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**Learning Vocabulary in the Authentic Written
Form for Novice English-Speaking Learners of
Japanese with Limited Orthographic Knowledge**

Volume 2

A dissertation submitted to the University of Dublin
for the Degree of Doctor of Philosophy

Saeko Ogiso

Trinity College Dublin, April 2012

School of Education

Trinity College Dublin



Thesis 9661.2

Volume 2

Appendices 201

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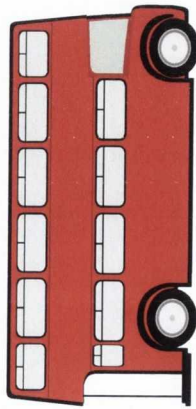
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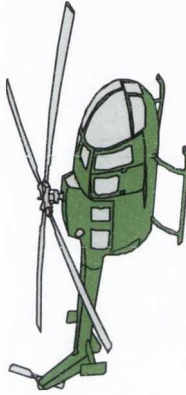
Appendix A-1a: Overhead transparency (Pictures and words in the written form with reading support of furigana for kanji and rōmaji for all the words)



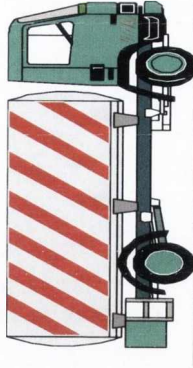
バス
ba su



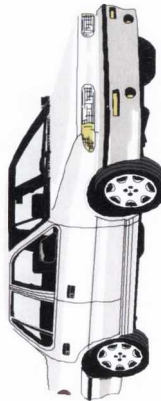
タクシー
ta ku shī



ヘリコプター
he ri ko pu tā



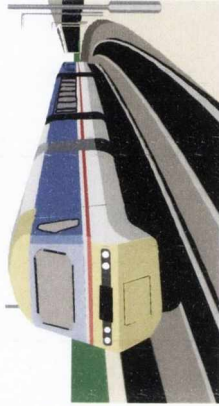
トラック
to ra k ku



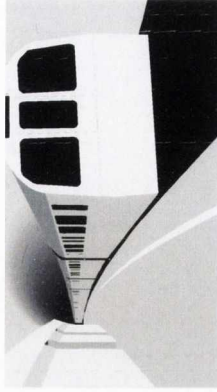
くるま
車
ku ru ma



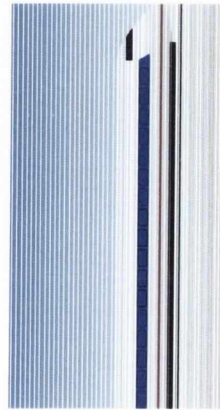
じてんしゃ
自転車
ji te n sha



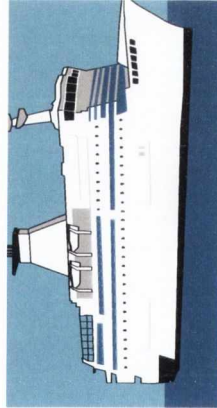
でんしゃ
電車
de n sha



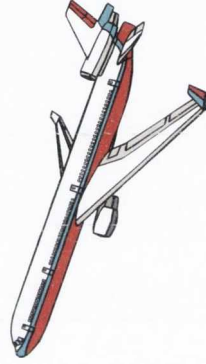
ちかでつ
地下鉄
chi ka te tsu



しんかんせん
新幹線
shi n ka n se n



ふね
船
fu ne

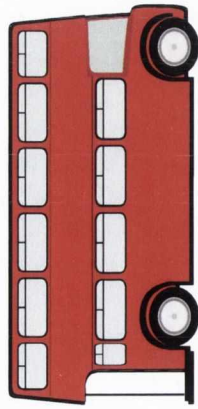


ひこうき
飛行機
hi kō ki

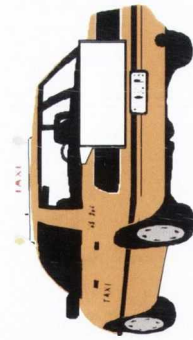


すいじょうひこうき
水上飛行機
su i jō hi kō ki

Appendix A-1b: Overhead transparency (Pictures and words in the written form with reading support of furigana for kanji)



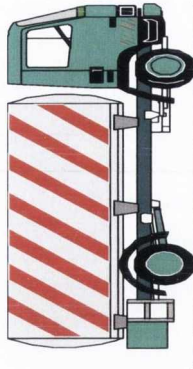
バス



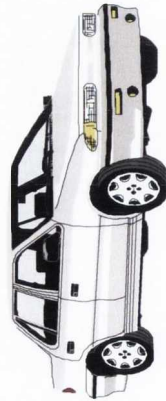
タクシー



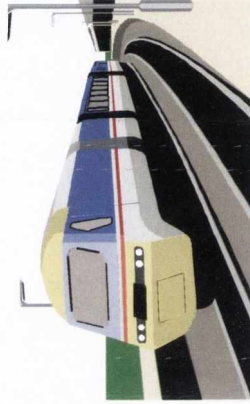
ヘリコプター



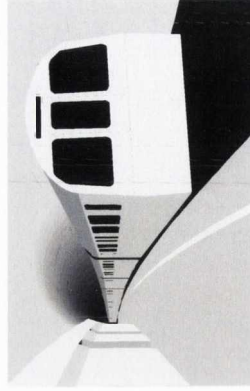
トラック



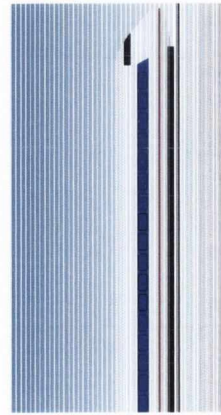
クルマ
車



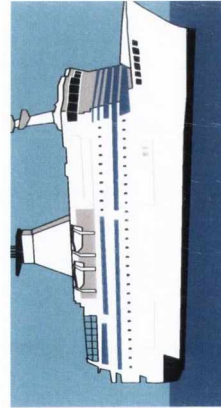
でんしゃ
電車



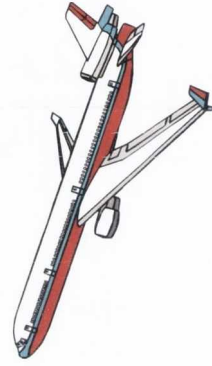
ちかてつ
地下鉄



しんかんせん
新幹線



ふね
船

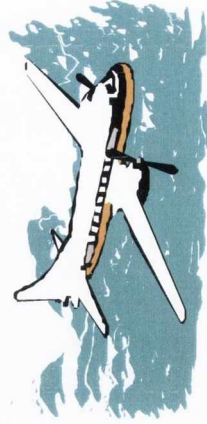
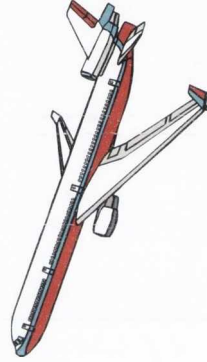
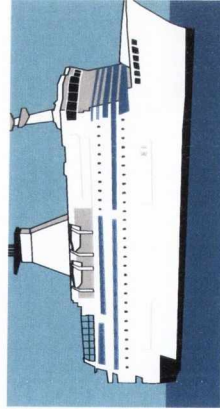
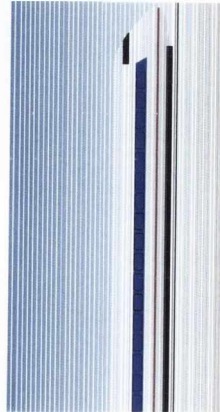
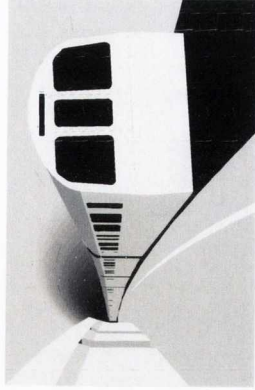
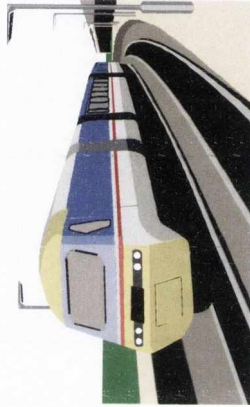
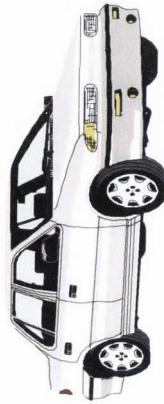
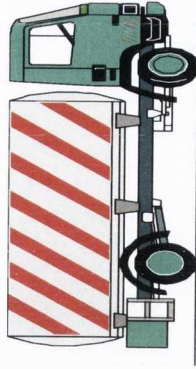
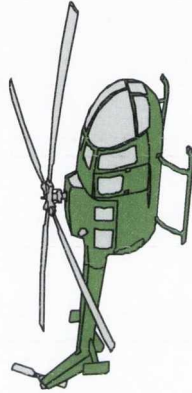
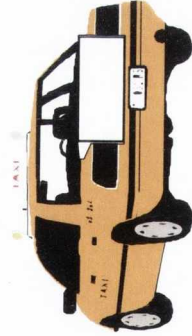
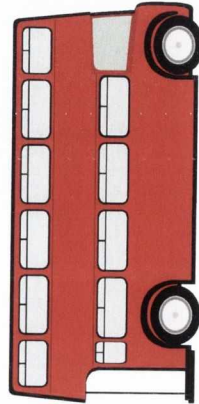


ひこうき
飛行機

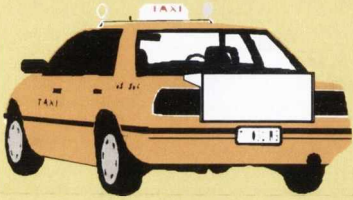
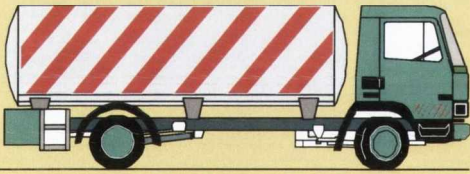


すいようひこうき
水上飛行機

Appendix A-1c: Overhead transparency (Pictures only)

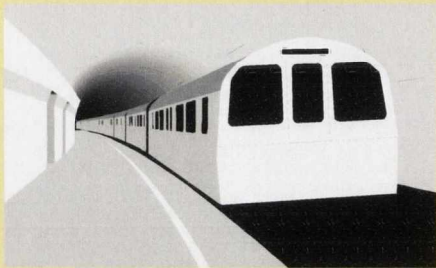


Appendix A-2: Cards (Picture on one side and words in the written form on the other side)

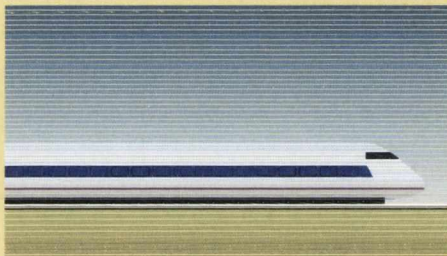
	バス ba su
	タクシー ta ku shī
	ヘリコプター he ri ko pu tā
	トラック to ra k ku
	くるま 車 ku ru ma
	じてんしゃ 自転車 ji te n sha



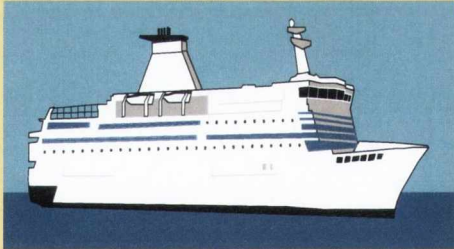
でんしゃ
電車
de n sha



ちかてつ
地下鉄
chi ka te tsu



しんかんせん
新幹線
shi n ka n se n



ふね
船
fu ne



ひこうき
飛行機
hi kō ki

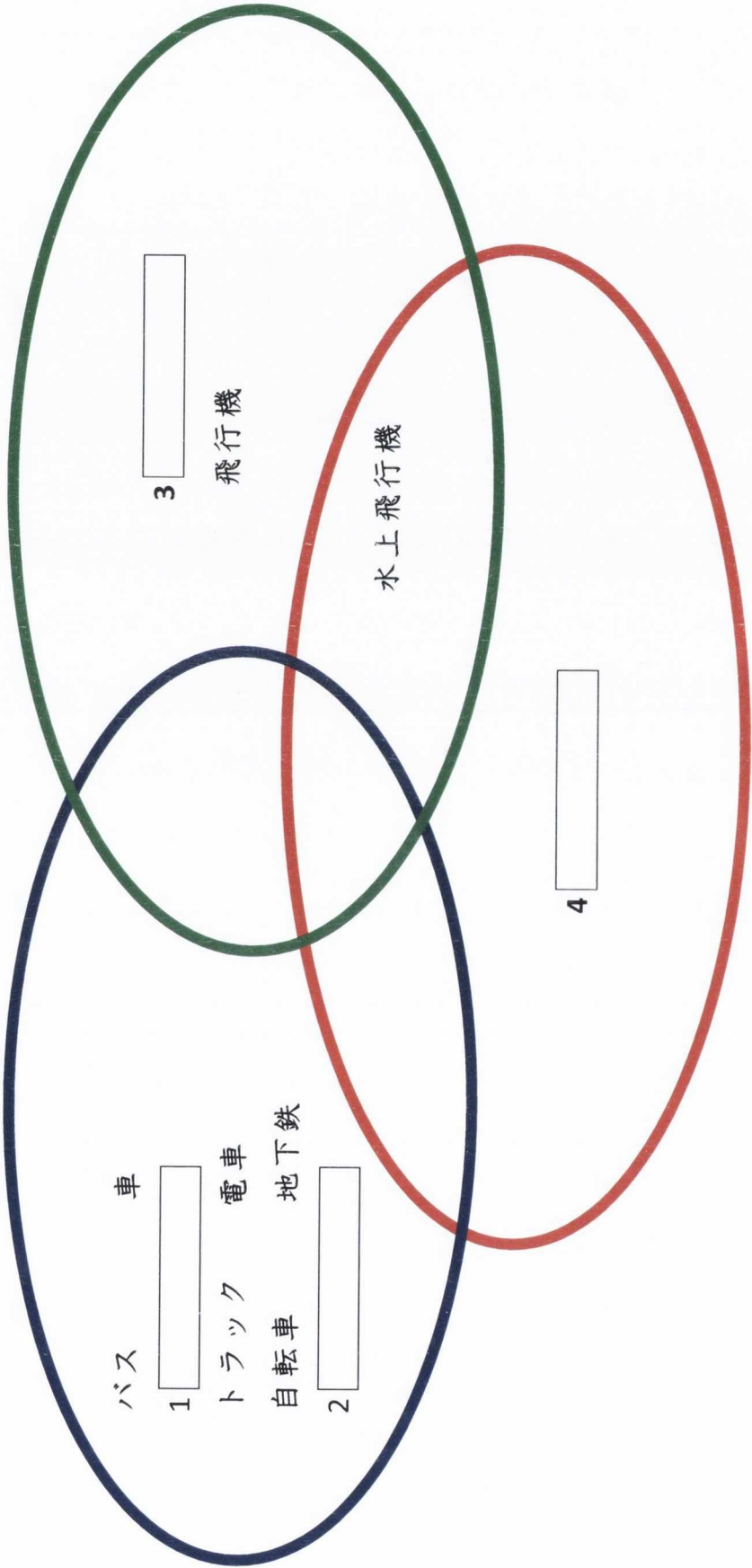


すいじょうひこうき
水上飛行機
su i jō hi kō ki

Appendix A-3: Cards (Words in kana or kanji with furigana)

バス	でんしゃ 電 車
タクシー	ちかてつ 地 下 鉄
ヘリコプター	しんかんせん 新 幹 線
トラック	ふね 船
くるま 車	ひこうき 飛 行 機
じてんしゃ 自 転 車	すいじょうひこうき 水 上 飛 行 機

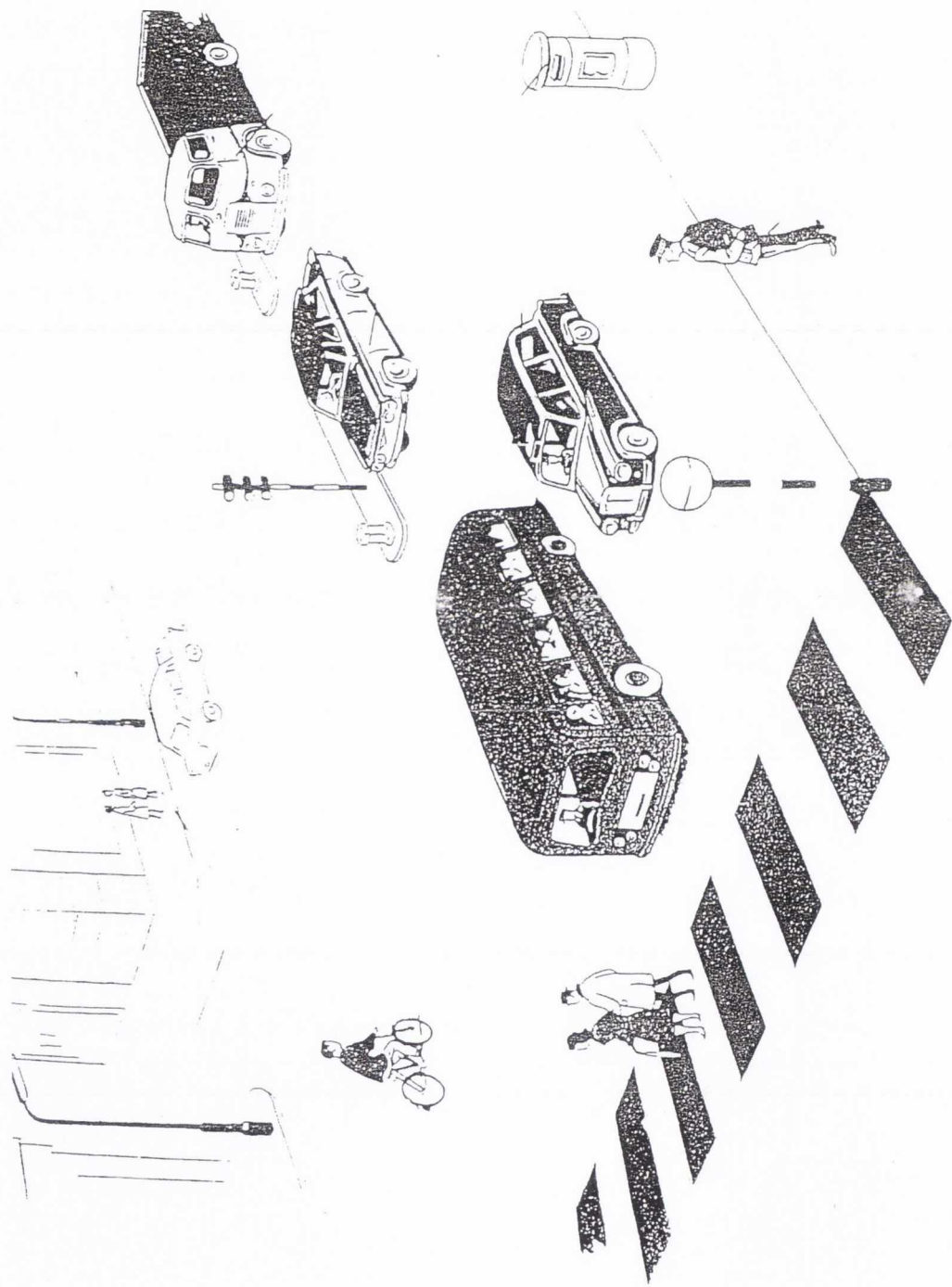
Appendix A-4: Cloze test



[Answers]

1, 2 タクシー or 新幹線 3 ヘリコプター 4 船

Appendix A-5: Picture of a street scene



Appendix A-6: Instructions to colour different vehicles in the picture

[Instruction A]

Use the instructions below to colour in your picture.

バス	あか 赤
タクシー	あお 青
車	みどり 緑
自転車	あか 赤

When you have finished,

- ◆ check that no one else in the group has the same colours as you;
- ◆ find the others in the class who have the same colours as you.

Useful Expressions

わたし 私 のバスは、あか 赤です。 _____ さんのバスは、なにいろ 何色ですか。

Watashi no basu wa aka desu. _____ san no basu wa nani-iro desu ka?

(My bus is red. What colour is your bus, Mr/Ms ____?)

➤ わたし 私 のバスも、あか 赤です。

Watashi no basu mo aka desu. (My bus is also red.)

➤ わたし 私 のバスは、あお 青です。

Watashi no basu wa ao desu. (My bus is blue.)

➤ わたし 私 のバスは、みどり 緑です。

Watashi no basu wa midori desu. (My bus is green.)

[Instruction B]

Use the instructions below to colour in your picture.

バス

あお
青

タクシー

あか
赤

車

あか
赤

自転車

みどり
緑

When you have finished,

- ◆ check that no one else in the group has the same colours as you;
- ◆ find the others in the class who have the same colours as you.

Useful Expressions

わたし 私あか のバスは、赤です。 なにいろ _____さんのバスは、何色ですか。

Watashi no basu wa aka desu. _____san no basu wa nani-iro desu ka?

(My bus is red. What colour is your bus, Mr/Ms ____?)

➤ わたし 私あか のバスも、赤です。

Watashi no basu mo aka desu. (My bus is also red.)

➤ わたし 私あお のバスは、青です。

Watashi no basu wa ao desu. (My bus is blue.)

➤ わたし 私みどり のバスは、緑です。

Watashi no basu wa midori desu. (My bus is green.)

[Instruction C]

Use the instructions below to colour in your picture.

バス	あお 青
タクシー	あか 赤
車	みどり 緑
自転車	あか 赤

When you have finished,

- ◆ check that no one else in the group has the same colours as you;
- ◆ find the others in the class who have the same colours as you.

Useful Expressions

わたし 私のバスは、あか 赤です。 なにいろ _____さんのバスは、何色ですか。

Watashi no basu wa aka desu. _____san no basu wa nani-iro desu ka?

(My bus is red. What colour is your bus, Mr/Ms ____?)

➤ わたし 私のバスも、あか 赤です。

Watashi no basu mo aka desu. (My bus is also red.)

➤ わたし 私のバスは、あお 青です。

Watashi no basu wa ao desu. (My bus is blue.)

➤ わたし 私のバスは、みどり 緑です。

Watashi no basu wa midori desu. (My bus is green.)

[Instruction D]

Use the instructions below to colour in your picture.

バス

あお
青

タクシー

みどり
緑

車

あか
赤

自転車

あか
赤

When you have finished,

- ◆ check that no one else in the group has the same colours as you;
- ◆ find the others in the class who have the same colours as you.

Useful Expressions

わたし 私 のバスは、あか 赤です。 _____ さんのバスは、なにいろ 何色ですか。

Watashi no basu wa aka desu. _____ san no basu wa nani-iro desu ka?

(My bus is red. What colour is your bus, Mr/Ms ____?)

➤ わたし 私 のバスも、あか 赤です。

Watashi no basu mo aka desu. (My bus is also red.)

➤ わたし 私 のバスは、あお 青です。

Watashi no basu wa ao desu. (My bus is blue.)

➤ わたし 私 のバスは、みどり 緑です。

Watashi no basu wa midori desu. (My bus is green.)

[Instruction E]

Use the instructions below to colour in your picture.

バス	みどり 緑
タクシー	あか 赤
車	あお 青
自転車	みどり 緑

When you have finished,

- ◆ check that no one else in the group has the same colours as you;
- ◆ find the others in the class who have the same colours as you.

Useful Expressions

わたし 私のバスは、あか赤です。_____さんなにいろのバスは、何色ですか。

Watashi no basu wa aka desu. _____san no basu wa nani-iro desu ka?

(My bus is red. What colour is your bus, Mr/Ms ____?)

➤ わたし 私のバスも、あか赤です。

Watashi no basu mo aka desu. (My bus is also red.)

➤ わたし 私のバスは、あお青です。

Watashi no basu wa ao desu. (My bus is blue.)

➤ わたし 私のバスは、みどり緑です。

Watashi no basu wa midori desu. (My bus is green.)

[Instruction F]

Use the instructions below to colour in your picture.

バス

みどり
緑

タクシー

あお
青

車

あか
赤

自転車

あお
青

When you have finished,

- ◆ check that no one else in the group has the same colours as you;
- ◆ find the others in the class who have the same colours as you.

Useful Expressions

わたし あか なにいろ
私のバスは、赤です。 _____ さんのバスは、何色ですか。

Watashi no basu wa aka desu. _____ san no basu wa nani-iro desu ka?

(My bus is red. What colour is your bus, Mr/Ms ____?)

➤ わたし あか
私のバスも、赤です。

Watashi no basu mo aka desu. (My bus is also red.)

➤ わたし あお
私のバスは、青です。

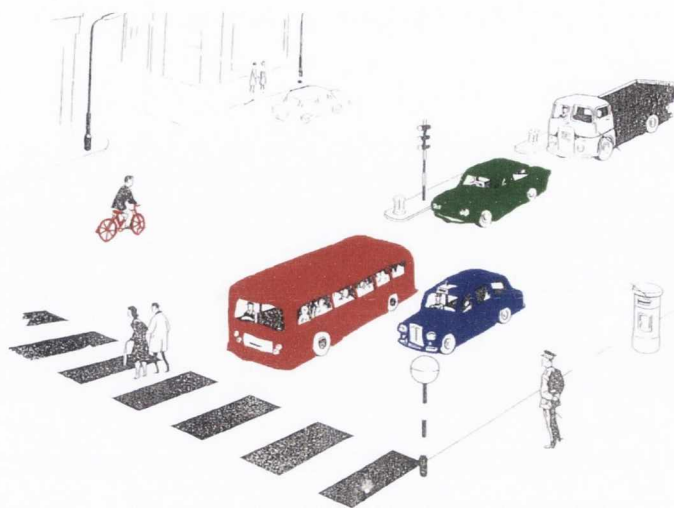
Watashi no basu wa ao desu. (My bus is blue.)

➤ わたし みどり
私のバスは、緑です。

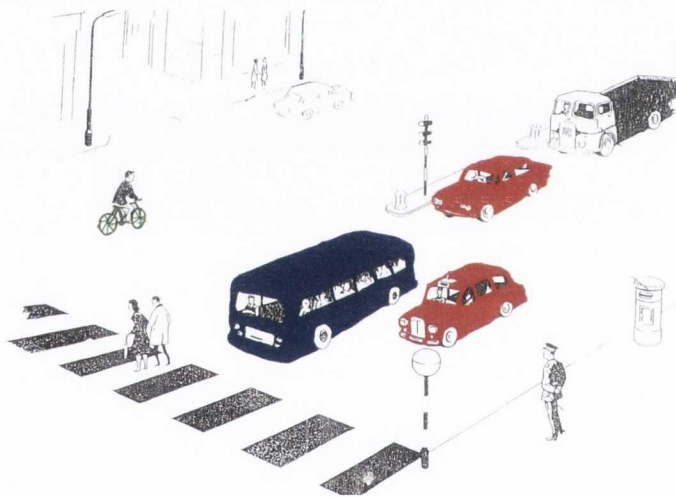
Watashi no basu wa midori desu. (My bus is green.)

Appendix A-7: Sample end products

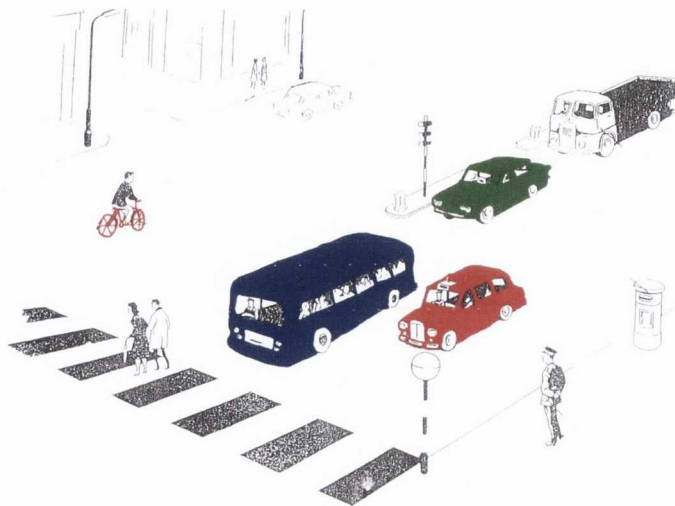
[Instruction A]



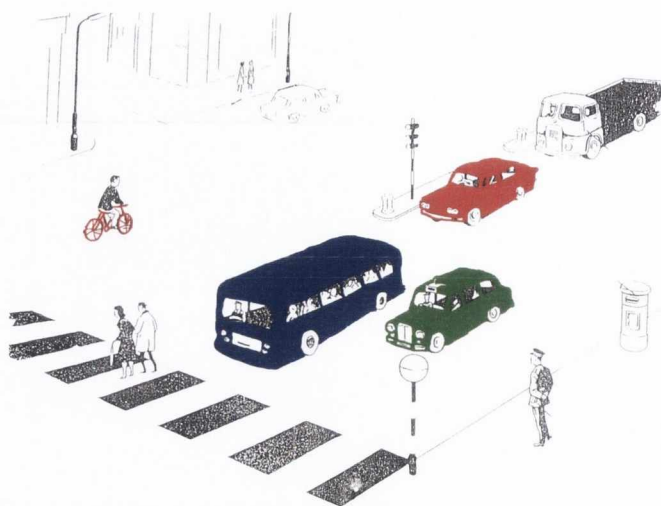
[Instruction B]



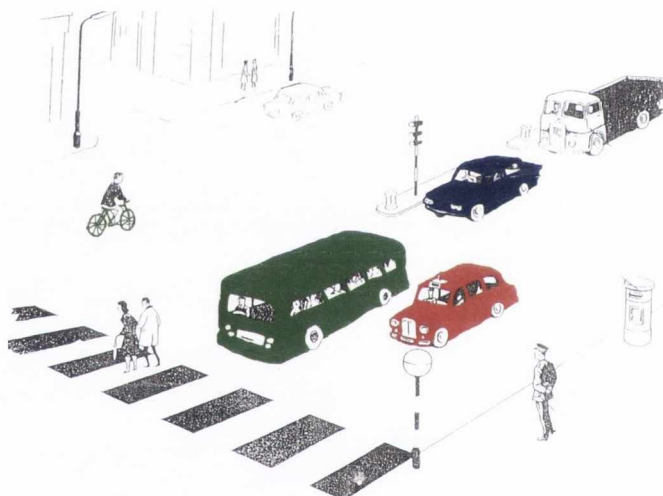
[Instruction C]



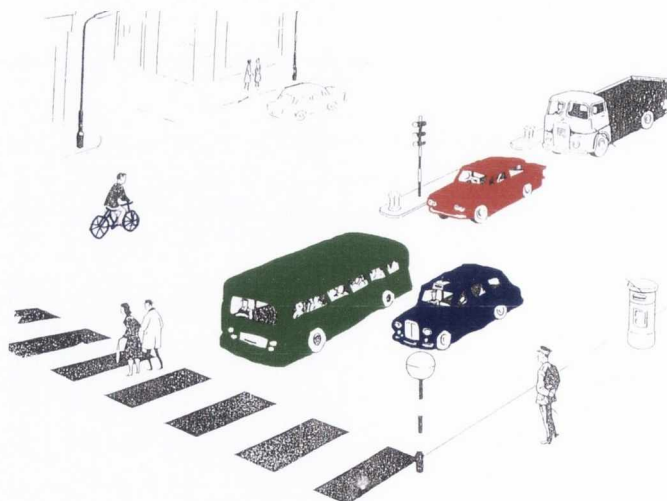
[Instruction D]



[Instruction E]



[Instruction F]



Appendix A-8: Sample sentences for describing the picture

[Instruction A]

1. *Watashi no basu wa aka desu.* (My bus is red.)
2. *Watashi no takushī wa ao desu.* (My taxi is blue.)
3. *Watashi no kuruma wa midori desu.* (My car is green.)
4. *Watashi no jitensha wa aka desu.* (My bicycle is red.)

[Instruction B]

1. *Watashi no basu wa ao desu.* (My bus is blue.)
2. *Watashi no takushī wa aka desu.* (My taxi is red.)
3. *Watashi no kuruma wa aka desu.* (My car is red.)
4. *Watashi no jitensha wa midori desu.* (My bicycle is green.)

[Instruction C]

1. *Watashi no basu wa ao desu.* (My bus is blue.)
2. *Watashi no takushī wa aka desu.* (My taxi is red.)
3. *Watashi no kuruma wa midori desu.* (My car is green.)
4. *Watashi no jitensha wa aka desu.* (My bicycle is red.)

[Instruction D]

1. *Watashi no basu wa ao desu.* (My bus is blue.)
2. *Watashi no takushī wa midori desu.* (My taxi is green.)
3. *Watashi no kuruma wa aka desu.* (My car is red.)
4. *Watashi no jitensha wa aka desu.* (My bicycle is red.)

[Instruction E]

1. *Watashi no basu wa midori desu.* (My bus is green.)
2. *Watashi no takushī wa aka desu.* (My taxi is red.)
3. *Watashi no kuruma wa ao desu.* (My car is blue.)
4. *Watashi no jitensha wa midori desu.* (My bicycle is green.)

[Instruction F]

1. *Watashi no basu wa midori desu.* (My bus is green.)
2. *Watashi no takushī wa ao desu.* (My taxi is blue.)
3. *Watashi no kuruma wa aka desu.* (My car is red.)
4. *Watashi no jitensha wa ao desu.* (My bicycle is blue.)

あ か

赤

a ka

あ お

青

a o

み ど り

緑

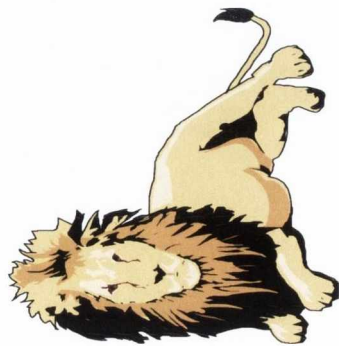
mi do ri

あ か
赤

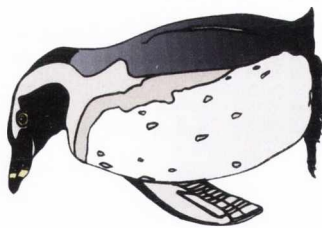
あ お
青

み ど り
緑

Appendix B-1a: Overhead transparency (Pictures and words in the written form with reading support of furigana for kanji and rōmaji for all the words)



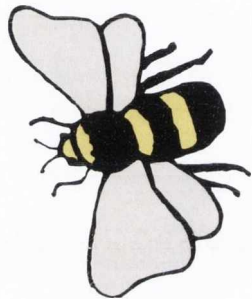
ライオン
raion



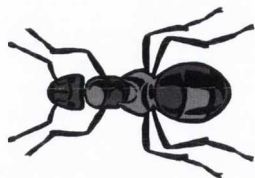
ペンギン
pen gin



ゴリラ
go ri ra



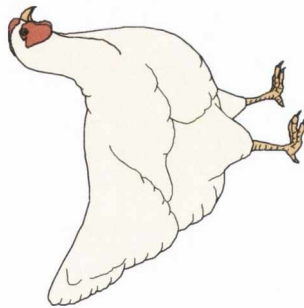
ハチ
ha chi



アリ
a ri



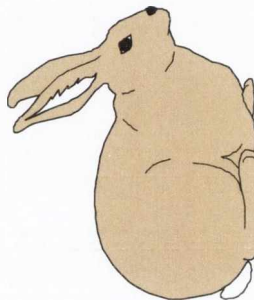
ハト
ha to



にわとり
ni wa to ri



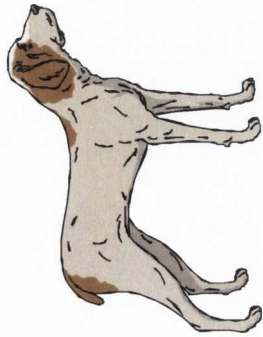
ねずみ
ne zu mi



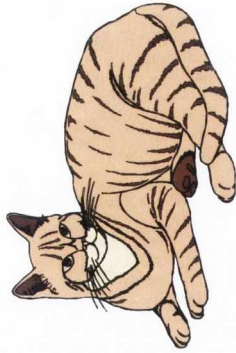
うさぎ
u sa gi



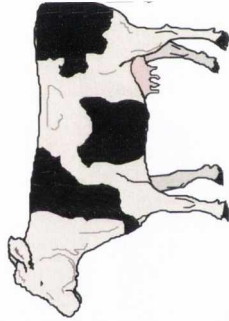
へび
he bi



いぬ 犬 i nu



ねこ 猫 ne ko



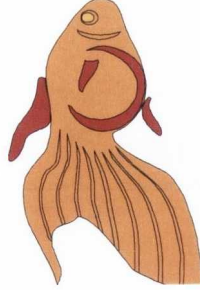
うし 牛 u shi



うま 馬 u ma



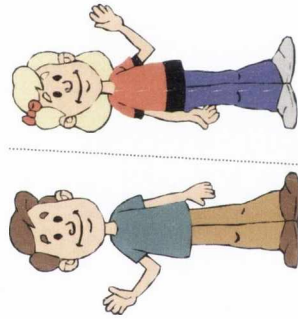
さかな 魚 sa ka na



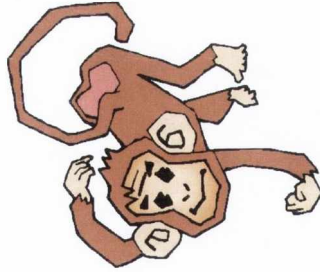
きんぎょ 金魚 ki n gyo



むし 虫 mu shi



ひと 人 hi to

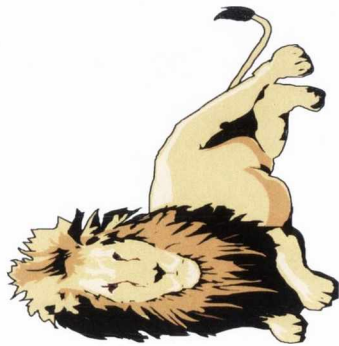


さる 猿 sa ru

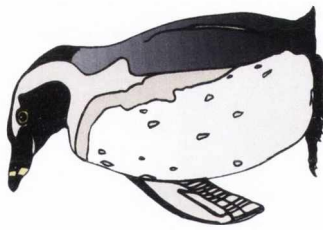


とり 鳥 to ri

Appendix B-1b: Overhead transparency (Pictures and words in the written form with reading support of furigana for kanji)



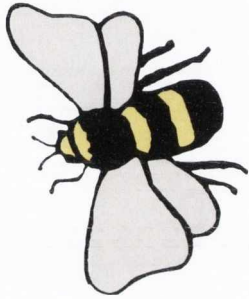
ライオン



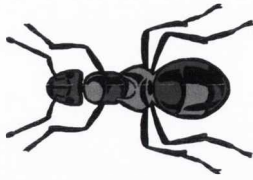
ペンギン



ゴリラ



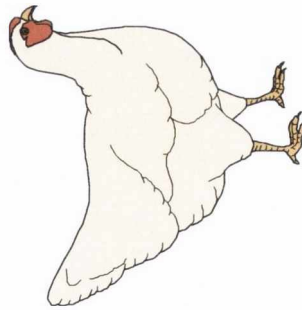
ハチ



アリ



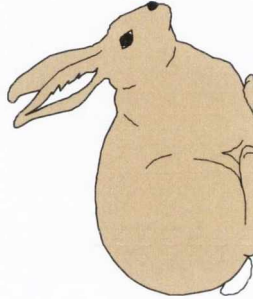
ハト



にわとり



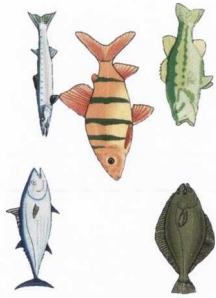
ねずみ



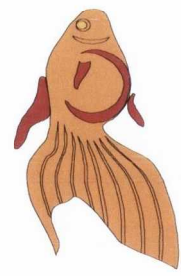
うさぎ



へび



さかな
魚



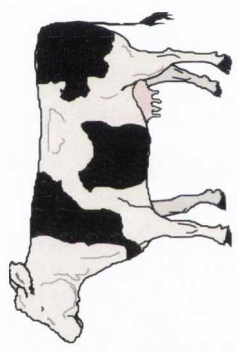
きんぎょ
金魚



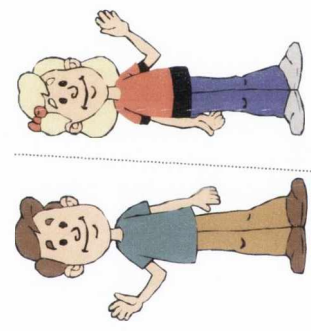
うま
馬



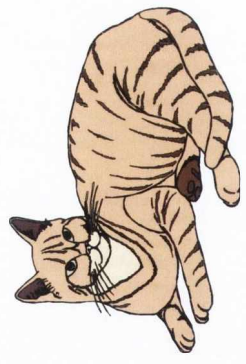
むし
虫



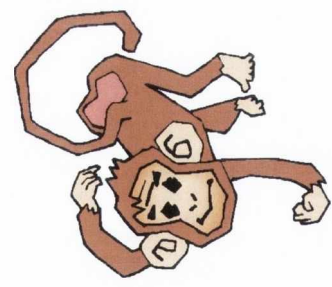
うし
牛



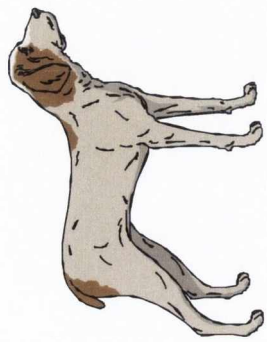
ひと
人



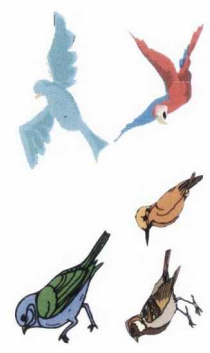
ねこ
猫



さる
猿

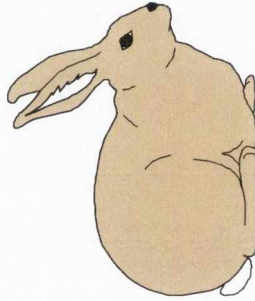
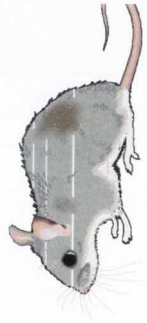
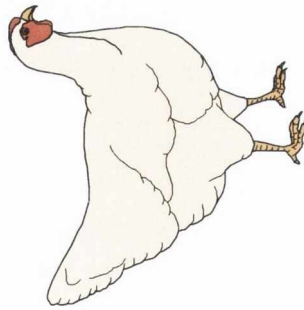
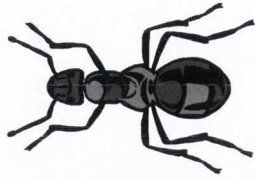
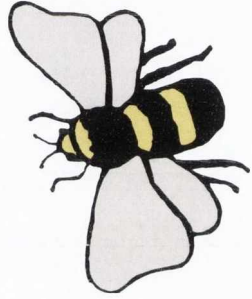
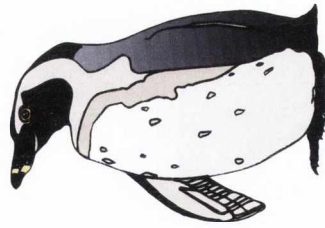
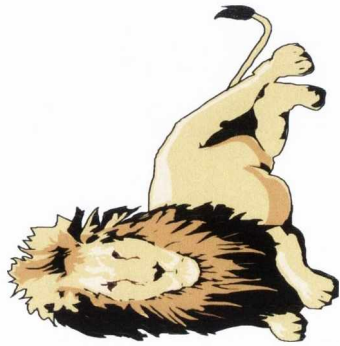


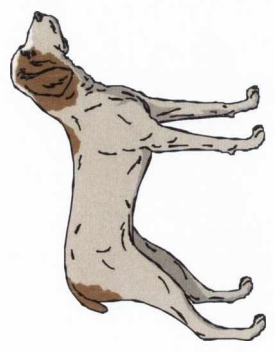
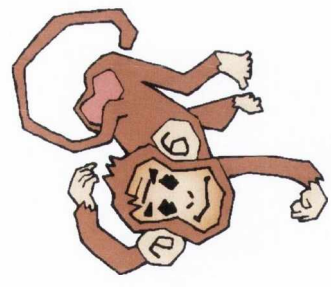
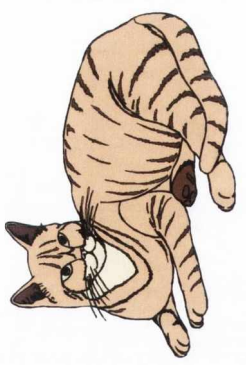
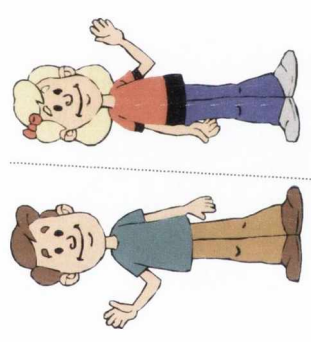
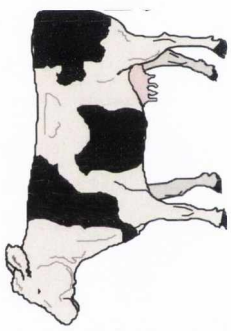
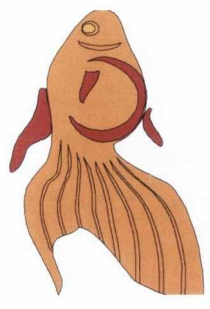
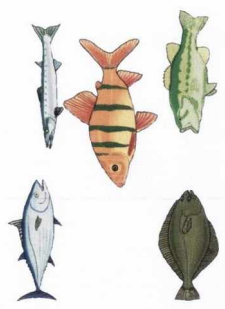
いぬ
犬



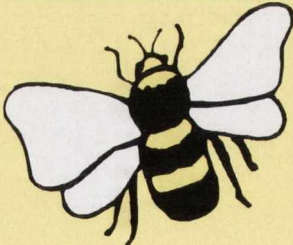
とり
鳥

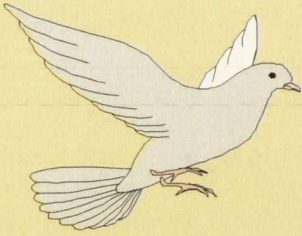
Appendix B-1c: Overhead transparency (Pictures only)



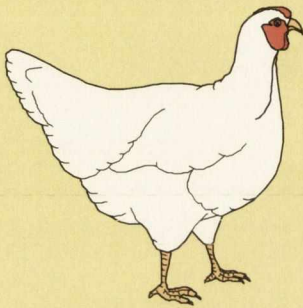


Appendix B-2: Cards (Picture on one side and words in the written form on the other side)

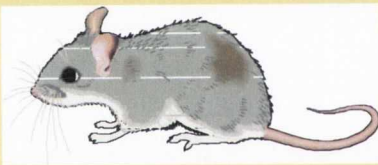
	ライオン ra i o n
	ペンギン pe n gi n
	ゴリラ go ri ra
	ハチ ha chi
	アリ a ri



