꼬리43	꼬리(14),거리(14),가리,리	고리(21),거리,까라,커리
27. 씨--씨	2명(14)	씨29,씨14	시(71)	시(86)
28. 덕--턱	0	덕7,턱0	독(43),더(14),도(14), 더,뎀,던,뎀	떡(14),톡(14),또(14),톡,딱, 터,덕,떠,뎀,툭
29. 꿀--꿀	3명(21)	꿀29,꿀29	굴(50),글(14),건	굴(50),쿨,건,클
30. 참--참	0	참36,참0	차(21)	잔(29),잠(21),참(14),찬,차, 짱,찰
31. 교장--교장	0	교장0,교장0	고잔(36),거잔(21), 거참(14),교창,거창	겨잔(29),교잔(21),겨참(14), 교창,겨창,교산
32. 불--빨	8명(57)	불71,빨64	풀,블,블,번	빨(14)풀,뵤,블
34. 산--삼	7명(50)	산79,삼43	상(21)	산(29),상(21),남

3.1. Initial Consonants

Perceptual errors of syllable-initial consonants by Japanese students can be summarized as follows:

1) Tense alveolar fricative /ʃ/ [ss] was perceived as lax /s/ [s], but not vice versa, which indicates that Japanese students have difficulty perceiving the tense consonants.

2) Aspirated plosive /ɸ/ [ph] was more often perceived as lax [b] than as tense [p]. Likewise, aspirated /ɸ/ [th] was more often perceived as lax [d] than as tense [t].

3) Similarly, initial affricate /t͡ɕ/ [tɕ] was perceived as lax [dʒ].

3.2. Final Consonants

The Japanese informants had difficulty perceiving the Korean syllable final consonants. The symbols on the right of the arrow represent perceptual errors.

1) /ㄴ/ [n](2,6,34)→ /n/, /ŋ/, /m/ (the numbers in the bracket refer to the relevant word pairs containing /n/.)

2) /ㅁ/ [m](10,18,24,30,38)→ /n/, /m/, /ŋ/

3) /ㅇ/ [ŋ](3,15,31,36)→ /ŋ/, /n/, /m/

4) /ㄷ/ [t] (5,9)→ /s/, /g/, /b/, /n/

5) /ㄹ/ [l](1,7,11,12,14,19,21,35,39)→ /l/

6) /ㅋ/ [k](20,22,28,37)→ /g/, /ø/, /b/, /d/, /th/

7) /ㅍ/ [ph](20)→ /ø/, /b/, /d/, /g/

As can be seen in 1-3) above, Japanese students seem to find it very difficult to distinguish the syllable-final nasals /m/, /n/, /ŋ/ due mainly to the influence of the Japanese 「ㄴ」 letter which is realized as three different sounds [m,n,ŋ].

It is to be noted that the syllable-final /s/ [s] was perceived as [d][g][b][n].

The correct answer rate of item No. 5 'ㅁ' /mas/ was 43%, but in general final /s/ [s] was perceived as [b](36%) and sometimes as [g].

It is interesting to note that the syllable-final /ㄱ/ [g] was perceived as [g][∅][b][d] and the syllable-final /ㅍ/ [ph] as [∅][b][d][g].

3.3. Vowels

The perceptual difficulties faced by Japanese students in discriminating the Korean vowels can be summarized as follows:

1) Vowel /ㅔ/ [e] and /ㅖ/ [ɛ]

Auditory discrimination of /e/ and /ɛ/ was somewhat difficult for Japanese students as in the words /개/ [ge] "crab" -- /개/ [gɛ] "dog"

2) Vowel /ㅛ/ [o] and /ㅜ/ [ʌ]

Japanese students tended to confuse the rounded back vowel /ㅛ/ [o] and the unrounded back vowel /ㅜ/ [ʌ] as in the words /덕/[dʌg] "virtue", /독/ "poison".

3) Vowel /ㅜ/ [u] and /ㅡ/ [ɯ]

The rounded high back vowel /ㅜ/ [u] and the unrounded high back vowel and /ㅡ/ [ɯ] were also found to pose a serious problem for Japanese students as in the words /둘/ [du:l] "two" and /들/[du:l] "field".

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