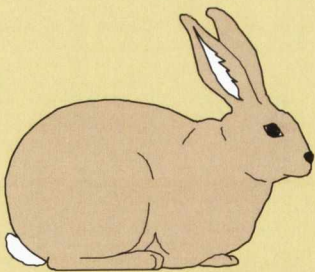
ハト
ha to



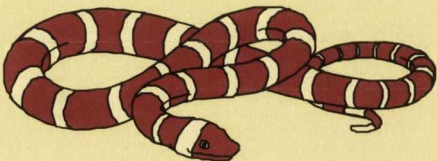
にわとり
ni wa to ri



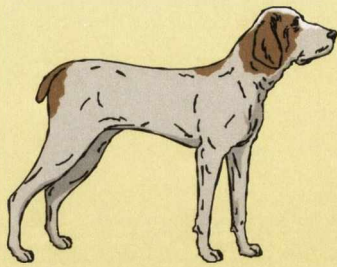
ねずみ
ne zu mi



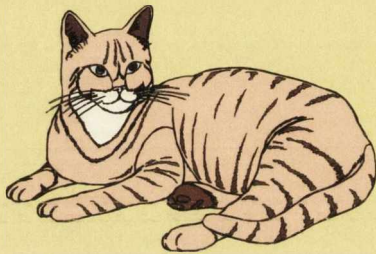
うさぎ
u sa gi



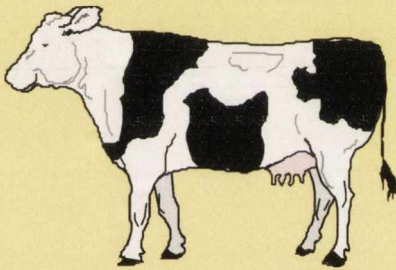
へび
he bi



いぬ
犬
i nu



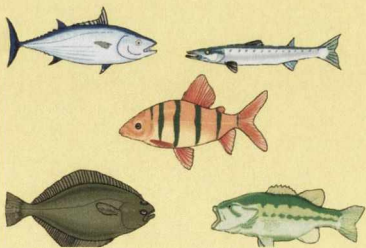
ねこ
猫
ne ko



うし
牛
u shi



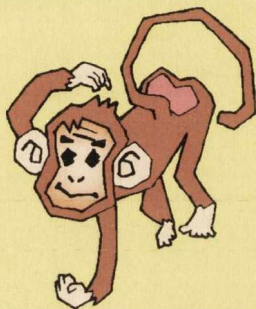
うま
馬
u ma



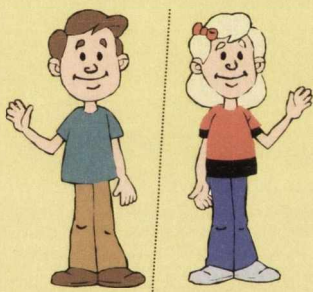
さかな
魚
sa ka na



とり
鳥
to ri



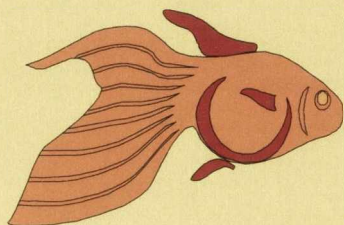
さる
猿
sa ru



ひと
人
hi to



むし
虫
mu shi



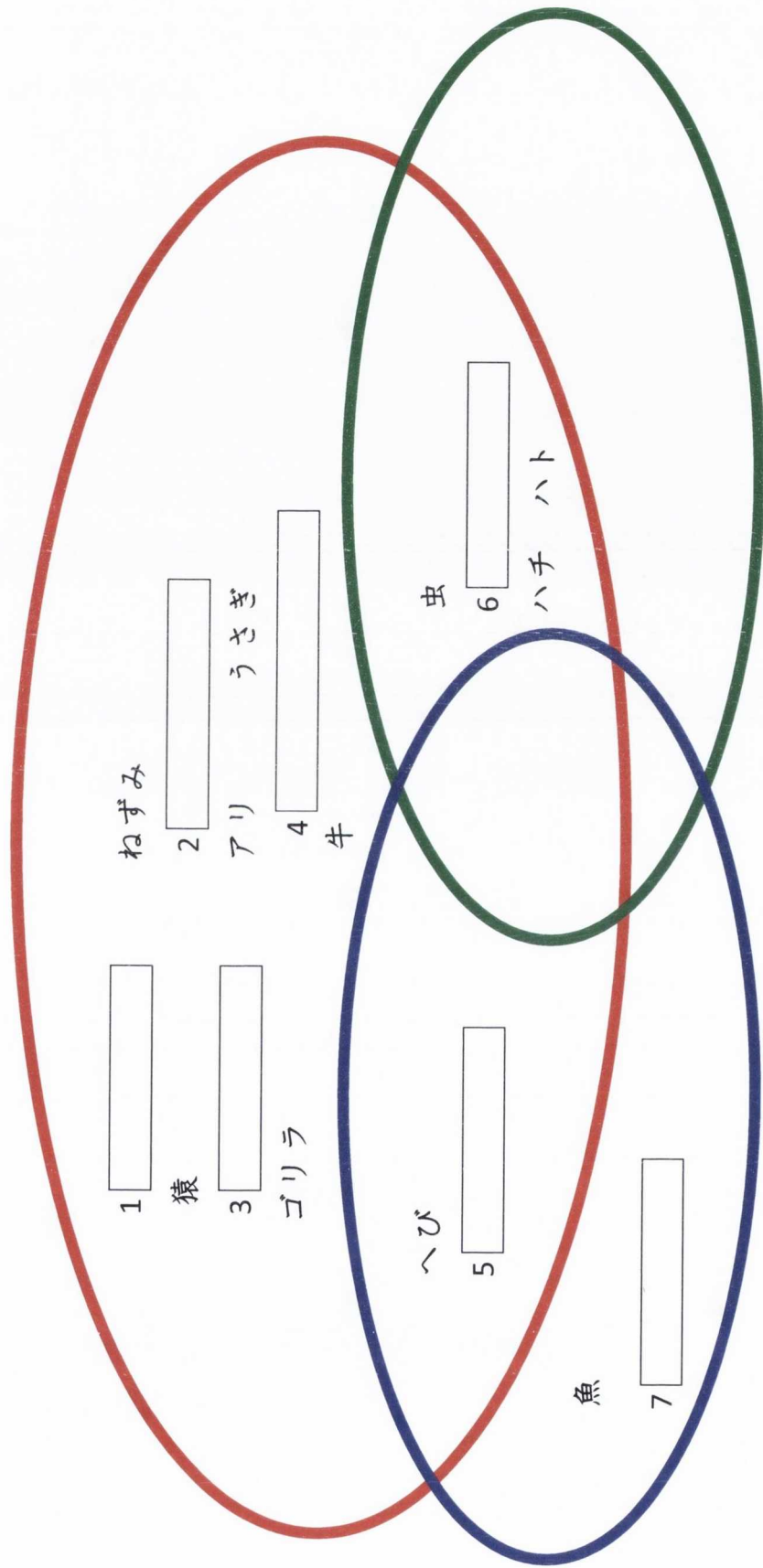
きんぎょ
金魚
ki n gyo

Appendix B-3: Cards (Words in kana or kanji with furigana)

ライオン	ハト
ペンギン	にわとり
ゴリラ	ねずみ
ハチ	うさぎ
アリ	へび

いぬ 犬	とり 鳥
ねこ 猫	さる 猿
うし 牛	ひと 人
うま 馬	むし 虫
さかな 魚	きんぎょ 金魚

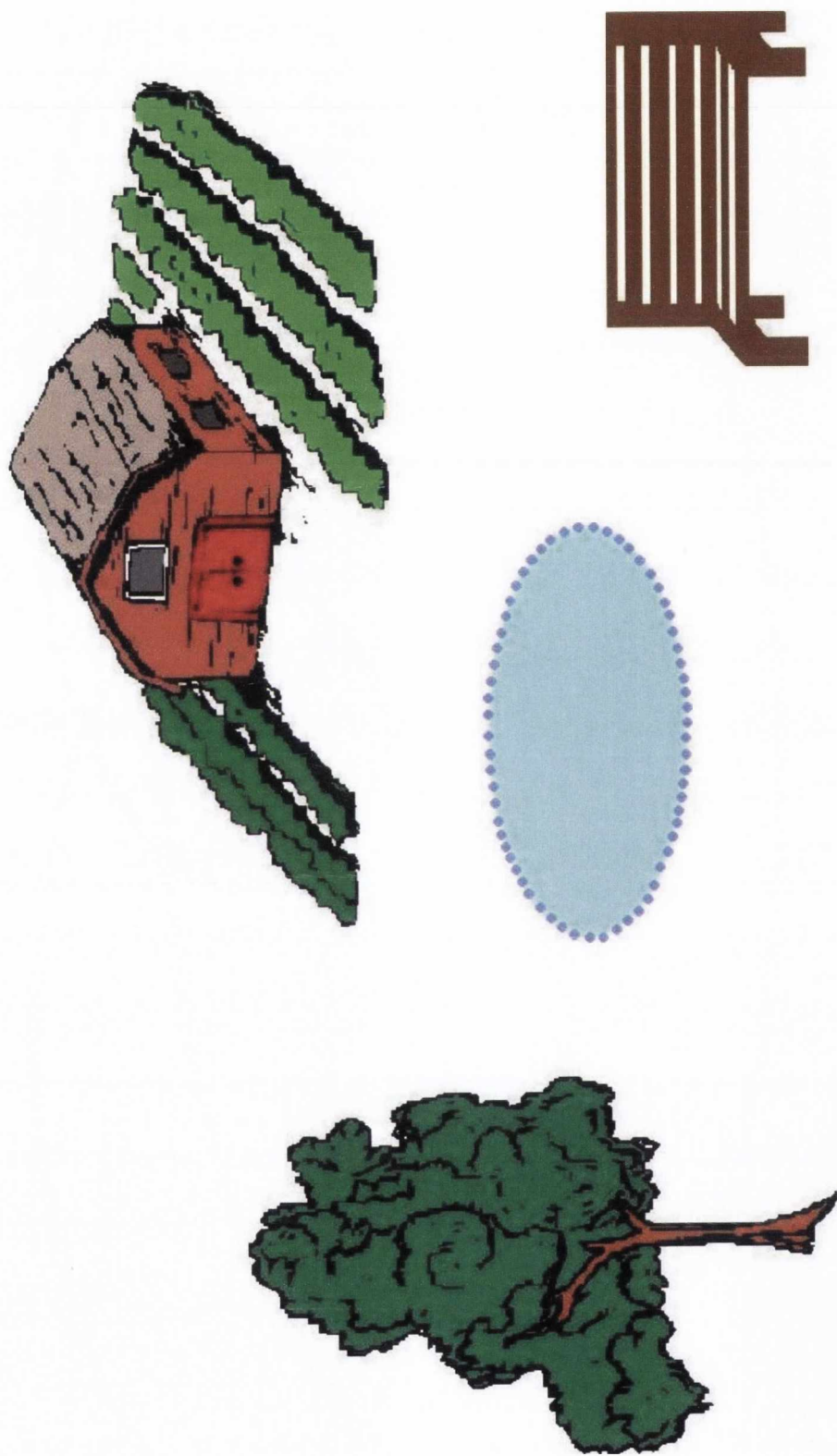
Appendix B-4: Cloze test



[Answers]

1, 2, 3, 4 犬, 人, 馬 or ライオン 5 ペンギン 6 鳥 7 金魚

Appendix B-5: Picture of a farmhouse scene



Appendix B-6: Instructions to place different objects in the picture

[Instruction A]

Use the instructions below to place the following objects in your picture.

木の上 き うえ	鳥
うちの前 まえ	人
ベンチの下 した	アリ
池の中 いけ なか	魚
うしろ うし	牛

When you have finished,

- ◆ Check that no one else in your group has the same objects (animals) in the same location as you;
- ◆ Find the others in the class who have the same objects (animals) in the same location as you.

Useful expressions

For explaining all the objects (animals) in your picture:

わたし え き した いぬ 私の絵は、木の下に犬がいます。した ねこ ベンチの下に猫がいます。・・・

Watashi no e wa, ki no shita ni inu ga imasu. benchi no shita ni neko ga imasu.

(In my picture, there is a dog under the tree. There is a cat under the bench. ...)

For asking questions of others:

- ・ ~さんの絵は、木の下に犬がいますか。
~san no e wa, ki no shita ni inu ga imasu ka?
(In your picture, is there a dog under the tree?)
はい、います。
Hai, imasu.
(Yes, there is.)
いいえ、いません。
Īe, imasen.
(No, there isn't.)
- ・ ~さんの絵は、木の下に何がいますか。
~san no e wa, ki no shita ni nani ga imasu ka?
(In your picture, what is under the under the tree?)
いぬ 犬がいます。
Inu ga imasu.
(There is a dog.)
なに 何もいません。
Nani mo imasen.
(There is nothing.)

[Instruction B]

Use the instructions below to place the following objects in your picture.

木の下 ^{き した}	犬
うちの前 ^{まえ}	人
ベンチの上 ^{うえ}	にわとり
池の中 ^{いけ なか}	魚
うちの後ろ ^{うし}	馬

When you have finished,

- ◆ Check that no one else in your group has the same objects (animals) in the same location as you;
- ◆ Find the others in the class who have the same objects (animals) in the same location as you.

Useful expressions

For explaining all the objects (animals) in your picture:

わたし え き した いぬ 私 の 絵 は、木 の 下 に 犬 が い ます。ベンチの^{した}下^{ねこ}に猫がいます。...

Watashi no e wa, ki no shita ni inu ga imasu. benchi no shita ni neko ga imasu.

(In my picture, there is a dog under the tree. There is a cat under the bench. ...)

For asking questions of others:

- ~さんの絵は、木の下に犬がいますか。
~san no e wa, ki no shita ni inu ga imasu ka?
(In your picture, is there a dog under the tree?)
はい、います。
Hai, imasu.
(Yes, there is.)
いいえ、いません。
Ie, imasen.
(No, there isn't.)
- ~さんの絵は、木の下に何がいますか。
~san no e wa, ki no shita ni nani ga imasu ka?
(In your picture, what is under the under the tree?)
犬がいます。
Inu ga imasu.
(There is a dog.)
何もいません。
Nani mo imasen.
(There is nothing.)

[Instruction C]

Use the instructions below to place the following objects in your picture.

木の下 ^{き した}	アリ
うちの前 ^{うち まえ}	馬
ベンチの上 ^{ベンチ うえ}	にわとり
池の中 ^{いけ なか}	魚
うちの後ろ ^{うち うし}	犬

When you have finished,

- ◆ Check that no one else in your group has the same objects (animals) in the same location as you;
- ◆ Find the others in the class who have the same objects (animals) in the same location as you.

Useful expressions

For explaining all the objects (animals) in your picture:

わたし え き した いぬ 私 の 絵 は、木 の 下 に 犬 が います。ベンチ の 下 に 猫 が います。・・・

Watashi no e wa, ki no shita ni inu ga imasu. benchi no shita ni neko ga imasu.

(In my picture, there is a dog under the tree. There is a cat under the bench. ...)

For asking questions of others:

- ~さんの絵は、木の下に犬がいますか。
~san no e wa, ki no shita ni inu ga imasu ka?
(In your picture, is there a dog under the tree?)
はい、います。
Hai, imasu.
(Yes, there is.)
いいえ、いません。
Ie, imasen.
(No, there isn't.)
- ~さんの絵は、木の下に何がいますか。
~san no e wa, ki no shita ni nani ga imasu ka?
(In your picture, what is under the under the tree?)
犬がいます。
Inu ga imasu.
(There is a dog.)
何もいません。
Nani mo imasen.
(There is nothing.)

[Instruction D]

Use the instructions below to place the following objects in your picture.

木の下 ^{き した}	人
うちの前 ^{うち まえ}	犬
ベンチの上 ^{ベンチ うえ}	アリ
うちの後ろ ^{うち うし}	牛
ベンチの下 ^{ベンチ した}	にわとり

When you have finished,

- ◆ Check that no one else in your group has the same objects (animals) in the same location as you;
- ◆ Find the others in the class who have the same objects (animals) in the same location as you.

Useful expressions

For explaining all the objects (animals) in your picture:

私^{わたし}の絵^えは、木^きの下^{した}に犬^{いぬ}がいます。ベンチ^{ベンチ}の下^{した}に猫^{ねこ}がいます。・・・

Watashi no e wa, ki no shita ni inu ga imasu. benchi no shita ni neko ga imasu.

(In my picture, there is a dog under the tree. There is a cat under the bench. ...)

For asking questions of others:

- ~さんの絵^えは、木^きの下^{した}に犬^{いぬ}がいますか。
~san no e wa, ki no shita ni inu ga imasu ka?
(In your picture, is there a dog under the tree?)
はい、います。
Hai, imasu.
(Yes, there is.)
いいえ、いません。
Ie, imasen.
(No, there isn't.)
- ~さんの絵^えは、木^きの下^{した}に何^{なに}がいますか。
~san no e wa, ki no shita ni nani ga imasu ka?
(In your picture, what is under the under the tree?)
犬^{いぬ}がいます。
Inu ga imasu.
(There is a dog.)
何^{なに}もいません。
Nani mo imasen.
(There is nothing.)

[Instruction E]

Use the instructions below to place the following objects in your picture.

木の上 ^{き うえ}	鳥
うちの前 ^{まへ}	犬
ベンチの上 ^{うえ}	アリ
木の下 ^{き した}	馬
うちの後ろ ^{うし}	牛

When you have finished,

- ◆ Check that no one else in your group has the same objects (animals) in the same location as you;
- ◆ Find the others in the class who have the same objects (animals) in the same location as you.

Useful expressions

For explaining all the objects (animals) in your picture:

わたし え き した いぬ
私の絵は、木の下に犬がいます。ベンチの下に猫がいます。...

Watashi no e wa, ki no shita ni inu ga imasu. benchi no shita ni neko ga imasu.

(In my picture, there is a dog under the tree. There is a cat under the bench. ...)

For asking questions of others:

- ・ ~さんの絵は、木の下に犬がいますか。

~san no e wa, ki no shita ni inu ga imasu ka?

(In your picture, is there a dog under the tree?)

はい、います。

Hai, imasu.

(Yes, there is.)

いいえ、いません。

Iie, imasen.

(No, there isn't.)

- ・ ~さんの絵は、木の下に何がいますか。

~san no e wa, ki no shita ni nani ga imasu ka?

(In your picture, what is under the under the tree?)

犬がいます。

Inu ga imasu.

(There is a dog.)

何もいません。

Nani mo imasen.

(There is nothing.)

[Instruction F]

Use the instructions below to place the following objects in your picture.

木の上 ^{き　うえ}	鳥
うちの前 ^{まえ}	牛
ベンチの下 ^{した}	にわとり
木の下 ^{き　した}	人
うしろ ^{うしろ}	馬

When you have finished,

- ◆ Check that no one else in your group has the same objects (animals) in the same location as you;
- ◆ Find the others in the class who have the same objects (animals) in the same location as you.

Useful expressions

For explaining all the objects (animals) in your picture:

私^{わたし}の絵^えは、木^きの下^{した}に犬^{いぬ}がいます。ベンチ^{ベンチ}の下^{した}に猫^{ねこ}がいます。・・・

Watashi no e wa, ki no shita ni inu ga imasu. benchi no shita ni neko ga imasu.

(In my picture, there is a dog under the tree. There is a cat under the bench. ...)

For asking questions of others:

- ・ ～さんの絵^えは、木^きの下^{した}に犬^{いぬ}がいますか。
～san no e wa, ki no shita ni inu ga imasu ka?
(In your picture, is there a dog under the tree?)
はい、います。
Hai, imasu.
(Yes, there is.)
いいえ、いません。
Ie, imasen.
(No, there isn't.)
- ・ ～さんの絵^えは、木^きの下^{した}に何^{なに}がいますか。
～san no e wa, ki no shita ni nani ga imasu ka?
(In your picture, what is under the under the tree?)
^{いぬ}犬^{いぬ}がいます。
Inu ga imasu.
(There is a dog.)
^{なに}何もいません。
Nani mo imasen.
(There is nothing.)

Appendix B-7: Sample end products

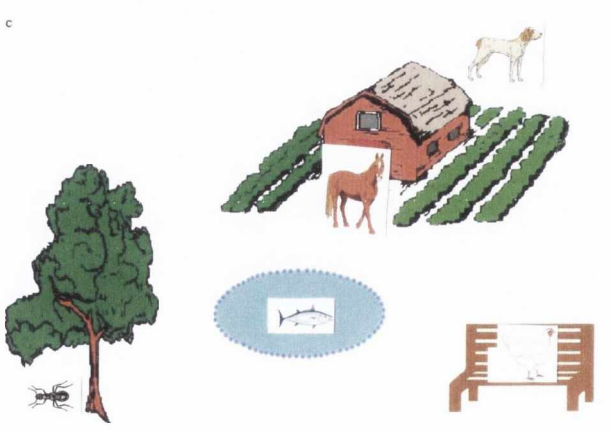
[Instruction A]



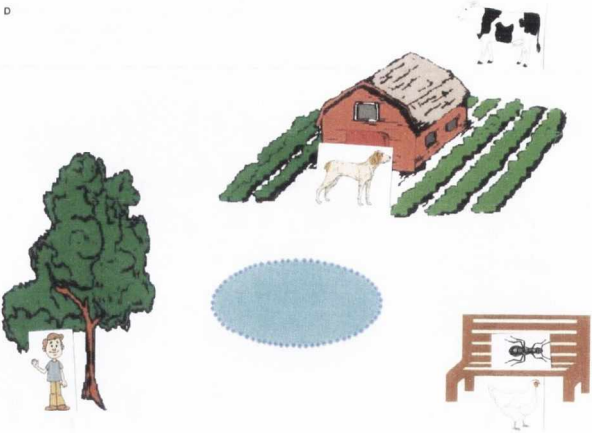
[Instruction B]



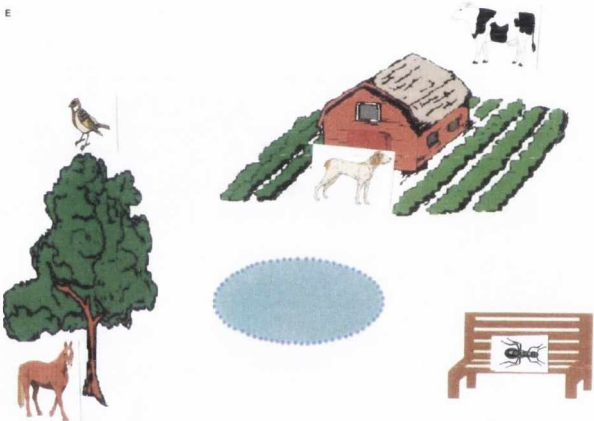
[Instruction C]



[Instruction D]



[Instruction E]



[Instruction F]



Appendix B-8: Sample sentences for describing the picture

[Instruction A]

1. *Ki no ue ni tori ga imasu.* (There is a bird on the top of the tree.)
2. *Uchi no mae ni hito ga imasu.* (There is a person in front of the house.)
3. *Benchi no shita ni ari ga imasu.* (There is an ant under the bench.)
4. *Ike (no naka)* ni sakana ga imasu.* (There is fish in the pond.)
5. *Uchi no ushiro ni ushi ga imasu.* (There is a cow behind the house.)

[Instruction B]

1. *Ki no shita ni inu ga imasu.* (There is a dog under the tree.)
2. *Uchi no mae ni hito ga imasu.* (There is a person in front of the house.)
3. *Benchi no ue ni niwatori ga imasu.* (There is a chicken on the bench.)
4. *Ike (no naka)* ni sakana ga imasu.* (There is fish in the pond.)
5. *Uchi no ushiro ni uma ga imasu.* (There is a horse behind the house.)

[Instruction C]

1. *Ki no shita ni ari ga imasu.* (There is an ant under the tree.)
2. *Uchi no mae ni uma ga imasu.* (There is a horse in front of the house.)
3. *Benchi no ue ni niwatori ga imasu.* (There is a chicken on the bench.)
4. *Ike (no naka)* ni sakana ga imasu.* (There is fish in the pond.)
5. *Uchi no ushiro ni inu ga imasu.* (There is a dog behind the house.)

[Instruction D]

1. *Ki no shita ni hito ga imasu.* (There is a person under the tree.)
2. *Uchi no mae ni inu ga imasu.* (There is a dog in front of the house.)
3. *Benchi no ue ni ari ga imasu.* (There is an ant on the bench.)
4. *Uchi no ushiro ni ushi ga imasu.* (There is a cow behind the house.)
5. *Benchi no shita ni niwatori ga imasu.* (There is a chicken under the bench.)

[Instruction E]

1. *Ki no ue ni tori ga imasu.* (There is a bird on top of the tree.)
2. *Uchi no mae ni inu ga imasu.* (There is a dog in front of the house.)
3. *Benchi no ue ni ari ga imasu.* (There is an ant on the bench.)
4. *Ki no shita ni uma ga imasu.* (There is a horse under the tree.)
5. *Uchi no ushiro ni ushi ga imasu.* (There is a cow behind the house.)

[Instruction F]

1. *Ki no ue ni tori ga imasu.* (There is a bird on top of the tree.)
2. *Uchi no mae ni ushi ga imasu.* (There is a cow in front of the house.)
3. *Benchi no shita ni niwatori ga imasu.* (There is a chicken under the bench.)
4. *Ki no shita ni hito ga imasu.* (There is a person under the tree.)
5. *Uchi no ushiro ni uma ga imasu.* (There is a horse behind the house.)

* 'Naka' (in or inside) is a word introduced when learning location words. For describing that there is fish in the pond, either '*ike no naka ni*' or '*ike ni*' is appropriate.

Appendix C-1: Questionnaire 1

Vocabulary Learning

Name: _____

List any problems you feel you have with the words at this stage and how you think you could solve these problems.

Examples:

- ① Placing the cards written in Japanese in a sequence according to an instruction.
Going around and trying to guess each group's instruction.
- ② I was trying to use these new words I had learnt, to do something with them.
I was, each time, trying to divert my attention forwards distinguishing new words and giving them a place in my memory working with them.
- ③ As the task involved a few new levels, it needed a lot of concentration and sometimes we had to start over again.
- ④ A lot of peer work was needed in order to carry out the task successfully as there were so many symbols and it got confusing.
- ⑤ I feel that I developed good memory techniques and remembered each of the words well after I had some mechanisms put in place.

Phase 1: Introduction of new words & learning the words with sets of cards
① Activity(-ies) and time: What I was doing
② Learning target(s) [break down into sub-targets if necessary] What I was trying to learn
③ Problems/difficulties I am having after this phase
④ What I need to do to solve the problem/overcome the difficulty
⑤ How did I fare in relation to the problems I listed above?

Phase 2: Categorising the words
① Activity(-ies) and time: What I was doing
② Learning target(s) [break down into sub-targets if necessary] What I was trying to learn
③ Problems/difficulties I am having after this phase

④ What I need to do to solve the problem/overcome the difficulty
⑤ How did I fare in relation to the problems I listed above?

Phase 3: Making a picture with the words learnt
① Activity(-ies) and time: What I was doing
② Learning target(s) [break down into sub-targets if necessary] What I was trying to learn
③ Problems/difficulties I am having after this phase
④ What I need to do to solve the problem/overcome the difficulty
⑤ How did I fare in relation to the problems I listed above?

Phase 4: Finding out people who have the same picture
① Activity(-ies) and time: What I was doing
② Learning target(s) [break down into sub-targets if necessary] What I was trying to learn
③ Problems/difficulties I am having after this phase
④ What I need to do to solve the problem/overcome the difficulty
⑤ How did I fare in relation to the problems I listed above?

Thank you.

Appendix C-2: Questionnaire 2

Vocabulary Learning

Name: _____

Nationality: _____

Age: _____

Male/Female _____

1. Did you enjoy the class? Yes / No (Circle appropriate answer)

If you answer “No”, write the reasons.

2. Comment on which activities of the class you liked or found helpful.

3. Comment on which activities of the class you did not like or found unhelpful.

4. Any other comments

Appendix C-3: Test 1 Example (Vocabulary related to transportation)

Test 1-1

Name: _____

At this stage (a week after the lesson) which of the following words can you recognize?

Write the meaning of each word underneath the word. **Comment on how well you know each word**, even if this knowledge is absolutely minimal (e.g. I remembered it easily because ...; I could recognize it if I saw it on the OHP; I know it has something to do with ...etc.)

[Circle appropriate one: Perfectly, Reasonably easily, With difficulty, or Not at all]

1.	新幹線 Meaning:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
2.	トラック Meaning:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
3.	車 Meaning:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
4.	船 Meaning:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
5.	自転車 Meaning:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
6.	タクシー Meaning:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
7.	飛行機 Meaning:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
8.	バス Meaning:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
9.	水上飛行機 Meaning:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
10.	電車 Meaning:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
11.	ヘリコプター Meaning:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
12.	地下鉄 Meaning:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
13.	赤 Meaning:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
14.	緑 Meaning:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
15.	青 Meaning:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			

Appendix C-4: Test 2 Example (Vocabulary related to transportation)

Test 2-1 Name: _____

At this stage (a week after the lesson) which of the following words can you say?
Write the Japanese pronunciation in Rōmaji underneath each word. Use the attached Rōmaji chart for pronunciation of Japanese. **Comment on your knowledge of each word**, even if this knowledge is absolutely minimal (e.g. It was an easy enough word to remember as it is similar to the English word; I could say it if I saw it on the OHP; I know it starts with “A” ...etc.)

[Circle appropriate one: Perfectly, Reasonably easily, With difficulty, or Not at all]

1.	train Pronunciation:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
2.	bus Pronunciation:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
3.	seaplane Pronunciation:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
4.	helicopter Pronunciation:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
5.	metro Pronunciation:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
6.	bicycle Pronunciation:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
7.	ship Pronunciation:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
8.	car Pronunciation:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
9.	taxi Pronunciation:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
10.	airplane Pronunciation:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
11.	bullet train Pronunciation:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
12.	lorry Pronunciation:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
13.	red Pronunciation:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
14.	green Pronunciation:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
15.	blue Pronunciation:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			

Appendix C-5: Rōmaji Chart (Test 2: Vocabulary related to transportation)

Pronunciation of Japanese

	A-line	I-line	U-line	E-line	O-line
A-row	a	i	u	e	o
K-row	ka	ki	ku	ke	ko
S-row	sa	shi	su	se	so
T-row	ta	chi	tsu	te	to
N-row	na	ni	nu	ne	no
H-row	ha	hi	fu	he	ho
M-row	ma	mi	mu	me	mo
Y-row	ya		yu		yo
R-row	ra	ri	ru	re	ro
W-row	wa				
N	n				

G-row	ga	gi	gu	ge	go
Z-row	za	ji	zu	ze	zo
D-row	da	ji	zu	de	do
B-row	ba	bi	bu	be	bo
P-row	pa	pi	pu	pe	po

Ki + Y-line	kya	kyu	kyo
Shi + Y-line	sha	shu	sho
Chi + Y-line	cha	chu	cho
Ni + Y-line	nya	nyu	nyo
Hi + Y-line	hya	hyu	hyo
Mi + Y-line	mya	myu	myo
Ri + Y-line	rya	ryu	ryo

Gi + Y-line	gya	gyu	gyo
Ji + Y-line	ja	ju	jo
Bi + Y-line	bya	byu	byo
Pi + Y-line	pya	pyu	pyo

* For long vowels, write the vowel twice or put a line on the top of the vowel (e.g. 'teepu' or 'tēpu' for 'テープ(tape)')

* For small 'tsu' (double consonants), write the consonant which comes after the small 'tsu' twice (e.g. 'beddo' for 'ベッド(bed)')

Appendix C-6: Test 1 Example (Vocabulary related to animals)

Test 1-1

Name: _____

At this stage (a week after the lesson) which of the following words can you recognize?
Write the meaning of each word underneath the word. Comment on how well you know each word, even if this knowledge is absolutely minimal (e.g. I remembered it easily because ...; I could recognize it if I saw it on the OHP; I know it has something to do with ...etc.)

[Circle appropriate one: Perfectly, Reasonably easily, With difficulty, or Not at all]

1.	犬 Meaning:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
2.	ハト Meaning:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
3.	猫 Meaning:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
4.	にわとり Meaning:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
5.	鳥 Meaning:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
6.	ペンギン Meaning:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
7.	うさぎ Meaning:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
8.	ハチ Meaning:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
9.	猿 Meaning:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
10.	牛 Meaning:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
11.	魚 Meaning:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
12.	ゴリラ Meaning:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
13.	へび Meaning:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
14.	馬 Meaning:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
15.	人 Meaning:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			

16.	アリ	Perfectly	Reasonably easily	With difficulty	Not at all
	Meaning:	Comment:			
17.	ねずみ	Perfectly	Reasonably easily	With difficulty	Not at all
	Meaning:	Comment:			
18.	金魚	Perfectly	Reasonably easily	With difficulty	Not at all
	Meaning:	Comment:			
19.	ライオン	Perfectly	Reasonably easily	With difficulty	Not at all
	Meaning:	Comment:			
20.	虫	Perfectly	Reasonably easily	With difficulty	Not at all
	Meaning:	Comment:			
21.	池	Perfectly	Reasonably easily	With difficulty	Not at all
	Meaning:	Comment:			
22.	うち	Perfectly	Reasonably easily	With difficulty	Not at all
	Meaning:	Comment:			
23.	木	Perfectly	Reasonably easily	With difficulty	Not at all
	Meaning:	Comment:			
24.	ベンチ	Perfectly	Reasonably easily	With difficulty	Not at all
	Meaning:	Comment:			
25.	前	Perfectly	Reasonably easily	With difficulty	Not at all
	Meaning:	Comment:			
26.	上	Perfectly	Reasonably easily	With difficulty	Not at all
	Meaning:	Comment:			
27.	下	Perfectly	Reasonably easily	With difficulty	Not at all
	Meaning:	Comment:			
28.	後ろ	Perfectly	Reasonably easily	With difficulty	Not at all
	Meaning:	Comment:			
29.	中	Perfectly	Reasonably easily	With difficulty	Not at all
	Meaning:	Comment:			

Appendix C-7: Test 2 Example (Vocabulary related to animals)

Test 2-1

Name: _____

At this stage (a week after the lesson) which of the following words can you say?

Write the Japanese pronunciation in Rōmaji underneath each word. Use the attached Rōmaji chart for pronunciation of Japanese. Comment on your knowledge of each word, even if this knowledge is absolutely minimal (e.g. It was an easy enough word to remember as it is similar to the English word; I could say it if I saw it on the OHP; I know it starts with “A” ...etc.)

[Circle appropriate one: Perfectly, Reasonably easily, With difficulty, or Not at all]

1.	bird Pronunciation:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
2.	lion Pronunciation:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
3.	dog Pronunciation:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
4.	bee Pronunciation:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
5.	monkey Pronunciation:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
6.	cat Pronunciation:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
7.	penguin Pronunciation:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
8.	goldfish Pronunciation:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
9.	cow Pronunciation:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
10.	gorilla Pronunciation:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
11.	ant Pronunciation:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
12.	person/people Pronunciation:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
13.	chicken Pronunciation:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
14.	snake Pronunciation:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
15.	insect Pronunciation:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			

16.	rabbit Pronunciation:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
17.	pigeon/dove Pronunciation:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
18.	horse Pronunciation:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
19.	fish Pronunciation:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
20.	mouse Pronunciation:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
21.	bench Pronunciation:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
22.	pond Pronunciation:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
23.	front Pronunciation:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
24.	under Pronunciation:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
25.	on/top/up Pronunciation:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
26.	house Pronunciation:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
27.	in/inside Pronunciation:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
28.	tree Pronunciation:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			
29.	behind/back Pronunciation:	Perfectly	Reasonably easily	With difficulty	Not at all
		Comment:			

Appendix C-8: Rōmaji Chart (Test 2: Vocabulary related to animals)

Pronunciation of Japanese

	A-line	I-line	U-line	E-line	O-line
A-row	a	i	u	e	o
K-row	ka	ki	ku	ke	ko
S-row	sa	shi	su	se	so
T-row	ta	chi	tsu	te	to
N-row	na	ni	nu	ne	no
H-row	ha	hi	fu	he	ho
M-row	ma	mi	mu	me	mo
Y-row	ya		yu		yo
R-row	ra	ri	ru	re	ro
W-row	wa				
N	n				

G-row	ga	gi	gu	ge	go
Z-row	za	ji	zu	ze	zo
D-row	da	ji	zu	de	do
B-row	ba	bi	bu	be	bo
P-row	pa	pi	pu	pe	po

Ki + Y-line	kya	kyu	kyo
Shi + Y-line	sha	shu	sho
Chi + Y-line	cha	chu	cho
Ni + Y-line	nya	nyu	nyo
Hi + Y-line	hya	hyu	hyo
Mi + Y-line	mya	myu	myo
Ri + Y-line	rya	ryu	ryo

Gi + Y-line	gya	gyu	gyo
Ji + Y-line	ja	ju	jo
Bi + Y-line	bya	byu	byo
Pi + Y-line	pya	pyu	pyo

Appendix D: An example of the vocabulary learning class (Video transcription)

This video transcription shows how a typical vocabulary learning class for this study was carried out. Some experimental vocabulary classes were divided into two sessions, whereas some were carried out in one session. The decision was made according to the timetable of the Japanese course. The following is an example of the vocabulary learning class for learning words related to transportation, which was carried out in two sessions.

Video transcription of Class 4 (Beginner 0)

(S = student, Ss = students, T = Teacher)

Session 1

Phase 1: Introduction of new words and learning the words with sets of cards

1. Introduction of new words [14 minutes]

T: *Hajimemashō* (Let's begin). *Mite kudasai* (Please look). Can everybody see the picture?

Ss: *Hai* (Yes).

[The teacher points out the pictures of four vehicles (bus, taxi, helicopter, and lorry) presented with an overhead transparency (see Appendix A-1a) and shows the model pronunciation of these words. The students repeat after the teacher. In order to help the students pronounce the words easier, *rōmaji* are given with written scripts in Japanese.]

T: *Basu* (bus).

Ss: *Basu*.

T: *Takushī* (taxi).

Ss: *Takushī*.

T: *Herikoputā* (helicopter).

Ss: *Herikoputā*.

T: *Torakku* (lorry).

Ss: *Torakku*.

T: *Basu* (bus).

Ss: *Basu*.

T: *Takushī* (taxi).

Ss: *Takushī*.

T: *Herikoputā* (helicopter).

Ss: *Herikoputā*

T: *Torakku* (lorry).

Ss: *Torakku*.

[The teacher points out the four vehicles (bus, taxi, helicopter, and lorry) shown in the overhead transparency and checks if the students can say the words.]

[The teacher points out the picture of a bus shown in the overhead transparency.]

Ss: *Basu* (bus).

[The teacher points out the picture of a taxi shown in the overhead transparency.]

Ss: *Takushī* (taxi).

[The teacher points out the picture of a helicopter shown in the overhead transparency.]

Ss: *Herikoputā* (helicopter).

[The teacher points out the picture of a lorry shown in the overhead transparency.]

Ss: *Torakku* (lorry).

T: *Īdesu ne* (Good).

[The teacher shows the model pronunciation of these four words again, and the students repeat after the teacher.]

T: *Basu* (bus).

Ss: *Basu*.

T: *Takushī* (taxi).

Ss: *Takushī*.

T: *Herikoputā* (helicopter).

Ss: *Herikoputā*.

T: *Torakku* (lorry).

Ss: *Torakku*.

S: [Asking a question about the accent (intonation) of '*basu* (bus)'] *Sumimasen* (Excuse me), is it '*basu*' or '*basu*'?

T: [Saying the word with correct pronunciation] *Basu*.

[The teacher points out the pictures of another four vehicles (car, bicycle, train and metro) presented with the same overhead transparency and shows the model pronunciation. The students repeat after the teacher. As these four words are harder for students to pronounce than the other four words practised earlier, more repetition is carried out.]

T: *Kuruma* (car).

Ss: *Kuruma*.

T: *Kuruma*.

Ss: *Kuruma*.

T: *Kuruma*.

Ss: *Kuruma*.

T: *Jitensha* (bicycle).

Ss: *Jintensha*.

T: *Jitensha*.

Ss: *Jintensha*.

T: *Densha* (train).

Ss: *Densha*.

T: *Densha*.

Ss: *Densha*.

T: *Chikatetsu* (metro).

Ss: *Chikatetsu*.

T: *Chikatetsu*.

Ss: *Chikatetsu*.

T: *Kuruma* (car).

Ss: *Kuruma*.

T: *Jitensha* (bicycle).

Ss: *Jintensha*.

T: *Densha* (train).

Ss: *Densha*.

T: *Chikatetsu* (metro).

Ss: *Chikatetsu*.

T: [Checking if the students understand the meanings of the words correctly from the pictures]

Are you okay with the meanings?

S: [Pointing out the pictures of a train and a metro shown in the overhead transparency.]

What's the difference between these two?

T: [Pointing out the picture of a train shown in the overhead transparency and asking the meaning to the class] *Kore wa?* (How about this?)

Ss: Train.

T: [Pointing out the picture of a metro shown in the overhead transparency and asking the meaning to the class] *Jā, kore wa?* (How about this then?)

Ss: Metro, underground.

[The teacher points out eight vehicles shown in the overhead transparency, which are the words the students have practised so far (bus, taxi, helicopter, lorry, car, bicycle, train and metro), and checks if the students can say these eight words.]

T: *Mō ichido* (One more time).

[The teacher points out the picture of a bus shown in the overhead transparency.]

Ss: *Basu*.

[The teacher points out the picture of taxi shown in the overhead transparency.]

Ss: *Takushī*.

[The teacher points out the picture of a helicopter shown in the overhead transparency.]

Ss: *Herikoputā*.

[The teacher points out the picture of a lorry shown in the overhead transparency.]

Ss: *Tora...sshe...*

T: [Showing the correct pronunciation] *Torakku*.

Ss: *Torakku*.

T: *Torakku*.

Ss: *Torakku*.

[The teacher points out the picture of a car shown in the overhead transparency.]

Ss: *Ku...su...*

T: [Showing the correct pronunciation] *Kuruma*.

Ss: *Kuruma*.

[The teacher points out the picture of a bicycle shown in the overhead transparency.]

Ss: ...

T: [Showing the correct pronunciation] *Jitensha*.

Ss: *Jitensha*.

[The teacher points out the picture of a train shown in the overhead transparency.]

Ss: *Densha*.

T: *Densha*.

Ss: *Densha*.

[The teacher points out the picture of a metro shown in the overhead transparency.]

Ss: ...

T: [Showing the correct pronunciation] *Chikatetsu*.

Ss: *Chikatetsu*.

T: [Some students are writing down the words, and the teacher says] I'll give you the handout later and so you don't really have to write down.

[The teacher points out the other four vehicles (bullet train, ship, airplane and seaplane) presented in the overhead transparency, and shows the model pronunciation of these words.

The students repeat after the teacher.]

T: *Shinkansen* (bullet train).

Ss: *Shin...kansen*.

T: *Shinkansen*.

Ss: *Shinkansen*.

T: *Shinkansen wa nan desu ka?* (What is 'shinkansen'?)

Ss: *Shinkansen...*

Ss: High-speed train...bullet train.

T: *Hai. Hai.* (Yes. Yes.)

T: *Fune* (ship).

Ss: *Fune*.

T: *Fune*.

Ss: *Fune*.

T: *Hikōki* (airplane).

Ss: *Hikōki*.

T: *Hikōki*.

Ss: *Hikōki*.

T: *Suijōhikōki* (seaplane).

Ss: *Suijō...hikōki*.

T: *Hikōki* (airplane).

Ss: *Hikōki*.

T: *Suijōhikōki* (seaplane).

Ss: *Suijōhikōki*.

T: [Pointing out the pictures of an airplane and a seaplane shown in the overhead transparency] What's the difference between this one and this one?

Ss: Jet? Airplane?

S: Seaplane?

T: *Arigatō* (Thank you), seaplane and airplane.

Ss: Oh, seaplane.

S: [Pointing out the picture of a bullet train shown in the overhead transparency] What's this one? The first one?

Ss: High-speed train.

T: Yes, a Japanese bullet train is called *shinkansen*.

[The teacher points out all the vehicles shown in the overhead transparency, and shows the model pronunciation again. The students repeat after the teacher while looking at the pictures with written scripts given underneath.]

T: [Pointing out the Japanese scripts] Can you see these letters?

Ss: Yes.

T: *Basu* (bus).

Ss: *Basu*.

T: *Takushī* (taxi).

Ss: *Takushī*.

T: *Herikoputā* (helicopter).

Ss: *Herikoputā*.

T: *Torakku* (lorry).

Ss: *Torakku*.

T: *Kuruma* (car).

Ss: *Kuruma*.

T: *Jitensha* (bicycle).

Ss: *Jitensha*.

T: *Densha* (train).

Ss: *Densha*.

T: *Chikatetsu* (metro).

Ss: *Chikatetsu*.

T: *Shinkansen* (bullet train).

Ss: *Shinkansen*.

T: *Fune* (ship).

Ss: *Fune*.

T: *Hikōki* (airplane).

Ss: *Hikōki*.

T: *Suijōhikōki* (seaplane).

Ss: *Suijōhikōki*.

T: Are you okay with the meanings of all the words?

Ss: Yes.

[The teacher points out all the vehicles shown in the overhead transparency, and checks if the students can say all the words they have practised.]

[The teacher points out the picture of a bus shown in the overhead transparency.]

Ss: *Basu*.

[The teacher points out the picture of a taxi shown in the overhead transparency.]

Ss: *Takushī*.

[The teacher points out the picture of a helicopter shown in the overhead transparency.]

Ss: *Herikoputā*.

[The teacher points out the picture of a lorry shown in an overhead transparency.]

Ss: *Torakku*.

[The teacher points out the picture of a car shown in the overhead transparency.]

Ss: *Ku...ruma...*

T: [Showing the correct pronunciation] *Kuruma*.

Ss: *Kuruma*.

[The teacher points out the picture of a bicycle shown in the overhead transparency.]

Ss: *Jitensha*.

[The teacher points out the picture of a train shown in the overhead transparency.]

Ss: *Densha*.

[The teacher points out the picture of a metro shown in the overhead transparency.]

Ss: *Chikatetsu*.

[The teacher points out the picture of a bullet train shown in the overhead transparency.]

Ss: *Shin...kan...sen...*

T: [Showing the correct pronunciation] *Shinkansen*.

Ss: *Shinkansen*.

[The teacher points out the picture of a ship shown in the overhead transparency.]

Ss: *Fu...ne...*

T: [Showing the correct pronunciation] *Fune*.

Ss: *Fune*.

[The teacher points out the picture of an airplane shown in the overhead transparency.]

Ss: [Pronouncing the word incorrectly with short vowel] *Hikoki*.

T: [Showing the correct pronunciation of the word with long vowel] *Hikōki*.

Ss: *Hikōki*.

[The teacher points out the picture of a seaplane shown in the overhead transparency.]

Ss: *Suijōikōki*.

T: *Ī desu ne* (Good). *Jā mō ichido* (One more time).

[The teacher points out the picture of a bus shown in the overhead transparency.]

Ss: *Basu*.

[The teacher points out the picture of a taxi shown in the overhead transparency.]

Ss: *Takushī*.

[The teacher points out the picture of a helicopter shown in the overhead transparency.]

Ss: *Herikoputā*.

[The teacher points out the picture of a lorry shown in the overhead transparency.]

Ss: *Torakku*.

[The teacher points out the picture of a car shown in the overhead transparency.]

Ss: *Kuruma*.

[The teacher points out the picture of a bicycle shown in the overhead transparency.]

Ss: *Jitensha*.

[The teacher points out the picture of a train shown in the overhead transparency.]

Ss: *Densha*.

[The teacher points out the picture of a metro shown in the overhead transparency.]

Ss: *Chikatetsu*.

[The teacher points out the picture of a bullet train shown in the overhead transparency.]

Ss: *Shinkansen*.

[The teacher points out the picture of a ship shown in the overhead transparency.]

Ss: *Fune*.

[The teacher points out the picture of an airplane shown in the overhead transparency.]

Ss: *Hikōki*.

[The teacher points out the picture of a seaplane shown in the overhead transparency.]

Ss: *Suijōikōki*.

T: *Hai, ī desu ne* (Yes, good).

[The teacher points out all the vehicles presented with the overhead transparency (see Appendix A1-b), and checks if the students can say all the words. Rōmaji are taken away and the students have to say the words while looking at the pictures only with the written form in Japanese.]

T: [Pointing out the picture of a bus shown in the overhead transparency] *Hai, nan desu ka?*
(What is this?)

Ss: *Basu*.

[The teacher points out the picture of a taxi shown in the overhead transparency.]

Ss: *Takushī*.

[The teacher points out the picture of a helicopter shown in the overhead transparency.]

Ss: *Herikoputā*.

[The teacher points out the picture of a lorry shown in the overhead transparency.]

Ss: *Torakku*.

[The teacher points out the picture of a car shown in the overhead transparency.]

Ss: *Kuruma*.

[The teacher points out the picture of a bicycle shown in the overhead transparency.]

Ss: *Jitensha*.

[The teacher points out the picture of a train shown in the overhead transparency.]

Ss: *Densha*.

[The teacher points out the picture of a metro shown in the overhead transparency.]

Ss: *Chi...ka...tetsu...*

T: [Showing the correct pronunciation] *Chikatetsu*.

Ss: *Chikatetsu*.

[The teacher points out the picture of a bullet train shown in the overhead transparency.]

Ss: *Shin...kan...sen...*

T: [Showing the correct pronunciation] *Shinkansen*.

Ss: *Shinkansen*.

[The teacher points out the picture of a ship shown in the overhead transparency.]

Ss: *Fune*.

[The teacher points out the picture of an airplane shown in the overhead transparency.]

Ss: *He...kō...ki...*

T: [Showing the correct pronunciation] *Hikōki*.

Ss: *Hikōki*.

[The teacher points out the picture of a seaplane shown in the overhead transparency.]

Ss: *Suijōhikōki*.

T: *Hai, ī desu ne* (Okay, good).

[The teacher points out the vehicles presented with the overhead transparency at random, and checks if the students can say the words.]

T: [Pointing out the picture of a metro] *Nan desu ka?* (What is this?)

Ss: *Chi...chika...chikatetsu*

T: [Showing the correct pronunciation] *Chikatetsu*.

Ss: *Chikatetsu*.

T: [Pointing out the picture of a bullet train] *Kore wa?* (How about this?)

Ss: *Shin...kan...sen...*

T: [Showing the correct pronunciation] *Shinkansen*.

Ss: *Shinkansen*.

[As the students seem to have difficulties in saying the words pointed out at random, the teacher decides to first point out the four vehicles in each row in order, and then points them out at random.]

[The teacher points out the four vehicles in the first row in order, and asks the students to say the words.]

T: [Pointing out the picture of a bus shown in the overhead transparency] *Jā mō ichido* (One more time).

Ss: *Basu*.

[The teacher points out the picture of a taxi shown in the overhead transparency.]

Ss: *Takushī*.

[The teacher points out the picture of a helicopter shown in the overhead transparency.]

Ss: *Herikoputā*.

[The teacher points out the picture of a lorry shown in the overhead transparency.]

Ss: *To...ra...kku...*

T: [Showing the correct pronunciation] *Torakku*.

Ss: *Torakku*.

[The teacher points out the four vehicles in the first row at random, and asks the students to say the words.]

[The teacher points out the picture of a taxi shown in the overhead transparency.]

Ss: *Takushī*.

[The teacher points out the picture of a helicopter shown in the overhead transparency.]

Ss: *Herikoputā*.

[The teacher points out the picture of a bus shown in the overhead transparency.]

Ss: *Basu*.

[The teacher points out the picture of a lorry shown in the overhead transparency.]

Ss: *Torakku*.

[The teacher points out the four vehicles in the second row in order, and asks the students to say the words.]

[The teacher points out the picture of a car shown in the overhead transparency.]

Ss: *Kuruma*.

[The teacher points out the picture of a bicycle shown in the overhead transparency.]

Ss: *Shin...ji...ten...sha...*

T: [Showing the correct pronunciation] *Jitensha*.

Ss: *Jitensha*.

[The teacher points out the picture of a train shown in the overhead transparency.]

Ss: *Densha*.

[The teacher points out the picture of a metro shown in the overhead transparency.]

Ss: *Chi...chika...*

T: [Showing the correct pronunciation] *Chikatetsu*.

Ss: *Chikatetsu*.

[The teacher points out the four vehicles in the second row at random, and asks the students to say the words.]

[The teacher points out the picture of a bicycle shown in an overhead transparency.]

Ss: *Den...ji...ten...sha...*

T: [Showing the correct pronunciation] *Jitensha*.

Ss: *Jitensha*.

[The teacher points out the picture of a metro shown in the overhead transparency.]

Ss: *Chi...chikatetsu...*

T: [Showing the correct pronunciation] *Chikatetsu*.

Ss: *Chikatetsu*.

[The teacher points out the picture of a bicycle shown in the overhead transparency.]

Ss: *Jitensha*.

[The teacher points out the picture of a metro shown in the overhead transparency.]

Ss: *Chikatetsu*.

[The teacher points out the picture of a car shown in the overhead transparency.]

Ss: *Kuruma*.

[The teacher points out the picture of a bicycle shown in the overhead transparency.]

Ss: *Jitensha*.

[The teacher points out the picture of a metro shown in the overhead transparency.]

Ss: *Chikatetsu*.

[The teacher points out the picture of a train shown in the overhead transparency.]

Ss: *Densha*.

T: *Hai, ī desu ne* (Okay, good.).

[The teacher points out the four vehicles in the third row in order, and asks the students to say the words.]

[The teacher points out the picture of a bullet train shown in the overhead transparency.]

Ss: *Shin...shinkan...sen...*

T: [Showing the correct pronunciation] *Shinkansen*.

Ss: *Shinkansen*.

[The teacher points out the picture of a ship shown in the overhead transparency.]

Ss: *Fune*.

[The teacher points out the picture of an airplane shown in the overhead transparency.]

Ss: *Hikōki*.

[The teacher points out the picture of a seaplane shown in the overhead transparency.]

Ss: *Suijōhikōki*.

[The teacher points out the four vehicles in the third row at random, and asks the students to say the words.]

[The teacher points out the picture of a bullet train shown in the overhead transparency.]

Ss: *Shinkansen*.

[The teacher points out the picture of an airplane shown in the overhead transparency.]

Ss: *Hikōki*.

[The teacher points out the picture of a ship shown in the overhead transparency.]

Ss: *Fune*.

[The teacher points out the picture of a seaplane shown in the overhead transparency.]

Ss: *Suijōhikōki*.

T: *Hai, ī desu ne* (Okay, good.).

[The teacher points out all the vehicles at random, and asks the students to say the words.]

T: *Jā mō ichido* (Let's start once again).

[The teacher points out the picture of a bus shown in the overhead transparency.]

Ss: *Basu*.

[The teacher points out the picture of a bicycle shown in the overhead transparency.]

Ss: *Jitensha*.

[The teacher points out the picture of an airplane shown in the overhead transparency.]

Ss: *Hikōki*.

[The teacher points out the picture of a lorry shown in the overhead transparency.]

Ss: *Torakku*.

[The teacher points out the picture of a bullet train shown in the overhead transparency.]

Ss: *Shinkansen*.

[The teacher points out the picture of a helicopter shown in the overhead transparency.]

Ss: *Herikoputā*.

[The teacher points out the picture of a seaplane shown in the overhead transparency.]

Ss: *Suijōhikōki*.

[The teacher points out the picture of a metro shown in the overhead transparency.]

Ss: *Chikatetsu*.

[The teacher points out the picture of a bicycle shown in the overhead transparency.]

Ss: *Jitensha*.

[The teacher points out the picture of a car shown in the overhead transparency.]

Ss: *Kuruma*.

[The teacher points out the picture of a ship shown in the overhead transparency.]

Ss: *Fune*.

[The teacher points out the picture of a helicopter shown in the overhead transparency.]

Ss: *Herikoputā*.

[The teacher points out the picture of an airplane shown in the overhead transparency.]

Ss: *Hikōki*.

T: *Hai, ī desu ne* (Okay, good.).

[The teacher points out all the vehicles in order, and shows the model pronunciation once again. The students repeat after the teacher.]

T: *Jā mō ichido dake* (Just one more time).

T: *Basu* (bus).

Ss: *Basu*.

T: *Takushī* (taxi).

Ss: *Takushī*.

T: *Herikoputā* (helicopter).

Ss: *Herikoputā*.

T: *Torakku* (lorry).

Ss: *Torakku*.

T: *Kuruma* (car).

Ss: *Kuruma*.

T: *Jitensha* (bicycle).

Ss: *Jitensha*.

T: *Densha* (train).

Ss: *Densha*.

T: *Chikatetsu* (metro).

Ss: *Chikatetsu*.

T: *Shinkansen* (bullet train).

Ss: *Shinkansen*.

T: *Fune* (ship).

Ss: *Fune*.

T: *Hikōki* (airplane).

Ss: *Hikōki*.

T: *Suijōhikōki* (seaplane).

Ss: *Suijōhikōki*.

[The teacher asks the students if they find any words difficult to pronounce.]

T: Are you okay with the pronunciation of all the words? Is there any word you find difficult to say?

S: Bullet train.

T: [Saying the word slowly] *Shi-n-ka-n-se-n*.

Ss: *Shin...*

T: [Saying the word again slowly] *Shi-n-ka-n-se-n, shinkansen.*

Ss: *Shinkansen.*

T: *Jā minnade* (Once again, everybody).

Ss: *Shinkansen.*

T: Any other words?

S: Truck.

Ss: Yeah...

T: [Pointing out the character ツ (small *tsu*) in ト ラ ッ ク (*torakku*)] This is double consonants, and so *to-ra-k-ku*.

Ss: *To...ra...ku...*

T: [Saying the word slowly] *To-ra-k-ku, torakku.*

Ss: *Torakku.*

T: *Hai, ī desu ne* (Yes, good.).

S: Bicycle.

T: [Saying the word slowly] *Ji-te-n-sha, jitensha.*

Ss: *Jitensha.*

T: *Jitensha.*

Ss: *Jitensha.*

T: *Hai, ī desu ne* (Yes, good). Any other words?

Ss: No.

T: *Okē desu ka?* (Are you okay?)

Ss: *Hai, okkē desu* (Yes, we are okay).

2. Learning the words with sets of cards in a group [27.5 minutes]

A. Memorising the words using a set of cards with a picture on one side and words in the written form (katakana and kanji with rōmaji) on the other side.

[The teacher explains how the students can learn the words with a set of cards in groups. A set of cards (see Appendix A-2) is given to each group; cards with a picture on one side and words in the written form (katakana or kanji with rōmaji) on the other side.]

T: Now I would like you to work in groups. [Passing out a set of cards to each group] I'll give you a set of cards to each group. You can divide cards into two and also divide your groups in two. [Showing a card as an example] On one side, a word is written in Japanese with Romanization, on the other side, the picture. You show the picture side to your partner and the partner says the word in Japanese.

[The teacher demonstrates how the students can work in pairs using the cards.]

T: [Showing the picture side of the card 'bus'] [Name of a student]*san, kore wa nan desu ka?*
(Mr [name of a student], what is this?)

S: *Basu.*

T: When your partner says the word, look at the other side and check if it is correct. There are Japanese characters with Romanization. Okay, you teach each other and remember all the words. When you have finished learning the words using the cards you have, exchange the cards with another pair. You can also teach another pair. Please practise until you remember all the words.

T: *Hai, hajimete kudasai* (Please start).

[The students start learning the words with a set of the cards. The teacher goes to each pair in a group, and checks how they are doing.]

.....

[The students seem fine with all the words, and the teacher decides to move to the next activity.]

T: *Sumimasen, kôte kudasai.* (Excuse me. Please listen to me). Before we go to the next activity, can we practise all the words again?

[The teacher points out all the vehicles presented with an overhead transparency (see Appendix A1-a) and checks if the students can say the words. The students say the words while looking at the pictures with written scripts in Japanese (no Romanization) given underneath.]

T: [Pointing out the picture of a bus shown in the overhead transparency] *Nan desu ka?* (What is this?)

Ss: *Basu.*

[The teacher points out the picture of a bicycle shown in the overhead transparency.]

Ss: *Jitensha.*

[The teacher points out the picture of an airplane shown in the overhead transparency.]

Ss: *Hikôki.*

[The teacher points out the picture of a lorry shown in the overhead transparency.]

Ss: [Pronouncing the word incorrectly] *Torâku.*

T: [Showing the correct pronunciation] *Torakku.*

Ss: *Torakku.*

[The teacher points out the picture of a seaplane shown in the overhead transparency.]

Ss: *Suijôhikôki.*

[The teacher points out the picture of a metro shown in the overhead transparency.]

Ss: *Chikatsu...tetsu*

T: [Showing the correct pronunciation] *Chikatetsu*.

Ss: *Chikatetsu*.

[The teacher points out the picture of a bicycle shown in the overhead transparency.]

Ss: *Jitensha*.

[The teacher points out the picture of a helicopter shown in the overhead transparency.]

Ss: *Herikoputā*.

[The teacher points out the picture of a taxi shown in the overhead transparency.]

Ss: *Takushī*.

[The teacher points out the picture of a train shown in the overhead transparency.]

Ss: *Densha*.

[The teacher points out the picture of a bullet train shown in the overhead transparency.]

Ss: *Shinkansen*.

[The teacher points out the picture of a ship shown in the overhead transparency.]

Ss: [Pronouncing the word incorrectly] *Fūne*.

T: [Showing the correct pronunciation] *Fune*.

Ss: *Fune*.

[The teacher points out the picture of a car shown in the overhead transparency.]

Ss: [Pronouncing the word incorrectly] *Kurama*.

T: [Showing the correct pronunciation] *Kuruma*.

Ss: *Kuruma*.

[The teacher points out the picture of a seaplane shown in the overhead transparency.]

Ss: *Suijōhikōki*.

T: *Hai, ī desu ne* (Okay, good).

B. Matching the pictures and the words written only in kana or kanji.

[The second set of cards (see Appendix A-3) is given to each group. The words are written only in katakana or kanji on these cards. The students use this set of cards and the first set of cards, and match the picture and the words written only in katakana or kanji. The teacher explains how to use these two sets of cards.]

T: You keep the yellow cards (the first set of cards) and now I will give you the blue cards (the second set of cards). On the yellow cards, you have the picture side and the character side, but you use only the picture sides. On the blue cards, the words are written only in katakana or kanji, no romanisation.

[The teacher demonstrates how to use the two different sets of cards.]

T: [Showing a blue card] *Nan desu ka?* (What is written in this card?)

Ss: *Basu* (bus).

T: [Showing both blue and yellow cards for bus] So, you match the picture and the word using a blue card and an yellow card. If you are not sure how to read the Japanese characters, you can look at the back of the yellow card for Romanization.

Ss: Okay.

[The students start working in groups. The teacher goes to each group and checks how the students are doing.]

.....

[The teacher goes to each group and asks if the group has finished this matching task.]

Phase 2: Categorising the words [22.5 minutes]

1. Categorising the words using a set of cards

[The teacher collects the first set of cards, and the students work only with the second set of cards with words written in only katakana or kanji (see Appendix A-3). Each group is give different criteria for categorising. The teacher explains how the students categorise the words using the second set of cards.]

T: We just have one more activity for today. We will use only the blue cards (the second set of cards) now and so can you give me back the yellow cards (the first set of cards) please?

[The teacher collects the yellow cards.]

T: I will give you different criteria to each group now. Each group has a different criterion and please don't show your card to other groups, okay? [Giving a card to each group] Each group has a different criterion, okay?

T: [Explaining the categorising activity using an example] Okay, if you had an instruction card saying 'categorise the words according to the number of wheels,' which vehicle would you start with?

S: That's ordinary.

[Other students laugh.]

T: Okay, which vehicle?

Ss: Train.

T: Okay, use blue cards, place the train first, and then you choose another vehicle. Are you okay with what you are going to do?

Ss: Yes.

T: According to the criterion you have, arrange the cards, highest to lowest, biggest to smallest, or whatever.

[The students start working on categorising the words in groups. The teacher goes to each group and checks how they are doing.]

.....

T: *Sumimasen* (Excuse me). *Yasumimashō* (Let's have a break). Please hide your criteria. You can go to get a coffee and come back here. While you are having coffee, take a look at the other groups' card arrangements, and think what their criteria are.

2. Finding out the criterion of each group

[The students go to each group's table and discuss what the criterion of the group is. They are around the table and discuss their criteria by pointing out some cards and saying the vehicles in English. As there are three groups and three categorisations, different discussions are taking place at each table. The following are some extracts from the discussions of each table:]

Group 1: The arrangement of the cards and some extracts from the discussion around the table

ひこうき 飛行機	[hikōki] (airplane)
すいじょうひこうき 水上飛行機	[suijōhikōki] (seaplane)
ヘリコプター	[herikoputā] (helicopter)
ふね 船	[fune] (ship)
しんかんせん 新幹線	[shinkansen] (bullet train)
ちかてつ 地下鉄	[chikatetsu] (metro)
でんしゃ 電車	[densha] (train)
タクシー	[takushi] (taxi)
くるま 車	[kuruma] (car)
トラック	[torakku] (lorry)
バス	[basu] (bus)
じてんしゃ 自転車	[jitensha] (bicycle)

[Three students are around the table and discussing the criterion of this group.]

S1: [Pointing out the card バス (bus)] Is this the boat?

S2: Yeah, boat.

S3: No, ah...bus.

S4: Yeah, that's a bus.

S1: [Trying to read out the cards from the bottom] Bus...

S2: Truck...

S3: Truck...ah...That's...

S1: Car.

S2: That's a car, yeah?

S3: That's a...ah...

S1/2/3: That's a taxi.

S3: ah...train?

S2: That's a train.

S3: [Pointing out the card じてんしゃ
自転車 (bicycle)] That's a...ah...

S1: Bike?

S2/3: Yeah, that's a bike.

[Another four students are around the table and discussing the criterion of this group.]

S1: Is it different means of transport?

S2: No, not means.

S1: I mean, different means, land, air, or air and land?

S2: No, no.

S3: Okay...um...

S1: Or the power of the use, petrol, oil, or electricity?

S2: The power...yeah...

S1: The engine?

S4: Speed?

S1: Yeah, speed.

S2: Yes.

Group 2: The arrangement of the cards and some extracts from the discussion around the table

じてんしゃ 自転車	[jitensha] (bicycle)
しんかんせん 新幹線	[shinkansen] (bullet train)
でんしゃ 電車	[densha] (train)
ちかてつ 地下鉄	[chikatetsu] (metro)
バス	[basu] (bus)
タクシー	[takushī] (taxi)
くるま 車	[kuruma] (car)
ふね 船	[fune] (ship)
トラック	[torakku] (lorry)
ヘリコプター	[herikoputā] (helicopter)
すいじょうひこうき 水上飛行機	[suijōhikōki] (seaplane)
ひこうき 飛行機	[hikōki] (airplane)

[Three students are around the table and discussing the criterion of this group.]

S1: [Pointing out the card くるま
車 (car)] I know that's the car.

S2: [Pointing out the card トラック (lorry)] That's a truck there.

S1: [Point out the card でんしゃ
電車 (train)] That's the electrical car, that's a train.

S3: [Trying to read out the card タクシー (taxi)] What's this one? *Ko...o...*

[Four other students and the teacher are around the table and discussing the criterion of this group.]

T: What's the criterion of this group?

S1: Pollution.

S2: Who's in this group?

S3: We are.

S4: That's pollution, isn't it?

S3: Yes.

Group 3: The arrangement of the cards and some extracts from the discussion around the table

ふね 船	[fune] (ship)
ひこうき 飛行機	[hikōki] (airplane)
すいじょうひこうき 水上飛行機	[suijōhikōki] (seaplane)
でんしゃ 電車	[densha] (train)
しんかんせん 新幹線	[shinkansen] (bullet train)
ちかてつ 地下鉄	[chikatetsu] (metro)
バス	[basu] (bus)
トラック	[torakku] (lorry)
ヘリコプター	[herikoputā] (helicopter)
くるま 車	[kuruma] (car)
タクシー	[takushī] (taxi)
じてんしゃ 自転車	[jitensha] (bicycle)

[Three students and the teacher are around the table and discussing the criterion of this group.]

T: Did you get the criterion of this group?

S1: I think this is the size by any chance because the ship is on the top. Is it the size?

T: Could be.

S2: That's the bike at the bottom.

S1: Who's in this group? Is it the size?

S3: Yes.

T: *Ī desu ne* (Good).

[The teacher asks the class if they find out the criterion of each group.]

T: Did you get the criteria of all the groups? How about this group (Group 1)?

S1: Pollution.

S2: Or size?

Ss: Pollution.

T: Okay, pollution. Why is that? Can anybody explain why?

S3: It has got to do with the differences in things used, petrol or electricity...that is the power of engine...

S4: That's the pollution. The bicycle comes last.

T: *Hai* (Yes).

T: How about this group (Group 2)?

S: It must be to do with the speed, and starting with the fastest and essentially the fastest to going to the slowest.

T: *Hai* (Yes).

T: How about this group (Group 3)? What is the criterion?

Ss: The sizes.

S1: Yeah, physical sizes.

S2: The top one is a ship.

S3: Car and taxi...the same...

T: *Hai* (Yes). Can you please give me back all the cards?

[The teacher collects the sets of cards and the criterion cards.]

3. Cloze test

[A cloze test is given to the class. The words in three sets intersect land, sea and air. Some words are omitted, and the students have to figure out which ones are missing. The cloze test is given with an overhead transparency (See Appendix A-4).]

T: *Hai, mite kudasai* (Okay, please look). [Pointing out the characters shown in the overhead transparency] Can you see the letters?

Ss: Yes.

[The teacher asks the students to read out the words (written only in katakana or kanji) which are shown in the overhead transparency.]

T: *Kore wa nan desu ka?* (What is this?)

Ss: *Torakku* (lorry).

T: *Hai, torakku* (Yes, lorry). *Nan desu ka?* (What is this?)

Ss: Ah...

T: *Densha* (train).

Ss: [Repeating after the teacher] *Densha*.

T: *Mite kudasai* (Please look). *Nan desu ka?* (What is this?)

Ss: *Kudama...kuruma* (car).

T: *Nan desu ka?* (What is this?)

Ss: Ah...*chikatetsu* (metro).

T: *Un, chikatetsu.* (Yes, metro.) *Nan desu ka?* (What is this?)

Ss: *Basu* (bus).

T: *Nan desu ka?* (What is this?)

S: That's bike.

S: *Hikōki* (airplane).

Ss: *Jitensha* (bicycle).

T: *Un, jitensha* (Yes, bicycle).

Ss: [Repeating after the teacher] *Jitensha*.

T: *Nan desu ka?* (What is this?)

Ss: Ah...*hikōki* (airplane).

T: *Un, hikōki* (Yes, airplane). *Nan desu ka?* (What is this?)

[The teacher points out the word ^{すいじょうひこうき} 水上飛行機 (seaplane).]

Ss: *Suijōhikōki.* (seaplane)

T: *Hai.* (Yes.)

[The teacher asks the students about the four words which are missing in the cloze test. These four words are numbered from one to four in an overhead transparency.]

T: Okay, four vehicles are missing. What word goes in number one or two?

S: One is on the ground?

T: Yes. [Pointing out the circle for the land in the overhead transparency] This is ground.

[Pointing out the circle for the air in the overhead transparency] How about this one?

Ss: That's the air.

T: [Pointing out the circle for the sea in the overhead transparency] How about this one?

Ss: That's the sea.

T: [Pointing out the circle for the land in the overhead transparency] And so, what's missing here?

Ss: A bike.

T: Yes, bicycle. What's a bicycle in Japanese?

Ss: *Jitensha* (bicycle).

T: Yes. [Pointing out number two (the other word missing in the circle referring to land)] What goes here?

S: *Shin...shinkansen* (bullet train).

T: *Un, shinkansen* (Yes, bullet train).

Ss: [Repeating after the teacher] *Shinkansen*.

T: [Pointing out the number three (the word missing in the circle referring to air)] How about this one?

Ss: *Herikoputā* (helicopter).

T: *Un, herikoputā* (Yes, helicopter). [Pointing out number four (the word missing in the circle referring to sea)] How about this one?

Ss: *Fune* (ship).

T: *Un, fune* (Yes, ship). *Ī desu ne* (Good).

[The teacher shows the answer of the cloze test presented with the overhead transparency and asks them to read out the words.]

[The teacher points out the word バス (bus) shown in the overhead transparency.]

Ss: *Basu*.

T: [Pointing out the word ^{くるま} 車 (car) shown in the overhead transparency] *Nan desu ka?* (What is this?)

Ss: *Kuru...kuruma...*

T: [Saying the word] *Kuruma*.

Ss: [Repeating after the teacher] *Kuruma*.

[The teacher points out the word タクシー (taxi) shown in the overhead transparency.]

Ss: *Takushī*.

[The teacher points out the word トラック (lorry) shown in the overhead transparency.]

Ss: *Hericopu...torakku, torakku*.

[The teacher points out the word ^{でんしゃ} 電車 (train) shown in the overhead transparency.]

Ss: *Dan...densha*.

[The teacher points out the word ^{じてんしゃ} 自転車 (bicycle) shown in the overhead transparency.]

Ss: *Jiden...sha...no...jitensha*.

T: [Saying the word] *Jitensha*.

Ss: [Repeating after the teacher] *Jitensha*.

[The teacher points out the word ^{ちかてつ} 地下鉄 (metro) shown in the overhead transparency.]

Ss: *Ah...chi...chika...chikatetsu*.

T: [Saying the word] *Chikatetsu*.

Ss: [Repeating after the teacher] *Chikatetsu*.

[The teacher points out the word ^{しんかんせん} 新幹線 (bullet train) shown in the overhead transparency.]

Ss: *Shin...kan...sen...shinkansen*.

T: [Saying the words] *Shinkansen*.

Ss: [Repeating after the teacher] *Shinkansen*.

[The teacher points out the word ヘリコプター (helicopter) shown in the overhead transparency.]

Ss: *Herikoputā*.

[The teacher points out the word ^{ひこうき}飛行機 (airplane) shown in the overhead transparency.]

Ss: *Hikōki*.

[The teacher points out the word ^{すいじょう ひこうき}水上飛行機 (seaplane) shown in the overhead transparency.]

Ss: *Suijōhikōki*.

[The teacher points out the word ^{ふね}船 (ship) shown in the overhead transparency.]

Ss: *Fu...ne...*

T: [Saying the word] *fune*.

Ss: [Repeating after the teacher] *fune*.

T: *Hai, ī desu ne* (Okay, good).

[In order to make sure the students have remembered all the words, the teacher shows the pictures of all the vehicles with written scripts in katakana or kanji given underneath (see Appendix A-1b) and asks students to read out the words.]

T: [Pointing out the word バス (bus) in the overhead transparency] Just one more time.

Ss: *Basu*.

[The teacher points out the word タクシー (taxi) in the overhead transparency.]

Ss: *Takushī*.

[The teacher points out the word ヘリコプター (helicopter) in the overhead transparency.]

Ss: *Herikoputā*.

[The teacher points out the word トラック (lorry) in the overhead transparency.]

Ss: *Torakku*.

[The teacher points out the word ^{くるま}車 (car) in the overhead transparency.]

Ss: *Kuruma*.

[The teacher points out the word ^{じてんしゃ}自転車 (bicycle) in the overhead transparency.]

Ss: *Jitensha*.

[The teacher points out the word ^{でんしゃ}電車 (train) in the overhead transparency.]

Ss: *Densha*.

[The teacher points out the word ^{ちかてつ}地下鉄 (metro) in the overhead transparency.]

Ss: *Chikatetsu.*

[The teacher points out the word ^{しんかんせん}新幹線 (bullet train) in the overhead transparency.]

Ss: *Shinkansen.*

[The teacher points out the word ^{ふね}船 (ship) in the overhead transparency.]

Ss: *Fune.*

[The teacher points out the word ^{ひこうき}飛行機 (airplane) in the overhead transparency.]

Ss: *Hikōki.*

[The teacher points out the word ^{すいじょうひこうき}水上飛行機 (seaplane) in the overhead transparency.]

Ss: *Suijōhikōki.*

T: *Hai, ī desu ne* (Okay, good).

Phase 3: Learning three colours and preparation for Phase 4 [18 minutes]

1 Learning three colours

[The teacher presents with an overhead transparency (see Appendix A-9) the written form of three colours (red, blue and green) in kanji with furigana and rōmaji, and asks the students to repeat after the teacher. The written form is coloured to match the actual colour (e.g. the word *aka* (red) is coloured in red).]

T: Now I would like you to learn three colours in Japanese.

T: [Showing the model pronunciation] *aka* (red).

Ss: [Repeating after the teacher] *aka*.

T: [Showing the model pronunciation] *ao* (blue).

Ss: [Repeating after the teacher] *ao*.

T: [Showing the model pronunciation] *midori* (green).

Ss: [Repeating after the teacher] *midori*.

T: [Showing the model pronunciation again] *aka* (red).

Ss: [Repeating after the teacher] *aka*.

T: [Showing the model pronunciation again] *ao* (blue).

Ss: [Repeating after the teacher] *ao*.

T: [Showing the model pronunciation again] *midori* (green).

Ss: [Repeating after the teacher] *midori*.

[The teacher points out the written form of the three colours in kanji with *furigana* in the overhead transparency, and asks the students to say these words.]

[The teacher points out the word ^{あか}赤 (red) shown in the overhead transparency.]

Ss: *Aka*.

[The teacher points out the word ^{あお}青 (blue) shown in the overhead transparency.]

Ss: *Ao*.

[The teacher points out the word ^{みどり}緑 (green) shown in the overhead transparency.]

Ss: *Midori*.

[The teacher now uses flashcards (see Appendix A-10), and asks the students to read out the written form of the three colours on the cards. The words are written in kanji with furigana (no rōmaji). The written form is coloured to match the actual colour (e.g. the word *aka* (red) is written in red).]

[The teacher shows the flashcard of ^{あお}青 (blue).]

Ss: *Ao*.

[The teacher shows the flashcard of ^{あか}赤 (red).]

Ss: *Aka*.

[The teacher shows the flashcard of ^{みどり}緑 (green).]

Ss: *Midori*.

[The teacher shows the flashcard of ^{みどり}緑 (green).]

Ss: *Midori*.

[The teacher shows the flashcard of ^{あか}赤 (red).]

Ss: *Aka*.

[The teacher shows the flashcard of ^{あお}青 (blue).]

Ss: *Ao*.

T: Very good.

[The teacher shows the flashcard of ^{あか}赤 (red).]

Ss: *Aka*.

[The teacher shows the flashcard of ^{みどり}緑 (green).]

Ss: *Midori*.

[The teacher shows the flashcard of ^{あお}青 (blue).]

Ss: Ao.

[The teacher shows the flashcard of 緑^{みどり} (green).]

Ss: Midori.

[The teacher shows the flashcard of 青^{あお} (blue).]

Ss: Ao.

[The teacher shows the flashcard of 赤^{あか} (red).]

Ss: Aka.

T: Hai, ī desu ne (Yes, good).

2: Practising the sentence pattern 'Noun 1 wa Noun 2 desu' using the target words (the names of vehicles and three colours)

[The sentence pattern 'Noun 1 wa Noun 2 desu' (Noun 1 is Noun 2) is revised in order to perform the activity in the next phase.]

T: [Pointing out the picture of a bus] *Nan desu ka?* (What is this?)

Ss: *Basu* (bus).

T: [Colouring the picture of a bus in red] *Basu wa...* (The bus is ...)?

Ss: [Trying to make a sentence] *Basu wa aka...* (The bus is red...)

T: *Basu wa aka...*? How do you finish a sentence?

Ss: ...*desu*.

T: [Asking the students to finish the sentence] *Basu wa aka...*?

Ss: *Basu wa aka desu* (Bus is red).

[The teacher colours the picture of a bicycle in red.]

Ss: [Saying the sentence without the topic marker, *wa* (a particle necessary to put after the word '*jitensha* (bicycle)')] *Jitensha aka desu* (The bicycle ... red).

T: [Asking for the particle] *Jitensha?* Particle?

Ss: [Saying the sentence without the topic marker again] *Jitensha aka desu* (The bicycle ... red).

T: [Asking for the particle again] *Jitensha?* Particle?

S: *Wa?*

S: *O?*

S: *Wa?*

T: *Un* (Yes). What's *wa*? Do you remember?

S: Topic marker.

T: *Hai* (Yes).

S: What's the first sentence again?

T: *Basu wa aka desu* (The bus is red).

Ss: [Repeating after the teacher] *Basu wa aka desu*.

T: *Jitensha...* (The bicycle is ...)?

Ss: *Jitensha wa aka desu* (The bicycle is red).

T: *Hai, ī desu ne* (Yes, good).

[The teacher colours the picture of a helicopter in blue.]

Ss: *Ao...herikoputā wa ao desu* (Blue ... the helicopter is blue).

T: [Saying the sentence] *Herikoputā wa ao desu* (The helicopter is blue).

Ss: [Repeating after the teacher] *Herikoputā wa ao desu*.

[The teacher colours the picture of an airplane in blue.]

Ss: *Hikōki wa ao desu* (The airplane is blue).

[The teacher colours the picture of a taxi in blue.]

Ss: *Takushī wa ao desu* (The taxi is blue).

[The teacher colours the picture of a bullet train in blue.]

Ss: *Shinkansen wa ao desu* (The bullet train is blue).

[The teacher colours the picture of a car in blue.]

Ss: *Kuruma wa ao desu* (The car is blue).

[The teacher colours the picture of a lorry in blue.]

Ss: *Torakku wa ao desu* (The lorry is blue).

[The teacher colours the picture of a seaplane in blue.]

Ss: *Suijōhikōki wa ao desu* (The seaplane is blue).

[The teacher colours the picture of a helicopter in green.]

Ss: *Herikoputā wa midori desu* (The helicopter is green).

S: What is it?

Ss: *Herikoputā wa midori desu*.

T: [Saying the sentence] *Herikoputā wa midori desu*.

[The teacher colours the picture of a taxi in green.]

Ss: *Takushī wa midori desu* (The taxi is green).

[The teacher colours the picture of a bus in green.]

Ss: *Basu wa midori desu* (The bus is green).

[The teacher colours the picture of a car in green.]

Ss: *Kuruma wa midori desu* (The car is green).

[The teacher colours the picture of a metro in green.]

Ss: *Chikatetsu wa midori desu* (The metro is green).

[The teacher colours the picture of a taxi in green.]

Ss: *Takushī wa ao desu* (The taxi is blue).

[The teacher colours the picture of a bicycle in red.]

Ss: *Jitensha wa aka desu* (The bicycle is red).

[The teacher colours the picture of a bus in green.]

Ss: *Basu wa midori desu* (The bus is green).

[The teacher colours the picture of a car in red.]

Ss: *Kuruma wa aka desu* (The car is red).

T: *Hai, ī desu ne* (Okay, good).

T: [Showing the flashcards of colours] *Jā mō ichido* (One more time).

Ss: *Aka, ao, midori* (red, blue, green).

T: *Hai, ī desu ne* (Okay, good).

3. Colouring a picture according to given instructions

T: [Explaining the next task] Now I will give you a picture and instructions. The instructions tell you which vehicle you should colour in which colour. Each of you in a group will receive different instructions. Okay?

[The teacher passes out the handouts (see Appendix A-5 for a picture and A-6 for instructions) and colouring pens to the students]

T: Can you colour your picture according to the instructions you are given?

[The students start colouring their pictures.]

.....

[The students finish colouring their pictures.]

Session 2

Phase 4: Finding out people who have the same picture [38 minutes]

1. Revision from Session 1

[The teacher presents with the overhead transparency (see Appendix A1-c) the pictures of all the vehicles and asks the students to say the words.]

T: [Pointing out the word バス (bus) shown in the overhead transparency] *Nan desu ka?* (What is this?)

Ss: *Basu* (bus).

T: [Saying the word again] *Basu*.

Ss: [Repeating after the teacher] *Basu*.

[The teacher points out the word タクシー (taxi) shown in the overhead transparency.]

Ss: *Takushī* (taxi).

[The teacher points out the word ヘリコプター (helicopter) shown in the overhead transparency.]

Ss: *Herikoputā* (helicopter).

[The teacher points out the word トラック (lorry) shown in the overhead transparency.]

Ss: *Tora...kki...ku...*

T: [Showing the model pronunciation] *Torakku* (lorry).

Ss: [Repeating after the teacher] *Torakku*.

[The teacher points out the word ^{くるま} 車 (car) shown in the overhead transparency.]

Ss: *Kuru...ma...*

T: [Showing the model pronunciation] *Kuruma* (car).

Ss: [Repeating after the teacher] *Kuruma* (car).

[The teacher points out the word ^{じてんしゃ} 自転車 (bicycle) shown in the overhead transparency.]

Ss: *Jitensha* (bicycle).

[The teacher points out the word ^{でんしゃ} 電車 (train) shown in the overhead transparency.]

Ss: *Densha* (train).

[The teacher points out the word ^{ちかてつ} 地下鉄 (metro) shown in the overhead transparency.]

Ss: *Chika...tetsu...*

S: *Chikatetsu* (metro).

T: [Saying the word again] *chikatetsu* (metro).

Ss: [Repeating after the teacher] *Chikatetsu*.

[The teacher points out the word ^{しんかんせん} 新幹線 (bullet train) shown in the overhead transparency.]

Ss: *Chinkansen...shin...shinkansen...*

T: [Showing the model pronunciation] *Shinkansen* (bullet train).

SS: [The students repeat after the teacher] *Shinkansen*.

[The teacher points out the word ^{ふね} 船 (ship) shown in the overhead transparency.]

Ss: *Fune* (ship).

[The teacher points out the word ^{ひこうき} 飛行機 (airplane) shown in the overhead transparency.]

Ss: [Pronouncing the word incorrectly with short vowel] *Hikoki* (airplane).

T: [Showing the correct pronunciation with long vowel] *Hikōki*.

Ss: [Repeating after the teacher] *Hikōki*.

[The teacher points out the word ^{すいじょう ひこうき} 水上飛行機 (seaplane) shown in the overhead transparency.]

Ss: *Suijōhikōki* (seaplane).

S: What is it?

T: [Showing the model pronunciation] *Suijōhikōki*.

Ss: [Repeating after the teacher] *Suijōhikōki*.

[In order to make sure that the students can pronounce the words comfortably, the teacher asks the students to repeat after the teacher.]

T: [Pointing out the word バス (bus) shown in the overhead transparency and saying] *basu* (bus).

Ss: [Repeating after the teacher] *Basu*.

T: [Pointing out the word タクシー (taxi) shown in the overhead transparency and saying] *Takushī* (taxi).

Ss: [Repeating after the teacher] *Takushī* (taxi).

T: [Pointing out the word ヘリコプター (helicopter) shown in the overhead transparency and saying] *Herikoputā* (helicopter).

Ss: [Repeating after the teacher] *Herikoputā*.

T: [Pointing out the word トラック (lorry) shown in the overhead transparency and saying] *Torakku* (lorry).

Ss: [Repeating after the teacher] *Torakku*.

T: [The teacher points out the word ^{くるま} 車 (car) shown in the overhead transparency and says] *kuruma* (car).

Ss: [Repeating after the teacher] *Kuruma*.

T: [The teacher points out the word ^{じてんしゃ} 自転車 (bicycle) shown in the overhead transparency and saying] *jitensha* (bicycle).

Ss: [Repeating after the teacher] *Jitensha*.

T: [Pointing out the word ^{でんしゃ} 電車 (train) shown in the overhead transparency and saying] *Densha* (train).

Ss: [Repeating after the teacher] *Densha* (train).

T: [Pointing out the word ^{ちかてつ} 地下鉄 (metro) shown in the overhead transparency and saying] *Chikatetsu* (metro).

Ss: [Repeating after the teacher] *Chikatetsu*.

T: [Pointing out the word ^{しんかんせん}新幹線 (bullet train) shown in the overhead transparency and saying] *Shinkansen* (bullet train).

Ss: [repeating after the teacher] *Shinkansen*.

T: [Pointing out the word ^{ふね}船 (ship) shown in the overhead transparency and saying] *Fune* (ship).

Ss: [Repeating after the teacher] *Fune*.

T: [Pointing out the word ^{ひこうき}飛行機 (airplane) shown in the overhead transparency and saying] *Hikōki* (airplane).

Ss: [Repeating after the teacher] *Hikōki*.

T: [Pointing out the word ^{すいじょうひこうき}水上飛行機 (seaplane) shown in the overhead transparency and saying] *Suijōhikōki* (seaplane).

Ss: [Repeating after the teacher] *Suijōhikōki*.

[In order to make sure that the students have remembered all the words, the teacher points out the words at random and asks the students to say the words.]

T: [Pointing out the word タクシー (taxi) shown in the overhead transparency] *Nan desu ka?* (What is this?)

Ss: *Takushī* (taxi).

[The teacher points out the word ^{ちかてつ}地下鉄 (metro) shown in the overhead transparency.]

Ss: *Chikatetsu* (metro).

[The teacher points out the word ^{しんかんせん}新幹線 (bullet train) shown in the overhead transparency.]

Ss: *Shinkansen* (bullet train).

[The teacher points out the word ^{ふね}船 (ship) shown in the overhead transparency.]

Ss: *Fune* (ship).

[The teacher points out the word ^{ひこうき}飛行機 (airplane) shown in the overhead transparency.]

Ss: *Hikōki* (airplane).

[The teacher points out the word ^{じてんしゃ}自転車 (bicycle) shown in the overhead transparency.]

Ss: *Jitensha* (bicycle).

[The teacher points out the word バス (bus) shown in the overhead transparency.]

Ss: *Basu* (bus).

[The teacher points out the word ^{すいじょう ひこうき}水上飛行機 (seaplane) shown in the overhead transparency.]

Ss: *Suijōhikōki* (seaplane).

[The teacher points out the word ^{ちかてつ}地下鉄 (metro) shown in the overhead transparency.]

Ss: *Chikatetsu* (metro).

[The teacher points out the word トラック (lorry) shown in the overhead transparency.]

Ss: *Torakku* (lorry).

[The teacher points out the word ヘリコプター (helicopter) shown in the overhead transparency.]

Ss: *Herikoputā* (helicopter).

[The teacher points out the word ^{くるま}車 (car) shown in the overhead transparency.]

Ss: *Kuruma* (car).

T: *Hai, ī desu ne* (Okay, good).

[The teacher points out the word ^{でんしゃ}電車 (train) shown in the overhead transparency.]

Ss: *Densha* (train).

[The teacher points out the word バス (bus) shown in the overhead transparency.]

Ss: *Basu* (bus).

[The teacher points out the word ^{くるま}車 (car) shown in the overhead transparency.]

Ss: *Kuruma* (car).

[The teacher points out the word ^{すいじょう ひこうき}水上飛行機 (seaplane) shown in the overhead transparency.]

Ss: *Suijōhikōki* (seaplane).

[The teacher points out the word トラック (lorry) shown in the overhead transparency.]

Ss: *Torakku* (lorry).

[The teacher points out the word タクシー (taxi) shown in the overhead transparency.]

Ss: *Takushī* (taxi).

[The teacher points out the word ^{しんかんせん}新幹線 (bullet train) shown in the overhead transparency.]

Ss: *Shinkansen* (bullet train).

[The teacher points out the word ^{ふね}船 (ship) shown in the overhead transparency.]

Ss: *Fune* (ship).

[The teacher points out the word ^{ちかてつ}地下鉄 (metro) shown in the overhead transparency.]

Ss: *Chikatetsu* (metro).

[The teacher points out the word ^{ひこうき}飛行機 (airplane) shown in the overhead transparency.]

Ss: *Hikōki* (airplane).

[The teacher points out the word ^{ふね}船 (ship) shown in the overhead transparency.]

Ss: *Fune* (ship).

[The teacher points out the word タクシー (taxi) shown in the overhead transparency.]

Ss: *Takushī* (taxi).

[The teacher points out the word ^{じてんしゃ}自転車 (bicycle) shown in the overhead transparency.]

Ss: *Jitensha* (bicycle).

[The teacher points out the word ^{しんかんせん}新幹線 (bullet train) shown in the overhead transparency.]

SS: *Shinkansen* (bullet train).

[The teacher points out the word ^{すいじょう ひこうき}水上飛行機 (seaplane) shown in the overhead transparency.]

Ss: *Suijōhikōki* (seaplane).

[The teacher points out the word バス (bus) shown in the overhead transparency.]

Ss: *Basu* (bus).

[The teacher points out the word タクシー (taxi) shown in the overhead transparency.]

Ss: *Takushī* (taxi).

[The teacher points out the word ^{くるま}車 (car) shown in the overhead transparency.]

Ss: *Kuruma* (car).

[The teacher points out the word トラック (lorry) shown in the overhead transparency.]

Ss: *Torakku* (lorry).

[The teacher points out the word ^{ひこうき}飛行機 (airplane) shown in the overhead transparency.]

Ss: *Hikōki* (airplane).

[The teacher points out the word ヘリコプター (helicopter) shown in the overhead transparency.]

Ss: *Herikoputā* (helicopter).

[The teacher points out the word ^{ふね}船 (ship) shown in the overhead transparency.]

Ss: *Fune* (ship).

[The teacher points out the word ^{じてんしゃ} 自転車 (bicycle) shown in the overhead transparency.]

Ss: *Jitensha* (bicycle).

[The teacher points out the word ^{ちかてつ} 地下鉄 (metro) shown in the overhead transparency.]

Ss: *Chikatetsu* (metro).

[The teacher points out the word ト ラ ッ ク (lorry) shown in the overhead transparency.]

Ss: *Torakku* (lorry).

[In order to make sure that the students have remembered how to say the three colours (red, blue and green), the teacher shows the flashcards (see Appendix A-10) at random, and asks the students to say the words.]

T: [Showing the flashcard of ^{あか} 赤 (red)] *Nan desu ka?* (What is this?)

Ss: *Aka* (red).

[The teacher shows the flashcard of ^{あお} 青 (blue).]

Ss: [Pronouncing the word incorrectly] *Eo*.

T: [Showing the correct pronunciation] *Ao* (blue).

Ss: [Repeating after the teacher] *Ao*.

[The teacher shows the flashcard of ^{みどり} 緑 (green).]

Ss: *Midori*.

[The teacher shows the flashcard of ^{あか} 赤 (red).]

Ss: *Aka* (red).

[The teacher shows the flashcard of ^{あお} 青 (blue).]

Ss: [Pronouncing the word incorrectly] *Eo*.

T: [Correcting the pronunciation] No, *ao* (blue).

Ss: [Repeating after the teacher] *Ao*.

[The teacher shows the flashcard of ^{みどり} 緑 (green).]

Ss: *Midori*.

[The teacher shows the flashcard of ^{あお} 青 (blue).]

Ss: *Ao* (blue).

[The teacher shows the flashcard of ^{あか} 赤 (red).]

Ss: *Aka* (red).

[The teacher shows the flashcard of 緑^{みどり} (green).]

Ss: *Midori.*

T: *Hai, ī desu ne* (Okay, good).

[The teacher shows the flashcard of 赤^{あか} (red).]

Ss: *Aka* (red).

[The teacher shows the flashcard of 緑^{みどり} (green).]

Ss: *Midori.*

[The teacher shows the flashcard of 青^{あお} (blue).]

Ss: *Ao* (blue).

[The teacher shows the flashcard of 赤^{あか} (red).]

Ss: *Aka* (red).

[The teacher shows the flashcard of 青^{あお} (blue).]

Ss: *Ao* (blue).

[The teacher shows the flashcard of 緑^{みどり} (green).]

Ss: *Midori.*

[The teacher shows the flashcard of 赤^{あか} (red).]

Ss: *Aka* (red).

[The teacher shows the flashcard of 青^{あお} (blue).]

Ss: *Ao* (blue).

[The teacher shows the flashcard of 緑^{みどり} (green).]

Ss: *Midori.*

T: *Hai, ī desu ne* (Okay, good).

[In order to make sure that the students can say sentences describing the different vehicles in the picture, the teacher shows the pictures of coloured vehicles with the overhead transparency and asks the students to make a sentence.]

T: [Showing a picture of a red bus] Can you make a sentence?

Ss: *Basu ... aka...* (The bus Red ...)

S: *Aka wa ...* (Red is ...)

Ss: *Basu wa aka desu* (The bus is red).

T: [Saying the sentence again] *Basu wa aka desu.*

Ss: [Repeating after the teacher] *Basu wa aka desu.*

[The teacher shows a picture of a red bicycle.]

Ss: *Jintensha wa aka desu* (The bicycle is red).

[The teacher shows a picture of a blue car.]

Ss: *Kuruma wa ao desu* (The car is blue).

[The teacher shows a picture of a green taxi.]

Ss: *Takushī wa midori desu* (The taxi is green).

[The teacher shows a picture of a blue bicycle.]

Ss: *Jintensha wa ao desu* (The bicycle is blue).

[The teacher shows a picture of a red car.]

Ss: *Kuruma wa aka desu* (The car is red).

[The teacher shows a picture of a green bus.]

Ss: *Basu wa midori desu* (The bus is green).

T: *Hai, ī desu ne* (Okay, good).

2 Finding out people who have the same picture

[Practising sentences for explaining one's own picture.]

T: Did you finish colouring your pictures?

Ss: Yeah.

T: [Showing the picture of a red bus] How do you say 'my bus is red'?

S: *Watashi no basu wa aka desu* (My bus is red).

S: What?

T: [Saying the sentence] *Watashi no basu wa aka desu.*

Ss: [Repeat after the teacher] *Watashi no basu wa aka desu.*

[The teacher shows the picture of a red bus again.]

Ss: *Watashi no basu wa aka desu* (My bus is red).

[The teacher shows the picture of a blue car.]

Watashi wa ... kuruma wa ... ao ... desu.... (I am ... a car is ... blue)

T: My car?

Ss: *Watashi no kuruma ...* (My car ...)

T: *Hai, watashi no kuruma wa ... ?* (Yes, my car is ... ?)

Ss: *Watashi no kuruma wa ao desu.*

T: [Saying the sentence] *Watashi no kuruma wa ao desu* (My car is blue).

Ss: [Repeating after the teacher] *Watashi no kuruma wa ao desu.*

[The teacher shows the picture of a blue bicycle.]

Ss: *Watashi no jitensha wa ... ao ... desu* (My bicycle is ... blue ...).

T: [Saying the sentence] *Watashi no jitensha wa ao desu* (My bicycle is blue).

Ss: [Repeating after the teacher] *Watashi no jitensha wa ao desu*.

[The teacher shows the picture of a green car.]

Ss: *Watashi no kuruma wa midori desu* (My car is green).

T: *Jā*, how do you ask [name of a student]-*san* what colour his bus is? (Okay then, how do you ask Mr [name of a student] what colour his bus is?)

S: *Nan no basu wa ...* (What bus is ...)

T: How do you say 'what colour is your bus'?

S: *... san no bus wa ...* (Mr 's bus is)

T: You are asking Mr [name of a student], and so?

Ss: [Name of a student]-*san no basu wa nani iro desu ka?* (What colour is your car, Mr [name of a student]?)

T: *Hai* (Yes). [Saying the sentence] [Name of a student]-*san no basu wa nani iro desu ka?*

Ss: [Repeating after the teacher] [Name of a student]-*san no basu wa nani iro desu ka?*

T: [Name of a student]-*san?* (Mr [name of a student]?)

S: *Watashi no basu wa aka desu* (My bus is red). Is that right?

T: *Hai* (Yes). Now can you practise how to explain your picture by yourself? You can say a sentence like '*Watashi no basu wa ao desu* (My bus is blue)' or '*Watashi no kuruma wa midori desu* (My car is green).' Please practise on your own for five minutes.

[The students start practising sentences explaining their own pictures.]

[The teacher moves around the class and checks how the students are practising.]

.....

[Because some students are not able to use the particle '*mo*' (which means 'also'), the teacher asks the students to stop practising and listen to her.]

T: *Sumimasen* (Excuse me). *Kīte kudasai* (Please listen to me). [Showing the picture of a bus] *Nan desu ka?* (What is this?)

Ss: *Basu* (bus).

T: [The teacher shows the picture of a car] *Nan desu ka?* (What is this?)

Ss: *Kuruma* (car).

T: [Colouring in the picture of a bus with red] *Nan desu ka?* (What is this?)

Ss: *Aka ...* (Red ...)

T: *Watashi no basu wa aka desu* (My bus is red).

Ss: [Repeating after the teacher] *Watashi no basu wa aka desu*.

T: [Asking one of the students] *Watashi no basu wa aka desu* (My bus is red). [Name of a

student]-*san no basu wa nani iro desu ka?* (What colour is your bus, Mr [name of a student]?)

S: *Watashi no basu wa aka desu* (My bus is red).

T: [Repeating the question] *Watashi no basu wa aka desu* (My bus is red). [Name of a student]-*san no basu wa?* (How about your bus, Mr [name of a student]?)

S: *Watashi no basu wa aka desu* (My bus is red).

S: *Basu mo?* (My bus also?) *Watashi no basu wa ao desu?* (My bus is blue?)

T: My bus is red. Your bus is red. [Name of a student]-*san*, you need to say 'My bus is also red,' and so replace 'wa' with 'mo'.

S: *Watashi no basu mo aka desu* (My bus is also red).

T: *Hai, i desu ne* (Yes, good). I told him my bus was red and asked what colour his bus was. He needed to answer 'My bus is also red.' 'Mo' means 'also,' okay?

Ss: Oh, yeah...

T: [Trying to ask a question to the class] *Watashi no basu wa aka desu* (My bus is red).

Ss: [Repeat after the teacher without listening the second sentence the teacher tries to say] *Watashi no basu wa aka desu* (My bus is red).

T: I haven't asked you a question yet.

[The students laugh.]

T: [Asking a question to the class] *Watashi no basu wa aka desu* (My bus is red). *Minasan no basu wa nani iro desu ka?* (What colour is your bus, everybody?)

Ss: *Watashi no basu mo aka desu* (My bus is also red).

T: If your bus is green, how do you say?

Ss: *Watashi no basu wa ...* (My bus is ...)

T: *Mō ichido* (One more time).

Ss: *Watashi no basu wa midori desu* (My bus is green).

T: [Making sure which particle to use] 'Wa' or 'mo'?

S: 'Mo'?

Ss: 'Wa'?

T: 'Wa' in this case. If it is same, you use 'mo'. If it is not, you use 'wa.' Okay, one more time. Your bus is green. *Watashi no basu wa aka desu* (My bus is red). *Minasan no basu wa nani iro desu ka?* (What colour is your bus, everybody?) Your bus is green.

Ss: ...

T: Are you okay?

Ss: *Watashi no basu wa midori desu* (My bus is green).

T: Okay, if your bus is blue?

Ss: *Watashi no basu wa ao desu* (My bus is blue).

T: Let me ask you a question first.

[The students laugh.]

T: *Watashi no basu wa aka desu* (My bus is red). *Minasan no basu wa nani iro desu ka?* (What colour is your bus, everybody?)

Ss: *Watashi no basu wa ao desu* (My bus is blue).

T: Now your bus is red. *Watashi no basu wa aka desu* (My bus is red). *Minasan no basu wa nani iro desu ka?* (What colour is your bus, everybody?)

Ss: *Watashi no basu mo aka desu* (My bus is also red).

T: Can you ask questions to each other and practise in your group?

[The students start practising with people in their group.]

.....

[The teacher asks the students to stop practising.]

T: *Sumimasen* (Excuse me). *Kīte kudasai* (Please listen to me).

[The teacher explains the task of finding out who has the same picture.]

T: There are two or three people who have the same picture as you in the class. You have to find out who by asking questions in Japanese. You can use only Japanese, no English. When you ask a question to somebody, you cannot show your picture, and you find out who has the same picture by only asking questions in Japanese. Okay, please do NOT show your picture to the person you are asking a question. *Hai, okkē desu ka?* (Are you okay?)

Ss: *Hai, okkē desu* (Yes, we are okay).

T: *Jā, tatte*, move around (Now please stand up and move around). Do NOT show your picture, okay?

[The students start working on the task finding out people who have the same picture.]

.....

[The teacher tells the students what they need to do when they have finished.]

T: When you find out the people who have the same picture, please sit together. You have to find two or three people who have the same picture from the class, okay?

[All the students finish the task and now they are sitting with people who have the same picture. The teacher asks each group to explain their picture in Japanese.]

T: *Sumimasen* (Excuse me). How do you say 'my bus is red'?

Ss: *Watashi no basu wa aka desu* (My bus is red).

T: Un (Yes), then how do you say 'Our bus is red'? You are in a group now.

S:... *Watashi* ... (... I ...)

S:...*Watashi no* ... (... My ...)

T: [Writing down the word '*watashitachi* (we)' on the blackboard] Just add '*tachi*' to '*watashi*'

and so '*watashitachi no*'?

Ss: *Watashitachi no basu wa aka desu* (Our bus is red).

T: Now each group explains their picture. Can you practise in a group for a few minutes?

[The students start practising the sentences explaining their pictures in groups.]

.....

[The teacher tells the students to stop practising and asks each group to explain their picture.]

T: *Hai, sumimasen* (Excuse me). *Kono grūpu desu* (This group will explain about their picture).

Kīte kudasai (Please listen to them). I will ask you questions later.

Group A: *Watashitachi no basu wa aka desu* (Our bus is red).

T: [Asking to the students of other groups] What colour?

Ss: Red.

Group A: *Watashitachi no takushī wa ao desu* (Our taxi is blue).

T: *Hai* (Yes).

Group A: *Watashitachi no kuruma wa ao desu* (Our car is blue). *Watashitachi no densha wa aka desu* (Our train is red).

T: What colour is their taxi?

S: Green.

Ss: Blue, blue.

T: *Hai, ī desu ne* (Yes, good). *Jā kondo wa kono grūpu, onegaishimasu* (Next, this group, please).

Group B: *Watashitachi no basu wa aka desu* (Our bus is red). No, *ao desu* (No, it is blue). Blue

... [Asking Group C] *Basu wa nani iro desu ka?* (What colour is your bus?)

Group C: *Watashitachi no basu wa ao desu* (Our bus is blue). Okay, we ask you a question now? [Asking Group B] *Kuruma wa nani iro desu ka?* (What colour is your car?)

Group B: *Watashitachi no kuruma wa aka desu* (Our car is red). Taxi? *Watashitachi no takushī wa ao desu* (Our taxi is blue).

Group C: *Watashitachi no takushī wa midori desu* (Our taxi is green).

T: *Jā, koko no grūpu* (Well then, the group here, please).

Group D: *Watashitachi no basu wa midori desu* (Our bus is green). [Asking Group E] *Basu wa nani iro desu ka?* (What colour is your bus?)

Group E: *Watashitachi no basu wa ao desu* (Our bus is blue).

Group D: *Watashitachi no takushī wa aka desu* (Our taxi is red).

Group E: *Watashitachi no takushī wa aka desu* (Our taxi is red).

T: *Uun ...* (Well ...) [Pointing out Group D] *takushī wa aka desu* (Their taxi is red).

Group E: Oh, '*mo.*' *Watashitachi no takushī mo aka desu* (Our taxi is also red).

T: *Hai* (Yes).

Group D: *Watashitachi no kuruma wa ao desu* (Our car is blue).

Group E: *Watashitachi no kuruma wa midori desu* (Our car is green).

Group D: *Watashitachi no jitensha wa midori desu* (Our bicycle is green).

Group E: *Watashitachi no jitensha wa aka desu* (Our bicycle is red).

T: *Hai, ī desu ne* (Okay, good). *Yasumimashō* (Let's have a break).

[The end of the vocabulary learning class]

Appendix E-1: Data from Class 1

Profiles of participants

ID	Group	Age	Gender	L1	Nationality	Note
1	G1	21~38	F	German	German	Did not submit Questionnaire 1
2	G1	21~38	F	English	Irish	Did not take the tests Did not submit Questionnaire 1
3	G1	21~38	F	English	Irish	Did not submit Questionnaire 1
4	G1	21~38	F	English	Irish	Did not take the tests Did not submit Questionnaire 1
5	G1	21~38	F	English	Irish	
6	G1	21~38	F	English	Irish	
7	G2	21~38	F	English	Irish	
8	G2	21~38	F	Spanish	Spanish	Did not submit Questionnaire 1
9	G2	21~38	F	English	Irish	Did not take the tests Did not submit Questionnaire 1
10	G2	21~38	F	French	French	Did not submit Questionnaire 1
11	G2	21~38	F	English	Irish	
12	G2	21~38	F	English	Irish	Did not take the tests Did not submit Questionnaire 1
13	G3	21~38	F	English	Irish	
14	G3	21~38	F	English	Irish	Did not submit Questionnaire 1
15	G3	21~38	F	English	Irish	
16	G3	21~38	F	English	Irish	
17	G3	21~38	F	English	Irish	
18	G3	21~38	F	English	Irish	Did not submit Questionnaire 1
19	G4	21~38	F	English	Irish	
20	G4	21~38	F	English	Irish	
21	G4	21~38	F	English	Irish	Did not submit Questionnaire 1
22	G4	21~38	F	English	Irish	Did not submit Questionnaire 1

Summary of Questionnaire 1:

Questionnaire 1 was collected from ten students, and the following is a summary of their comments extracted from the questionnaire.

ID	① Activity(-ies) and time: What I was doing	② Learning target(s): What I was trying to learn	③ Problems/difficulties I am having after this phase	④ What I need to do to solve the problem/overcome the difficulty	⑤ How did I fare in relation to the problems I listed at the top of this page?
1	Did not submit Questionnaire 1				
2	Did not submit Questionnaire 1				
3	Did not submit Questionnaire 1				
4	Did not submit Questionnaire 1				
5	Repeating the words for different modes of transport and colours	Learn how to write and pronounce the colours and the modes of transport which were introduced the day before.	Getting the colours mixed up and confusing some of the vehicles such as train and metro etc.	Continue repeating them and insist that other members of the group point out my mistakes.	By the end of the class I was quite confident in the use of the vehicles which we had coloured on the page as I had repeated them so often during the activity.
	Repeating sentences for asking questions what colour is your bus etc.	How to ask and answer questions using all the new vocabulary.	Main difficulty is getting the word order in the sentences wrong.	Continue to read the sentences and then repeat them without reading it from the handout.	
6	- Placing the symbols in a sequence according to an instruction. - Going around trying to guess each groups' instruction re: sequence of words.	- I was trying to use these new words I had learned, to <u>do</u> something with them. - I was, each time, trying to divert my attention towards distinguishing new words and giving them a	As the task involved a few new levels, it needed a lot of concentration and sometimes we had to start over again.	A lot of peer work was needed in order to carry out the task successfully as there were so many symbols and it got confusing.	I feel that I developed good memory techniques and remembered each of the words well after I had some mechanisms put in place. As regards the sequence game, I personally felt it was a lot to take on in a (small) short

	• Colouring in a picture according to a colour code. • I was going around the class trying to locate 3 other people with the same colour code as me.	place in my memory, working with them. • I was trying to learn to recognise the colours by actively engaging in a task. • I was using new question and answers terms which I repeated each time to gather information towards an end of finding 3 people with the same worksheet as myself.	I did not experience any difficulties in relation to this part.	I needed to concentrate a lot to prevent myself from mixing up the new words and colours, with concentration it worked.	space of time and I felt somewhat overloaded.
7	1) Looking at venn diagrams trying to decide how vocabs had been grouped. 2) Looking at 3 colours on the OHP. 3) Following instructions on what colour my bus should be.	1) I was trying to focus on the meanings of the words. 2) The words for red, blue and green. 3) To read the names of the colours.	1) It was difficult to say we have a bike, car and train in this group even though I recognised all the words. 2) I'm a little bit mixed up in the colours (sounds). 3) I'm mixing up the kanji symbol.	1) Translate the words into English in my head, wouldn't normally suggest this but I'm having real difficulty here. 2) I need to repeat the words for the colours in my head. 3) I need to really focus on the shapes and find a way of remembering them.	• I managed ok with the meanings. They were coming to me more quickly by the end of exercise. • Repetition of the words solved the problems with sounds. • I managed with the kanji. Green was the most complicated, blue looked like a house to me (although not necessarily to anyone else) and red was like a pylon.
	• Going around the classroom trying to find the person with the same coloured buses. • Practising the form with	• My bus is _____. What colour is your bus? • Your bus and my bus are _____. • My bus is _____ but your bus	I'm finding it difficult to remember all the parts. I keep forgetting bits.	I need to repeat the sentences and try to find a rhythm. <i>Watashi no bus wa aka desu.</i> I don't think the Japanese speak this way, but	

	the girls with same colours. • Saying the sentences for the rest of class. • Translating other groups' sentences.	is ____. • Our bus is ____.	I'm finding it difficult to remember all the parts. I keep forgetting bits.	it helps me to get it into my system.	
8	Did not submit Questionnaire 1				
9	Did not submit Questionnaire 1				
10	Did not submit Questionnaire 1				
11	- I was filling in a handout which examined the words we did yesterday. - Filling in maths 'set'/cloze test diagram. - Examining colours by repeating words & matching the colours with them. - Asking questions about people's sheets (sheets with car, taxi, bus, etc. in different colours)	- Revision of words. Trying to recall. - Again recalling modes of transport vocab & categorising them. - Colours - I was trying to practice transport vocab, colours and sentence structure,	Remembering the words Individually, the words were easy to retain but when used in a question, it was far more challenging.	- Do homework - Make connections with other languages, i.e. <i>fune</i> = ship → funny - Repeat words to myself - Try to use mental image, ie. See '<i>midori</i>' and imagine a green pen. - To know the vocab better so I could mix categories. This is more of a real situation where vocab from all areas is used.	I made many links with English and so this helped. Considering I didn't do any homework I found it relatively doable.
12	Did not submit Questionnaire 1				
13	Form association for each word to remember vocab. Learning colours, there were 3 easy words so it was easy to remember.	Vocab and strategies to remember vocab	None – finding it easy. Just all this analysis – I hate it. Love the learning and activities though.		My problem is this form & this analysis.
14	Did not submit Questionnaire 1				
15	Cloze test – after we	Reinforcement of vocab	I was very familiar with the	It was partly my own fault	I was able to remember all

	tested our own knowledge, [name of the teacher] put an overhead up with 3 'bubbles' - Land, sea, air – had to work out which modes of transport was missing. - Learning 3 colours on OHP - Look, remember, repeat after teacher	testing ourselves individually then correcting as a class, led by the teacher. <i>Aka, ao, midori.</i> The katakana/kanji (not sure which) and romaji were coloured on the overhead (this visually made it easier)	words in romaji, but not with all the symbols, especially the Chinese symbols – they are so complex that I can't associate them with little pictures.	because I had revised the romaji/pronunciation at home and not the symbols. The Chinese symbols really daunt me and I don't know how to memorize them – more <u>time</u> need.	the romaji words, although some of my spelling was wrong as I tended to write phonetically. Having reinforced the words through all the activities today (the colour exercises), I feel very confident in comprehending and producing them independently now. The proper scripts are more of a struggle + I feel frustrated.
	- We had instructions on what colours to colour in what particular modes of transport on a sheet, We did this individually – it was a fun activity. - Learn how to ask questions on 'what colour is your bus/taxi? etc.' from handout and with help on pronunciation - Tried to find 3 other people with the same colours on their sheet as me.	- Had to decipher names of colours and particular modes of transport from the script/symbols, then colour in accordingly. - Attaching adjectives (colours) to nouns (modes of transport) and reinforcing this through role play practice with other people. Focusing on both comprehension and spoken production.	- I tried to ignore the script/symbols as I find it too difficult. I relied on my notes to decipher the colours. - Being able to ask questions on what colours the bus/taxi etc. is on other people's sheets, and answer for myself without consulting my notes.	With the 3 other people who I discovered had the same sheet of colours, we worked as a group to find a way of remembering the questions and answers – splitting the phrases into smaller sections and saying them with a certain rhythm – co-operative learning.	
16	Trying to remember Japanese pronunciation		I found it easier to remember the sounds as		Continuous repetition of symbols/sounds + matching

	for the list of English modes of transport given. • Recognizing modes of transport through the symbols kanji/katakana given. • Colour code pictures following colours in Japanese, kanji symbols of colours, recognise colours → midori, aka, ao	• Through practice I was trying to ask and say in Japanese. • Thorndike 'Leaning is connecting'	there were an association with sounds I already knew.	Continuous repetition of sounds leads to my retaining of the knowledge. However the method of association + ie. impulse – reinforcement – attainment, retention of info.	up of these.
17	• Completing test to assess if we could 1) recognise vehicles written in various scripts, 2) recall vehicles in romaji. • Repeating nouns after teacher → it would have been helpful if the print on OHP was bigger + if we had have been given a handout the same as the OHP.	• Revision – it took me 2 minutes to remember the vehicles, i.e. Pronunciation • Reinforce scripts categorise/group the vehicle and recognise which one was missing – revision of vocab	I could only recognise 6 of the vehicles in the different scripts – the ones that I could see pictures in, e.g. バス [basu – bus] = 2 lads running for a bus!	I need to dedicate the necessary time to studying + practicing the scripts. I find them rather complicated and not motivated as this is a short course + I am never going to be able to read a text in the future.	The close test would have been more beneficial if the students could have worked in pairs to decipher which vehicles were missing. I didn't realise what the purpose of the exercise was until [name of the teacher] pointed it out as being an unusual way of presenting a gap exercise!
	Learn the colours; ao, midori, aka 1) Repeat after the teacher 2) Stimulus → response method, elicit the	1) Pronounce colours correctly 2) Recognise script 3) Work independently + read instructions to colour in a picture	• I did not have any difficulties learning these 3 colours as we were not overloaded with info; it was introduced and practiced thoroughly.		

	correct colour when teacher produced red, green, blue marker 3) Read instructions in Japanese + colour a picture according similar to colour by numbers 4) Students circulated around class, seeking out persons who had the same colour bus, car, taxi and/or bike 5) All members of the class listened intently + eagerly recalled what the group had described. Although the listeners were not speaking in the target language they were learning.	4) Students' state (a) My bus is blue (<i>watashi no basu wa ao desu</i>) + then formulate question (b) What colour is your bus? ([name of a classmate] <i>san no basu wa nani iro desu ka?</i>) 5) Each group (<i>watashitachi</i> = we) had to describe the colour of their vehicles in their picture.	- The OHP was clearly visible at all times for students to refer to if necessary. - I had difficulties remembering the long sentences. I needed the handout. However I did pick out the essential info, i.e. the vehicle + its colour.		
18	Did not submit Questionnaire 1				
19	I was trying to remember the words from the symbols we learned in class yesterday.	I was trying to learn the symbols + see what I remembered from yesterday and match them with the correct words.	Some words I cannot remember at all and I know no matter what hints I would be given I could not remember them. Most of these were the words the other group had taught us. I found the words that I	Even when I was told the words, they weren't familiar to me. To overcome this I would need to study and intentionally memorise them or else repeat them a few times.	By the end of the lesson I know the word now for car as we used it many times for learning the colours.

	- I was asking people in the class what colour their vehicles were. I had to find 3 people with the same. - Group work – worked in 4 and said what our vehicle's colour was.	- To form full sentences with the vocabulary learned. - We then try to learn how to say we have a green car ... This was also easy as there was only one extra word to insert.	I managed to master the phrase I have a green bus and the question to ask if they have one. This was no problem but I don't know how to take the sentences apart and use it in another sentence as I don't know what the small words were. The sounds that are less like the English equivalent are not coming to me.	Out of the context I learned them in. For me – same as above no real problem as such but I feel I could not use any of these words but in the context we learned them.	
20	Trying to remember words	To remember individual words		Studying the words again!	On listening to other people in the group, I found I became more familiar with the sounds that had been difficult before.
	- Learning the colours. - Using the vocab learnt yesterday and create a dialogue. - Find people with same colour pattern. Learning colours, there were 3 easy words so it was easy to remember.	- Colours - Create questions, re. what colour is...? - Use the vocab correctly (from yesterday) - Use the language and communicate	- The 'watashi' [= I] is difficult to get my head around. The short answer is easier. - My difficulty is making the sentence flow.	When I have sentences, I have a sense of confusion as my level is weak. I must be positive and try!	
			Just all this analysis – I hate it. Love the learning and activities though.		
21	Did not submit Questionnaire 1				
22	Did not submit Questionnaire 1				

The results of Test 1

The following tables show the results of Test 1:

Test 1 (a day after the experiment)

[TA = Teacher Assessment, SA = Self-Assessment, NR= Not Rateable]

1		2	3	4	5	6	7	8	9	10	11	12
新幹線	SA	トラック	車	自転車	船	タクシー	飛行機	バス	水上飛行機	電車	ヘリコプター	地下鉄
	TA	SA	TA	SA	TA	SA	TA	SA	SA	TA	SA	TA
bullet train	SA	lorry	car	bicycle	ship	taxi	airplane	bus	seaplane	train	helicopter	metro
	TA	SA	TA	SA	TA	SA	TA	SA	SA	TA	SA	TA
1	0	0	3	3	2	3	3	3	3	3	3	0
2	Did not take the test											
3	3	1	3	3	2	3	3	0	1	3	3	2
4	Did not take the test											
5	3	NR	3	1	3	2	2	1	3	NR	3	1
6	3	3	3	3	2	3	2	3	3	3	3	NR
7	3	2	3	2	3	3	2	3	3	2	3	2
8	0	0	3	3	3	3	2	3	3	1	3	0
9	Did not take the test											
10	0	3	0	0	NR	3	NR	3	NR	3	NR	2
												3
												0

1		2		3		4		5		6		7		8		9		10		11		12		
新幹線		トラック		車		自転車		船		タクシー		飛行機		バス		水上飛行機		電車		ヘリコプター		地下鉄		
bullet train		lorry		car		bicycle		ship		taxi		airplane		bus		seaplane		train		helicopter		metro		
ID	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA		
11	0	0	0	0	3	3	3	3	0	0	0	0	0	0	0	0	0	3	3	0	0	0	1	
12	Did not take the test																							
13	3	NR	3	NR	3	NR	3	NR	2	NR	3	NR	3	NR	3	NR	3	NR	3	NR	0	NR	2	NR
14	0	0	3	2	3	2	3	1	2	2	3	2	3	1	3	NR	3	3	2	3	3	1	2	NR
15	0	0	0	0	3	3	3	3	2	3	3	1	0	0	3	3	3	2	3	3	3	0	0	0
16	0	0	NR	1	NR	3	3	3	2	3	NR	1	NR	1	3	3	NR	1	NR	3	NR	1	0	1
17	0	0	0	0	3	3	3	3	3	3	3	2	0	0	3	3	3	3	3	1	3	NR	1	1
18	3	2	3	1	3	3	3	3	2	3	3	3	3	1	3	3	3	2	3	3	3	3	3	3
19	NR	0	NR	NR	3	NR	3	NR	3	NR	3	NR	3	NR	3	NR	3	NR	3	NR	NR	3	NR	NR
20	0	NR	3	NR	3	NR	3	1	3	NR	0	0	3	NR	3	NR	3	NR	3	NR	3	NR	3	1
21	3	1	3	1	NR	1	3	2	3	1	3	2	3	1	3	3	1	3	3	3	3	3	3	NR
22	2	2	3	2	3	2	3	2	2	1.5	3	2	3	NR	3	3	NR	3	3	1	3	3	3	1

Learners’ comments on knowledge of the target words

The learners were asked to write how well they knew the target words in the follow-up tests, and the following shows their comments on Test 1. The learners who did not take the test or did not write their comments are excluded here.

[TA = Teacher Assessment, SA = Self-Assessment, NR= Not Rateable]

Test 1 (a day after the experiment)

1. 新幹線 (bullet train)

ID	Written Answer	TA	SA	Comment
6	bullet train	3	3	This was easy enough to remember because of those symbols left, after the more obvious ones it was the most complex.
7	bullet train	3	2	I would have difficulty recognising it if it were embedded in a text.
11	[blank]	0	0	I didn’t pay enough attention yesterday.
13	bullet train	3	NR	She can
18	bullet train	3	2	I think of the 𠩺 part of the symbol being a conductor.
20	<i>takusi</i>	0	NR	I remembered 3 ornate symbols.

2. トラック (lorry/truck)

ID	Written Answer	TA	SA	Comment
3	truck	3	3	Looks like I tend to look at the amount of syllables to help me.
6	truck	3	3	I remembered this one easily because the first katakana symbol as I think it resembles a ‘t’ and I associate this with the first letters of truck.
7	truck	3	2	I would probably recognise this in most contexts. The first character helps me.
11	[blank]	0	0	I didn’t pay enough attention yesterday to retain any of the katakana words.
13	truck	3	NR	Recognise <i>ku</i> .
18	truck	3	1	Have learnt ク <i>ku</i> and apart from that knew from a process of elimination.
19	<i>toruku</i>	NR	NR	Remember easily because the shape of the first character is a T.
20	truck	3	NR	Looks like a ‘T’ at beginning.

3. 車 (car)

ID	Written Answer	TA	SA	Comment
5	car	3	2	Only word with one symbol in kanji.
6	car	3	2	As there were only two symbols left, this one and that for the boat it was easy enough to distinguish them.
7	car	3	3	I think I would recognise this anywhere.
11	car	3	3	I remember this well as well as bike and train because they are extensions of 'car'.
13	car	3	NR	Bí curamach – be careful while driving.
14	car	3	2	Bí curamach – be careful = drive carefully!
15	car	3	3	This was the first word I recognised because it looks like a car parked in a space.
17	car	3	3	車 ← imagined parked car.
18	car	3	3	Car sign – like a car parked in a car space.
19	car	3	NR	Short symbol and short word.
20	car	3	NR	Like the fender on a US car.

4. 自転車 (bicycle)

ID	Written Answer	TA	SA	Comment
1	bicycle	3	3	The first symbol looks like the spokes of a bicycle.
3	bicycle	3	3	The first character looks like a ladder which makes me think of the spokes of a bike.
5	bike	3	2	Compared first symbol with spokes on a bicycle.
6	bicycle	3	3	This I remember easily because the first symbol reminds me of the spokes in a bicycle wheel. In addition to this, it helps to gauge the amount of syllables in the word when pronouncing it.
7	bike	3	2	I would recognise this in most contexts because of the boy shape at the beginning and the car at the end.
11	bike	3	3	I knew it quite well because I can link to car.
13	bicycle	3	NR	Self propelled car, car symbol.
15	bicycle	3	3	This I remember because the first symbol looks like a ladder – makes me think of fitness – going on a bicycle.
17	bicycle	3	3	自 ← ladder = equates physical exercise ⇒ bicycle

18	bicycle	3	3	[name of the teacher] explained that 自 was one person + the 車 car and the other is self-propelled = bike.
19	bike	3	NR	Remember easily from ladder as sign.
20	bike	3	1	Ladder symbol at beginning is how I remembered.

5. 船 (ship)

ID	Written Answer	TA	SA	Comment
1	ferry	2	3	Ferry and car both have only one symbol.
5	boat	2	1	Get boat, bus and train mixed up as they all have two symbols.
6	boat	2	2	See car [= As there were only two symbols left, this one and that for the boat it was easy enough to distinguish them.]
7	ferry	2	2	I probably wouldn't recognize this if embedded in a text.
10	<i>fune</i>	NR	3	🏠 home – home to France.
13	boat	2	NR	Funnel shape.
14	boat	2	2	Funnel – smoke out of chimney on boat.
15	boat	2	3	I remembered this straight away as I think about the funnel on a boat – the second symbol [= top-right part of the kanji] looks like a funnel 八.
17	ship	3	3	Fumer = to smoke in French, (<i>fune</i>) <u>funnel</u> [drawing of an Irish ferry].
18	boat	2	3	This right of the symbol has a funnel which sounds like the word <i>funa</i> .
19	ship	3	NR	Harder. Get confused with other short word.
20	ship	3	NR	Last symbol reminds me of the funnel on a ship.

6. タクシー (taxi)

ID	Written Answer	TA	SA	Comment
1	taxi	3	3	4 syllables, 4 letters.
6	taxi	3	3	I remember this word because when I first learnt this I remember thinking the first symbol was a lot more complex than the symbols for the previous word because <i>ba</i> is higher up in alphabet or script than <i>ta</i> .
7	taxi	3	2	I would have a better chance of recognizing this as it is 'less complicated' than a kanji character.
10	taxi	3	3	ク wave a taxi

15	taxi??	3	1	I'm not sure if this means 'takushi' or 'torrakku' – I think taxi because of long vowel at end?
17	taxi	3	2	<i>ta co</i> [kuh] <i>she</i> = taxi = the bus + taxi are written in the same script. シ ← this guy can't run anymore (sweating) 一 ← this guy has collapsed + need to get a taxi
18	taxi	3	3	2 people in a taxi and a steering wheel followed by the bonnet. I know ク = <i>ku</i> .
19	taxi	3	NR	タ at the beginning is like an A symbol – harder to remember.
20	ship	0	0	Guess – not at all sure – process of elimination. I feel it must be this.

7. 飛行機 (airplane)

ID	Written Answer	TA	SA	Comment
6	plane	3	3	For this it was quite simple as I had to find the word or symbol that matched the symbol for plane which was sea plane.
7	plane	3	2	The middle character would help me to recognise this.
10	<i>hikoki</i>	NR	3	行 = □ k <u>o</u>
13	plane	3	NR	<i>Suijohikoki</i> without water symbol.
17	[blank]	0	0	After looking it up <i>chikatetsu</i> – underground.
18	aeroplane	3	1	Figured it out because I was able to take it from sea plane.
19	plane	3	NR	Can't remember exact word for plane in Japanese.

8. バス (bus)

ID	Written Answer	TA	SA	Comment
6	bus	3	3	The 2 simple syllables helped me to remember this one and <u>ba</u> was one of the first symbols we learned on the script so I remember it.
7	bus	3	3	I would recognise this anywhere because it is 'simpler' than kanji.
17	bus	3	3	This symbol = 2 people running for a bus, 𓂃 ← this person is sweating as he runs!
18	bus	3	3	Two people running for a bus and the sweat coming off them.
19	bus	3	NR	Because the two characters look like people running ... easy!
21	bus	3	3	Like people walking to bus.
20	bus	3	NR	2 people running for a bus.

9. 水上飛行機 (seaplane)

ID	Written Answer	TA	SA	Comment
1	sea plane	3	3	Longest words and the end looks like airplane.
3	plane on water	3	3	Longer and there is the word for plane above, very similar
6	water/sea plane	3	3	The latter part of this symbol is the same as plane so I could match these two which was easy enough then to find the meaning.
7	sea plane	3	2	I would recognise this quite easily.
13	water plane	3	NR	Water symbol.
14	water plane	3	3	水 water sign.
15	sea plane	3	2	This I recognise because one of the girls in the group pointed out the first symbol means water.
17	sea plane	3	3	Water sign (zodiac signs).
18	sea plane	3	2	Water symbol and sign for above pointing upwards.
19	water plane	3	NR	Quite easy. 上 = symbol of over – opposite to 下 for under.
21	plane lands on water	3	1	機 propeller.

10. 電車 (train)

ID	Written Answer	TA	SA	Comment
3	train	3	3	Again use of syllables (counting them).
6	train	3	2	I remembered this word because of the two syllables in it match the two symbols.
7	electric train	3	2	I would recognise this in most contexts.
11	train	3	3	For the same reason as above I see train as a ‘rolling car.’
13	train	3	NR	(Electric car) From car symbol.
18	electric train	3	3	Car and sign for electric. Only one symbol beside car symbol.
20	train	3	NR	Electric symbol.

11. ヘリコプター (helicopter)

ID	Written Answer	TA	SA	Comment
1	helicopter	3	3	Was the word I learned with my partner, so I know it by heart.

3	helicopter	3	3	∩ resembles the top part of the helicopter.
5	helicopter	3	2	Compared first symbol with a helicopter.
6	helicopter	3	3	The first symbol in this word looks exactly like the propeller on top of the helicopter.
7	helicopter	3	2	I know it's the longest of the katakana words. I'm not sure I'd recognise this outside of the classroom.
10	helicoputa	NR	3	フ → [drawing of propeller] .
17	helicopter	3	3	Computar = computer, similar sound, hair e co pu tar ← similar to English.
18	helicopter	3	3	It's very long in katakana because it's a borrowed word (sounds like the English) and I memorised the ° [フ←] symbolize the rotor.
19	heliupta	NR	NR	Easy as the last symbol is like flat like a propeller.
20	helicopter	3	NR	The last symbol is like the propeller on a helicopter.

12. 地下鉄 (metro)

ID	Written Answer	TA	SA	Comment
6	metro	3	2	I remembered this one because of the 丌 like symbol which correspond to the phonetic <i>Te</i> in the romaji spelling of the word.
7	metro	3	2	The middle character, however I'm sure it'd help me here. Again, I recognise it on a street not sure if I'd recognise in a text.
11	[blank]	0	1	Is it some kind of train?
17	chikatesue	NR	1	Say it like the sound the train makes starting slowly + then increasing saying it faster.
18	underground train	3	3	The 丌 part is under like 上 is over so underground pointing downwards.
19	underground train	3	NR	Because the 丌 is under.
21	underground	3	NR	From picture on board.
20	underground	3	1	Guess – with difficulty

The results of Test 2

The following tables show the results of Test 2:

Test 2 (a day after the experiment)

[TA = Teacher Assessment, SA = Self-Assessment, NR= Not Rateable]

1		2		3		4		5		6		7		8		9		10		11		12	
train		bus		seaplane		helicopter		metro		bicycle		ship		car		taxi		airplane		bullet train		lorry	
densha		basu		suijō-hikōki		herikoputā		chikatetsu		jitensha		fune		kuruma		takushī		hikōki		shinkansen		torakku	
ID	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA
1	1	2	3	3	0	0	2	3	0	0	0.5	NR	3	3	3	1	0.5	1	0	0	NR	0	0.5
2	Did not take the test																						
3	3	1	3	3	3	3	3	3	0	3	2	3	3	0	3	1	2	2	2	3	3	1	NR
4	Did not take the test																						
5	3	3	3	3	0.5	3	2	3	0	0	0.5	3	3	3	0.5	3	0.5	3	3	3	0	0	2
6	3	3	3	3	2	3	0.5	3	3	3	3	2	3	3	1	3	2	3	2	3	1	2	0
7	3	2	3	3	2	3	2	3	3	2	3	3	3	3	3	2	2	3	3	3	2	3	3
8	3	NR	3	NR	2	NR	3	NR	1	NR	3	NR	2	NR	1	NR	0.5	NR	2	NR	0	NR	2
9	Did not take the test																						
10	3	NR	3	NR	2	NR	2	NR	3	NR	3	NR	3	NR	3	NR	2	NR	2	NR	1	NR	0

1	2	3	4	5	6	7	8	9	10	11	12										
train	bus	seaplane	helicopter	metro	bicycle	ship	car	taxi	airplane	bullet train	lorry										
densha	basu	suijō-hikōki	herikoputā	chikatetsu	jitensha	fune	kuruma	takushī	hikōki	shinkansen	torakku										
ID	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA									
11	NR	NR	3	3	0.5	2	1	3	0.5	3	2	2	0	1	0	0					
12	Did not take the test																				
13	3	NR	3	NR	2	NR	0.5	NR	0.5	NR	2	NR	3	NR	1	NR	0	0			
14	3	NR	3	NR	2	NR	0.5	NR	0.5	NR	3	NR	1	NR	1	NR	0	0			
15	3	3	3	3	2	2	2	3	1	2	3	3	3	2	3	2	0	0			
16	3	3	3	3	2	2	2	3	1	3	3	3	3	2	3	1	3	0	0		
17	3	3	3	3	0.5	2	0.5	3	0.5	2	3	2.5	3	3	2	1	3	0.5	NR		
18	3	3	3	3	0	0	2	3	3	3	3	3	1	3	2	3	0	0.5	3		
19	3	1	3	3	2	2	2	3	0	1	2	3	3	3	2	2	0	1	0.5	NR	
20	0	NR	3	3	0.5	NR	2	3	0	0	2	NR	3	NR	2	2	0	0	0	0	
21	3	3	3	3	2	3	2	3	1	1	0	0	3	2	0.5	3	2	2	0.5	3	
22	3	2	0.5	2	0	1	0.5	2	0	2	0	0.5	NR	2	3	0	0	1	2	0.5	NR

Learners’ comments on knowledge of the target words

The learners were asked to write how well they knew the target words in the follow-up tests, and the following shows their comments on Test 2. The learners who did not take the test or did not write their comments are excluded here.

[TA = Teacher Assessment, SA = Self-Assessment, NR= Not Rateable]

Test 2 (a day after the experiment)

1. Train (*densha*)

ID	Written Answer	TA	SA	Comment
3	<i>densha</i>	3	1	Remembered the country of Denmark.
6	<i>densha</i>	3	3	This was easy enough to remember as it came straight after <i>jitensha</i> which it sounds very like.
7	<i>densha</i>	3	2	I get a bike mixed up between the trains.
13	<i>densha</i>	3	NR	Sharon on a train in Denmark.
15	<i>densha</i>	3	3	Remembered straight away – Sharon on a train on Denmark
17	<i>densha</i>	3	3	<u>Sh</u> aron on train in <u>Den</u> mark.
18	<i>densha</i>	3	3	<u>Sh</u> aron riding on a <u>train</u> in <u>Den</u> mark.
20	<i>kotumi</i>	0	NR	Total guess.
21	<i>densha</i>	3	3	Just stuck (small word, had easy symbol)

2. Bus (*basu*)

ID	Written Answer	TA	SA	Comment
3	<i>basu</i>	3	3	Very similar in English.
6	<i>basu</i>	3	3	I had no problem in remembering this word.
7	<i>basu</i>	3	3	No problem.
11	<i>basu</i>	3	3	Similar to English hence easy to remember.
13	<i>basu</i>	3	NR	Sounds like English.
15	<i>basu</i>	3	3	Easy to remember – similar to English.

16	<i>basu</i>	3	3	When we worked in pairs, I and my partner did 4 words. I remember them no problem. They just stuck. I think they were so few.
17	<i>basu</i>	3	3	Easy to remember.
18	<i>basu</i>	3	3	Sounds like the English.
20	<i>basu</i>	3	3	Easy to remember as it is like English.
21	<i>basu</i>	3	3	Like the English 'bus' and short.

3. Seaplane (*suijō-hikōki*)

ID	Written Answer	TA	SA	Comment
3	<i>suijō hikōki</i>	3	3	Starts with 'S' and then continues the same as airplane.
6	<i>suijo hikoki</i>	2	3	This was quite easy to remember as it was so like <i>hikoki</i> , which in itself was quite an odd, funny word.
7	<i>suijo hikōki</i>	2	3	It's easy to remember, especially when I already know <i>hikōki</i> .
11	<i>siu_ hikoki</i>	0.5	2	An extension of plane so I know it relatively well.
13	<i>suijo hikoki</i>	2	NR	Sweet Joe + then plane.
15	<i>suijo hikōki</i>	2	2	Difficult to remember the spelling – had to think about it for a few seconds.
17	<i>sweet joe hi kō key</i>	0.5	2	Sweet(t) Joe is pilot on the <i>he kō</i> key seaplane.
18	<i>tsi jō _</i>	0	0	<u>Sweet Joe</u> – Have not connected the word for plane with anything so cannot remember it.
20	<i>josui hikoki</i>	0.5	NR	Guess.
21	<i>suijo hikokey</i>	2	3	Found this hard but I remember a girl in group stressing letter.

4. Helicopter (*herikoputā*)

ID	Written Answer	TA	SA	Comment
3	<i>herikoputā</i>	3	3	Sounds very similar in English.
6	<i>herikōta</i>	0.5	3	This was an easy enough word to remember.
7	<i>herikoputa</i>	2	3	It's a loan word so it's easy to remember.
11	<i>hericopitā</i>	1	3	Similar to English so easy to retain.
13	<i>hericotoru</i>	0.5	NR	Interesting sound not unlike the English.

15	<i>hericoputa</i>	2	3	Easy to remember – I had a little rhythm in my head to remember this.
16	<i>herikoputa</i>	2	3	See bus [= When we worked in pairs, I and my partner did 4 words. I remember them no problem. They just stuck. I think they were so few.].
17	<i>hair e cop pu tar</i>	0.5	3	Copu tar = is very similar to com pu tar.
18	<i>hericoputa</i>	2	3	Sounds like the English and works to a rhythm.
20	<i>herikoputa</i>	2	3	As like English.
21	<i>herikoputar</i>	2	3	Like the English

5. Metro (*chikatetsu*)

ID	Written Answer	TA	SA	Comment
6	<i>chikatetsu</i>	3	3	This word I found easy enough to remember as it had 4 definite, equal syllables and the 'tsu' at the end helped also.
7	<i>chikatetsu</i>	3	2	Saying all the parts is difficult so I have to think when I'm writing.
11	<i>densha</i>	0	3	If this is correct, it was easy to remember as I likened it to a place name in English.
13	<i>shikattsu</i>	0.5	NR	Chicago, cat, Sue
15	<i>chicatsute</i>	1	2	Had to think about it – one of the hardest. Unsure about spelling.
17	<i>shikatasue</i>	0.5	2	<i>Chica</i> = Chicago <i>te</i> <i>sue</i> ← Sue in Chicago. Sound the train makes starting off slowly + getting faster like train.
18	<i>chikatetsu</i>	3	3	In <u>Chicago</u> <u>Sue</u> is drinking tea in Irish <u>tae</u> .

6. Bicycle (*jitensha*)

ID	Written Answer	TA	SA	Comment
3	<i>jitensha</i>	3	2	I thought that the first 2 letters of <i>ji</i> was very unusual.
6	<i>jitensha</i>	3	2	I found this a little difficult to remember perhaps because it came after 5 words which I found it very easy to remember.
7	<i>jitensha</i>	3	3	Fine. I can remember it. Don't know about a wheeling.
13	<i>gitensha</i>	2	NR	<u>Gee</u> whizz (it's <u>ten</u> , [drawing of bicycle] = number 10) <u>Sharon</u> on a bike.
15	<i>jitensha</i>	3	3	'Gee, Sharon's on a bike' – Number 10 can be seen when I visualise the bike.
17	<i>jitensha</i>	3	2.5	Gee – visualised bicycle (= ten) [drawing of a bicycle] – sha ← Sharon [surname of a classmate]'s bike.
18	<i>jitensha</i>	3	3	Gee whizz it's Sharon on a bicycle (= ten) [drawing of a bicycle].

21	[blank]	0	0	Can't remember this at all. Girls taught it to us and I don't think I paid attention.
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7. Ship (*fune*)

ID	Written Answer	TA	SA	Comment
6	<i>fune</i>	3	3	This was not very difficult to remember because it was short and different.
7	<i>fune</i>	3	3	Fine. I like the sound of the word so I find it easy to remember.
11	<i>fune</i>	3	3	This is easy to remember because it's like 'funny'.
13	<i>fune</i>	3	NR	Funnel – on the Stenna line ship.
15	<i>fune</i>	3	3	Easy – funnel on boat.
17	<i>fune</i>	3	3	Fumer = to smoke in French, (<i>fune</i>) <u>funnel</u> [drawing of an Irish ferry].
18	<i>funa</i>	1	3	<i>Funa</i> sounds like funnel like on a ship.
20	<i>fune</i>	3	NR	Image of funnel → associate with a ship.
21	<i>fune</i>	3	2	Funnel of a steamship.

8. Car (*kuruma*)

ID	Written Answer	TA	SA	Comment
3	<i>kuruma</i>	3	1	Starts with a c/k sound.
6	<i>karuma</i>	1	3	This was easy enough to remember because of the <u>kar</u> at the beginning.
7	<i>kuruma</i>	3	2	I'm a bit slower on this one. It doesn't come as quickly as others.
11	<i>korume</i>	0.5	3	Easy to remember as I liked it to the car brand Toyota Corona.
13	<i>kuruma</i>	3	NR	Bí curamach – <i>cu ru ma</i> .
15	<i>kuruma</i>	3	3	Easy – my 'ma' in a car!
16	<i>kuruma</i>	3	3	See bus [= When we worked in pairs, I and my partner did 4 words. I remember them no problem. They just stuck. I think they were so few.].
17	<i>kōruma</i>	1	2	Ma is driving the car. Bí curamach – Drive carefully in Irish.
18	<i>kuruna</i>	1	3	Sounds like Corona, a car name I think or at least a name of a beer.
21	<i>karuma</i>	1	3	Like English 'car' and it is short.

9. Taxi (*takushī*)

ID	Written Answer	TA	SA	Comment
3	<i>takushi</i>	2	2	It started with <i>ta</i> .
6	<i>takushi</i>	2	3	This was similar to the English word so I had no problem here.
7	<i>takushi</i>	2	3	This comes very easily as it is a loan word.
11	<i>takisu</i>	0.5	3	Good – similar to English.
13	<i>takushi</i>	2	NR	Her <i>taco</i> → <i>taco</i> she
15	<i>takushi</i>	2	2	Spelling?
16	<i>takushii</i>	3	3	See bus [= When we worked in pairs, I and my partner did 4 words. I remember them no problem. They just stuck. I think they were so few.]
17	<i>takōshi</i>	0.5	2	Find this one hard to remember. I think of [the name of a classmate] eating <i>tacos</i> in a <i>taxi</i> (she is always eating <i>tacos</i> and <i>nachos</i>).
18	<i>takushi</i>	2	3	<u>Taco</u> <u>she</u> , both English words.
20	<i>takushi</i>	2	3	As sounds like English.
21	<i>tacusa</i>	0.5	3	Like English <i>Taxi</i> .

10. Airplane (*hikōki*)

ID	Written Answer	TA	SA	Comment
3	<i>hikoki</i>	2	3	The rhyming nature of <i>hikoki</i> helped me to remember.
6	<i>hikoki</i>	2	3	This was an unusual word so I remembered it easily, it was a funny word also.
7	<i>hikōki</i>	3	3	I remember a song called Cherokee with a – long ‘o’. The Rhythm is the sound as <i>hikōki</i> so I find it easier to remember.
17	<i>hikōkey</i>	2	2	(he) ← is driving once I get he – I remember <i>kō key</i> .
18	[blank]	0	0	I know there are 3 mora but I can’t remember the sound.
20	<i>hikoki</i>	2	NR	Remember a sound like this.
21	<i>hikookee</i>	2	2	Once I got water plane I took off ‘ <i>suijo</i> ’.

11. Bullet train (*shinkansen*)

ID	Written Answer	TA	SA	Comment
3	<i>shinkansen</i>	3	1	If I saw this I would recognise it but mix it up with metro.
6	<i>shikansen</i>	1	2	I found this difficult to remember and I think it's because it was not like the other words and it was long.
7	<i>shinkansen</i>	3	2	[Name of a classmate] suggested Sinn Féin for this and it helps me to remember the sound. I find it more difficult to remember the meaning.
13	<i>shicansen</i>	1	NR	She can send (it quickly by train).
15	<i>shinkansen</i>	3	2	Had to think.
17	<i>shicansen</i>	1	3	<u>She can send</u> sth by <u>swift</u> post on <u>fast</u> train.
18	<i>shinkansen</i>	3	3	<u>She can send</u> a parcel very quickly on a bullet train.
21	<i>tincatesu</i>	0	2	Learned this from a colleague stressing 'tin' of speed train.

12. Lorry (*torakku*)

ID	Written Answer	TA	SA	Comment
7	<i>torakku</i>	3	3	This is easy to remember because it is a loan word.
17	<i>tarukka</i>	0.5	NR	This one was difficult to recall, but I got it eventually.
18	<i>toeraku</i>	0.5	3	Pigeons being <u>towed</u> in a truck. They are singing <u>la la la</u> but actually in pigeon speak it's <u>coo coo coo</u> .
21	<i>toruku</i>	0.5	3	Sound like English.

Appendix E-2: Data from Class 2

Profiles of participants

ID	Group	Age	Gender	L1	Nationality	Note
23		21~38	F	English	Irish	
24		21~38	F	English	Irish	
25		21~38	F	English	Irish	
26		21~38	F	English	Irish	
27		21~38	F	English	Irish	
28		21~38	F	English	Irish	
29		21~38	F	English	Irish	
30		21~38	F	English	Irish	
31		21~38	F	English	Irish	
32		21~38	M	English	Irish	
33		21~38	F	English	Irish	
34		21~38	F	English	Irish	
35		21~38	F	Spanish	Spanish	
36		21~38	F	English	Irish	
37		21~38	F	French	French	
38		21~38	M	French	French	
39		21~38	M	English	Irish	
40		21~38	M	English	Irish	
41		21~38	F	English	Irish	
42		21~38	F	English	Irish	
43		21~38	F	English	Irish	

The results of Test 1

The following tables show the results of Test 1:

Test 1 (a day after the second session of the experiment)

[TA = Teacher Assessment, SA = Self-Assessment, NR= Not Rateable]

1		2		3		4		5		6		7		8		9		10		11		12	
新幹線		トラック		車		船		自転車		タクシー		飛行機		バス		水上飛行機		電車		ヘリコプター		地下鉄	
bullet train		lorry		car		ship		bicycle		taxi		airplane		bus		seaplane		train		helicopter		metro	
ID	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA
23	3	3	3	3	3	0	NR	3	3	0	0	3	2	3	2	3	3	3	3	3	3	3	3
24	NR	0	3	2	1	NR	3	NR	0	3	NR	0	NR	3	2	0	NR	3	NR	3	NR	NR	NR
25	3	1	3	3	3	2	1	3	3	3	3	3	3	3	3	3	3	3	1	3	3	3	1
26	3	1	3	1	3	3	2	3	3	3	2	3	3	3	1	3	3	NR	3	NR	3	NR	NR
27	3	1	0	0	3	3	1	3	2	0	0	1	1	0	NR	3	3	NR	3	3	3	1	3
28	3	2	3	1	3	3	3	3	3	3	1	3	3	3	1	3	3	3	2	3	2	3	2
29	3	1	3	2	3	3	2	3	1	3	2	3	3	3	2	3	3	3	1	3	2	3	2
30	0	0	3	3	3	1	0	NR	1	3	1	3	NR	3	1	3	NR	1	NR	0	0	0	0
31	3	3	3	3	3	3	3	1	3	3	3	3	1	3	3	3	3	3	1	3	3	3	3
32	0	1	3	2	3	2	0	2	3	3	1	3	3	3	1	3	3	3	3	0	2	3	2

1		2		3		4		5		6		7		8		9		10		11		12	
新幹線		トラック		車		船		自転車		タクシー		飛行機		バス		水上飛行機		電車		ヘリコプター		地下鉄	
bullet train		lorry		car		ship		bicycle		taxi		airplane		bus		seaplane		train		helicopter		metro	
		TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA
33	0	0	0	1	3	3	0	0	NR	0	1	0	0	3	3	0	2	1	NR	0	1	2	NR
34	3	2	0	NR	3	2	3	3	1	0	NR	3	3	3	NR	3	2	3	1	3	3	3	3
35	3	2	0	0	3	3	3	3	2	0	0	3	NR	3	3	1	1	3	2	0	0	3	1
36	3	2	3	2	3	3	3	3	2	3	NR	3	3	3	3	2	3	NR	3	1	3	2	2
37	2	1	0	2	3	3	0	1	0	2	NR	3	3	0	NR	3	3	1	1	3	3	3	3
38	3	1	3	2	3	3	2	0	0	0	2	3	2	3	1	3	3	1	3	2	2	3	2
39	0	0	0	1	3	2	0	0	3	1	3	1	1	0	0	3	0	0	0	0	2	2	3
40	0	0	0	1	2	1	0	0	3	1	3	1	0	3	1	2	0	3	1	3	0	3	0
41	3	1	0	0	3	3	3	3	3	0	0	3	NR	3	2	NR	3	2	3	2	3	3	3
42	1	0	3	0	3	2	2	1	1	2	3	1	3	3	2	3	1	1	2	3	2	1	0
43	3	0	3	0	3	1	3	1	1	1	3	NR	3	3	2	3	3	3	1	3	1	1	1

Learners’ comments on knowledge of the target words

The learners were asked to write how well they knew the target words in the follow-up tests, and the following shows their comments on Test 1. The learners who did not write their comments are excluded here.

[TA = Teacher Assessment, SA = Self-Assessment, NR= Not Rateable]

Test 1 (a day after the second session of the experiment)

1. 新幹線 (bullet train)

ID	Written Answer	TA	SA	Comment
23	bullet train	3	3	It was 3 very complicated symbols in this alphabet and the last one has part of the car symbol.
24	<i>chikatetsu</i>	NR	0	Guessing really.
26	bullet train	3	1	Not sure of symbols.
28	bullet fast train	3	2	I remember because of the ↑ [𠄎 – 幹↵] in the second symbol.
29	bullet train	3	1	Guessed.
31	high speed train	3	3	Remembered ↑ [𠄎 – 幹↵] symbol.
32	ship	0	1	A guess based on memory.
34	bullet train	3	2	The arrow ↑ [𠄎 – 幹↵] made it clear to me.
35	bullet train	3	2	Association of shape of a man with spear.
36	bullet train	3	2	I remembered it fairly easily because it looks like there is a bullet going up through it.
38	<i>shinkansen</i>	3	1	Remembered it because of 3 complex symbols. → and this is how we call this train in French.
41	bullet train	3	1	Process of elimination!
42	underground train	1	0	Guess.
43	bullet train	3	0	It’s a guess.

2.トラック (lorry)

ID	Written Answer	TA	SA	Comment
23	truck/lorry	3	1	Derives from truck in English.
24	lorry	3	2	Again recall from OHP.
25	lorry/truck	3	3	Remember this well because it's written in katakana.
29	truck	3	2	Alphabet for foreign words.
31	truck	3	3	Remembered ク .
32	truck	3	2	Remembered clearly the first symbol.
36	truck	3	2	I remember it as it was one of the few written with these symbols.
37	bus	0	2	From English.
38	lorry	3	2	Because of last symbol: recognising it (ku).
40	taxi	0	1	Really a guess.
41	taxi	0	0	Couldn't figure out which was which (katakana).
42	truck	3	0	Guess.
43	lorry	3	0	A guess.

3.車 (car)

ID	Written Answer	TA	SA	Comment
23	car	3	3	Remember this very well and the 3 other words. All contain it, well it was a guideline!
24	bike	1	NR	Similar Chinese letters to train – but train has 2 characters.
26	car	3	2	Think it's correct, remember cards – activity.
27	car	3	2	Because it's a single symbol for machine.
28	car	3	2	It's the base symbol for train and bike.
29	car	3	3	Remembered from last week – 1 symbol for rolling wheeled vehicle.
30	car	3	1	This symbol had something to do with movement.
31	car	3	3	I had 丁 [車 ←] as a car park in my head.

32	car	3	2	Symbol easy to remember.
33	car	3	3	I remembered it because there are 3 words with this symbol.
34	car	3	2	Car parking space 申 [車 ←].
35	car	3	3	Association of shape of a car park.
36	car	3	3	I remember it because of the symbol which looks like a parking space.
38	car	3	3	Single symbol but this is why I recognize it.
41	car	3	3	Looks like a car in garage.
42	car	3	2	I know the symbol was the same in train, bicycle and car.
43	car	3	1	I remember 車 something connecting.

4. 船 (ship)

ID	Written Answer	TA	SA	Comment
26	ship	3	2	Ship was 1 symbol I think again memory of activity.
27	ship	3	1	Not sure, but remember it has a single symbol.
28	ship	3	3	I remember the shape 八 [船 ←] is like the chimney on the boat.
29	ship	3	2	Short word.
31	ship	3	3	Remembered 八 [船 ←].
32	[blank]	0	0	Can't think of other mode of transport.
34	boat	2	3	八 [船 ←] like a funnel.
35	ship	3	3	Association of symbol with chimney of the ship.
36	ship	3	3	Memory/hearing strategy: think of the funnel symbol here which reminds me of word.
38	boat	2	0	By distinguishing from others, 2 symbols.
41	ship	3	3	Same length as 'car' but looks different.
42	boat	2	1	Remembered the symbols were short.
43	ship	3	1	I vaguely remember there was just 1 character.

5. 自転車 (bicycle)

ID	Written Answer	TA	SA	Comment
23	bike	3	3	Last symbol car, 1 st symbol reminded me of ladder to climb on to it.
24	<i>suijohikoki</i>	0	NR	Guessing.
26	bicycle	3	2	Remember trying to connect shape to climbing up ladder on to bike.
27	bike	3	2	Because it's connected to machine and because of the first symbol with horizontal line.
28	bike	3	3	I remember the 自 symbol – like steps to hop up on the bike.
29	bicycle	3	1	Contains symbol for car (remembered words are connected from last week).
31	bike	3	1	I knew the symbol 車 and also 自 looks like a ladder to get onto the bike.
32	bicycle	3	2	The symbol 車 alerted me to what it was.
35	bike	3	2	Remembered third same symbol as car.
36	bicycle	3	2	I knew the symbol for a car + remembered [the name of teacher] told us it was a self-rolling vehicle.
37	taxi	0	2	Sign for car.
38	[blank]	0	0	Something about a vehicle anyway because of the end of the word.
40	bike	3	1	Has symbol for wheel & for auto self.
41	bike	3	3	Remember it from a way we found to interpret symbols
42	train	1	2	Last symbol – car – bicycle.

6. タクシー (taxi)

ID	Written Answer	TA	SA	Comment
23	[blank]	0	0	Can't remember.
24	taxi	3	NR	Again ー means a long pronunciation.
25	taxi	3	3	Remember this well because it's written in katakana.
28	taxi	3	1	There is very little to associate with these symbols which makes remembering difficult.
29	taxi	3	2	Alphabet for foreign words.
31	taxi	3	3	I remembered these symbols.

32	taxi	3	1	Remembered first character.
34	truck	0	NR	The sound is elongated — <i>tarukū</i> .
36	taxi	3	NR	I remember it again as there were only a few written in this way + I recognise the symbols.
38	bicycle	0	2	Same reason as for lorry [because of last symbol: recognising it].
40	taxi	3	1	I remember because of final symbol.
41	truck	0	0	No idea for this one.
43	taxi	3	NR	I remember — = long sound.

7. 飛行機 (airplane)

ID	Written Answer	TA	SA	Comment
23	airplane	3	2	Found the other word for hydroplane so knew it was right!
28	plane	3	3	I remember the last symbol – It's like a propeller.
29	plane	3	3	Root of longer word for 'water plane.'
34	aeroplane	3	3	Propellers on last symbol.
36	plane	3	3	I remembered it because it looks like there are propellers at the end of image/characters.
37	plane	3	3	Just know!
38	plane	3	2	In comparison with the word for water plane.
41	plane	3	NR	Shorter version of hydroplane.
42	airplane	3	1	Guessed because symbols were similar to water plane.
43	plane	3	3	I know these 3 symbols are the same in water plane.

8. バス (bus)

ID	Written Answer	TA	SA	Comment
23	bus	3	2	I think this is it because it has 2 syllables and similar to English again.
24	bus	3	2	Think I can recall this from the OHP.
25	bus	3	3	Remember this well because it's written in katakana.
26	bus	3	1	Guess.

28	bus	3	1	It's the shortest.
29	bus	3	2	Alphabet for foreign words.
30	bus	3	1	Short syllables.
31	bus	3	3	Easy symbol to remember.
32	bus	3	1	Again memory.
33	bus	3	3	I remembered it because it using the symbols for words borrowed into English.
35	bus	3	3	Association of symbol with somebody running after the bus.
36	bus	3	3	It looks like someone running after a bus, therefore I remembered it perfectly.
38	bus	3	1	2 symbols and because of this alphabet.
40	bus	3	1	I remember 𠃑 is <i>su = busu</i> .
41	bus	3	2	Length of word made it easy.
43	bus	3	2	2 syllables.

9. 水上飛行機 (seaplane)

ID	Written Answer	TA	SA	Comment
23	hydroplane	3	3	It contains same 3 symbols as airplane at the end.
24	<i>shinkansen</i>	0	NR	Long word – more Chinese letters?
27	water plane	3	3	Because it begins with the water symbol.
28	water plane	3	3	Same as plane but longer.
29	water plane	3	3	Contains root word for 'plane' – able to match it.
31	water plane	3	3	Remembered 上 above water.
32	seaplane	3	3	Combination with symbol for plane.
33	metro	0	2	Symbol for below ground.
34	water plane	3	2	上 on water?
35	water plane	3	1	Symbol 上 for over.
36	water plane	3	2	I remember it as a really long word when being pronounced → recognised.

37	water plane	3	3	Plane + water.
38	water plane	3	3	Because of the beginning.
40	plane	2	0	A guess.
41	hydroplane	3	NR	Looked for one that matched with the end bit.
42	water plane	3	1	Guessed because symbols were same as in airplane.
43	water plane	3	3	Last three characters = plane (I would need to see both together to recognize).

10. 電車 (train)

ID	Written Answer	TA	SA	Comment
23	train	3	3	Last symbol is car, first is like a rail, railcar.
24	train	3	NR	Double the symbols of the bike.
26	train	3	NR	Electric car, something teacher said.
27	train	3	NR	Because of the machine symbol.
28	train	3	2	I remember from explanation, electric car.
29	train	3	1	Contains symbol for car (remembered connection from last week).
32	train	3	3	車 this symbol gave it away.
35	train	3	2	Electrical car (symbol).
36	train	3	NR	It is similar to the car symbol → I remember it.
38	train	3	1	2 symbols, 2 syllables, and because of the last symbol that associate with 'vehicle.'
40	train	3	1	This is a guess because 車 is wheel.
41	train	3	2	Electric <u>car</u> .
42	bicycle	1	2	Last symbol – car – train.

11. ヘリコプター (helicopter)

ID	Written Answer	TA	SA	Comment
23	helicopter	3	3	It's the longest one in this alphabet and derives from an English word.
24	helicopter	3	NR	ー → means a long pronunciation.

25	helicopter	3	3	Remember this well because it's written in katakana.
26	helicopter	3	NR	Recall from activity, the type of alphabet.
27	helicopter	3	3	Because it's a foreign word.
28	helicopter	3	2	Because it was the longest.
29	helicopter	3	2	Alphabet for foreign words.
32	bullet train	0	2	The length of the word.
36	helicopter	3	1	I remembered it as it was one of the few left → by process of elimination.
37	helicopter	3	3	フ → know it's from helicopter.
38	helicopter	3	2	Because of this symbol フ. Remind me another letter in another language.
40	helicopter	3	0	Guess the number of syllables.
41	helicopter	3	2	Longest katakana word.
43	helicopter	3	1	I remember long sound at end = ー.

12. 地下鉄 (metro)

ID	Written Answer	TA	SA	Comment
1	subway/metro	3	3	Because the symbol in the middle has a line under the 下 → ground level under ground.
2	<i>hikoki</i>	NR	NR	Not sure about it at all.
5	plane	1	3	Because it's the three symbols also found in water plane.
6	underground	3	2	The second symbol underground.
7	metro	3	2	Contains symbol for under 下.
9	underground train	3	3	Remembered 下 underground.
10	metro	3	2	The middle symbol showed it was underground.
11	train	2	NR	Symbol for above ground.
12	metro	3	3	Metro = underground 下.
13	underground	3	1	Symbol 下 for under.
14	underground train	3	2	Again, I remembered this easily because of the middle symbol which looks like a T with a line under it (= 下) for the

				underground.
15	underground	3	3	下 → under.
16	subway/ metro	3	2	Because of the symbol meaning 'under' [= 下] in comparison with 'water plane' [= 上].
18	metro	3	0	下 means under?
19	underground	3	3	Middle symbol looks like something going under ground.
20	fast train	1	0	Guess.
21	bike	1	1	3 symbols?

Additional comments:

A student (= ID 24) wrote an additional comment in the blank space, that is “I can remember all the words, e.g., *fune*, *shinkansen*, etc., but can’t recall the associated Chinese letters.”

The results of Test 2

The following tables show the results of Test 2:

Test 2 (a day after the second session of the experiment)

[TA = Teacher Assessment, SA = Self-Assessment, NR= Not Rateable]

1		2		3		4		5		6		7		8		9		10		11		12	
train		bus		seaplane		helicopter		metro		bicycle		ship		car		taxi		airplane		bullet train		lorry	
densha		basu		suijō-hikōki		herikoputā		chikatetsu		jitensha		fune		kuruma		takushī		hikōki		shinkansen		torakku	
ID	TA	SA	TA	SA	TA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA
23	0	0	1	NR	1	NR	2	NR	1	NR	0	0	0	0	0	0	0	2	NR	0	NR	0	0
24	3	2	3	3	2	3	3	3	3	3	2	3	NR	3	2	3	3	2	NR	3	3	3	2
25	3	3	3	3	2	3	3	3	2	3	3	3	3	3	3	3	2	2	2	3	2	3	3
26	3	1	3	2	0.5	2	2	2	3	2	0.5	2	0.5	1	1	0.5	2	3	2	1	2	0.5	2
27	3	3	0.5	2	0.5	2	0.5	0	0	0	0	1	3	0	0	0	0	2	2	0	0	0.5	2
28	3	2	3	2	2	2	2	1	1	3	NR	3	2	3	3	2	2	2	2	3	2	0.5	2
29	3	3	2	3	2	3	2	1	2	3	3	3	3	0.5	3	2	3	2	3	3	3	2	3
30	3	NR	3	NR	3	2	NR	3	NR	3	NR	3	NR	3	NR	2	NR	3	NR	1	NR	1	NR
31	3	3	0.5	3	0.5	2	2	1	2	1	3	3	3	3	3	2	3	0.5	3	1	2	0.5	3
32	3	NR	3	3	0.5	2	2	3	3	0.5	NR	2	3	0.5	1	0.5	1.5	2	3	0.5	1.5	0.5	1.5

ID	1		2		3		4		5		6		7		8		9		10		11		12	
	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA
33	3	1	3	3	0.5	2	2	NR	0	1	0.5	1	3	3	3	NR	2	2	2	0	0	3	NR	
34	3	3	3	3	1	NR	2	NR	1	0	1	NR	3	NR	1	NR	2	NR	3	NR	1	NR	0.5	NR
35	3	1	3	3	2	2	2	3	1	2	0	0	3	3	0	0	2	2	2	3	1	2	1	
36	3	3	3	3	2	3	2	3	1	0	3	2	3	3	3	3	2	2	2	3	3	0.5	1	
37	1	NR	3	NR	0.5	NR	0.5	NR	1	NR	0	0	3	NR	3	NR	2	NR	2	0	0	3	NR	
38	3	1	3	3	0.5	1	0.5	2	1	1	0	0	0	0	3	3	2	1	0	NR	3	3	NR	
39	3	NR	3	2	2	2	2	2	0	3	1	3	0	NR	3	3	2	NR	2	3	0	0	0	
40	0.5	1	1	3	2	3	2	3	0	1.5	0	NR	3	3	3	2	2	3	2	NR	1	0	1	
41	1	3	3	3	0.5	2	3	3	1	1	0.5	3	2	3	2	3	0.5	3	2	3	1	3	2	0
42	3	2	3	3	0	0	2	2	0	1	3	2	1	2	1	2	2	2	2	1	0	0.5	1	
43	3	2	3	3	2	3	1	3	1	3	0	0	2	3	1	NR	0.5	3	2	3	3	0	2	

Learners' comments on knowledge of the target words

The learners were asked to write how well they knew the target words in the follow-up tests, and the following shows their comments on Test 2. The learners who did not write their comments are excluded here.

[TA = Teacher Assessment, SA = Self-Assessment, NR= Not Rateable]

Test 2 (a day after the second session of the experiment)

1. Train (*densha*)

ID	Written Answer	TA	SA	Comment
24	<i>densha</i>	3	2	From OHP.
26	<i>densha</i>	3	1	Not 100%, process of elimination.
27	<i>densha</i>	3	3	I remember telling someone the word yesterday evening.
29	<i>densha</i>	3	3	Short and easy to pronounce.
35	<i>densha</i>	3	1	Association of sounds den = <i>tren</i> (in Spanish).
36	<i>densha</i>	3	3	I found it easy to remember.
37	<i>denja</i>	1	NR	I think.
38	<i>densha</i>	3	1	Some confusion with the word pronunciation with boat.
40	<i>denshin</i>	0.5	1	I think this is train, and bike is a bit longer.
41	<i>chensha</i>	1	3	Easy.
43	<i>densha</i>	3	2	'Body memory'

2. Bus (*basu*)

ID	Written Answer	TA	SA	Comment
27	<i>busa</i>	0.5	2	It's like the English word.
28	<i>basu</i>	3	2	It's like bus.
29	<i>basū</i>	2	3	Similar to English.
31	<i>busa</i>	0.5	3	Very similar to English.
33	<i>basu</i>	3	3	I remembered it was a short word.

34	<i>basu</i>	3	3	Like ' <i>basura</i> ' Spanish for rubbish.
35	<i>basu</i>	3	3	It's similar to English.
36	<i>basu</i>	3	3	It reminded me of the English word.
37	<i>basu</i>	3	NR	Easy.
38	<i>basu</i>	3	3	Close to English-French.
39	<i>basu</i>	3	2	I knew it was a short word.
40	<i>busu</i>	1	3	It's very similar to English.
41	<i>basu</i>	3	3	Easy.
43	<i>basu</i>	3	3	Similar to English.

3. Seaplane (*suijō-hikōki*)

ID	Written Answer	TA	SA	Comment
24	<i>suijo hikoki</i>	2	3	From OHP.
27	<i>swejo hikoki</i>	0.5	2	It was the longest word in the list.
28	<i>suijo hikoki</i>	2	NR	I think of sweet Joe and then plane.
29	<i>suijo hikoki</i>	2	3	Has root word for plane.
32	<i>suijo ikoki</i>	0.5	3	Sounds funny so remember.
33	<i>sijo hikoki</i>	0.5	2	Similar to airplane.
34	<i>suyjo hikōki</i>	1	NR	<i>Su y jo</i> → 'su' y 'yo' in Spanish.
35	<i>suijo hikoki</i>	2	2	Similar to plane.
36	<i>suijo hikoki</i>	2	3	I remember it as we had a joke where we pointed at 'Joe' in the class each time we said it.
38	<i>suiji ?ijō?i</i>	0.5	1	Know the beginning because I like the idea of expressing/naming this object. Reminds me modern Icelandic words.
40	<i>suijo hikoki</i>	2	3	It's long and complicated and sounds very funny → so it sticks in your mind.
42	[blank]	0	0	No idea – how it ends in __ <i>hi ko ki</i> .
43	<i>suijo hikoki</i>	2	3	'Body memory'

4. Helicopter (*herikoputā*)

ID	Written Answer	TA	SA	Comment
24	<i>herikoputā</i>	3	3	From OHP.
27	<i>herikopeta</i>	0.5	2	It's like the English word.
28	<i>herikoputa</i>	2	2	Sounds like helicopter.
29	<i>herikoputa</i>	2	3	Similar to English.
31	<i>herikoputa</i>	2	3	Very similar to English.
32	<i>herikoputa</i>	2	3	Sounds like English word a little and also contains a naughty Spanish word.
33	<i>herikoputa</i>	2	NR	It was similar to English.
34	<i>herikoputa</i>	2	NR	Like the English.
35	<i>herikoputa</i>	2	3	It's similar to English.
36	<i>herikoputa</i>	2	3	It sounds like the English word.
37	<i>erikoputa</i>	0.5	NR	Easy.
38	<i>ezikopturā</i>	0.5	2	Close to English-French.
39	<i>helikoputa</i>	2	2	I remembered it was a borrowed word from English.
40	<i>herikoputa</i>	2	3	Similar to English.
43	<i>herikopitā</i>	1	3	Similar to English.

5. Metro (*chikatetsu*)

ID	Written Answer	TA	SA	Comment
24	<i>chikatetsu</i>	3	3	<i>Chika</i> = <i>chicos</i> – lots of people.
29	<i>chikatetsui</i>	1	2	A difficult word – ending sounds like a type of fly.
10	<i>chikatetsu</i>	3	3	Sounds like an English sentence.
33	<i>sikansen</i>	0	1	Remembered English phrase 'she can sing.'
35	<i>chikatshu</i>	1	2	Association of metro with <i>chica</i> (girl in Spanish).
36	<i>chikasu</i>	1	0	I had no recollection of this word.

40	<i>shingansen</i>	0	1.5	I'm not sure if this is train or metro, I remember it because it reminds me of Mexican-Spanish 'chinganse'.
42	<i>suijo _ _ _</i>	0	1	Cannot remember the ending.
43	<i>chicatsesu</i>	1	3	I thought of word for girl 'chica'.

6. Bicycle (*jitensha*)

ID	Written Answer	TA	SA	Comment
24	<i>jitensha</i>	3	2	From OHP + pair work.
28	<i>jitensha</i>	3	NR	I remember 'tension.'
29	<i>jitensha</i>	3	3	Practised.
31	<i>jidensha</i>	1	3	Similar to train.
33	<i>jishensa</i>	0.5	1	It is similar I think to train but don't know how to spell it.
36	<i>jitensha</i>	3	2	It sounded quite different to the other words so I remembered.
43	<i>j</i>	0	0	I knew it begin with j, that's all.

7. Ship (*fune*)

ID	Written Answer	TA	SA	Comment
24	<i>fune</i>	3	NR	Pronounced like <i>hune</i> .
27	<i>funa</i>	1	3	I remember thinking it sounded more like 'who-na' but was written as 'fu-na' in the handout/OHP.
28	<i>fune</i>	3	2	Like funnel.
29	<i>fune</i>	3	3	Remembered soft 'f' sound.
32	<i>funē</i>	2	3	Just remember it.
33	<i>fune</i>	3	3	Remembered you don't pronounce 'f'.
34	<i>fune</i>	3	NR	Like the funnel on a ship.
35	<i>fune</i>	3	3	I remember the symbol for chimney [八].
36	<i>fune</i>	3	3	I found it to be an easy word to learn.
37	<i>fune</i>	3	NR	Easy.
39	<i>shekenseng</i>	0	NR	Association of ship Titanic 'she can't sink.'

40	<i>fune</i>	3	3	Straightforward enough.
43	<i>funē</i>	2	3	I remember the 'hu' sound at beginning was funny.

8. Car (*kuruma*)

ID	Written Answer	TA	SA	Comment
24	<i>kuruma</i>	3	2	From OHP.
28	<i>kuruma</i>	3	3	It's like Corolla, a model of car.
29	<i>koruma</i>	0.5	3	Practised.
34	<i>karuma</i>	1	NR	Like 'Corolla' the car.
36	<i>kuruma</i>	3	3	It was easy to pronounce and I remember it from the OHP.
37	<i>kuruma</i>	3	NR	OK.
38	<i>kuruma</i>	3	3	One of the first & looked at on OHP.
40	<i>kuruma</i>	3	2	I had forgotten all about this word till now.
43	<i>karuma</i>	1	NR	'Body' memory.

9. Taxi (*takushi*)

ID	Written Answer	TA	SA	Comment
24	<i>takushī</i>	3	3	<i>Shī</i> = long ー
28	<i>takushi</i>	2	2	Repetition.
29	<i>takushi</i>	2	3	Similar to English.
31	<i>takushi</i>	2	3	Similar to English.
33	<i>takushi</i>	2	2	Remembered both words begin with 't'.
34	<i>takushi</i>	2	NR	Like the English word.
36	<i>takushi</i>	2	2	It sounds a little like the English word.
37	<i>takushi</i>	2	NR	Not sure at all.
38	<i>takushi</i>	2	1	Close to English. Confused with word pronunciation for bicycle.
39	<i>takushi</i>	2	NR	Borrowed word from English.

40	<i>takushi</i>	2	3	Similar to English.
43	<i>tahkashī</i>	0.5	3	Similar to English.

10. Airplane (*hikōki*)

ID	Written Answer	TA	SA	Comment
27	<i>hikoki</i>	2	2	It's the final sounds in the water plane.
28	<i>hikoki</i>	2	2	I only remember this because of repetition.
29	<i>hikoki</i>	2	3	Sounds like hokey cokey! Root of seaplane.
32	<i>hikoki</i>	2	3	See comment on seaplane [= sounds funny so remember].
34	<i>hikōki</i>	3	NR	I don't know why I remember this but it was easy for me.
35	<i>hikoki</i>	2	2	Association with movement of plane ↻ (giro).
36	<i>hikoki</i>	2	2	I remember it as I know the word for water plane + remember it as a version of that.
37	<i>hikoki</i>	2	NR	Not sure about spelling.
40	<i>hikoki</i>	2	NR	Water plane is <i>suijo hikoki</i> then this is logical.
43	<i>hikoki</i>	2	3	'body memory' + visualized word.

11. Bullet train (*shinkansen*)

ID	Written Answer	TA	SA	Comment
24	<i>shinkansen</i>	3	3	Recall it from picture on OHP – bottom left corner.
28	<i>shinkansen</i>	3	2	It's like tin can. I don't know why that helps??
29	<i>shinkansen</i>	3	3	Practised this word a lot because it was difficult.
34	<i>shikensen</i>	1	NR	Like 'she can sing' in English.
36	<i>shinkansen</i>	3	3	It reminds me of the French for '15 years' – ' <i>quinze ans.</i> '
38	<i>shinkansen</i>	3	3	This is how we call it in French.
40	<i>shingansen</i>	1	1	I'm mixed up with all these trains.
42	[blank]	0	0	No idea – had difficulty remembering this word last week.
43	<i>shinkansen</i>	3	3	I linked it with English words 'shin' and 'Kansas'.

12. Lorry (*torakku*)

ID	Written Answer	TA	SA	Comment
24	<i>torakku</i>	3	2	Top right corner picture on OHP.
27	<i>tiruka</i>	0.5	2	Because of the r/l sound in the middle of the word.
28	<i>taraku</i>	0.5	2	It's like truck.
29	<i>toraku</i>	2	3	Similar to English.
32	<i>toraka</i>	0.5	1.5	Again an English word.
33	<i>torakku</i>	3	NR	I remembered there is two 'k' → you stop and they say 'k' again.
34	<i>tarakū</i>	0.5	NR	Like the English word.
36	<i>taraku</i>	0.5	1	I had a slight block with this word, even during the class.
37	<i>torakku</i>	3	NR	OK.
38	<i>torakku</i>	3	NR	Because of the pause in between.
40	<i>trukuma</i>	0	1	I think I might have made this word up.
41	<i>tolaku</i>	2	0	Needed to ask someone!
42	<i>torukka</i>	0.5	1	[blank]
43	<i>koruma</i>	0	2	'body' memory.

Appendix E-3: Data from Class 3

Profiles of participants

ID	Group	Age	Gender	L1	Nationality	Note
44	G1	26	F	English	Irish	Did not take Test 2-2
45	G1	29	M	English	Irish	
46	G1	24	F	English	Irish	
47	G1	26	F	English	Irish	
48	G1	31	F	English	Irish	
49	G2	34	M	French	French	
50	G2	41	M	English	Irish	
51	G2	34	F	Spanish	Spanish	Did not take Test 1-2 & 2-2
52	G2	32	F	English	Irish	
53	G2	25	F	French	French	Did not take Test 2-2
54	G3		F	English	Irish	Did not attend Session 2 Did not submit Questionnaire 1 & 2 Did not take Test 1-2 & 2-2
55	G3		F	English	Irish	Did not submit Questionnaire 2
56	G3	37	F	English	American	Did not take Test 2-2
57	G3	25	F	English	Irish	
58	G4	26	M	English	Irish	Did not attend Session 1 Did not take Test 1 & 2
59	G4	27	M	English	Irish	Did not attend Session 1 Did not take Test 2-1
60	G4	27	F	English	Irish	Did not attend Session 1 Did not take Test 1-1 & 2-1 Did not take Test 1-2 & 2-2
61	G4	25	F	English	Irish	Did not attend Session 1

Summary of Questionnaire 1: Questionnaire 1 was collected from 17 students, and the following is a summary of their comments extracted from the questionnaire.

Phase 1: Introduction of new words and learning the words with sets of cards

ID	① Activity(-ies): What I was doing	② Learning target(s): What I was trying to learn	③ Problems/difficulties I am having after this phase	④ What I need to do to solve the problem/overcome the difficulty	⑤ How did I fare in relation to the problems I listed above?
44	OHP: Transport vocab. I was trying to remember things verbally and from the pictures, the order they were in.	I was trying to learn new words.	Recalling and remembering words.	Try and pay more attention.	[Blank]
45	Overhead projector, transport vocabulary. I was trying to remember verbally and from the pictures.	New vocabulary, also remembering symbols and patterns of seaplane and plane.	Recognising the characters. Easier to understand the pictures.	Home study. Concentrate more during drill work.	Not too bad. I didn't find it as difficult as expected.
46	Transport OHP Transport vocab. Trying to memorise visually + verbally.	Words, grammar structures	Recalling words, recognise the symbols.	Pay more attention.	I would have needed to be more alert. I didn't fare very well.
47	Learning transport vocabulary-cards.	I was trying to commit them to memory by repeating them and visualizing them.	I am having difficulty recognising the kanji.	Spend more time studying the kanji.	I think I fared quite well in recognising the kanji after a few more practices.
48	Looking at the pictures and trying to remember the words by word association.	Just trying to cement the words into my memory by repetition and visualisation	Problems with Japanese script.	Try to visualise the symbols and associate them with the words.	OK. I was helped along by the other group members.
49	I was associating the sound of new words to either the picture or their writing.	I was trying to remember all the new 12 words, how they sounded and how to write them too.	Sometimes I had difficulties remembering how to pronounce the words.	I need to remember the different syllables of each word and repeat the words constantly. It helped to visualise how the words were written too.	I did fine after a little while. Again, as we did a lot during the class, it helped for revision at home.

50	Trying to listen and sometimes write them.	Some amounts at a time - maximum six items at a time.	Can't easily remember/commit to memory words.	I think that I prefer to study privately in my own time and pace.	I feel that the classroom is not the best place for me to learn - at home at my own pace works better.
51	Writing down their sounds in the order that were placed.	I memorised where the words were positioned. Therefore when the teacher pointed at one picture, I knew how to pronounce it.	Associating the picture with its name → and memorise it.	Write down each object several times until I would have memorising.	I feel that I developed good memory techniques and remembered each of the words well after I had some mechanisms put in place.
52	Looking at the overhead. Identifying patterns in either sounds or how they were written. Taking a visual snap of the image.	Patterns in sound and text so I could remember the words.	It took me a little longer to identify patterns.	Develop new strategies.	Well. I know the words now but still have difficulty in dedicating effort to remembering the script as I haven't assigned any value to it.
53	I was listening and trying to find ways of remembering the pronunciation of the new words (= <i>Chikatetsu</i> - I thought of Gemma, who is Spanish, and the word "Chica." I also tried to distinguish the logic of the system of writing.	I tried to learn first the pronunciation, and then the written aspect of the words (Never thought of trying to write the words but to find ways of recognising them when written).	I don't think I had any difficulty at this stage. I was only following the instructions and doing my best to remember new words. The only difficulty would have been finding the motivation to learn.	These new words. The first time. I saw these 12 new words on the board, all sounding nearly the same, I started to panic...	...but I decided to play the game, do what I was told to do, push myself a lit bit and after 5 minutes I was fine.
54	Did not submit Questionnaire 1				
55	Repetition. Linking sound to sound. I know (in English/German), try to remember if long/short word.	12 methods of transport, colours (red, green, blue), linking to form adjective + noun compounds (e.g. a red taxi)+ form & "my car is red".	I don't feel that in this phase I have any serious problems. Any minor problem repetition can cure. It was well introduced.	A little more repetition or activities written + spoken.	[Blank]

56	Repetition of words for transport on OHP.	Vocabulary of 12 modes of transport, 3 colours, and expressions using such.	Poor memory/retention/concentration, probably due to tiredness.	Constant revision; need to learn how to use mnemonics.	I remembered more vocabulary after last class revision.
57	Writing them down phonetically/repeating them under my breath. Language 1 interference - tried to link vocab words in Japanese to similar sounding words either in English/German/French.	Transport vocab, colours, possessive - "my", group possession "our", how to say "also".	None that I am aware of, I really got involved with the vocab learning.	More time + dedication! More practice.	[Blank]
58	Did not attend Session 1				
59	Did not attend Session 1				
60	Did not attend Session 1				
61	Did not attend Session 1				

Phase 2: Categorising the words

ID	① Activity(-ies): What I was doing	② Learning target(s): What I was trying to learn	③ Problems/difficulties I am having after this phase	④ What I need to do to solve the problem/overcome the difficulty	⑤ How did I fare in relation to the problems I listed above?
44	[Blank]	[Blank]	[Blank]	[Blank]	[Blank]
45	Putting the vocabulary in sub categories (pollution).	Thinking in context. Using vocabulary in defined sub categories.	I am not very literate in mechanics or the environment. So I did not realise that trains in Japan were electric.	[Blank]	[Blank]

46	[Blank]	[Blank]	[Blank]	[Blank]	I need to be more alert.	[Blank]
47	Placing the cards in sequence according to pollution.	To recognise the words in written form - kanji + katakana.	None.	Nothing.	-	
48	Participating with the group and trying to work out which vehicles caused the most pollution.	By categorising the words, it helped get the words into my head.	Still experiencing difficulties with kanji.	Spend more time, perhaps do another categorisation.	A little better, but still finding difficulties.	
49	I found the activity about placing the pictures with the symbols a bit difficult.	Was trying to remember how the transports were written.	Still find it hard to remember how to recognise the words with katakana symbols.	Write the symbols.	I found it hard to remember all the symbols.	
50	Tried to focus on where they went.	I was attempting to see where they went in a sentence.	Sometimes it was difficult to recognise the smaller words like 'wo' 'ka' etc.	Tried to learn by heart where they went; sometimes attempted to associate them with other words.	Towards the end I started to get the hang of it and given more time may have got "it".	
51	Putting the pictures according to different criteria (Sea, air, land; power; etc.).	Associating the pictures with the location in the sheet (where I wrote their names).	It needed a lot of concentration, since their special order was changed.	Change strategy and associate each picture to their name, instead of to the space in my sheet where I wrote them.	A lot of peer work was needed in order to carry out the activity successfully.	
52	Trying to remember vocabulary items and group them appropriately - consolidate learning.	Consolidate vocabulary.	Fine, but wasn't interested in working with the kanji.	See a positive reason for learning the sentences. Basically I didn't see a reason for retaining the information beyond today.	OK but I know I could have done better if I had taken that decision.	
53	I was saying which card corresponded to which means of transport. Identifying the cards.	I was trying to identify the cards as fast as possible.	Agreeing with the other members of the group on the categorisation.	Make more compromise in a group.	I decided to let the others decide themselves rather than wasting my energy arguing with them.	
54	Did not submit Questionnaire 1					

55	Grouping English sounding words, grouping words linked to English/German words, grouping the rest + trying desperately to remember them, trying to logically understand.	12 words about transport. 3 colours. Mix two to form sentences.	None.	-	-
56	Categorising flashcards according to speed.	Recognition of words in katakana/hiragana/kanji.	Easy to recognise words in romaji, but not in hiragana/kanji.	Not a clue!	No improvement.
57	Linked words that sounded like English/German equivalent. Those that had no correspondence I just tried to memorize via repetition written and oral form.	All vocabulary.	Remembering vocabulary with no direct link to English/German languages.	Repetition! Via various activities (preferably interactive ones).	Well.
58	Did not attend Session 1				
59	Did not attend Session 1				
60	Did not attend Session 1				
61	Did not attend Session 1				

Phase 3: Making a picture with the words learnt

ID	① Activity(-ies): What I was doing	② Learning target(s): What I was trying to learn	③ Problems/difficulties I am having after this phase	④ What I need to do to solve the problem/overcome the difficulty	⑤ How did I fare in relation to the problems I listed above?
44	Colouring in of objects (<i>basu</i> , <i>tacushi</i> [<i>takushi</i>], <i>kuramu</i> [<i>kuruma</i>]) on page.	Understanding symbols (katakana) - nouns/colours.	None.	-	-

45	Colouring in according to individual instruction sheet.	Recognise colours and experience transport vocabulary in context.	Minimal problems.	No difficulties with this stage.	Minimal problems at this stage.
46	Trying to learn visually from the pictures.	[Blank]	Remembering words.	[Blank]	[Blank]
47	Colouring in a picture according to instructions given.	To learn the colours in written form.	None.	None.	-
48	Colouring in → Trying to decipher which vehicle was which and which colour it should be done in.	Colours and revision of vehicles. Sentence structure.	None.	-	-
49	Try to colour the different means of transport/recognising colours and transport.	Trying to find what vehicles I was given and what colours they had.	None. I could remember the colours and transports quite easily.	-	-
50	The idea of pictures never was good for me.	Shapes association.	[Blank]	[Blank]	[Blank]
51	Painting the colours according to the sheets.	1- Colours; 2- Name of the 4 transport objects.	None.	None. It was a fantastic exercise.	No need for techniques. Learnt easily.
52	Committing words to memory. Colouring. Noting the words in English beside words in kanji.	Colours; structures of sentence; words.	[Blank]	Make decision to memorise and use something.	Not as well as I could as I wasn't motivated to do it (sorry!)
53	I found mnemotechniques means of remembering the colours (aro, blue, is compounded with horizontal strokes).	I was trying to learn how to recognise written words, associating them with concrete objects.	No difficulty.	-	-
54	Did not submit Questionnaire 1				

55	Colouring in, figuring out first - from in/out, what colours + transport.	Colours + vocabulary transport	None.	Nothing.	None.
56	I was colouring in pictures of transport according to written instructions.	Vocabulary of transport and colours.	None.	-	-
57	Colouring in appropriate colours of 4 of transport words.	Colours red, blue, green, while revising transport vocabulary.	None.	-	-
58	Colouring in pictures according to Japanese instructions.	Modes of transport, colours, sentence structure	Trying to catch up with the others.	More practice + repetition. Pick my colleagues brains.	With a little application I found that I caught up sufficiently.
59	We coloured in a picture based on the instructions in Japanese.	To recognise the symbols for colours + transport.	Catching up. Being able to get up to speed with others by formulating sentences.	Just practise.	Not badly. With practise and listening to the other students it went ok.
60	Colouring in a picture according to the instructions.	Modes of transport; colours; sentence structure → question, answer (+ also)	I understood the new vocab + structures but just needed more time to gain confidence using them – was doing it quite slowly.	More practice (oral is best), more repetition.	I was able to catch up and do the exercise but had to rely on the handouts still. With more practice, I probably could have done it on my own.
61	Colouring in a picture following instructions in Japanese.	Vocabulary of transport and 3 colours; sentence structure such as “ <i>watashi no basu wa aka desu</i> ”.	As this was the first vocab learning lesson for me, I had quite a lot to catch up on. I feel this is quite achievable though.	I need to learn the vocab tonight for the test tomorrow. It is quite similar in structure to sentences we learned before Christmas so it should be quite straight forward.	I found catching up quite easy with the aid of group work and repetition in class.

Phase 4: Finding out people who have the same picture

ID	① Activity(-ies): What I was doing	② Learning target(s): What I was trying to learn	③ Problems/difficulties I am having after this phase	④ What I need to do to solve the problem/overcome the difficulty	⑤ How did I fare in relation to the problems I listed above?
44	Asking people questions → <i>~san no basu wa nani iro desu ka?</i>	How to find out specific vocab.	Remembering the sentence structure.	[Blank]	[Blank]
45	Interactive work with others in the class. Drilling of questions and answers.	Free practice of vocabulary; interrogations; practising colours.	I found this activity simple and experienced minimal difficulties.	-	I did not experience any problems with this stage.
46	Five minutes talking in a group conversing.	[Blank]	[Blank]	[Blank]	[Blank]
47	Going around asking and telling people about my picture.	How to tell someone the colour of my bus/car/taxi and how to ask them about theirs.	Saying without looking at page.	I need to keep practising.	I didn't overcome problem.
48	Going around asking everyone which colour each of their vehicles were and telling them about mine.	Sentence structure/revision of vocabulary.	I think these sentences are only in my short term memory.	Go home and learn what I did today in class.	-
49	I was asking them questions about transports and colours.	I was learning how to use the different transports, describe them with colours and use my/ours.	No problem except remembering the place of all the vocabulary within a sentence.	Practice more.	I definitely improved my oral skills by repeating the sentences.
50	Partly chatting with people. I did ask questions but at times people's pronunciation was difficult.	Sounds; now strings of words sounded together.	Understanding/comprehension.	Ask people to repeat what they say.	Sometimes good, sometimes not, depending on the structure of the sentence.

51	Writing clearly the question I was going to ask.	Memorise the four objects and their colours.	I was struggling to construct the sentences since I didn't remember colours/objects (too nervous putting the sentence together!).	I had to write the names of the objects and their colours in the picture, so I could concentrate on the construction of the sentence.	[Blank]
52	Writing: eliminating; talking.	Colours; sentence structure.	Remembering the structure and the sentence.	Concentrate on visual and commit to memory.	Fine.
53	I was repeating the questions, saying my sentences without looking at the handout.	I was trying to learn the order of the words in the sentence (1st: <i>mo</i> , 2nd: <i>wa</i> , 3rd: <i>desu</i>).	I can't produce a sentence without thinking logically of its structure.	I need to repeat and learn these sentences many times so that I have their system in memory, so that I become able to say if it sounds right or not when I produce sentences.	Switch from logic to mechanism. I improved but I would have needed more time to practice.
54	Did not submit Questionnaire 1				
55	Asking questions; listening to answers to check if I correspond.	Colours, vocab, sentence/question structure.	More repetition to "fix" sentence.	None.	None.
56	Going around the class and asking fellow classmates questions about their pictures.	I was trying to find classmates with the same-coloured modes of transport.	None.	-	-
57	Interactive activity, moving about reusing question phrase, answer phrase + inserting correct vocabulary word for "mode of transport" + correct colours.	To communicate new info, to ask + understand new information.	-	-	-

58	Using Q & A format by oral repetition to find a person with corresponding colours.	Pronunciation; transport vocab; colours	No real difficulties besides lack of fluidity in my sentences.	If I keep repeating the sentences, my fluency + fluidity will improve.	My vocabulary was sufficient but as stated above fluidity will improve with repetition.
59	Approaching others; asking questions.	To understand the key words being pronounced.	Understanding some of the others, my problem though. They're speaking quite fast.	Practise making perfect.	Just fine. With practise listening to other converse helped my comprehension. The key is that I understand the concept so it's up to me to contribute fluency.
60	Finding other people with the same picture.	Modes of transport; colours; sentence structure → question, answer (+ also)	I know the vocab while reading it but don't feel confident of it.	More oral practice; test myself (written) on vocab – colours, transport	I had no problem doing this exercise but doubt I'd know the vocab without the handouts.
61	Circulating and asking fellow students what colour their buses/taxis etc were in order to find someone who had the same picture as me.	Memorise the transport vocab and colours; memorise sentence structure through repetition.	As above, but some revision this evening should help!	Brief revision to consolidate the new vocab properly.	As above.

Summary of Questionnaire 2:

Questionnaire 2 was collected from 16 students, and the following is a summary of their comments extracted from the questionnaire. As to Question 2, 3 and 4, the learners' comments are classified into categories according to types of activity or types of material.

Question 1: Did you enjoy the class? Yes / No (Circle appropriate answer)

If you answer "No", write the reasons.

All the students answered "Yes".

Question 2: Comment on which activities of the class you liked or found helpful

ID	Comment	Category
44	Group work All the different activities Visual Displays	Group work Activities in general Visual aids
45	Group work Visual stimuli Games – Fun activities Interactive element	Group work Visual aids Activities in general Oral activity
46	Group work Use of flash cards Displays	Group work Use of flashcards Visual aids
47	Group work Flash cards; cards activity Role play Colouring activities	Group work Use of flashcards Oral activity Colouring activity
48	Pair work Matching up of cards Role play Using overhead projector and overwritten words to memorise new vocab Colouring in	Pair work Use of flashcards Oral activity Visual aids Colouring activity
49	I realised during the 1 st vocabulary class that the more time you spend learning words repeating them, the easier it gets at home. Personally, I only spent 10 minutes maximum revising the words. So I think all the activities we did during that first class were <u>very</u> efficient for me. Very interactive, fun too. I also enjoyed a lot all the role plays.	Repetition Oral activity
50	I liked the idea of having so much time to concentrate on vocabulary; it was good to use colours at the same time.	Emphasis on vocabulary learning Colouring activity

51	Projector with pictures and after picture + words Repetition of pronunciation Cards: Picture front/romaji letters in the back 3 colours → 3 cards. Learnt it straight away. Today sentences: practice on my own – my table group / good for solving doubts; looking for somebody with same colours	Visual aids Repetition Use of flashcards Visual aids Oral activity
52	Overhead Matching and colouring our pictures Going around the class to find person with same picture Practicing in pairs	Visual aids Use of flashcards Colouring activity Oral activity Pair work
53	Matching pictures and names of transports means Repeating the names of the means of transport Looking at the OHP Trying to find the student who had the same picture (same colours) as me, practising the questions/sentences	Use of flashcards Repetition Visual aids Oral activity
54	Did not submit Questionnaire 2	
55	Did not submit Questionnaire 2	
56	Super-imposing OHP with romaji over OHP of 12 modes of transport Group interaction 'Criteria' card	Visual aids Group work Categorising activity
57	Interactive activities Oral work I really enjoyed the vocabulary lessons, pity there was only 2 of them	Activities in general Oral activity Emphasis on vocabulary learning
58	Investigating through Japanese which people had the same coloured sheets as me.	Oral activity
59	I enjoyed the colouring in and matching activity. I could imagine my own students really enjoying any activity which doesn't rely on who has the best memory works for my students, at least.	Oral activity
60	Overheads – building up vocab slowly Fun practising vocab while moving round class talking to new people	Visual aids Oral activity
61	Although I missed last weeks session I found it easy to catch up as I was grouped with fellow students who also missed last week. The activity where we had to ask each other what colour our buses etc were was very useful as it helped me to memorise the words for taxi, bus, bicycle etc along with the colours <i>aka</i> , <i>ao</i> and <i>midori</i> .	Oral activity

Question 3: Comment on which activities of the class you did not like or found unhelpful.

ID	Comment ¹	Category
44	Handouts Depending on my mood sometimes homework	Handout
45	Tests (Did not like → Perhaps they were motivational)	
46	Too many handouts	Handout
47	Katakana characters	Use of Japanese scripts
48	There was a bit of an overload regarding Japanese script. I did not like this aspect of the class as it was very difficult.	Use of Japanese scripts
49	I found the activity where we were matching the names of the transport with the romaji symbols a bit difficult. But it was interesting to see or find similar patterns.	Use of Japanese scripts
50	I'd have liked to have the handout to use during the class, I think that it may have helped me to learn.	Handout
51	Only one: katakana and symbols cards. I wasn't able to learn them or understand them.	Use of Japanese scripts
52	I didn't really enjoy the game where we had to find out the patterns in words written in kanji etc., but I have to admit I got into it after a while. I think the reason I didn't like it initially is because I'd like to learn more vocabulary.	Use of Japanese scripts
53	(In groups) describing our pictures to another group: what was the purpose, apart from practising "watashitachi"? Categorising the words according to the size ... of the means of transport. I thought it had nothing to do with the language itself and engaged us in irrelevant discussion on the size of helicopters and trains which I thought was a waste of time.	Consolidation Categorising activity
54	Did not submit Questionnaire 2	
55	Did not submit Questionnaire 2	
56	Words for transport written in katakana/hiragana/kanji	Use of Japanese scripts
57	Tests! I felt the homework did not correspond to the work covered in class. We learned a lot of phrases in class but the homework always revolved around the written production of the katakana characters.	
58	None. There were no activities in the second class that I disliked.	
59	Nothing really. The second teacher ² was great for the four of us (who missed the first lesson) to catch up.	
60	None	

¹ Student 44, 45 and 57 wrote comments about tests and homework, but these issues were not related to this vocabulary learning class. As vocabulary tests were given a week after they filled in this questionnaire, and no homework was given from this vocabulary learning class, it would appear that their comments are issues related to the usual Japanese class.

² There was a teacher of Japanese who was observing the class, and she gave some help to the students who did not attend the first session of the experiment.

61	None. Given that I can only comment on today's lesson, I found all of today's activities very useful and enjoyable.	
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Question 4: Any other comments

ID	Comment	Category
44	[The name of the teacher] was very approachable and always helpful.	Teacher (Positive)
45	[Blank]	
46	[The name of the teacher] was very friendly, personable and made the class enjoyable + entertaining.	Teacher (Positive) Class (Positive)
47	I think we did too much on Japanese script.	Use of Japanese scripts (Negative)
48	[Blank]	
49	I found these classes always enjoyable even though sometimes they were a bit challenging. It was good educational and personal experience. [The name of the teacher] was very patient and helpful, always well prepared. Arigatoo!	Class (Positive) Teacher (Positive)
50	A very well-structured class – a good emphasis on vocabulary and a very user-friendly way to introduce it. Well done!	Class (Positive) Emphasis on vocabulary learning (Positive)
51	These two vocabulary classes have been fantastic! They are the ones I have enjoyed the most. I'm looking forward to get to know more about Japan.	Class (Positive) Motivation (Positive)
52	Enjoyable and engaging classes with good opportunities to use the words. You're a good teacher and I've learnt a lot from you that I have already used in my classes and will hold onto for my future career.	Class (Positive) Emphasis on vocabulary learning (Positive) Teacher (Positive)
53	I loved these two sessions on learning vocabulary. I was surprised to see how well we could all remember what we had learnt last week. It was great to see we are becoming able to build up a variety of sentences thanks to the words we just learnt and to our previous knowledge of Japanese grammar. I eventually got a sense of achievement and the motivation to extend my learning of Japanese. Thank you!	Class (Positive) Emphasis on vocabulary learning (Positive) Motivation (Positive)
54	Did not submit Questionnaire 2	
55	Did not submit Questionnaire 2	
56	Too many tests for a course that is not being graded ³ .	
57	[Blank]	
58	Regret missing 1 st class as our classmate learnt a lot in our absence. The first class appears to have been a success as well.	Class (Positive)
59	Really nice format. I enjoyed it.	Class (Positive)

³ This student wrote comments about tests, but it would appear that her comment was an issue related to usual Japanese class.

60	I found it a little confusing at first, having missed the first class but the repetition helped and I felt able to manage it, if not 100% confident.	Repetition (Positive)
61	It's a shame I wasn't able to come to last week's lesson as it seems like those who were present learned quite a lot!	Class (Positive)

Results of Questionnaire 2: This table was created based on the learners' comments⁴ summarised above section.

Question 1 Did you enjoy the class?

Yes	No
16	0

Question 2 Comment on which activities of the class you liked or found helpful

Phase 1		Phase 2		Phase 1 - 2		Phase 3	Phase 4	Phase 1 - 4	
Repetition	Pair work	Use of flashcards	Categorising activity	Group work	Visual aids	Colouring activity	Oral activity	Activities in general	Emphasis on vocabulary learning
3	2	6	1	5	9	4	12	3	2

Question 3 Comment on which activities of the class you did not like or found unhelpful

Phase 2		Phase 4		Phase 1 - 4	
Categorising activity	Consolidation (Oral activity)	Use of Japanese scripts		Handout	
1	1	6		3	

Question 4 Any other comments

Positive				Negative
The class was enjoyable/well-structured	Teacher was helpful/approachable	Emphasis on vocabulary learning	Increased motivation	Repetition
9	4	3	2	1
				1

⁴ Question 2, 3 and 4 were open-response questions, and multiple answers were allowed.

The results of Test 1

The following tables show the results of Test 1:

Test 1-1 (a week after the first session)

[TA = Teacher Assessment, SA = Self-Assessment, NR= Not Rateable]

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15															
新幹線	トラック	車	船	自転車	タクシー	飛行機	バス	水上飛行機	電車	ヘリコプター	地下鉄	赤	緑	青															
bullet train	lorry	car	ship	bicycle	taxi	airplane	bus	seaplane	train	helicopter	metro	red	green	blue															
ID	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	
44	0	0	NR	2	NR	1	NR	2	NR	3	NR	2	NR	3	1	NR	1	NR	3	1	NR	3	1	NR	1	NR	1	1	1
45	1	1	3	1	3	1	3	NR	3	3	3	1	3	3	1	3	3	3	1	3	3	1	1	3	3	3	3	3	3
46	0	0	3	3	3	NR	0	0	3	3	1	0	0	3	NR	3	0	3	3	3	1	0	0	3	3	2	3	3	3
47	1	0	3	2	3	2	0	0	3	1	3	3	NR	3	2	3	NR	3	1	3	3	1	0	3	2	3	2	3	2
48	0	0	3	2	3	2	0	0	2	3	2	0	0	3	2	3	NR	3	1	3	1	3	0.5	3	2	NR	3	3	1
49	3	3	3	3	3	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
50	1	0	3	3	3	3	2	0	3	3	2	3	3	3	3	3	3	3	3	3	3	0	0	3	2	3	2	3	1
51	0	0	0	0	0	0	0	0	0	NR	NR	0	0	NR	2	0	0	0	0	NR	2	0	0	3	3	NR	3	NR	NR
52	3	3	3	3	3	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
53	1	1	3	3	3	2	2	2	3	2	3	3	1	3	3	3	1	3	2	3	3	1	1	3	3	3	3	3	3
54	3	2	3	3	3	3	3	1	3	3	3	3	3	3	3	3	2	3	3	3	3	3	3	3	3	3	3	3	3
55	2	NR	3	2.5	3	NR	2	0	3	NR	3	2	3	3	3	0	2	NR	3	2	3	3	0	3	2	3	2	3	2
56	0	0	3	3	3	NR	0	0	3	1	3	3	0	3	3	0	0	3	1	3	2	0	0	3	2	3	2	3	2
57	0	0	3	2	3	3	0	0	3	3	3	0	0	3	3	0	1	3	2	3	2	1	0	3	3	3	3	3	3
58	0	1	0	1	3	2	0	0	3	2	0	0	0	0	0	0	1	0	3	2	0	0	1	3	2	0	0	1	1
59	0	0	NR	3	0	0	0	0	0	NR	3	0	0	NR	3	0	0	0	0	3	3	0	0	3	NR	3	NR	3	NR
60	Did not take the test																												
61	0	0	3	3	3	2	0	0	3	2	3	3	1	3	3	2	1	3	2	3	3	0	0	3	2	3	1	3	1

Test 1-2 (a month after the first session)

[TA = Teacher Assessment, SA = Self-Assessment, NR= Not Rateable]

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15																
新幹線	トラック	車	船	自転車	タクシー	飛行機	バス	水上飛行機	電車	ヘリコプター	地下鉄	赤	緑	青																
bullet train	lorry		car		ship		bicycle		taxi		airplane		bus		seaplane		train		helicopter		metro		red		green		blue			
	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA		
	44	2	0	3	2	3	3	2	1	3	NR	3	2	3	2	3	1	3	2	2	0	3	1	1	1	1	1	NR		
	45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	47	0	0	0	1	3	2	0	0	0	0	3	2	NR	1	0	1	NR	1	0	3	2	0	0	3	1	1	1	1	
	48	0	1	3	1	0	0	0	0	2	1	0	1	3	1	3	1	0	1	3	1	0	1	3	1	3	1	3	1	
	49	3	1	3	1	0	1	0	1	1	1	0	1	3	1	0	1	3	1	1	0	1	0	1	3	1	3	1	1	
	50	0	0	0	3	3	0	0	1	1	1	3	2	3	2	0	0	3	NR	0	0	3	0	0	1	1	3	2	1	1
	51	Did not take the test																												
52	3	1	3	1	3	1	2	1	0	1	3	1	3	1	3	1	1	3	1	3	1	3	1	1	1	1	1	1	NR	
53	0	0	3	3	3	1	2	NR	1	1	3	3	1	3	2	3	1	1	1	3	2	0	0	1	2	1	2	1	3	
54	Did not take the test																													
55	1	NR	3	3	3	3	2	NR	1	3	3	3	3	NR	3	3	1	3	3	3	1	NR	3	2	3	2	3	2	2	
56	Did not take the test																													
57	0	0	0	NR	0	0	0	0	3	NR	3	NR	0	0	3	NR	0	0	0	0	NR	0	0	3	NR	3	NR	3	NR	
58	Did not take the test																													
59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NR	1	1	
60	Did not take the test																													
61	0	0	3	3	3	1	0	0	3	1	3	2	3	1	3	3	0	3	0	0	3	0	0	1	1	1	1	1	1	1

Learners' comments on knowledge of the target words

The learners were asked to write how well they knew the target words in the follow-up tests, and the following shows their comments on Test 1. The learners who did not take the test or did not write their comments are excluded here.

[TA = Teacher Assessment, SA = Self-Assessment, NR= Not Rateable]

Test 1-1 (a day after the second session of the experiment)

1. 新幹線 (bullet train)

ID	Written Answer	TA	SA	Comment
50	underground	1	0	Guess
53	subway	1	1	The pronunciation is <i>chicatetsu</i> , 4 syllables and there are a lot of signs [= strokes] (compared to <i>shinkansen</i>).
55	<i>densha</i> -train	2	NR	A guess
61	[blank]	0	0	I missed the first session and so can't recall this symbol at all!

2. トラック (lorry)

ID	Written Answer	TA	SA	Comment
44	<i>to ru ka qu</i>	NR	2	ト = to
45	truck	3	1	Different style characters
50	truck	3	3	I remember the ト (<i>to</i>) and ク (<i>ku</i>) <i>to-ra-k-ku</i>
53	truck	3	3	I read the katakana.
54	truck	3	3	I could remember the syllables because I had broken down the word into syllables.
55	truck	3	2.5	ト = toe, probably truck
56	truck	3	3	OHP
59	<i>re shi</i>	NR	3	From learning the katakana symbols
61	truck	3	3	I can decipher it from the katakana characters.

3. 車 (car)

ID	Written Answer	TA	SA	Comment
44	<i>kuruma</i>	NR	2	Car, bicycle and train share a common symbol [= 車].
46	car	3	NR	One syllable
50	car	3	3	One syllable - shape of the character
53	car	3	2	I knew this sign appeared in the words "car," "bicycle" and "train", so I looked for an identical sign in these three words. I remembered there was the sign only in "car."
54	car	3	3	I remembered the kanji symbol.
55	car	3	NR	Remembered [the name of the teacher] explained this symbol (car).
61	car	3	2	I recognise it from the handout. It stands out because it is only one symbol.

4. 船 (ship)

ID	Written Answer	TA	SA	Comment
50	boat	2	0	Guess
53	boat	2	2	I knew the word was small [= short] compared to the others.
54	ship	3	1	Remembered because recognised it from OHP.
55	boat	2	0	A guess

5. 自転車 (bicycle)

ID	Written Answer	TA	SA	Comment
46	bike	3	3	Three syllables similar symbol to car
50	bicycle	3	3	Three syllables - same last symbol as car 車.
53	bicycle	3	2	I remembered bicycle was the word with the most signs including "車".
54	bicycle	3	3	I remembered that a bicycle is a rolling car. Number of wheels → group work.
55	bike	3	NR	This is moves (or something) by itself car - bike.
58	bike	3	2	I knew the symbol for car.
61	bicycle	3	2	I remember what the first symbol looks like, again from the handout.

6. タクシー (taxi)

ID	Written Answer	TA	SA	Comment
46	taxi	3	1	Confused with symbols.
50	taxi	3	2	A bit confused with the symbols.
53	taxi	3	3	I read the katakana.
54	taxi	3	3	I remember the smiley face ツ [confusing ツ - <i>tsu</i> with シ - <i>shi</i>] for “ <i>shi</i> ”.
56	taxi	3	3	OHP
59	<i>takeshi</i>	NR	3	I could decipher it from the katakana.
61	taxi	3	3	I can decipher it from the katakana characters.

7. 飛行機 (airplane)

ID	Written Answer	TA	SA	Comment
44	<i>hikoki</i>	NR	2	7 [= 飛行機] and 9 [= 水上飛行機] share three of the same symbols.
45	airplane	3	3	I knew because two words with similar characters [= 飛行機].
50	plane	3	3	The last symbol is the same as No.9 [= 水上飛行機].
53	plane	3	1	I knew I would find the same signs in two words, the words for plane and water plane.
54	plane	3	3	From OHP
55	plane	3	2	Same spelling as nine [= 水上飛行機] without water [= 水].
61	plane	3	1	I think it is plane as the same symbols re-appear in number 9 [= 水上飛行機], which I think means a twin engined plane.

8. バス (bus)

ID	Written Answer	TA	SA	Comment
46	bus	3	NR	ス is <i>su</i> , <i>ba-su</i>
50	bus	3	3	ス is <i>su</i> , <i>ba-su</i>
53	bus	3	3	I read the katakana.
54	bus	3	3	This was the easiest to remember because only had 2 syllables.

55	bus	3	3	Katakana only = English sounding word two syllables.
56	bus	3	3	OHP
59	busa	NR	3	Remembering the katakana symbols.
61	bus	3	3	From katakana characters.

9. 水上飛行機 (seaplane)

ID	Written Answer	TA	SA	Comment
45	seaplane	3	3	Same as 7 [= I knew because two words with similar characters.]
46	sea plane	3	0	Collective effort
50	seaplane	3	3	The symbol is the same as 7 [= 飛行機].
53	water plane	3	1	I knew "water plane" was longer than "plane." I just had to compare all the signs to find two that were quite similar.
54	jumbo jet	2	3	Remembered because has <i>hikōki</i> [= 飛行機] in it.
55	water-plane	3	0	A guess - it's a long word.
61	small plane	2	1	As per no. 7 [= I think it is plane as the same symbols re-appear in number 9, which I think means a twin engined plane.]

10. 電車 (train)

ID	Written Answer	TA	SA	Comment
46	train	3	3	Recognised symbols
50	train	3	3	'motorised' is the key symbol for 3 [= 車], 5 [= 自転車] and 10 [= 電車].
53	train	3	2	I compared this sign with the other signs containing 車. Knew "train" had another sign.
54	train	3	3	I remembered the symbol for car was in the kanji script.
55	high-speed train	2	NR	This is then electric car = high-speed train.
58	train	3	2	I knew the symbol for car + it appears in this also.
61	train	3	2	From the last symbol - it looks familiar and seems to appear in car and bicycle too.

11. ヘリコプター (helicopter)

ID	Written Answer	TA	SA	Comment
50	helicopter	3	3	The ヘ is <i>he</i> - remembered the katakana symbols.
53	helicopter	3	3	I read the katakana.
54	helicopter	3	3	I remembered the stroke at the end reading double sound [= long vowel] → + broke down syllables.
55	helicopter	3	2	Katakana only = English sounding word, 'l' = <i>ri</i> (in my name) → helicopter.
59	helicopter	3	3	Recognising the katakana.
61	helicopter	3	3	Again from katakana.

12. 地下鉄 (metro)

ID	Written Answer	TA	SA	Comment
53	high speed train	1	1	The pronunciation is <i>shinkansen</i> , 3 syllables, and there are three signs.
55	subway	3	0	A guess.

13. 赤 (red)

ID	Written Answer	TA	SA	Comment
45	red	3	3	1 Character → colour.
46	red	3	3	Recognised symbol.
50	red	3	2	Difficult - once I know one colour I figured out the others.
51	colour red	3	3	First colour taught.
53	red	3	3	I remember the shape, a bit like ホ [<i>ho</i> in katakana].
54	red	3	3	I memorised the symbol.
55	red	3	2	The other one then is green
56	red	3	2	OHP.
59	red	3	NR	I know 13 – 15 [= 13 赤, 14 緑, 15 青] are the colours. I can't remember which is which.
61	red	3	2	I know it is one of the colours and red seems quite easy to identify for some reason.

14. 緑 (green)

ID	Written Answer	TA	SA	Comment
45	green	3	3	1 Character → colour.
46	green	3	2	Guessed.
50	green	3	2	Difficult - once I know one colour I figured out the others.
51	colour green	3	NR	Last colour taught.
53	green	3	3	I knew green was the sign with highest number of strokes.
55	green	3	2	Remembered really elaborate kanji one is green.
56	green	3	2	OHP.
59	green	3	NR	I think they are in order; red, green and blue.
61	green	3	1	Might have blue and green mixed up!

15. 青 (blue)

ID	Written Answer	TA	SA	Comment
45	blue	3	3	1 Character → colour.
46	blue	3	3	Recognized symbol.
50	blue	3	1	Difficult - once I know one colour I figured out the others.
51	colour blue	3	NR	The one taught in the middle of the three colours.
53	blue	3	3	I remembered the shape with horizontal strokes.
55	blue	3	2	The kanji character one on top of other is blue.
56	blue	3	2	OHP.
59	blue	3	NR	I just remember 13 [= 赤] and 15 [= 青] from the painting exercise.
61	blue	3	1	See no. 14 [= Might have blue and green mixed up!].

Additional comment:

A student (= ID 53) wrote an additional comment in the blank space: “I basically compared the kanji signs. I found it difficult to find words no. 1, 7, 9 and 12. Because I had understood them thanks to the hiragana scripts the last time and had paid no attention to kanji.”

Test 1-2 (a month after the second session of the experiment)

1. 新幹線 (bullet train)

ID	Written Answer	TA	SA	Comment
55	train or underground	1	NR	Guess

2. トラック (lorry)

ID	Written Answer	TA	SA	Comment
44	truck	3	2	ト = is in one of my friend's sir names. It means <i>TO</i> .
50	taxi	0	3	I remember the katakana symbols.
53	truck	3	3	Remembered first signs of katakana (ラ is in my name).
61	truck	3	3	From knowledge of katakana symbols.

3. 車 (car)

ID	Written Answer	TA	SA	Comment
44	car	3	3	This symbol is shared in another two Japanese words such as bike.
50	car	3	3	One syllable.
53	car	3	1	Knew 3 [= 車], 5 [= 自転車] and 10 [= 電車] has the same sign, and [the name of the teacher] explained the meaning of the signs, but not too sure which is which.
55	car	3	3	Remember symbol - [the name of the teacher] explained to us.

4. 船 (ship)

ID	Written Answer	TA	SA	Comment
44	boat/ship	2	1	Guessing.
53	boat	2	NR	'Fune' is short, as the sign.
55	boat	2	NR	Guess.

5. 自転車 (bicycle)

ID	Written Answer	TA	SA	Comment
44	bike	3	NR	Very confused here with number 10 [= 電車].

50	train	1	1	Linking the symbol.
53	high speed train	1	1	Knew 3 [= 車], 5 [= 自転車] and 10 [= 電車] has the same sign, and [the name of the teacher] explained the meaning of the signs, but not too sure which is which.
55	high speed train	1	3	Remembered symbol car.

6. タクシー (taxi)

ID	Written Answer	TA	SA	Comment
44	taxi	3	2	タ = ta as in tank. These were used from sheet with symbols to help us remember the katakana symbols.
47	taxi	3	2	I recognise first character as 'Ta'.
50	taxi	3	2	I used the start タ 'ta' symbol.
53	taxi	3	3	Remembered first signs learnt in katakana (シ is in my name).
55	taxi	3	3	4 [words] are hiragana [= katakana] only process of elimination.
61	taxi	3	2	From knowledge of katakana

7. 飛行機 (airplane)

ID	Written Answer	TA	SA	Comment
44	air plane	3	2	This one shares commons symbols with no. 9 [= 水上飛行機]. I might have translated them the wrong way round.
50	airplane	3	2	I used this symbol [= 機] as a reference.
53	plane	3	1	Knew this word was written in kanji and had another similar word (water plane).
55	plane	3	NR	See 9 [= 水上飛行機] - same symbols.
61	plane	3	1	Linking no. 7 [= 飛行機] + no. 9 [= 水上飛行機] - bit of a guess really!

8. バス (bus)

ID	Written Answer	TA	SA	Comment
44	bus	3	2	ス = su as in soup [from knowledge of katakana].
53	bus	3	2	Learnt these signs at the end, more difficult to remember.
61	bus	3	3	From knowledge of katakana.

9. 水上飛行機 (seaplane)

ID	Written Answer	TA	SA	Comment
50	seaplane	3	NR	I used this symbol [= 機] as a reference.
53	water plane	3	1	Knew this word had the same kanji sign as "plane" [= 飛行機] and was longer.
61	sea plane	3	0	Linking similar symbols from no. 7 [= 飛行機] and no. 9 [= 水上飛行機] Guess!

10. 電車 (train)

ID	Written Answer	TA	SA	Comment
44	train	3	1	Going with common symbol shared with no 3 [= 車] + 5 [= 自転車] and process of elimination.
53	bicycle	1	1	Knew 3 [= 車], 5 [= 自転車] and 10 [= 電車] has the same sign, and [the name of the teacher] explained the meaning of the signs, but not too sure which is which.
55	bike	1	3	Remembered symbol for car [= 車].

11. ヘリコプター (helicopter)

ID	Written Answer	TA	SA	Comment
44	helicopter	3	2	ヘ = <i>he</i> as in the hexagon. Shared common symbols in katakana alphabet.
47	helicopter	3	2	I recognise first character as ' <i>he</i> '.
50	helicopter	3	3	The ヘ ' <i>he</i> ' symbol helped to form the word.
53	helicopter	3	2	Learnt ヘ & リ at the end, more difficult to remember than タ.
61	helicopter	3	3	From knowledge of katakana.

12. 地下鉄 (metro)

ID	Written Answer	TA	SA	Comment
55	train	1	NR	Guess.

13. 赤 (red)

ID	Written Answer	TA	SA	Comment
44	red	3	1	From memory I think red looked the least complicated.
50	blue	1	1	I know it's a colour but can't remember which one.

53	blue	1	2	Knew it was at the end of the list (not too sure which is which).
55	red	3	2	Guess - but think it's right.

14. 緑 (green)

ID	Written Answer	TA	SA	Comment
44	blue	1	1	From memory looked similar to style of how red was written.
50	green	3	2	I think that the colours were grouped together.
53	red	1	2	Knew it was at the end of the list (not too sure which is which).
55	green	3	2	The most complicated of the symbols.

15. 青 (blue)

ID	Written Answer	TA	SA	Comment
44	green	1	NR	Through process of elimination.
50	red	1	1	I know it's a colour but confuse it with blue.
53	green	1	3	Remembered the shape.

Additional comment:

A student (= ID 52) wrote an additional comment in the blank space, that is “I know most of the words orally but not the symbols.”

The results of Test 2

The following tables show the results of Test 2:

Test 2-1 (a day after the second session of the experiment)

[TA = Teacher Assessment, SA = Self-Assessment, NR= Not Rateable]

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
train	bus	seaplane	helicopter	metro	bicycle	ship	car	taxi	airplane	bullet train	lorry	red	green	blue
densha	basu	suijō-hikōki	herikoputā	chikatetsu	jitensha	fune	kuruma	takushi	hikōki	shinkansen	torakku	aka	midori	ao
ID	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA
44	3	2	3	2	1	3	0	1	1	2	2	3	2	3
45	3	2	3	2	1	2	3	2	2	3	2	3	3	3
46	1	NR	3	3	0	0	2	3	1	1	3	2	NR	3
47	1	3	3	3	2	1	0.5	2	3	3	0.5	2	3	3
48	1	2	3	2	2	2	0.5	1	0.5	1	3	2	3	3
49	3	2	3	2	2	2	3	2	2	3	1	NR	3	3
50	3	3	3	1	2	2	NR	1	1	3	3	NR	3	3
51	3	3	0	3	1	3	2	3	0	2	3	3	3	3
52	1	2	0	2	1	3	2	3	1	3	0	1	3	NR
53	3	2	3	3	2	2	3	2	3	2	3	3	3	3
54	3	3	3	3	1	2	3	3	1	2	0	3	3	3
55	3	3	1	2	2	3	1.5	1	2	2	NR	3	3	3
56	0	0	1	3	0	2	3	0	0	3	3	3	3	3
57	0	0	1	3	0	0.5	3	1	3	2	3	3	3	3
58	3	1	3	3	3	2	3	2	3	0	1	3	3	NR
59	Did not take the test													
60	Did not take the test													
61	3	3	3	3	2	3	3	2	3	3	2	3	3	3

Test 2-2 (a month after the second session of the experiment)

[TA = Teacher Assessment, SA = Self-Assessment, NR= Not Rateable]

1		2		3		4		5		6		7		8		9		10		11		12		13		14		15		
train		bus		seaplane		helicopter		metro		bicycle		ship		car		taxi		airplane		bullet train		lorry		red		green		blue		
densha		basu		suijō-hikōki		herikoputā		chikatetsu		jitensha		fune		kuruma		takushi		hikōki		shinkansen		torakku		aka		midori		ao		
ID	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA		
44 Did not take the test																														
45	0	0	3	3	0.5	3	2	3	0	0	0	3	3	3	3	2	3	3	2	3	3	3	3	2	3	3	0	1		
46	0	0	3	2	0	0	2	2	0	0	0	0	0	3	2	0	0	0	0	0	0	0	0	0	1	2	0	0		
47	0	0	3	2	2	2	2	2	0	0	0	2	2	0	0	2	2	2	3	2	0	0	0	0	3	2	3	2		
48	0	0	3	2	2	1	2	2	0	1	1	3	3	3	2	2	2	2	1	3	1	2	1	3	2	3	2	3	1	
49	3	2	3	2	0.5	2	0.5	2	0	3	3	3	3	1	3	2	3	2	3	2	0.5	2	3	1	3	0	0	2		
50	0	0	0	2	0.5	2	0.5	2	0	0	0	3	NR	3	2	0.5	1	0	2	0	0	2	2	3	3	1	1	3	3	
51 Did not take the test																														
52	3	2	1	2	0.5	2	2	2	1	2	0	2	0.5	2	1	2	2	2	2	2	0	2	0	2	3	2	0	2	0	NR
53 Did not take the test																														
54 Did not take the test																														
55	0	0	3	3	2	NR	2	NR	0	NR	3	3	3	3	1	3	2	3	2	3	3	3	0	3	3	1.5	3	3	3	1.5
56 Did not take the test																														
57	0	0	3	3	0	0	0.5	3	0	0	0	3	3	3	0.5	3	0.5	3	0	0	0	1	0	0	3	3	3	3	3	3
58 Did not take the test																														
59	0	0	3	NR	0	0	2	1	0	0	0	0	0	0	1	NR	0	NR	0	0	0	0	0	0	0	0	0	0	1	
60 Did not take the test																														
61	0	0	3	3	0	0	2	2	1	NR	3	1	1	2	3	2	2	2	0	0	0	0	0.5	2	0	0	0	0	0	0

Learners' comments on knowledge of the target words

The learners were asked to write how well they knew the target words in the follow-up tests, and the following shows their comments on Test 2. The learners who did not take the test or did not write their comments are excluded here.

[TA = Teacher Assessment, SA = Self-Assessment, NR= Not Rateable]

Test 2-1 (a week after the second session of the experiment)

1. Train (*densha*)

ID	Written Answer	TA	SA	Comment
45	<i>densha</i>	3	2	Thoroughly drilled so relatively simple, commonly relate to all.
50	<i>densha</i>	3	3	Two syllables.
53	<i>densha</i>	3	2	Knew it was similar to bicycle.
61	<i>densha</i>	3	3	It just stuck in my head. I don't know why.

2. Bus (*basu*)

ID	Written Answer	TA	SA	Comment
45	<i>basu</i>	3	2	Phonetic (Rōmaji - English) spelling.
46	<i>basu</i>	3	3	Two syllables.
50	<i>basu</i>	3	3	Two syllables; simple to remember.
52	<i>busa</i>	0	2	Sounds like English.
53	<i>basu</i>	3	3	Similar to English.
54	<i>basu</i>	3	3	Similar to English.
56	<i>bazu</i>	1	3	OHP - easier to remember short words.
58	<i>basu</i>	3	3	It sounds like posh English pronunciation of bus.
61	<i>basu</i>	3	3	Very similar to English.

3. Seaplane (*suijō-hikōki*)

ID	Written Answer	TA	SA	Comment
45	<i>suijo hikoki</i>	2	2	Pronunciation makes it much easier.
50	<i>suijō jitōshi</i>	1	2	Remembered only the bit needed.
52	<i>suhijo hikōki</i>	1	3	My brother's name is Joe!
53	<i>suijo hikōki</i>	2	2	Longer than 'plane.'
54	<i>hikōki</i>	1	2	Associated with English word.
58	<i>suijō hikōki</i>	3	3	It was the longest word with most syllables so it was a challenge to learn, making it easier.

4. Helicopter (*herikoputā*)

ID	Written Answer	TA	SA	Comment
45	<i>herikoputu</i>	1	2	Very useful vocabulary for us in.
50	<i>helikopūta</i>	2	NR	Similar to English.
53	<i>helikoputa</i>	2	3	Similar to English.
54	<i>herikoputā</i>	3	3	Similar to English.
56	<i>herikoputa</i>	2	3	OHP.
58	<i>herikoputa</i>	2	3	I remembered it by associating it with a 'hairy policeman' → 'hairy cop.'
61	<i>herikoputā</i>	3	3	It is very similar to English.

5. Metro (*chikatetsu*)

ID	Written Answer	TA	SA	Comment
45	<i>chikatetsu</i>	3	2	The event of travel to Japan → eg
50	<i>chikatsetse</i>	1	1	Remembered only bits.
53	<i>chikatetsu</i>	3	2	Sounds like " <i>chica</i> (Spanish word) + the end came easily.
58	<i>chikatetsu</i>	3	3	It sounds like a packet of crisps called Chickatees.
61	<i>chikatetsu</i>	3	2	It is similar to the word 'Chikatees' which is a type of crisp in Ireland.

6. Bicycle (*jitensha*)

ID	Written Answer	TA	SA	Comment
45	<i>jitensha</i>	3	2	Arrival @ airport, looking for.
46	<i>jitensha</i>	3	2	Memory.
50	<i>jitensha</i>	3	3	Used some mnemonic devices to remember.
52	<i>jinedensha</i>	0.5	2	Sounds mixed up.
53	<i>jitensha</i>	3	2	Knew it was longer than ' <i>densha</i> .'
54	<i>jitensha</i>	3	3	Had to memorize as was difficult at first to remember.
56	<i>jitensha</i>	3	3	OHP.
61	<i>jitensha</i>	3	3	The ' <i>ensha</i> ' bit seems to recur quite often.

7. Ship (*fune*)

ID	Written Answer	TA	SA	Comment
44	<i>kune</i>	1	2	Sounds like country ' <i>kuni</i> ' the only difference is there's an ' <i>e</i> .'
45	<i>fune</i>	3	2	Airbus or colours for Metro.
46	<i>fune</i>	3	3	Two syllables.
50	<i>fune</i>	3	NR	Two syllables; easy to remember.
52	<i>fune</i>	3	2	Short - can remember image.
53	<i>fune</i>	3	2	Short and easy to remember.
58	<i>fune</i>	3	3	Same number of syllables as English beginning with same letter [= remembered this word as 'ferry'].
61	<i>fune</i>	3	2	Because it's a short word.

8. Car (*kuruma*)

ID	Written Answer	TA	SA	Comment
45	<i>kuruma</i>	3	2	Rhymes.
46	<i>kuruma</i>	3	3	I remembered it.
50	<i>kuruma</i>	3	3	I remembered words that I recognised.

52	<i>koruma</i>	1	2	Sounds like Corolla [= a Toyota car].
53	<i>kuruma</i>	3	3	Sounds like the name of a writer 'Ahmadou Kourouma' [= Ivorian novelist].
54	<i>kuruma</i>	3	3	Associated with an Irish word.
56	<i>kuruma</i>	3	3	OHP
58	<i>kuruma</i>	3	3	Reminds me of a make of Hyundai car.
61	<i>kuruma</i>	3	3	It reminds me of Carina, which was a model of Toyota car.

9. Taxi (*takushī*)

ID	Written Answer	TA	SA	Comment
44	<i>takushi</i>	2	2	Sounds very much like its English equivalent.
50	<i>tacoshe</i>	0.5	3	'She eats tacos.'
53	<i>takushi</i>	2	3	Similar to English.
54	<i>takushī</i>	3	3	Similar to English.
56	<i>takushī</i>	3	3	OHP.
61	<i>takūshi</i>	2	3	Very similar to English.

10. Airplane (*hikōki*)

ID	Written Answer	TA	SA	Comment
44	<i>hikoki</i>	2	2	Sounds country and western like.
50	<i>jītōshi</i>	0	3	Tried to use familiar words to remember.
53	<i>hikōki</i>	3	3	Easy to remember (two K).
58	<i>hikoki</i>	2	3	Because I knew seaplane, this was easier. A song called 'Hokey Cokey' in English.
61	<i>hikōki</i>	3	3	Reminds me of the 'hokikokikoki' [= Hokey Cokey], a children's song in English.

11. Bullet train (*shinkansen*)

ID	Written Answer	TA	SA	Comment
50	<i>shekansen</i>	1	2	'She can sing.'
52	<i>chinkaneze</i>	0	1	Got sounds mixed up.

53	<i>shinkansen</i>	3	1	Couldn't understand the English!
61	<i>shinkansen</i>	3	2	'Shin' is easy to remember for some reason but I am not sure about the rest of the word.

12. Lorry (*torakku*)

ID	Written Answer	TA	SA	Comment
44	<i>toraku</i>	2	2	Sounds like truck in English.
50	<i>torakku</i>	3	3	From the film 'Tora, Tora, Tora.'
53	<i>torakku</i>	3	2	Similar to English.
56	<i>torakku</i>	3	3	OHP.

13. Red (*aka*)

ID	Written Answer	TA	SA	Comment
50	<i>aka</i>	3	3	'Also Known As' [= AKA].
52	<i>aka</i>	3	3	Short and easy to remember.
53	<i>aka</i>	3	2	Easy to remember.
54	<i>aka</i>	3	3	From OHP.
56	<i>aka</i>	3	3	OHP.
58	<i>aka</i>	3	3	The letter 'h' in Spanish is pronounced ' <i>aka</i> .'
61	<i>aka</i>	3	3	Perhaps as it has 3 letters like <u>r</u> <u>e</u> <u>d</u> .

14. Green (*midori*)

ID	Written Answer	TA	SA	Comment
45	<i>midori</i>	3	3	The same as the melon liqueur.
50	<i>midori</i>	3	3	Also known as 'my door.'
52	<i>midori</i>	3	3	Short and easy to remember.
53	<i>midori</i>	3	3	Easy to remember.
54	<i>midori</i>	3	3	From OHP.
56	<i>midori</i>	3	3	OHP.

58	<i>midori</i>	3	3	I like the sound of the word.
61	<i>midori</i>	3	3	<i>Dori</i> reminds me of <i>doré</i> (golden in French) and green and gold are somehow linked in my head. Perhaps because of the Irish tricolour 'green, white and gold.'

15. Blue (*ao*)

ID	Written Answer	TA	SA	Comment
44	<i>ao</i>	3	3	Sounds like something a Tellytubby would say.
50	<i>ao</i>	3	3	' <i>Blau</i> ' in German.
52	<i>ao</i>	3	3	Short and easy to remember.
53	<i>ao</i>	3	3	Similar to red.
54	<i>ao</i>	3	3	From OHP.
56	<i>ao</i>	3	3	OHP.
58	<i>ao</i>	NR	3	The sound to express pain – 'Ow!'
61	<i>ao</i>	3	3	It's simple!

Additional comment:

A student (= ID 53) wrote an additional comment in the blank space: "I remembered the pronunciation of all the words quite well; the most difficult was to match these Japanese words with English words! (e.g. I knew *densha*, but could not tell very quickly what is exactly meant.)"

Test 2-2 (a month after the second session of the experiment)

2. Bus (*basu*)

ID	Written Answer	TA	SA	Comment
50	<i>busaru</i>	0	2	Easy because it's short.
61	<i>basu</i>	3	3	Like the English.

3. Seaplane (*suijō-hikōki*)

ID	Written Answer	TA	SA	Comment
50	<i>suijohijoshi</i>	0.5	2	'Sue and Joe'

4. Helicopter (*herikoputā*)

ID	Written Answer	TA	SA	Comment
50	<i>herichopata</i>	0.5	2	Very close to English.
61	<i>hericoputa</i>	2	2	Like the English.

5. Metro (*chikatetsu*)

ID	Written Answer	TA	SA	Comment
55	<i>densha</i>	0	NR	Don't know it right - but it's definitely some kind of train.
61	<i>chika...</i>	1	NR	Can only remember the first 2 sounds.

6. Bicycle (*jitensha*)

ID	Written Answer	TA	SA	Comment
61	<i>jitensha</i>	3	1	Complete guess I'm afraid.

7. Ship (*fune*)

ID	Written Answer	TA	SA	Comment
50	<i>fune</i>	3	NR	Two syllables only.

8. Car (*kuruma*)

ID	Written Answer	TA	SA	Comment
50	<i>kuruma</i>	3	2	Broke it down to 'meaningful' bits.
61	<i>kuruma</i>	3	2	Reminds me of 'Carina E' - Model of Toyota car.

9. Taxi (*takushī*)

ID	Written Answer	TA	SA	Comment
50	<i>takuru</i>	0.5	1	Something like this.
61	<i>takushi</i>	2	2	Remember pronunciation, but not sure of spelling.

10. Airplane (*hikōki*)

ID	Written Answer	TA	SA	Comment
50	<i>hijoshi</i>	0	3	Spanish ' <i>hijo</i> .'

11. Bullet train (*shinkansen*)

ID	Written Answer	TA	SA	Comment
61	[blank]	0	0	Definitely would have needed to revise these!

12. Lorry (*torakku*)

ID	Written Answer	TA	SA	Comment
50	<i>toraku</i>	2	2	' <i>TORA</i> ' was the key.
61	<i>torukka</i>	0.5	2	Can't remember if there is one 'k' or two!

13. Red (*aka*)

ID	Written Answer	TA	SA	Comment
50	<i>aka</i>	3	3	'Also Known As.'

15. Blue (*ao*)

ID	Written Answer	TA	SA	Comment
50	<i>ao</i>	3	3	Remembered ' <i>blau</i> ' from German.

Appendix E-4: Data from Class 4

Profiles of participants

ID	Group	Age	Gender	L1	Nationality	Note
1	G1	21 ~ 25	M	English	Irish	
2	G1	21 ~ 25	M	English	Irish	Did not take Test 1-2 & 2-2
3	G1	21 ~ 25	M	English	Irish	
4	G1	21 ~ 25	M	English	Irish	
5	G1	21 ~ 25	M	English	Irish	Did not take Test 1-2 & 2-2
6	G2	21 ~ 25	M	English	Irish	Did not take Test 1-1 & 2-1
7	G2	21 ~ 25	M	English	Irish	
8	G2	21 ~ 25	M	English	Irish	
9	G2	21 ~ 25	M	English	Irish	
10	G2	21 ~ 25	M	English	Irish	
11	G3	21 ~ 25	M	English	Irish	
12	G3	21 ~ 25	F	English	Irish	
13	G3	21 ~ 25	M	English	Irish	
14	G3	21 ~ 25	M	English	Irish	

Summary of Questionnaire 1:

Questionnaire 1 was collected from all the students (n= 14), and the following is a summary of their comments extracted from the questionnaire.

ID	① Activity(-ies): What I was doing	② Learning target(s): What I was trying to learn	③ Problems/difficulties I am having after this phase	④ What I need to do to solve the problem/overcome the difficulty	⑤ How did I fare in relation to the problems I listed above?
62	Vehicles + cards	Remember common vocab	Don't yet recognise katakana	Wait for it to be covered in class in workbook	[blank]
	Colours	Sentence structure	[blank]	[blank]	[blank]
63	Colouring street scene and finding match	- Each question phrase and how it was structured - Pushing myself to adapt the phrases on the sheet to: (a) suit my scene, (b) fit in to a more flowing conversation - Remember vocab	I feel I can remember the vocab but have trouble with the kanji.	Study the kanji more extensively and complete my learning of katakana.	When in discussion I didn't have any problem as I had almost memorised the phrase from romaji.
	Learning vehicles with kanji	- Memorize vocab - Memorize kanji	Difficulty when pictures were removed and had to rely on kanji	Learn off kanji	Attempted to find connection between the word such as 車 [= car] being used in bike [= 自転車] and train [= 電車].
64	- Learning words for vehicles - Learning and saying colours in a sentence	- Vehicle words - How to recognise kanji for vehicles - How to say and speak colours and recognise the kanji	Remembering kanji	Write kanji and learn <i>on</i> and <i>kun</i> readings	Brilliantly

		• Use sentences, have conversation				
65	Vehicle vocabulary using yellow and blue cards, placing cards in order, according to criteria	• The 12 different Japanese words for forms of transport • To recognise some of the kanji which we had used and some of the katakana we had used	Not knowing katakana in full → difficult to read katakana	Learn katakana and kanji	Learned new vocab	
	• Learning colours • Colouring in pictures • Asking classmates which colours they had used for individual vehicles	The primary colours	When asking classmates the questions, I was simply reading the romaji on the sheet – didn't commit it to memory.	Just start using 'romaji-less writing'	Grand	
66	• Learning words for vehicles • Looking at the picture card remembering the word	I was just trying to memorise the words and allotting them to the pictures. However, when shown the kanji or hiragana and not the picture, I found it hard to remember the word.	Knowing how the words we spelt or knowing the word based on the spelling.	Look at the word under the picture as well as the picture when remembering the word.	Quite good. I got better as I went on. Remembered all the words based on the pictures and some based on seeing some of the words themselves.	
	• Learning the colours - Learning and remembering the colours when shown the marker • Trying to remember their kanji also	The word + its kanji for each colour	None really	-	Pretty well, I know all the colours when I see them or when they are written down.	
	• Colouring in + going around • Remembering the colour as I coloured in	Trying to remember the colour and the phrase as I went around asking people the colour of their things	Just remembering the phrase to ask people the colour of their things	Keep learning them	Alright, I can remember the phrases after I see them but forget them again.	

67	Match picture with words	The names of modes of transport	Associating the hiragana sounds to symbols	Memorise hiragana	I could associate symbols with hiragana better.
68	Trying to match the pictures with the words	The words verbally + written form	It was helpful. Kanji is difficult.	Revise the symbols	Good. It's an effective learning method – being repetitive without being tedious.
	Colouring in the picture	To learn the colour + revise the transport names	To colour the correct items, one didn't really learn it because it was a once off event.	Revise more times the colours + their kanji to reinforce it.	I didn't find the colouring as effective a method of learning.
	Putting the vehicles in an order + guessing the other groups ones.	The vehicle names and written names	Remembering kanji + we haven't done all the katakana yet either.	Learn all the katakana first and revise	Guessing the other groups' orders was an effective revision/learning technique.
69	Trying to match pictures with Japanese words	Both the vocab and the recognition of the hiragana + katakana	Not very quick and unsure of vocab to begin with	Learn vocab + practice reading a little	Learned vocabulary doing task and became faster at reading.
	Finding out whose sheet instructions, matched mine	The useful expressions	Remembering the phrase + inserting the relevant vocab properly for each question	Learn phrase better + recap the vocab	Got better by the end
	Colouring in picture	Colour + transport vocabulary	Pretty easy!	-	-
70	- Matching words to pictures - I was trying to read the symbols.	- Breaking up each symbol and getting its equivalent romaji then - Saying the word out aloud. Then trying to match it to a picture card.	After this phase, difficulties include; - Reading very slow - Pronunciation (unsure if I'm pronouncing the words correctly) - Figuring out the kanji symbols is proving very difficult.	Perhaps if a listen CD was made available I would practice it on my own, and get better a understanding the sounds.	Above average I think!!
	Going around, guessing	How the cards were ordered	Writing the symbols	Practice and make more of	OK!

	other peoples' criteria • Examining top and bottom items and guessing what the criteria was based on!	Top → down and why		an effort	
	Colours Naming the colours	The colours	Sentences Questions & answers of the colour sheet	Learn them	Above average
71	Sequencing of cards Here it was necessary to be able to recognise the words in hiragana, katakana and kanji Picture cards Viewing the pictures of vehicles and remembering and pronouncing the words Coloured picture Locating the same coloured picture as mine	The hiragana, katakana and kanji of words Vocabulary	It takes a lot of time to recognise each symbol and make them into words. -	Knowledge of the hiragana, katakana and kanji More time and familiarisation with the words More study	The task took a bit of time but was achievable. More study is need for some of the vocabulary. While trying to remember the structure of the sentence, the vocab was forgotten.
72	As much as possible • Learning the words • Guessing what other groups were doing etc.	The hiragana and/or katakana for the words used in today's class. This was to enable me practice correct pronunciation • Colour & kanji • Travel vocab	Associating kanji with objects when it seems easier and faster to write in hiragana/katakana	Time/patience/acceptance	I haven't fared at all. To develop my language skills will take time and hard work which I'm prepared to put in.
73	• Learning vocab to do with travel • Learning vocab for colour		• Recognising a colour by its kanji • Remembering words	• Repetition • Kanji association & practice • Flashcards • Real life situations where vocab is needed	Need more practice

74	Placing cards in ascending orders of each vehicles speed, from bicycle to airplane	I was trying to learn the meaning of the Japanese kanji and hiragana and katakana words and what they are in English.	Fully remembering the kanji symbols for some of the words	Repetition of flashcard usage	Quite well
75	Learning transport vocabulary and arranging them in a specified sequence	Vocabulary for transport vehicles	None	n/a	n/a

Summary of Questionnaire 2:

Questionnaire 2 was collected from all the students (n= 14), and the following is a summary of their comments extracted from the questionnaire. As to Question 2, 3 and 4, the learners' comments are classified into categories according to types of activity or types of material.

Question 1: Did you enjoy the class? Yes / No (Circle appropriate answer)

If you answer “No”, write the reasons.

All the students answered “Yes”.

Question 2: Comment on which activities of the class you liked or found helpful

ID	Comment	Category
62	Conversing with other students, using expressions Initial vocab was important	Oral activity
63	Colouring street scene and conversation to find similarities Group work to remember names of vehicles	Colouring activity Oral activity Group work
64	Colouring activities, especially going around the class asking other what colours they have	Colouring activity Oral activity
65	Liked: It was quite easy going	Activities in general
66	The cards → saying the object based on the picture	Use of flashcards
67	I found the different approach to learning an effective, fun and welcome change from the normal everyday approach.	Activities in general
68	The cards prompting with the picture is a good way to learn.	Use of flashcards
69	The first exercise with the flash cards helped with faster recognition of the hiragana + katakana	Use of flashcards
70	Using the flash was very helpful. It also increased interaction between teacher and student. Thus sustained concentration and interest much longer. A good working/studying environment was created. And I believe learning through fun is more efficient. And I enjoyed guessing the other groups criteria classification (bike → plane).	Use of flashcards Activities in general Categorising activity
71	The cards were helpful. I found reading hiragana a help in improving my pronunciation. Listening to others in groups helped my memory and pronunciation also.	Use of flashcards Use of Japanese scripts Group work
72	Having to call out the name of the things as they were pointed at by the teacher. Knowing the names in Japanese and then having to call them out repeatedly reinforced the meanings. Using the cards with pictures on one side and the kanji/hiragana/katakana was also good as it helped us to correct each other whilst at the same time learning new vocabulary.	Repetition Use of flashcards Use of Japanese scripts

73	Repetition using flash cards	Repetition Use of flashcards
74	Flashcards was good.	Use of flashcards
75	Flash cards were helpful.	Use of flashcards

Question 3: Comment on which activities of the class you did not like or found unhelpful.

ID	Comment	Category
62	Maybe, it took too much time to cover the topics, could have been finished before the break.	Time management
63	[blank]	
64	Perhaps the task with vehicle took too much time.	Time management
65	Unhelpful: Colouring in pictures	Colouring activity
66	The colouring took a bit too long for what it was worth. However, going around asking each people their colours was good, better if they were already coloured in.	Colouring activity Time management
67	None. Showing pictures, words, katakana and hiragana together provides an effective system for remembering objects with pictures, sounds, etc.	
68	The colouring wasn't as effective for learning. It's not as repetitive + required less concentration.	Colouring activity
69	Might be a little slow	Time management
70	I didn't find anything boring or ineffective. I thought it was excellent overall. Perhaps as there was a lot people in the class, at times of misunderstanding/difficulty, the teacher was not easily accessible, i.e., over at other side of classroom with other students.	Class management
71	-	
72	The card association with things such as 'speed' or 'pollution' was a waste of time as it was subjective and did nothing to enhance our vocabulary. The same thing could be done in English with the same cards.	Categorising activity
73	-	
74	None	
75	[blank]	

Question 4: Any other comments

ID	Comment	Category
62	[blank]	
63	Enjoyable class, made learning more interesting.	Class (Positive)
64	Good fun, useful and educational.	Class (Positive)
65	I think we could have used the vehicle names in the sentence structures we were using late last week. Ex: "Yesterday I went by train to Osaka."	Grammar practice (Negative)
66	Found the class fun and definitely learned the content. Very helpful overall.	Class (Positive)
67	[blank]	
68	When one has to write down a word/symbol, it is easier	Writing practice (Suggestion)

	to remember. While we learnt it visually a few times, I think writing it down a bit is also helpful.	
69	[blank]	
70	Perhaps more themes, or learning topics using this methodology would be very useful.	Learning vocabulary with different themes using this vocabulary learning methodology (Suggestion)
71	[blank]	
72	[blank]	
73	[blank]	
74	Good repetition which is helpful to memorise.	Repetition (Positive)
75	[blank]	

Results of Questionnaire 2: This table was created based on the learners' comments¹ summarised above section.

Question 1 Did you enjoy the class?

Yes	No
14	0

Question 2 Comment on which activities of the class you liked or found helpful

Phase 1		Phase 2	Phase 1 - 2	Phase 3	Phase 4	Phase 1 - 4	
Repetition	Use of flashcards	Categorising activity	Group work	Colouring activity	Oral activity	Activities in general	Use of Japanese scripts
2	9	1	2	2	3	3	2

Question 3 Comment on which activities of the class you did not like or found unhelpful

Phase 2		Phase 3	Phase 1 - 4	
Categorising activity	Colouring activity	Time management	Class management	
1	3	4	1	

Question 4 Any other comments

Positive		Negative	Suggestions	
The class was enjoyable/interesting/useful	Repetition	Oral activity (Grammar practice with different structures)	More writing exercise	Learning vocabulary with different topics
3	1	1	1	1

¹ Question 2, 3 and 4 were open-response questions, and multiple answers were allowed.

The results of Test 1

The following tables show the results of Test 1:

Test 1-1 (a day after the experiment)

[TA = Teacher Assessment, SA = Self-Assessment, NR= Not Rateable]

1		2		3		4		5		6		7		8		9		10		11		12		
新幹線		トラック		車		船		自転車		タクシー		飛行機		バス		水上飛行機		電車		ヘリコプター		地下鉄		
bullet train		lorry		car		ship		bicycle		taxi		airplane		bus		seaplane		train		helicopter		metro		
		TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	
62	3	1	3	1	3	3	0.5	3	2	3	1	3	1	3	3	2	3	2	3	2	3	2	3	1
63	3	0	3	1	3	3	0	3	3	3	0	3	1	3	1	3	1	3	3	3	3	3	0	1
64	0	0	3	3	3	3	2	0	3	1	0	3	3	3	3	2	3	3	3	3	3	3	3	1
65	0	0	3	1	NR	3	0	0	NR	2	3	2	3	0	NR	2	3	1	NR	2	NR	2	0	0
66	0	0	3	3	3	3	0	0	3	NR	3	2	3	1	3	2	3	1	3	2	3	3	NR	
Did not take the test																								
68	0	0	NR	2	3	3	0	0	3	1	3	1	3	3	3	2	3	2	0	0	3	2	3	1
69	0	0	3	3	3	3	1	0	1	NR	3	3	3	3	3	2	3	2	2	NR	0	3	3	1
70	0	0	0	0	3	3	0	0	1	1	3	3	3	3	3	NR	3	1	1	1	3	2	0	0
71	0	0	3	2	3	3	0	0	2	NR	3	2	0	0	3	3	0	1	3	1	3	1	0	0
72	3	0	3	2	3	3	0	0	3	3	3	3	0	0	3	3	3	3	3	3	3	3	0	0
73	3	0	3	2	3	3	NR	1	NR	1	NR	2	NR	1	NR	3	NR	2	NR	2	NR	1	NR	NR
74	1	1	3	3	3	3	2	0	1	1	3	2	3	1	3	3	1	3	1	3	2	2	3	0
75	3	2	3	3	3	3	3	2	3	2	3	3	3	2	3	1	3	2	3	2	3	3	3	2

Test 1-2 (two weeks after the experiment)

[TA = Teacher Assessment, SA = Self-Assessment, NR= Not Rateable]

1	2	3	4	5	6	7	8	9	10	11	12												
新幹線	トラック	車	船	自転車	タクシー	飛行機	バス	水上飛行機	電車	ヘリコプター	地下鉄												
bullet train	lorry		car		ship		bicycle		taxi		airplane		bus		seaplane		train		helicopter		metro		
	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	
62	3	2	3	2	3	3	2	3	3	2	3	2	2	3	2	3	2	3	2	3	2	2	
63	Did not take the test																						
64	3	0	3	3	3	3	0	3	2	3	3	3	NR	3	NR	3	NR	3	NR	3	NR	3	1
65	3	0	3	2	3	3	3	0	3	2	3	3	2	3	NR	3	NR	3	NR	3	3	3	0
66	Did not take the test																						
67	0	0	0	0	3	3	0	0	0	0	0	0	0	0	NR	3	1	0	NR	3	1	0	0
68	0	0	3	2	NR	3	0	0	2	NR	3	2	3	2	1	NR	3	2	NR	3	2	3	2
69	0	NR	3	1	3	3	0	1	1	1	3	2	3	NR	3	2	3	1	3	2	3	2	2
70	1	0	3	1	3	3	0	0	3	1	3	3	1	0	3	3	2	3	3	3	3	3	0
71	0	0	3	2	3	3	0	0	0	2	3	2	3	1	3	2	1	3	2	3	2	3	2
72	3	1	3	2	3	3	0	0	3	NR	0	3	3	0	3	3	3	1	3	3	3	1	1
73	3	0	3	3	3	3	3	1	3	3	3	3	1	3	3	2	3	2	3	2	3	1	1
74	0	0	3	3	3	3	0	0	3	2	1	NR	3	NR	3	2	3	2	3	3	3	1	1
75	3	2	3	3	3	3	3	2	1	3	3	2	3	3	1	NR	3	3	3	2	3	3	3

Learners’ comments on knowledge of the target words

The learners were asked to write how well they knew the target words in the follow-up tests, and the following shows their comments on Test 1. The learners who did not take the test or did not write their comments are excluded here.

[TA = Teacher Assessment, SA = Self-Assessment, NR= Not Rateable]

Test 1-1 (a day after the experiment)

1. 新幹線 (bullet train)

ID	Written Answer	TA	SA	Comment
62	bullet train	3	1	Last one left
64	red	0	0	Don't remember as real hiragana not kanji. Think first bit is like red.
69	boat or bike	0	0	Process of elimination!!
73	<i>shinkansen</i>	3	0	Guess.
74	bicycle	1	1	Educated guess.
75	bullet train	3	2	I remembered it because the kanji is complex.

2. トラック (lorry)

ID	Written Answer	TA	SA	Comment
62	truck	3	1	Recognise to [= ト] character
63	truck	3	1	I don't understand this katakana. I am only going by symbol matching from yesterday's exercise.
64	truck	3	3	Katakana is easy to guess word.
65	truck	3	1	We haven't learnt katakana yet but picked out a few I knew and guessed the rest.
68	<i>toruka</i>	NR	2	I know the first two katakana + could work it one from there.
71	truck	3	2	I could make out the sound of the word in katakana.
72	truck	3	2	From katakana though guessing as not familiar with all terms/symbol in the katakana syllabary.
73	truck	3	2	Double consonant at the end.
74	truck	3	3	It's katakana so it's easier than kanji.
75	truck	3	3	I could read the katakana.

3. 車 (car)

ID	Written Answer	TA	SA	Comment
63	car	3	3	I remember it easily because I memorised it.
64	car	3	3	Studied this kanji a few times.
65	<i>kuruma</i>	NR	3	Because we've learnt it.
68	car	3	3	I knew it before yesterday.
69	car	3	3	1 st set of kanji we did.
70	car	3	3	Had learned this symbol previously.
71	car	3	3	One of the first kanji symbols learnt.
72	car	3	3	Know the kanji.
74	car	3	3	I remembered the kanji.

4. 船 (ship)

ID	Written Answer	TA	SA	Comment
62	ship	3	0.5	All others remaining unknown require more than one character.
64	boat	2	0	Guess.
73	<i>fune</i>	NR	1	Guess.
74	boat	2	0	Guessed this by process of elimination.
75	ship	3	2	I remembered the single kanji.

5. 自転車 (bicycle)

ID	Written Answer	TA	SA	Comment
63	bike	3	3	I remember the connection with car [= 車] and the symbols.
64	bike	3	1	Remember 'sha' [= 車] part.
65	<i>gitensa</i>	NR	2	Because it has a car [= 車] in it.
66	bike	3	NR	Guess.
68	bike	3	1	I am guessing from the 車 symbol.

71	Train/ shinkansen or bike	2	NR	I know it has something with transport. Either a train/shinkansen or bike.
72	bicycle	3	3	Only recognise that it's a vehicle from car symbol [= 車] at end + I like bikes!
73	<i>jitensha</i>	NR	1	<i>Sha</i> -kanji [= 車].
74	bullet train	1	1	車 means car/vehicle so it's similar to train.
75	bicycle	3	2	It has the kanji for car [= 車] in it.

6. タクシー (taxi)

ID	Written Answer	TA	SA	Comment
62	taxi	3	1	I think I recognise some characters.
63	taxi	3	0	Pure guess.
64	[blank]	0	3	Katakana easy and did word before.
68	taxi	3	1	Guessing.
69	taxi	3	3	Remembered from yesterday and we have done some katakana.
71	taxi	3	2	Not all the katakana has been learned yet so it took a bit of time to recognise the word.
72	taxi	3	3	Again katakana, know enough of the symbols to get the word.
73	<i>takushī</i>	NR	2	シ is in my name.
75	taxi	3	3	I could work out the katakana.

7. 飛行機 (airplane)

ID	Written Answer	TA	SA	Comment
62	plane	3	1	Same as sea plane.
64	airplane	3	0	Remembered sea plane so this one I deduced from that.
65	plane	3	0	I cannot recognise kanji unless I go through writing them and studying stroke order as in book.
66	plane	3	1	The same kanji as sea plane.
68	plane	3	2	I recognise it.
69	airplane	3	1	Remembered sea plane ... then used kanji from that!

73	<i>hikoki</i>	NR	1	Short version of <i>suihikoki</i> . [= seaplane]
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8. バス (bus)

ID	Written Answer	TA	SA	Comment
63	bus	3	1	Pure guess work (because it's a small word).
64	bus	3	3	Katakana is easy.
66	bus	3	2	Translated katakana.
68	bus	3	3	I could recognise it on the OHP.
69	bus	3	3	Remembered from yesterday and we have done some katakana.
72	bus	3	3	It's in katakana which I understand some of.
73	<i>busu</i>	NR	3	Short.
75	bus	3	1	I could work out the katakana.

9. 水上飛行機 (seaplane)

ID	Written Answer	TA	SA	Comment
62	sea plane	3	2	Remember start.
63	sea plane	3	1	Remember kanji must be the same for <i>hikōki</i> [= 飛行機].
64	sea plane	3	2	Remembered 'above water' [= 水上] part and guessed rest.
65	sea-plane	3	1	Just by process of elimination. Also these two (plane/sea-plane) share same kanji and the sea plane has 上 which means on.
66	sea plane	3	1	Remembered that <i>sui</i> [= 水] was water. Guessed on sea plane.
68	water plane	3	2	I recognise the <i>suijo</i> [= 水上] part in kanji.
69	sea plane	3	2	Recognise kanji for above [= 上] and remembered from yesterday and kanji for <i>sui</i> [= 水].
72	sea plane	3	3	Has kanji symbol for water [= 水] at start of it.
73	<i>suihikoki</i>	NR	2	Kanji for water [= 水].
74	seaplane	3	1	I knew 水 means water.
75	sea plane	3	2	I remembered it because I recognised the kanji for sea 水.

10. 電車 (train)

ID	Written Answer	TA	SA	Comment
63	train	3	3	Remember connection with car [= 車].
64	train	3	3	Remember only bit at bottom of first kanji and know 'sha' [= 車].
65	<i>densha</i>	NR	2	It has a car [= 車] in it.
66	train	3	2	Remembered it, because it contains the kanji word car [= 車] in it.
68	[blank]	0	0	It has something to do with 車 , could also be <i>gitensa</i> .
71	electric train	3	1	This first symbol [= 電] is electricity and the second [= 車] is car.
72	train	3	3	Has the symbol for car [= 車] as part of it.
73	<i>densha</i>	NR	2	車
75	train	3	2	It has the kanji for car [= 車] in it.

11. ヘリコプター (helicopter)

ID	Written Answer	TA	SA	Comment
62	helicopter	3	2	Know start.
63	helicopter	3	3	I understand some katakana and can guess the rest.
64	helicopter	3	3	Easy.
65	<i>herikoputa</i>	NR	2	By picking out katakana I know.
66	helicopter	3	2	Translated the katakana.
68	helicopter	3	2	I know the first two katakana.
69	[blank]	0	3	Remembered from yesterday and we have done some katakana.
71	helicopter	3	1	Again not all the katakana is recognisable be the overall word is.
72	helicopter	3	3	Has <i>he</i> (へ) <i>ri</i> (り) at beginning etc: katakana interpretable.
73	<i>herikopita</i>	NR	1	Guess. Don't know katakana yet. Why was there so much emphasis about learning hiragana and then not on katakana?
75	helicopter	3	3	I could work out the katakana.

12. 地下鉄 (metro)

ID	Written Answer	TA	SA	Comment
62	subway	3	1	Underground [= 下] symbol
64	underground	3	1	Middle kanji [= 下] means below so deduced the rest.
66	subway	3	NR	Guess.
68	subway	3	1	Something to do with under symbol 下 .
69	underground train	3	1	Recognised kanji for below [= 下].
72	[blank]	0	0	Just not enough kanji in my head to work it out!
73	<i>chitetsu</i> -	NR	NR	Guess. I'm guessing at what the letters mean...
74	subway	3	0	Guessed its meaning because the symbol 下 means below → subway.
75	subway	3	2	I remembered it because I remembered the kanji for below 下 .

Test 1-2 (two weeks after the experiment)

1. 新幹線 (bullet train)

ID	Written Answer	TA	SA	Comment
62	bullet train	3	2	Process of elimination.
64	<i>shinkansen</i>	3	0	Guess.
65	bullet train	3	2	Last one left.
72	<i>shinkansen</i>	3	1	Just a guess as
73	<i>shinkansen</i>	3	0	Only one left.
74	morning	0	0	I think 朝 [→ 幹] means morning.

2. トラック (lorry)

ID	Written Answer	TA	SA	Comment
62	truck	3	2	This and most others I only recognise 1 or 2 characters, so I can piece the word together. I would not be able to go from English to Japanese characters at all.

64	truck	3	3	Katakana easy.
65	truck	3	2	Sounds like English.
68	truck	3	2	Easy from the katakana.
71	truck	3	2	Had to sound out the word.
72	truck	3	2	It's katakana + interpretable.

3. 車 (car)

ID	Written Answer	TA	SA	Comment
64	car	3	3	Seen this kanji many times.
65	car	3	2	Learned it in kanji book.
68	<i>kuruma</i>	NR	3	I could recognise anywhere.
71	car	3	3	No problem.

4. 船 (ship)

ID	Written Answer	TA	SA	Comment
62	ship	3	2	Short kanji.
64	ship	3	0	Guess.
65	ship	3	0	Guess (think it's only one kanji).

5. 自転車 (bicycle)

ID	Written Answer	TA	SA	Comment
64	bike	3	2	Remember 'sha' [= 車] and know bike has 3 syllables.
65	bike	3	2	Recognise car [= 車] kanji and remember that it was explained to us that 自 means self.
68	bike or bullet train	2	NR	I only recognise the 車 part.
70	bike	3	1	Individually symbols are ??
72	bike	3	3	I like bikes so this sticks in my head + vehicle [= 車] kanji is present.

6. タクシー (taxi)

ID	Written Answer	TA	SA	Comment
64	taxi	3	3	Easy.
65	taxi	3	3	Sounds like English.
68	taxi	3	2	From katakana.
71	taxi	3	2	Had to sound out the words.
72	taxi	3	NR	Katakana + interpretable.
73	taxi	3	3	Easy when know katakana.

7. 飛行機 (airplane)

ID	Written Answer	TA	SA	Comment
64	plane	3	0	Know 'sui jō' [= 水上] from sea plane so guessed this one.
65	plane	3	2	Got it from sea-plane.
71	plane	3	1	Had to recognise seaplane first.
73	plane	3	1	Only knew from seaplane.

8. バス (bus)

ID	Written Answer	TA	SA	Comment
64	bus	3	3	Easy.
65	bus	3	3	Sounds like English.
68	bus	3	3	From katakana.
71	bus	3	2	Just had to sound it out.

9. 水上飛行機 (seaplane)

ID	Written Answer	TA	SA	Comment
64	sea plane	3	NR	Remember 'sui jō' [= 水上] part and guess rest of kanji.
65	sea-plane	3	2	水 = water 上 = over
68	sea plane	3	2	I know sui [= 水] + 上 so it's easy to work out then.

69	sea plane	3	2	Water [= 水] + above [= 上] kanji helped.
71	sea-plane	3	1	Took some time to remember.
72	water plane	3	3	Only because it begins with 水 which is <i>mizu</i> or water.
74	sea plane	3	1	水 means water and 上 means up/above.

10. 電車 (train)

ID	Written Answer	TA	SA	Comment
64	train	3	NR	Only remember 'sha' [= 車] part.
65	train	3	NR	There was three forms of transport that used 車 ⇒ process of elimination ⇒ train.
68	bike or bullet train	1	NR	I only recognise the 車 part
71	train	3	2	Electricity [= 電] + car [= 車] symbols = train?
72	train	3	1	A guess really that it's a train since kanji for vehicle [= 車] is there.
74	train	3	2	The 1 st kanji means electric which I remember.

11. ヘリコプター (helicopter)

ID	Written Answer	TA	SA	Comment
64	helicopter	3	NR	Katakana easy.
65	helicopter	3	3	Sounds like English.
68	helicopter	3	2	From katakana.
71	helicopter	3	2	Just had to sound it out.
72	helicopter	3	3	It's katakana + interpretable.

12. 地下鉄 (metro)

ID	Written Answer	TA	SA	Comment
64	underground train	3	1	Guess from middle kanji being under [= 下]. Don't remember other kanji.
65	subway	3	0	Just guessing from 下 <i>shita</i> → under.
68	subway	3	2	I recognise 下 the so it's under ground.

69	subway	3	2	From kanji for below [= 下].
71	subway	3	2	The ' <i>shita</i> ' [= 下] kanji helped.
72	metro train	3	1	A guess since the symbol for 下 <i>shita</i> /below is present.
73	underground	3	1	Kanji!
74	subway	3	1	I guessed because 下 means below.

The results of Test 2

The following tables show the results of Test 2:

Test 2-1 (a day after the experiment)

[TA = Teacher Assessment, SA = Self-Assessment, NR= Not Rateable]

1		2		3		4		5		6		7		8		9		10		11		12	
train		bus		seaplane		helicopter		metro		bicycle		ship		car		taxi		airplane		bullet train		lorry	
densha		basu		suijō-hikōki		herikoputā		chikatetsu		jitensha		fune		kuruma		takushī		hikōki		shinkansen		torakku	
ID	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA
62	3	2	3	2	1	0	2	1	1	3	2	3	2	3	2	2	2	0	0	3	2	2	1
63	2	3	2	3	1	3	2	3	0	3	3	3	3	1	3	2	3	0.5	3	1	2	0.5	1
64	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	1	3
65	3	2	3	2	1	2	2	2	0	2	2	2	2	3	2	2	2	0.5	2	3	3	1	2
66	3	2	3	3	1	1	1	2	0	3	2	3	2	3	2	2	2	0	1	0	1	0	0
67	Did not take the test																						
68	1	3	1	2	2	2	2	3	3	2	2	3	2	1	3	2	3	2	3	3	1	0.5	2
69	3	2	2	3	3	2	2	3	3	3	3	2	2	3	2	2	2	3	2	3	3	2	1
70	3	3	3	3	2	3	0.5	3	0	3	3	0	0	1	3	2	3	2	3	1	3	0	0
71	3	3	2	3	0.5	3	2	2	0	0	NR	2	3	0	NR	0.5	3	0.5	3	3	3	0	1
72	3	3	3	3	2	2	2	2	0	3	3	3	3	3	3	2	3	2	3	3	3	0.5	2
73	3	2	1	3	0.5	2	3	2	1	3	3	3	3	1	3	2	3	2	2	3	2	1	3
74	3	3	3	3	2	3	2	3	3	3	3	2	1	3	3	0.5	2	2	3	3	3	1	2
75	3	3	2	3	3	3	0.5	3	3	3	3	3	3	1	3	0.5	3	3	3	1	1	2	3

Test 2-2 (two weeks after the experiment)

[TA = Teacher Assessment, SA = Self-Assessment, NR= Not Rateable]

1		2	3	4	5	6	7	8	9	10	11	12
train		bus	seaplane	helicopter	metro	bicycle	ship	car	taxi	airplane	bullet train	lorry
densha		basu	suijō-hikōki	herikoputā	chikatetsu	jitensha	fune	kuruma	takushī	hikōki	shinkansen	torakku
ID	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA
62	3	3	0.5	1	3	3	3	3	2	3	3	1
63 Did not take the test												
64	3	3	3	3	3	3	3	3	3	3	3	1
65	3	2	3	3	2	3	3	3	2	NR	3	1
66 Did not take the test												
67	0	0	3	3	0.5	NR	2	3	0	0	1	3
68	0	0	1	3	0.5	1	2	3	2	3	3	1
69	3	2	3	2	2	2	2	3	2	2	3	2
70	0	2	3	2	0.5	2	0.5	2	0	2	2	2
71	3	3	3	3	2	2	2	0.5	NR	1	3	0.5
72	3	3	3	3	2	2	2	3	3	2	3	0
73	3	3	3	3	0.5	2	3	3	3	2	3	0.5
74	3	2	2	2	3	1	3	2	NR	2	2	1
75	3	3	3	3	3	3	3	3	0.5	3	3	2

Learners’ comments on knowledge of the target words

The learners were asked to write how well they knew the target words in the follow-up tests, and the following shows their comments on Test 2. The learners who did not take the test or did not write their comments are excluded here.

[TA = Teacher Assessment, SA = Self-Assessment, NR= Not Rateable]

Test 2-1 (a day after the experiment)

1. Train (*densha*)

ID	Written Answer	TA	SA	Comment
63	<i>denshā</i>	2	3	Easy to remember.
64	<i>densha</i>	3	3	Studied this a number of times.
66	<i>densha</i>	3	2	Quite easy. Not sure of spelling.
68	<i>densha</i>	1	3	Easy could say on OHP.
69	<i>densha</i>	3	2	Came after <i>jitensha</i> yesterday on the board and the same ending.
71	<i>densha</i>	3	3	Easy.
72	<i>densha</i>	3	3	It’s short + easy to remember.
73	<i>densha</i>	3	2	Ends with car.

2. Bus (*basu*)

ID	Written Answer	TA	SA	Comment
63	<i>basū</i>	2	3	Similar to English word.
64	<i>basu</i>	3	3	Remember because it’s close to English.
65	<i>basu</i>	3	2	Just translate into English-Japanese.
66	<i>basu</i>	3	3	Quite simple. Similar to English.
68	<i>busu</i>	1	2	Like English.
69	<i>bāsu</i>	2	3	Easy!
71	<i>bāsu</i>	2	3	Easy.

72	<i>basu</i>	3	3	It's a word common to many languages.
73	<i>busa</i>	1	3	English similar.

3. Seaplane (*suijō-hikōki*)

ID	Written Answer	TA	SA	Comment
63	<i>suijō heikōki</i>	1	3	Similar to plane.
64	<i>suijō hikōki</i>	3	3	Remember <i>suijō</i> part as I picture a guy called sweet Joe piloting the plane. <i>Hikōki</i> I remember from repetition.
66	<i>suijō keokei</i>	1	1	Not sure of spelling.
68	<i>suijo hikoki</i>	2	2	The <i>sui</i> part is water so it's easy.
69	<i>suijō hikōki</i>	3	2	Learned airplane before so just added the <i>suijō</i> reasonably easily.
71	<i>suiji kōki</i>	0.5	3	A small bit of thought.
72	<i>suijo hikōki</i>	2	2	Right now not sure about the ending <i>ku</i> or <i>ki</i> !
73	<i>sui hikoki</i>	0.5	2	Starts with water.

4. Helicopter (*herikoputā*)

ID	Written Answer	TA	SA	Comment
63	<i>herikoputa</i>	2	3	Similar to English.
64	<i>herikoputā</i>	3	2	Not sure about end part but easy to remember.
65	<i>herikoputa</i>	2	2	Just translate into English-Japanese.
66	<i>hericoputo</i>	1	2	Remembered it was similar to English.
68	<i>hēricoputā</i>	2	3	Like English.
69	<i>herikoputa</i>	2	2	Very like English pronunciation.
71	<i>herikoputa</i>	2	2	Similar to English.
72	<i>herikoputa</i>	2	2	Not sure about romaji spelling of word but could recognise it.
73	<i>herikoputā</i>	3	2	Similar to English.
74	<i>herikopūta</i>	2	2	Unsure about long vowels or long consonants [= double consonants] for most words.

5. Metro (*chikatetsu*)

ID	Written Answer	TA	SA	Comment
62	<i>chikashita</i>	1	1	Hard to remember.
63	<i>chitazen</i>	0	1	Guess pronunciation, found it difficult but remember the letter in word, just not order.
64	<i>chikatetsu</i>	3	3	Remember this word because I like the way it sounds.
66	<i>kitjittsu</i>	0	1	Not too sure of this one.
68	<i>chikatetsu</i>	3	2	More difficult as it's long + has no association with English.
69	<i>chikatetsu</i>	3	3	Because we kept getting it wrong yesterday.
72	[blank]	0	0	I simply can't remember this one no matter how much I try!
73	<i>chitetsu</i>	1	1	Not sure I got it right.

6. Bicycle (*jitensha*)

ID	Written Answer	TA	SA	Comment
63	<i>jitensha</i>	3	3	Memorised.
64	<i>jitensha</i>	3	3	Studied this a few times.
68	<i>gitensha</i>	2	3	Easy + OHP
69	<i>jitensha</i>	3	2	Have come across it a few times.
72	<i>jitensha</i>	3	3	It's easy as hiragana I could only recognise 2 symbols from kanji form.
73	<i>jitensha</i>	3	3	End is car.

7. Ship (*fune*)

ID	Written Answer	TA	SA	Comment
63	<i>fune</i>	3	2	Word sounds like a ship noise!
64	<i>fune</i>	3	3	Remember because of repetition yesterday and the soft 'fu' sound.
65	<i>fune</i>	2	2	Remembered by 'funnel on a ship'.
66	<i>fune</i>	3	2	Was easy to remember.
68	<i>funē</i>	2	3	Easy could say on OHP.

69	<i>fūne</i>	2	2	Short word so OK to remember.
72	<i>fune</i>	3	3	It's simple as it's only 2 terms from hiragana.
73	<i>fune</i>	3	3	Short.

8. Car (*kuruma*)

ID	Written Answer	TA	SA	Comment
63	<i>karuma</i>	1	3	Memorised but find spelling difficult.
64	<i>kuruma</i>	3	3	Studied many times.
65	<i>kuruma</i>	3	2	Learned it in first 10 kanji.
66	<i>kuruma</i>	3	2	Pretty simple.
68	<i>karuma</i>	1	3	We learned it before.
69	<i>kuruma</i>	3	2	Have seen a few times.
73	<i>karuma</i>	1	3	Know from kanji.

9. Taxi (*takushī*)

ID	Written Answer	TA	SA	Comment
63	<i>takushi</i>	2	3	Similar to English word and sushi.
64	<i>takushii</i>	3	3	Close to English.
65	<i>takushī</i>	2	2	Just translate into English-Japanese.
66	<i>takushī</i>	2	2	Similar to English.
68	<i>takushi</i>	2	3	Easy could say on OHP.
69	<i>takushi</i>	2	2	Much like English and have seen word a lot.
71	<i>takeshi</i>	0.5	3	Similar to English.
73	<i>takushi</i>	2	3	English similar.

10. Airplane (*hikōki*)

ID	Written Answer	TA	SA	Comment
62	? <i>hi</i>	0	0	Hard to remember.

63	<i>heikoki</i>	0.5	3	Memorised.
64	<i>hikōki</i>	3	3	Remember from repetition.
66	<i>keokei</i>	0	1	Not sure of spelling.
68	<i>hikoki</i>	2	3	Easy could say on OHP.
69	<i>hikōki</i>	3	2	Learned this word a few times.
71	<i>kōki</i>	0.5	3	Easy.
72	<i>hikōki</i>	3	2	See <i>suijo hikōki</i> above [Right now not sure about the ending <i>ku</i> or <i>ki</i> !].
73	<i>hikoki</i>	2	2	Shorted version of <i>suihikoki</i> .

11. Bullet train (*shinkansen*)

ID	Written Answer	TA	SA	Comment
63	<i>shikansen</i>	1	2	Unsure of spelling.
64	<i>shinkansen</i>	3	3	Studied before.
66	<i>kinshinsa</i>	0	1	Not sure of spelling.
68	<i>shinkansen</i>	3	1	A difficult one as it's long + has no English association.
69	<i>shinkansen</i>	3	3	From knowledge of Japanese transport system.
71	<i>shinkansen</i>	3	3	Very easy.
72	<i>shinkansen</i>	3	3	They are world famous trains so are easy to remember.
73	<i>shinkansen</i>	3	2	Knowledge of word.

12. Lorry (*torakku*)

ID	Written Answer	TA	SA	Comment
63	<i>trukku</i>	0.5	1	Similar to English word.
64	<i>torukku</i>	1	3	Easy. Close to English.
65	<i>torukku</i>	1	2	Just translate into English-Japanese.
66	[blank]	0	0	Just can't remember. I'd know it if I saw it again with no problem.
68	<i>toruka</i>	0.5	2	Like English for truck.

69	<i>toraku</i>	2	1	Very English.
71	<i>rōri</i>	0	1	Not sure.
72	<i>toruku</i>	0.5	2	Not sure about romaji spelling but could recognise the word in katakana.
73	<i>torukku</i>	1	3	English similar.
74	<i>turakku</i>	1	2	Unsure about double consonants.

Test 2-2 (two weeks after the experiment)

1. Train (*densha*)

ID	Written Answer	TA	SA	Comment
64	<i>densha</i>	3	3	Heard many times.
69	<i>densha</i>	3	2	Learned vocab but not kanji too well.
71	<i>densha</i>	3	3	Easy.
72	<i>densha</i>	3	3	It's required as transport in Japan for me will be mostly by trains + other public transport modes.
73	<i>densha</i>	3	3	Easy to pronounce.

2. Bus (*basu*)

ID	Written Answer	TA	SA	Comment
64	<i>basu</i>	3	3	Easy.
68	<i>busu</i>	1	3	Like English.
69	<i>basu</i>	3	2	Easy, always come across word.
71	<i>basu</i>	3	3	Similar to English.
72	<i>basu</i>	3	3	It's practically English/Irish/European.
73	<i>basu</i>	3	3	Similar to English.

3. Seaplane (*suijō-hikōki*)

ID	Written Answer	TA	SA	Comment
64	<i>suijō hikōki</i>	3	3	Nice sounding word.

68	<i>sui hikoki</i>	0.5	1	I know the <i>sui</i> + <i>hikoki</i> but not sure how to put them together.
69	<i>suijo hikoki</i>	2	2	It's just airplane with a bit added at start.
73	<i>suijō hikōki</i>	0.5	2	Hard to remember.

4. Helicopter (*herikoputā*)

ID	Written Answer	TA	SA	Comment
68	<i>herikoputa</i>	2	3	Like English.
71	<i>herikoputa</i>	2	2	Similar to English. Can pronounce and read it.
73	<i>herikoputā</i>	3	2	OK/Similar to English.

5. Metro (*chikatetsu*)

ID	Written Answer	TA	SA	Comment
64	<i>chikatetsu</i>	3	3	Remember.
68	<i>chikatetsu</i>	3	1	I get the three trains, one mixed up.
69	<i>chikatetsu</i>	3	2	Difficult word so learned well.
71	[blank]	0	0	Can recognise the reading.
72	<i>chikatetsu</i>	3	2	See comment for <i>densha</i> above [= It's required as transport in Japan for me will be mostly by trains + other public transport modes.].
73	<i>chikatetsu</i>	3	3	Hard to remember.

6. Bicycle (*jitensha*)

ID	Written Answer	TA	SA	Comment
68	<i>gitensa</i>	0.5	3	Remember easily.
69	<i>jitensha</i>	3	2	Common word.
71	<i>jitensha</i>	3	3	Easy.
72	<i>jitensha</i>	3	3	It's another form of transport + required to know it.

7. Ship (*fune*)

ID	Written Answer	TA	SA	Comment
68	<i>funē</i>	2	3	Remember it.
71	<i>fune</i>	3	NR	Can read hiragana and pronounce.
72	<i>fune</i>	3	3	Only remember because of repetition in class
73	<i>fune</i>	3	3	Fine.

8. Car (*kuruma*)

ID	Written Answer	TA	SA	Comment
65	<i>kuruma</i>	3	3	We've used a lot.
68	<i>kuruma</i>	3	3	Remember from the kanji.
69	<i>kuruma</i>	3	2	Common word.
71	<i>karuma</i>	1	3	Can read and write.
72	<i>kuruma</i>	3	3	Meaning is simple enough as it's like in English.
73	<i>kuruma</i>	3	3	Fine.

9. Taxi (*takushi*)

ID	Written Answer	TA	SA	Comment
68	<i>takushi</i>	2	3	Like English.
71	<i>takashi</i>	0.5	2	Can read the katakana.
72	<i>takushi</i>	2	3	It's practically English.
73	<i>takushi</i>	2	2	Fine/English.

10. Airplane (*hikōki*)

ID	Written Answer	TA	SA	Comment
68	<i>hikoki</i>	2	3	Just remember the sound of it.
71	<i>hikoki</i>	2	3	Easy.
72	<i>hikoki</i>	2	2	It's transport + necessary.

73	<i>hikoki</i>	2	2	Difficult.
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11. Bullet train (*shinkansen*)

ID	Written Answer	TA	SA	Comment
68	<i>shinkansen</i>	3	1	Get the trains mixed up.
71	<i>shinkansen</i>	3	3	Heard of it before learning in class.
72	<i>shinkansen</i>	3	3	It's used in English as well.
73	<i>shinkansen</i>	3	2	OK.

12. Lorry (*torakku*)

ID	Written Answer	TA	SA	Comment
62	<i>torakku</i>	3	1	Easier because I had seen last sheet.
68	<i>toruku</i>	0.5	3	Like English truck.
71	<i>toruka</i>	0.5	2	Can read it and pronounce it.
72	<i>torukusha</i>	0	0	Just can't think of it as it is written as a truck in.
73	<i>tarukku</i>	0.5	2	Similar to English.

Additional comment:

A student (= ID 64) wrote an additional comment in the blank space, that is "Still remember all these words from the day we studied them. Most of them I have seen many times but others (*fune*) I saw only that day."

Appendix E-5: Data from Class 5

Profiles of participants

ID	Group	Age	Gender	L1	Nationality	Note
76	G1	32	F	German	German	
77	G1	28	F	English	Irish	
78	G1	28	M	German	German	Did not take Test 1-2 & 2-2
79	G2	79	M	English	Irish	
80	G2	36	M	Italian	Italian	Did not take Test 2-1
81	G2	33	M	English	Irish	Did not take Test 1-1 & 2-1 Did not take Test 1-2 & 2-2
82	G2	24	M	English	Irish	
83	G3	26	M	English	Irish-Dutch	Did not take Test 1-1 & 2-1 Did not take Test 1-2 & 2-2
84	G3	25	M	English	Irish	
85	G3	21	M	English	Irish	

Summary of Questionnaire 1:

Questionnaire 1 was collected from all the students (N= 10), and the following is a summary of their comments extracted from the questionnaire.

Phase 1: Introduction of new words and learning the words with sets of cards

ID	① Activity(-ies): What I was doing	② Learning target(s): What I was trying to learn	③ Problems/difficulties I am having after this phase	④ What I need to do to solve the problem/overcome the difficulty	⑤ How did I fare in relation to the problems I listed above?
76	Repeating words from projector and cards	Vocabularies	Problems with recognising Japanese characters	Writing and repeating them on their own	Repeating the words
77	Repeating words in Japanese + matching pictures with words	Vocabulary associated with transport	Remembering some of the new words	More study + repetition	The more I repeated the words, I remembered them better.
78	Bringing the cards into an order	Memorise new words based on kanji and katakana	Recognize kanji and katakana	Exercise, exercise, train the brain	Don't know
79	[Blank]	[Blank]	[Blank]	[Blank]	I had no problem at any stage.
80	I think the system of the cards works.	I was learn how it's important know travelling by bus and so on.	My problem is to remember the katakana kanji.	You have to practice and study.	Expect you have some problems but keep going and try to resolve.
81	Learning new words first using roman, then katakana, hiragana and kanji. Recognising the words when roman was removed and remembering pronunciation.	①New words ②Recognition of words in written Japanese ③Pronunciation of words	Remembering some of the words (bicycle, subway)	Repeating words and recognisation Japanese writing	So-so
82	Reading out the words as their images were pointed at	To recognise which word corresponded to which thing	Remembering certain of the words, some were easier to remember than others	Simply drive the word in by repeating it periodically over a few days	Mostly quite well eventually

83	Learning Japanese using pictures to learn new words	Trying to remember how to say certain words which were difficult to remember	Some words, i.e. <i>jidensha</i> and <i>chikatetsu</i> , were difficult to remember, also my written Japanese is very very poor!	Learn more written Japanese!!	Being in group, a small group, it was easy to learn some, or remember some of the phrases/words
84	Using the projector and cards we learned words for vehicles.	We were learning the words and writing for each vehicle.	Some of the words are not sticking in my head.	Need more time and practice	Not as good as others in my group
85	Learning words with pictures with and without writing	To match words with pictures	Mixing up words that sound similar	To remember the kanji of the words	Successful

Phase 2: Categorising the words

ID	① Activity(-ies): What I was doing	② Learning target(s): What I was trying to learn	③ Problems/difficulties I am having after this phase	④ What I need to do to solve the problem/overcome the difficulty	⑤ How did I fare in relation to the problems I listed above?
76	Trying to see the new words	Memorising the words without pictures	Memorising the words (Japanese characters)	Remember characters	Guessing
77	Organising the written cards in sequence + guessing the instructions for other groups	The words in isolation from the pictures, the written names of the items	Recognising the kana and kanji characters	Try to remember the characters	I could recognise some characters and could guess the words from these.
78	Picking the cards, pronouncing the cards	Group then decoding the meaning	Remember the meaning of a word	Delegated problem to a team member	[Blank]
79	[Blank]	[Blank]	[Blank]	[Blank]	[Blank]
80	Learn word, color, picture, system	The target is very important.	Remember	You must practice every day.	Remember all the time
81	①Placing Japanese writing with pictures ②Listing words (no pictures) for a set requirement (level of pollution)	①Recognising Japanese characters ②Understanding lists drawn up by other groups	Recognising words in kanji for some items	①Trying to memorise simple aspects of kanji ②Some help from the group	Struggled with recognition of some items

82	Identifying the objects from Section 1 again using flash cards	Once again to associate the thing with the word	Recognising kanji (although the few basic kanji I know helped a lot, e.g. for <i>kuruma</i> [車] recurred in <i>jitensha</i> [自転車] and <i>densha</i> [電車], <i>mizu</i> [水] occurred in <i>suijō-hikōki</i> [水上飛行機], making it more recognisable, etc.)	Try to learn more kanji and become more practised with the kana.	Fine
83	Cataloging the words in various orders	Trying to match the sounds with the written	My written Japanese is very poor!	Study!	Poorly. While I was in a good group, I was able to quickly learn a few things, but not as much – if my written Japanese was better, I would have been better.
84	Grouping the different words, according to criteria.	To read the words by kana alone.	I could read most of the words but one or two.	Again more practice, put in other sentences	I think I did well.
85	Dividing words into groups	To recognise and to group words according to type	Solving the way words were categorized	Spend time looking at categories	Successful

Phase 3: Making a picture with the words learnt

ID	① Activity(-ies): What I was doing	② Learning target(s): What I was trying to learn	③ Problems/difficulties I am having after this phase	④ What I need to do to solve the problem/overcome the difficulty	⑤ How did I fare in relation to the problems I listed above?
76	Colouring a picture with instructions	Colours and using these in proper sentences	Sentence structure	Remember the structure, repeating it	Used the handout
77	Colouring a picture according to instructions	Names of colours, how to say the colours of objects	Remember the sentence structure	More practise	The more I repeated the sentence, the easier it was to remember.

78	Colour the picture	Learn colours, ask for colours	None	[Blank]	I made a small step towards kanji.
79	[Blank]	[Blank]	[Blank]	[Blank]	[Blank]
80	I try to give a color as any picture.	Much it's possible	Remember	Study	I need concentrate more.
81	①Identifying colours with objects (and colouring in) ②Asking and answering the colours of objects	①Basic colours ②How to ask and respond to simple questions	Went OK for understanding own colours	Practice	So-so
82	Colouring a picture according to individual instructions	Basic sentence, structure, some colour words, image association with words.	None.	-	Fine.
83	Colouring in! Yay!	How to match katakana with pictures	My written Japanese is very poor!	Study more!	Poorly – I need to practice my written Japanese!
84	Colouring in a picture	Learning words for colours	The pronunciation of the colours	Practice, practice, practice	Pretty good
85	Describing newly learnt words	To match colours and words	-	-	-

Phase 4: Finding out people who have the same picture

ID	① Activity(-ies): What I was doing	② Learning target(s): What I was trying to learn	③ Problems/difficulties I am having after this phase	④ What I need to do to solve the problem/overcome the difficulty	⑤ How did I fare in relation to the problems I listed above?
76	Asking questions	To find out who has the same picture	Remembering the sentence structure	Repeating the structure	Used the handout
77	Asking questions to find the people with the same picture	How to ask the colours of objects + tell what colour my pictures were	Remembering the sentence structure	More practice	Repeating the questions to different people helped me to remember.

78	Approaching other people and tell them my colours	Asking questions	Failed to ask questions, didn't learn how to ask for names?	Learn and learn more	[Blank]
79	[Blank]	[Blank]	[Blank]	[Blank]	[Blank]
80	I go confuse	I was focus only in four words finally.	Remember symbols	Study	5 symbols
81	Finding others with same colours as my sheet	Communication with others	Took a little time to find/understand others with same colours	Kept asking questions and trying to understand response	Found the others with similar pictures
82	Questioning other people based on their pictures and mine, altering sentence grammar as appropriate.	How to ask questions and understand the answer	Remembering precise question form	Practice these questions	Fine
83	Finding out who else had the same colour pictures	Listening to Japanese and recognising the three colours and objects	None really, practice asking questions	More study!	This part was fairly straightforward. A nice end to the class.
84	Asking and answering questions about my picture	How to ask and answer questions about colours	Pronunciation	Time	Time
85	Finding people who had the same picture, asking questions	To ask if people had the same picture by matching colours and objects	Remembering word order	Practice	Successful

Summary of Questionnaire 2:

Questionnaire 2 was collected from all the students (N= 10), and the following is a summary of their comments extracted from the questionnaire. As to Question 2, 3 and 4, the learners' comments are classified into categories according to types of activity or types of material.

Question 1: Did you enjoy the class? Yes / No (Circle appropriate answer)

If you answer “No”, write the reasons.

All the students answered “Yes”.

Question 2: Comment on which activities of the class you liked or found helpful

ID	Comments	Categories
76	Working with cards and the projector	Use of flashcards Visual aids
77	Learning the words with picture cards Asking the colours of peoples' pictures	Use of flashcards Categorising activity
78	Find people who have same pictures Guess the categorising of words of other groups	Oral activity Categorising activity
79	[Blank]	
80	Talking much you can and practice.	Activities in general
81	Repeating the words and using them in the class	Repetition
82	The flash cards were most useful, they helped me learn to recognise some new kanji as well as associate vocabulary with images.	Use of flashcards
83	It was alternate and as such, I liked it. Also the simple match picture to word was easy enough to memorise.	Use of flashcards
84	It was different, we got more involved with others in the class.	Activities in general
85	I found seeing the kanji for words helpful and interesting.	Use of Japanese scripts

Question 3: Comment on which activities of the class you did not like or found unhelpful.

ID	Comments	Categories
76	Using the Japanese characters without pictures	Use of Japanese scripts
77	[Blank]	
78	[Blank]	
79	I did not know enough kanji.	Use of Japanese scripts
80	I like everything.	
81	All OK	
82	The repetition of the words at the beginning was a little slow, but was useful in the end.	Repetition
83	The only part I did not like was where we had to match all the Japanese words in order – the reason why – because my Japanese written is so poor. I now know I need to learn the Japanese symbols!	Use of Japanese scripts

84	At the start, going through the words got a little too repetitive.	Repetition
85	[Blank]	

Question 4: Any other comments

ID	Comments	Categories
76	[Blank]	
77	Repeating the vocabulary with words and pictures, then with pictures only and words only was useful tool for remembering the words.	Repetition (Positive) Use of flashcards (Positive)
78	Go on, I want to learn more. Games are a good way of learning.	Activity (Positive)
79	Very enjoyable.	Class (Positive)
80	[Blank]	
81	All OK.	Class (Positive)
82	[Blank]	
83	Good class – it was a good idea and a pleasant experience.	Class (Positive)
84	Maybe if you mix the words up with one or two extra simple sentences.	
85	[Blank]	

Results of Questionnaire 2: This table was created based on the learners' comments¹ summarised in the above section.

Question 1 Did you enjoy the class?

Yes	No
10	0

Question 2 Comment on which activities of the class you liked or found helpful

Phase 1		Phase 2	Phase 1 - 2	Phase 4	Phase 1 - 4	
Repetition		Use of flashcards	Categorising activity	Visual aids	Oral activity	Activities in general
1		4	2	1	1	2
						Use of Japanese Scripts
						1

Question 3 Comment on which activities of the class you did not like or found unhelpful

Phase 1	Phase 1 - 4
Repetition	Use of Japanese scripts
2	3

Question 4 Any other comments

Positive			Negative
The class/activity was good/enjoyable		Use of flashcards	Repetition
4		1	1
			Wanted to learn vocabulary with more grammar structures
			1

¹ Question 2, 3 and 4 were open-response questions, and multiple answers were allowed.

The results of Test 1

The following tables show the results of Test 1:

Test 1-1 (a week after the experiment)

[TA = Teacher Assessment, SA = Self-Assessment, NR= Not Rateable]

1		2		3		4		5		6		7		8		9		10		11		12		13		14		15	
新幹線		トラック		車		船		自転車		タクシー		飛行機		バス		水上飛行機		電車		ヘリコプター		地下鉄		赤		緑		青	
bullet train		lorry		car		ship		bicycle		taxi		airplane		bus		seaplane		train		helicopter		metro		red		green		blue	
ID	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	
76	3	1	3	1	3	2	0	0	3	2	0	1	3	1	3	2	3	1	3	2	0	1	3	1	3	1	3	1	
77	3	1	0	2	3	3	3	1	3	3	2	3	1	3	3	1	3	2	3	2	3	1	3	2	3	1	3	1	
78	0	0	3	3	3	3	NR	0	3	3	3	0	0	3	3	0	0	3	1	3	3	0	1	3	3	1	3	3	
79	0	0	0	0	0	0	0	0	0	0	3	3	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	
80	3	1	NR	1	NR	1	0	1	1	1	0	1	0	1	3	1	NR	3	1	0	0	0	0	1	1	1	1	1	
81	Did not take the test																												
82	2	0	3	3	3	3	1	3	2	3	3	3	3	1	3	3	3	3	3	3	3	2	0	3	3	2	3	3	
83	Did not take the test																												
84	0	0	3	1	3	2	2	1	0	0	3	1	3	2	3	2	1	0	3	1	0	0	3	1	3	1	3	1	
85	3	1	3	3	3	3	3	3	3	2	3	3	3	3	3	3	3	3	3	3	3	2	3	2	3	2	3	2	

Test 1-2 (a month after the experiment)

[TA = Teacher Assessment, SA = Self-Assessment, NR= Not Rateable]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
新幹線	トラック		車	船	自転車	タクシー	飛行機	バス	水上飛行機	電車	ヘリコプター	地下鉄	赤	緑	青
	lorry		car	ship	bicycle	taxi	airplane	bus	seaplane	train	helicopter	metro	red	green	blue
	ID	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA
76	NR	1	NR	2	NR	2	NR	1	NR	2	NR	1	NR	1	NR
77	3	1	3	3	1	3	3	2	3	2	3	2	3	2	2
78	Did not take the test														
79	0	0	0	0	0	NR	3	0	NR	3	3	0	3	0	0
80	2	NR	3	NR	0	3	NR	0	3	NR	0	0	1	NR	NR
81	Did not take the test														
82	0	0	3	2	3	3	3	1	3	3	2	3	2	0	1
83	Did not take the test														
84	1	3	2	3	1	3	2	3	3	1	3	1	3	2	2
85	3	3	3	3	2	3	3	3	3	2	3	3	1	3	1

Learners' comments on knowledge of the target words

The learners were asked to write how well they knew the target words in the follow-up tests, and the following shows their comments on Test 1. The learners who did not take the test or did not write their comments are excluded here.

[TA = Teacher Assessment, SA = Self-Assessment, NR= Not Rateable]

Test 1-1 (a week after the experiment)

1. 新幹線 (bullet train)

ID	Written Answer	TA	SA	Comment
77	bullet train	3	1	車 - this part of the second kanji looks like the kanji for car [= 車].
82	subway or bullet train	2	0	I know it's either subway or bullet-train, but I can't remember which.

2. トラック (lorry)

ID	Written Answer	TA	SA	Comment
77	truck	3	2	I recognise to [= ト] and tsu – for double consonant [= ッ].
82	truck	3	3	I remembered it easily because I could read the katakana.
85	truck	3	3	I can read the katakana.

3. 車 (car)

ID	Written Answer	TA	SA	Comment
77	car	3	3	I remember the kanji for car because it looks like a cart.
82	car	3	3	I know the kanji so remembered it easily.
84	car	3	2	I recognise the shape.
85	car	3	3	I remember the kanji.

4. 船 (ship)

ID	Written Answer	TA	SA	Comment
77	ship	3	1	The first part of the kanji reminds me of a funnel.
82	ship	3	1	It looks familiar, but I'm not certain I'm right.

84	boat	2	1	Guess.
85	ship	3	3	I remember the kanji.

5. 自転車 (bicycle)

ID	Written Answer	TA	SA	Comment
77	bicycle	3	3	I remember the kanji for car and I know that there are 3 kanji for bike.
85	bike	3	2	From the first kanji.

6. タクシー (taxi)

ID	Written Answer	TA	SA	Comment
77	taxi	3	2	I recognise <i>shi</i> [= シ], it looks like <i>tsu</i> [= ツ].
82	taxi	3	3	I could read the katakana.
85	taxi	3	3	I can read the katakana.

7. 飛行機 (airplane)

ID	Written Answer	TA	SA	Comment
77	plane	3	1	I know the seaplane has the same three last kanji.
82	plane	3	1	After recognising 'hydroplane,' I compared the other kanji and recognised it that way.
84	plane	3	2	I only know this because it beside seaplane.
85	airplane	3	3	I recognise the last kanji.

8. バス (bus)

ID	Written Answer	TA	SA	Comment
77	bus	3	3	I recognise <i>su</i> [= ス] in katakana.
82	bus	3	3	I could read the katakana.
85	bus	3	3	I can read the katakana.

9. 水上飛行機 (seaplane)

ID	Written Answer	TA	SA	Comment
77	seaplane	3	1	Same as plane [= I know the seaplane has the same three last kanji.].
78	<i>shinkansen</i>	0	0	Guess.
82	hydroplane	3	3	I recognised 'mizu' [= 水] and extrapolated from there.
84	seaplane	3	2	Again only know because its beside plane.
85	seaplane	3	3	I remember it from airplane.

10. 電車 (train)

ID	Written Answer	TA	SA	Comment
77	train	3	2	The second kanji is the kanji for car [= 車] and train has 2 kanji.
78	train	3	1	Not sure, train or underground
82	train	3	3	I can read the kanji.
84	bike	1	0	Total guess.
85	train	3	3	It has the same character as car [= 車].

11. ヘリコプター (helicopter)

ID	Written Answer	TA	SA	Comment
77	helicopter	3	2	He [= ヘ] is the same in katakana [= ヘ] and hiragana [= へ] and I know that a circle changes a sound to a 'P' [= ペ pe].
82	helicopter	3	3	I can read the katakana.
84	helicopter	3	1	Long katakana.
85	helicopter	3	3	I can read the katakana.

12. 地下鉄 (metro)

ID	Written Answer	TA	SA	Comment
77	underground train	3	1	I think the third kanji has something to do with metal underground.
82	subway or bullet train	2	0	I know it's either subway or bullet train but I can't remember which.
85	subway	3	2	From the kanji 下 meaning under.

13. 赤 (red)

ID	Written Answer	TA	SA	Comment
77	red	3	2	It looks a bit like a person.
82	red	3	3	I know the kanji previously.
84	red	3	1	Guess one of the colours.

14. 緑 (green)

ID	Written Answer	TA	SA	Comment
77	green	3	1	I just guessed that these kanji were the other colours.
78	green	3	1	Not sure.
82	green	3	2	I guess since the other colours were surrounding this word.
84	green	3	1	Guess.

15. 青 (blue)

ID	Written Answer	TA	SA	Comment
77	blue	3	1	Same as for green [= I just guessed that these kanji were the other colours.].
82	blue	3	3	I know this kanji previously.
84	blue	3	1	Guess.

Test 1-2 (a month after the experiment)

1. 新幹線 (bullet train)

ID	Written Answer	TA	SA	Comment
77	bullet train	3	1	I am not sure about this one but it's the last word left.
85	bullet train	3	3	From the look of the word.

2. トラック (lorry)

ID	Written Answer	TA	SA	Comment
77	truck	3	3	I recognise the katakana.

82	truck	3	2	Can read the katakana, and the meaning is easy to work out from the sound.
85	truck	3	3	I can read the katakana.

3. 車 (car)

ID	Written Answer	TA	SA	Comment
77	car	3	3	The kanji looks like a cart.
82	car	3	3	I know the kanji.
85	car	3	3	Easy kanji to remember.

4. 船 (ship)

ID	Written Answer	TA	SA	Comment
77	ship	3	2	Part of the kanji looks like a funnel.
85	boat	2	3	Easy to remember.

5. 自転車 (bicycle)

ID	Written Answer	TA	SA	Comment
76	<i>jitensha</i>	NR	2	Because of the first character [= 自].
77	train	1	1	The kanji for car [= 車] is part of this word.
82	bicycle	3	2	I knew it has the kanji for <i>kuruma</i> [= 車] in it, worked it out from there.
85	bike	3	2	Has the same ending as car [= 車].

6. タクシー (taxi)

ID	Written Answer	TA	SA	Comment
2	taxi	3	3	I recognise the katakana.
7	taxi	3	3	Read the katakana, worked it out from there.
10	taxi	3	3	Katakana.

7. 飛行機 (airplane)

ID	Written Answer	TA	SA	Comment
77	plane	3	2	Plane and seaplane have some of the same kanji.
82	airplane	3	1	Only remembered after seeing hydroplane below.
84	plane	3	3	Because it's beside seaplane.
85	airplane	3	3	I remember the kanji.

8. バス (bus)

ID	Written Answer	TA	SA	Comment
77	bus	3	3	I recognise the katakana.
82	bus	3	3	Read the katakana, worked it out from there.
85	bus	3	3	Katakana.

9. 水上飛行機 (seaplane)

ID	Written Answer	TA	SA	Comment
77	seaplane	3	2	Plane and seaplane have some of the same kanji.
82	hydroplane	3	2	Recognised the 'above water' [= 水上], part of the kanji and worked the rest out from there.
84	seaplane	3	3	Because it's beside plane.
85	seaplane	3	3	Has the same ending as airplane [= 飛行機].

10. 電車 (train)

ID	Written Answer	TA	SA	Comment
76	<i>densha</i>	NR	2	Because of the last character [= 車].
77	bicycle	1	2	The kanji for car [= 車] is part of this word.
82	train	3	3	I know the kanji.
85	train	3	2	From the 1 st kanji.

11. ヘリコプター (helicopter)

ID	Written Answer	TA	SA	Comment
77	helicopter	3	3	I recognise the katakana.
82	helicopter	0	2	Read the katakana, worked it out from there.
85	helicopter	3	3	Katakana.

12. 地下鉄 (metro)

ID	Written Answer	TA	SA	Comment
76	<i>chikatetsu</i>	NR	3	Because of 下.
77	underground train	3	2	Part of the last kanji looks like the kanji for one of the days of the week [= 金 -Friday].
82	subway train	3	2	Only know this because I know it's the only one we looked at with 'below' [= 下] in the kanji.
85	underground train	3	3	From the kanji [= 下].

13. 赤 (red)

ID	Written Answer	TA	SA	Comment
77	red	3	2	The kanji looks a bit like a person.
82	red	3	2	I remembered the kanji.
85	red	3	1	Uncertain, I just know it is a colour.

14. 緑 (green)

ID	Written Answer	TA	SA	Comment
77	green	3	2	This was the most complex of the three kanji for colours.
85	green	3	1	Uncertain, I just know it is a colour.

15. 青 (blue)

ID	Written Answer	TA	SA	Comment
77	blue	3	3	This is a more simple kanji.
82	blue	3	1	I remembered that the kanji for 'blue' contains the kanji for 'moon' [= 月].

85	blue	3	2	Uncertain, I just know it is a colour.
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Additional comments:

A student (= ID 79) wrote an additional comment in the blank space: "I do not know enough kanji."

The results of Test 2

The following tables show the results of Test 2:

Test 2-1 (a week after the experiment)

[TA = Teacher Assessment, SA = Self-Assessment, NR= Not Rateable]

1		2		3		4		5		6		7		8		9		10		11		12		13		14		15		
train		bus		seaplane		helicopter		metro		bicycle		ship		car		taxi		airplane		bullet train		lorry		red		green		blue		
densha		basu		suijō-hikōki		herikoputā		chikatetsu		jitensha		fune		kuruma		takushī		hikōki		shinkansen		torakku		aka		midori		ao		
ID	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA		
76	3	2	0	2	2	2	1	1	3	1	3	2	3	3	3	3	2	NR	2	2	1	1	0	0	3	3	2	3	3	
77	3	3	3	2	3	2	2	2	3	2	3	2	3	3	3	3	2	2	3	2	3	2	3	2	3	3	2	3	2	
78	3	3	1	3	0.5	3	1	2	3	3	0.5	0	3	3	3	3	0	1	0.5	3	3	3	3	1	3	1	3	1	1	
79	3	3	3	3	0	0	2	3	3	3	3	3	3	3	3	3	2	3	0	3	0	0	0	3	3	0	0	0	0	
80	Did not take the test																													
81	Did not take the test																													
82	3	3	3	3	3	3	2	2	3	3	3	1	3	3	3	3	2	3	3	3	3	2	3	3	3	2	3	2	2	
83	Did not take the test																													
84	0	2	3	2	0	0	2	1	0	0	0	0	3	2	0.5	1	0.5	1	0	0	0	0	0.5	1	0	1	3	2	0.5	1
85	3	3	3	3	1	3	2	3	1	3	3	3	3	3	3	3	2	3	3	3	3	2	3	3	3	1	3	3	3	3

Test 2-2 (a month after the experiment)

[TA = Teacher Assessment, SA = Self-Assessment, NR= Not Rateable]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15							
train		bus	seaplane	helicopter	metro	bicycle	ship	car	taxi	airplane	bullet train	lorry	red	green	blue							
densha		basu	suijō-hikōki	herikoputā	chikatetsu	jitensha	fune	kuruma	takushī	hikōki	shinkansen	torakku	aka	midori	ao							
	ID	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA					
76	3	1	1	2	NR	3	3	3	2	NR	2	1	3	1	0.5	1	3	NR	0	0		
77	3	3	1	3	2	3	1	3	2	3	2	3	2	0	3	1	0	0	0	0		
78	Did not take the test																					
79	3	NR	3	NR	0	0	2	NR	3	NR	3	NR	2	NR	0	0	3	NR	0	2	NR	
80	3	NR	3	NR	1	NR	0.5	NR	0	NR	3	NR	2	NR	0	NR	0	NR	3	NR	3	NR
81	Did not take the test																					
82	3	3	3	3	2	2	2	2	3	2	3	3	2	3	2	3	3	0	0	0	0	
83	Did not take the test																					
84	3	2	3	3	0	0	1	2	0	0	0	0	0	0	0.5	1	0	1	3	3	1	
85	3	3	3	3	1	2	2	3	3	3	3	2	3	2	2	1	3	3	1	2	3	3

Learners' comments on knowledge of the target words

The learners were asked to write how well they knew the target words in the follow-up tests, and the following shows their comments on Test 2. The learners who did not take the test or did not write their comments are excluded here.

[TA = Teacher Assessment, SA = Self-Assessment, NR= Not Rateable]

Test 2-1 (a week after the experiment)

1. Train (*densha*)

ID	Written Answer	TA	SA	Comment
77	<i>densha</i>	3	3	I had to repeat it a few times in class.
82	<i>densha</i>	3	3	I remember this word without trouble.
85	<i>densha</i>	3	3	Easy to remember.

2. Bus (*basu*)

ID	Written Answer	TA	SA	Comment
77	<i>basu</i>	3	2	It's a bit like the English.
82	<i>basu</i>	3	3	Similar to English word.
85	<i>basu</i>	3	3	Similar to English.

3. Seaplane (*suijō-hikōki*)

ID	Written Answer	TA	SA	Comment
77	<i>suijō hikōki</i>	3	2	<i>Sui</i> sounds like sea.
82	<i>suijō hikōki</i>	3	3	I can remember this word easily.
85	<i>sujo hikōki</i>	1	3	Easy to remember.

4. Helicopter (*herikoputā*)

ID	Written Answer	TA	SA	Comment
77	<i>herikoputa</i>	2	2	This sounds like the English.
82	<i>herikoputa</i>	2	2	Similar to English word.

85	<i>herikoputa</i>	2	3	Similar to English.
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5. Metro (*chikatetsu*)

ID	Written Answer	TA	SA	Comment
77	<i>chikatetsu</i>	3	2	It's not easy to remember but I had to repeat it in class.
82	<i>chikatetsu</i>	3	3	I remember the ' <i>chika</i> ,' start of the word and the rest came from that.
85	<i>chikatsu</i>	1	3	I know it starts with <i>chi</i> .

6. Bicycle (*jitensha*)

ID	Written Answer	TA	SA	Comment
77	<i>jitensha</i>	3	2	It sounds like the word for train.
82	<i>jitensha</i>	3	1	I remember it is similar to the word for 'train' [= <i>densha</i>] with ' <i>ji</i> ' at the start.
84	[blank]	0	0	<i>Ji</i> something.
85	<i>jitensha</i>	3	3	Easy to remember.

7. Ship (*fune*)

ID	Written Answer	TA	SA	Comment
77	<i>fune</i>	3	3	It sounds like funnel.
85	<i>fune</i>	3	3	Easy to remember.

8. Car (*kuruma*)

ID	Written Answer	TA	SA	Comment
85	<i>kuruma</i>	3	3	Easy to remember.

9. Taxi (*takushi*)

ID	Written Answer	TA	SA	Comment
77	<i>takushi</i>	2	2	It sounds like the English.
82	<i>takushi</i>	2	3	Similar to English word.
85	<i>takushi</i>	2	3	Similar to English.

10. Airplane (*hikōki*)

ID	Written Answer	TA	SA	Comment
82	<i>hikōki</i>	3	3	I could remember ' <i>suijō hikōki</i> ' so this came easily from that.
85	<i>hikōki</i>	3	3	Easy to remember.

11. Bullet train (*shinkansen*)

ID	Written Answer	TA	SA	Comment
82	<i>shinkansen</i>	3	3	I find the repetitive sound of this word very easy to recall.
85	<i>shinkansen</i>	3	3	Easy to remember.

12. Lorry (*torakku*)

ID	Written Answer	TA	SA	Comment
77	<i>torakku</i>	3	2	It sounds like the English.
82	<i>toraku</i>	2	3	Similar to English word.
85	<i>toraku</i>	2	3	Similar to English.

13. Red (*aka*)

ID	Written Answer	TA	SA	Comment
82	<i>aka</i>	3	3	I knew this word previously.
84	<i>aoi</i>	0	1	Guess.
85	<i>aka</i>	3	3	Easy to remember.

14. Green (*midori*)

ID	Written Answer	TA	SA	Comment
82	<i>midori</i>	3	2	I remembered this word began with 'm' and got the rest from that.
84	<i>midori</i>	3	2	Know it as a person name.
85	<i>mitori</i>	1	3	Easy to remember.

15. Blue (*ao*)

ID	Written Answer	TA	SA	Comment
82	<i>ao</i>	3	2	I remembered this was a two letter word, both vowels, got it from that.
84	<i>au</i>	0.5	1	Guess.
85	<i>ao</i>	3	3	Easy to remember.

Test 2-2 (a month after the experiment)

1. Train (*densha*)

ID	Written Answer	TA	SA	Comment
77	<i>densha</i>	3	3	I know this word from class.
82	<i>densha</i>	3	3	Previously memorised.
85	<i>densha</i>	3	3	I remember it had the sound <i>den</i> .

2. Bus (*basu*)

ID	Written Answer	TA	SA	Comment
77	<i>basa</i>	1	3	Sounds like the English word.
82	<i>basu</i>	3	3	Similar to English word.
85	<i>basu</i>	3	3	Similar to English.

3. Seaplane (*suijō-hikōki*)

ID	Written Answer	TA	SA	Comment
77	<i>suijo hikoki</i>	2	2	<i>Sui</i> sounds a bit like sea.
82	<i>suijō hikōki</i>	3	2	I know it starts with ' <i>suijō</i> ,' the rest is a half guess.
85	<i>suja hikōki</i>	1	2	It had <i>hikōki</i> in it.

4. Helicopter (*herikoputā*)

ID	Written Answer	TA	SA	Comment
77	<i>herikoputa</i>	2	2	Sounds like the English word.

82	<i>herikoputa</i>	2	2	Similar to English word.
85	<i>herikoputa</i>	2	3	Similar to English.

5. Metro (*chikatetsu*)

ID	Written Answer	TA	SA	Comment
77	<i>chikatetsu</i>	3	2	It took me a while to get this word in the lesson but I remember it now from repeating it then.
82	<i>chikatetsu</i>	3	2	Remember 'chika' element at the start, the rest flowed from there.
85	<i>chikatetsu</i>	3	3	Because I found it hard to learn at first.

6. Bicycle (*jitensha*)

ID	Written Answer	TA	SA	Comment
77	<i>jitensha</i>	3	1	It sounds like a bit like the word for train [<i>densha</i>].
85	<i>jitensha</i>	3	3	I know it has <i>ten</i> in it.

7. Ship (*fune*)

ID	Written Answer	TA	SA	Comment
77	<i>fune</i>	3	3	It sounds like funnel.
82	<i>fune</i>	3	2	Know it starts with 'fu,' half-guessed the 2 nd syllable.
85	<i>fune</i>	3	3	Sounds like the word funny.

8. Car (*kuruma*)

ID	Written Answer	TA	SA	Comment
82	<i>kuruma</i>	3	3	Previously memorised.
85	<i>kuruma</i>	3	3	Sounds similar to English.

9. Taxi (*takushi*)

ID	Written Answer	TA	SA	Comment
77	<i>takushi</i>	2	3	It sounds like the English word.
82	<i>takushi</i>	2	3	Similar to English word.

85	<i>takushī</i>	3	3	Similar to English.
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10. Airplane (*hikōki*)

ID	Written Answer	TA	SA	Comment
82	<i>hikōki</i>	3	2	Took from half-remembered 2 nd element of ' <i>suijō hikōki</i> .'
85	<i>hikoki</i>	2	3	I know it starts with <i>hi</i> .

11. Bullet train (*shinkansen*)

ID	Written Answer	TA	SA	Comment
82	<i>shinkansen</i>	3	3	Repetitive sounds in word are easy to remember.
85	<i>shinkansen</i>	3	2	From the sound of the word.

12. Lorry (*torakku*)

ID	Written Answer	TA	SA	Comment
77	<i>torakku</i>	3	3	Sounds like the English word.
82	<i>toraku</i>	2	3	Similar to English word for 'truck.'
85	<i>toraku</i>	2	1	Similar to English.

13. Red (*aka*)

ID	Written Answer	TA	SA	Comment
82	<i>aka</i>	3	3	Knew previously.
85	<i>aka</i>	3	3	Small word.

14. Green (*midori*)

ID	Written Answer	TA	SA	Comment
84	<i>midori</i>	3	3	Know it as a name.
85	<i>mitori</i>	1	2	Uncertain if it is <i>mitori</i> or <i>midori</i> .

15. Blue (ao)

ID	Written Answer	TA	SA	Comment
85	ao	3	3	Small word.

Appendix E-6: Data from Class 6

Profiles of participants

ID	Group	Age	Gender	L1	Nationality	Note
86	G1	60	F	English	Irish	
87	G1	38	M	English	Irish	
88	G2	27	M	English	Irish	
89	G2	28	M	English	Irish	
90	G3	32	F	English	New Zealander	Left earlier and did not participate in Phase 3 and 4
91	G3	26	M	English	Chinese	

Summary of Questionnaire 1:

Questionnaire 1 was collected from all the students (N= 6), and the following is a summary of their comments extracted from the questionnaire.

Phase 1: Introduction of new words and learning the words with sets of cards

ID	① Activity(-ies): What I was doing	② Learning target(s): What I was trying to learn	③ Problems/difficulties I am having after this phase	④ What I need to do to solve the problem/overcome the difficulty	⑤ How did I fare in relation to the problems I listed above?
86	Learning hiragana and katakana and some kanji from pictures of animals, birds, fishes, insects on screen transparencies.	New kanji for <i>inu</i> , <i>neko</i> , <i>ushi</i> , <i>uma</i> , <i>sakana</i> , <i>tori</i> , <i>saru</i> , <i>mushi</i> and <i>kingyo</i> (I know <i>hito</i>).	I know many hiragana but few katakana and only a couple of kanji.	Learn katakana first.	I needed [name of her pair-work partner] to help me in reading the hiragana quickly.
87	Reading the words with English pronunciations then using kana then from memory.	Pronunciations, reading of kana and recognizing of kanji.	Found it difficult to remember everything, i.e, I'd remember the word + forget the kanji or remember the kanji but forget the Japanese word.	I should try to remember everything as a whole rather than separate elements.	I could remember fairly well short form but didn't really have any techniques myself to make the words stick.
88	Associating pictures with their Japanese.	1 Vocabulary, 2 hiragana, 3 katakana, 4 kanji	Finding a way to associate the Japanese word with the image.	Memorise more vocabulary.	Medium.
89	Repeating from overhead with + without words. Matching picture cards with cards with just names (no Romanisation).	Picture association with kanji/hiragana/katakana.	None.	None.	-
90	Memorising words in Japanese as they appeared on the overhead/cards.	Trying to learn vocabulary and katakana or hiragana for each word.	I could not remember the kanji for words even after seeing them over and over.	Write them out myself instead of just looking at them.	Feel I could learn the vocabulary and katakana/hiragana spelling

						for each new word easily this way but kanji needs more work.
91	Matching picture to words → useful. Presented overhead projector, clear and easy, repeated vocabulary helps.	Learn new vocabulary by matching picture to word.	One or two words did not remember, picture was useful to help remember.	Needed to go over vocabulary in my mind a few times.		Good.

Phase 2: Categorising the words

ID	① Activity(-ies): What I was doing	② Learning target(s): What I was trying to learn	③ Problems/difficulties I am having after this phase	④ What I need to do to solve the problem/overcome the difficulty	⑤ How did I fare in relation to the problems I listed above?
86	I had to divide my cards into edible and inedible categories.	The new words.	Same as above. (No. 3) as in Phase 1 [=I know many hiragana but few katakana and only a couple of kanji.].	Spend more time on a regular basis learning more hiragana and begin serious work on my katakana.	With [name of her pair-work partner]'s help I improved slowly.
87	Given a criterion split the card into certain categories with [name of his pair-work partner] and see if other teams could figure it out. Then we had to figure out the others' criteria.	Still found myself just trying to remember the Japanese words for each animal.	The repetition is helping me to remember the words. The kanji are still just shapes and don't mean anything to me at all.	I'll have to find a way to associate the kanji with what they mean. I think this will get easier as I learn the words for the animals and can concentrate on the kanji.	There was a lot to remember with the loss of the pictures but having a 'teammate' to work with really helped.
88	Grouping words together base on what they had in common.	Trying to give meaning to the words – not just sounds	Remembering the sounds for the kanji/hiragana.	Practise more hiragana.	Medium.
89	Matching the word cards with correct categories – number of legs	Meaning of animals' names in kanji, hiragana/katakana.	Problems with recognising some kanji and hiragana.	Study + learn to recognise in future.	Kanji not so good. On the other front, I used symbol I knew to help identify the

					whole word.
90	Place each word/animal into a category of smallest to biggest.	To know what each word in Japanese was and being able to show it/teach it others by categorising them.	None.	-	-
91	Categorising some animal was difficult, i.e., snake → decided it to be small.	Remembering size of animal help to categorise and remember vocabulary.	Did not remember word, concentrate more to remember certain words.	Had to read it a couple of times more.	[blank]

Phase 3: Making a picture with the words learnt

ID	① Activity(-ies): What I was doing	② Learning target(s): What I was trying to learn	③ Problems/difficulties I am having after this phase	④ What I need to do to solve the problem/overcome the difficulty	⑤ How did I fare in relation to the problems I listed above?
86	I had to place little picture stickers of a bird, a boy, an ant, a fish and a cow on a farm scene according to a written instruction sheet.	New kanji and hiragana for prepositions and direction words, <i>mae</i> , <i>ue</i> , <i>shita</i> , <i>naka</i> , <i>ushiro</i> .	I didn't know ② words.	Learn and use new words.	Not so well. I made reasonable guess as to where I should place the picture stickers in my farm scene.
87	Using written instructions put the animals in certain places on a picture.	To put the learned words into sentences in real type situations.	Found this one easier although the narrower focus made everything else disappear.	Just concentrate really on the words I didn't have on my picture and try to keep them on my mind.	Still don't really have any techniques for remembering things.
88	Using the words we learned use prepositions to describe their location.	Prepositions.	Reading the kanji and remembering the prepositions.	Study.	Poorly.
89	Transferring animal pictures to a picture based on instruction from a separate sheet.	Sentence construction of objects and how they are positioned in relation to structures in the picture.	Remembering terms for in front of, beside, beyond, etc.	Restudy these terms.	Once I heard the phrase I could remember them + use them after that.
90	Did not attend in Phase 3				

91	Read instruction to make picture.	Putting pictures on page.	Problem with getting meaning of sentence on instructions.	Was explained by teacher.	Good.
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Phase 4: Finding out people who have the same picture

ID	① Activity(-ies): What I was doing	② Learning target(s): What I was trying to learn	③ Problems/difficulties I am having after this phase	④ What I need to do to solve the problem/overcome the difficulty	⑤ How did I fare in relation to the problems I listed above?
86	I had to ask the other students a question to find out a matching picture scene with mine.	How to ask a simple location question.	I needed for more time to combine the new direction words into sentences.	Learn the direction words.	I became more interested in using direction words in questions and answers.
87	Asking questions about the rest of the class pictures to find out who had their animals in the same positions.	How to ask others coherent questions on our pictures and, especially, to listen to others speak and understand what was said.	I found this activity fine.	[blank]	Remembering a few words is fine but when concentrating on only those few everything else tends to be forgotten.
88	Asking others the location of things on their pictures.	How to form questions and understand/interpret answers with the new words we learned.	[blank]	Study, study, study.	OK.
89	Asking questions and answering questions on my picture.	Build an understanding of sentence patterns for finding out where items are situated.	Sentence construction for 'in the'.	Re-learn terms 'ni' vs 'naka ni'.	Used 'ni' as the option for in the.
90	Did not attend in Phase 4				
91	Reading on describing the picture I had and listening to classmates to find same picture.	Listening for same description of pictures, asking questions.	May forget how to ask or answer.	Read sheet.	OK.

Summary of Questionnaire 2:

Questionnaire 2 was collected from all the students (N= 6), and the following is a summary of their comments extracted from the questionnaire. For Question 2, 3 and 4, the learners' comments are classified into categories according to types of activity or types of material.

Question 1: Did you enjoy the class? Yes / No (Circle appropriate answer)

If you answer "No", write the reasons.

All the students answered "Yes".

Question 2: Comment on which activities of the class you liked or found helpful

ID	Comments	Categories
86	I liked the pictures and the different sets of transparencies using the hiragana and katakana used separately to match the pictures and new names. I liked the little picture stickers. The instruction page is well planned and very helpful. The typeface (the print?) used under the pictures of creatures is beautifully clear and readable.	Visual aids Learning material
87	I thought all of the activities helped in some way. There were activities in memory, making sentences and listening and all using the same core 20 new words meant that over the course of the class the repetition of the new words made it easier to remember them. I particularly like the 'criteria' activity. There was a lot of thought involved in splitting up the cards and working with a teammate gives 2 people a chance to help each other.	Activities in general Repetition Categorising activity Group work (pair work)
88	Flash cards are useful. Seeing pictures with their romaji first and then their kanji gives you a way to associate the two.	Use of flashcards
89	Remembering on overhead.	Visual aids
90	It was helpful to learn vocabulary using flashcards and partner work.	Use of flashcards Group work (pair work)
91	Presentation of vocabulary was useful. Repeating the vocabulary and using pictures only. Matching pictures with words was useful. Found out words you're not sure on. Matching picture created more communication with class, more enjoyable.	Visual aids Repetition Use of flashcards Oral activity

Question 3: Comment on which activities of the class you did not like or found unhelpful.

ID	Comments	Categories
86	The transparencies and pictures did not help me learn the kanji but they were useful when I tried to memorise the new words (hiragana & katakana). Orally, our teacher moved the transparencies too quickly for the kanji to be studied.	Visual aids Time management
87	[Blank]	
88	Questionnaire is very confusing.	Questionnaire
89	None.	
90	None.	
91	[blank]	

Question 4: Any other comments

ID	Comments	Categories
86	Our teacher gave us an interesting and carefully planned lesson. She used helpful pictures and instruction. However, I think I needed more overhead transparencies to illustrate the direction words used in Phase 3. Thank you for a most interesting lesson.	Class (Positive) Visual aids (Negative)
87	The only thing I would change is to maybe think about leaving the furigana off of the cards in the later activities to allow students to concentrate on the kanji.	Use of Japanese scripts (Negative)
88	[blank]	
89	[blank]	
90	[blank]	
91	[blank]	

Results of Questionnaire 2: This table was created based on the learners' comments¹ summarised in the above section.

Question 1 Did you enjoy the class?

Yes	No
6	0

Question 2 Comment on which activities of the class you liked or found helpful

Phase 1		Phase 2	Phase 1 - 2		Phase 3	Phase 4	Phase 1 - 4
Use of flashcards	Repetition	Categorising activity	Visual aids	Group work (Pair work)	Learning material	Oral activity	Activity in general
3	2	1	3	2	1	1	1

Question 3 Comment on which activities of the class you did not like or found unhelpful

Phase 1		
Visual aids	Time management	Questionnaire
1	1	1

Question 4 Any other comments

Positive		Negative
The class was interesting	Visual aids (More OHP is necessary in Phase 3)	Use of Japanese scripts (More concentration on kanji study is necessary)
1	1	1

¹ Question 2, 3 and 4 were open-response questions, and multiple answers were allowed.

The results of Test 1

The following tables show the results of Test 1:

Test 1-1 (a week after the experiment)

[TA = Teacher Assessment, SA = Self-Assessment, NR= Not Rateable]

1	2	3	4	5	6	7	8	9	10	11	12	13	14	
犬	ハト	猫	にわとり	鳥	ペンギン	うさぎ	ハチ	猿	牛	魚	ゴリラ	へび	馬	
dog	pigeon/ dove	cat	chicken	bird	penguin	rabbit	bee	monkey	cow	fish	gorilla	snake	horse	
ID	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA
86	3	2	3	0	0	0	NR	1	0	0	3	2	3	2
87	3	2	3	0	0	3	3	0	0	3	3	NR	3	1
88	3	3	0	0	0	3	NR	0	0	3	3	1	0	0
89	3	NR	2	NR	0	3	NR	0	0	3	NR	NR	0	0
90	0	0	3	0	0	3	3	0	0	0	3	3	0	0
91	3	3	0	0	NR	3	3	1	3	3	3	3	3	3

15		16		17		18		19		20		21		22		23		24		25		26		27		28		29	
人		アリ		ねずみ		金魚		ライオン		虫		池		うち		木		ベンチ		前		上		下		後ろ		中	
person/ people	ant		mouse		goldfish		lion		insect		pond		house		tree		bench		front		on/top/ up		under		behind/ back		in/ inside		
	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	
86	3	NR	3	3	3	1	3	3	0	0	0	0	0	3	NR	3	0	0	0	0	0	0	0	0	0	NR	0	0	0
87	3	3	3	3	3	3	3	3	3	3	3	0	0	3	3	3	3	3	0	0	1	3	3	3	3	3	3	3	
88	3	3	3	3	2	3	3	0	0	0	0	0	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
89	3	NR	3	NR	3	NR	0	3	NR	2	NR	0	0	1	0	0	0	0	0	0	0	0	0	0	1	NR	0	0	0
90	3	3	3	3	3	3	0	3	3	0	0	0	0	3	NR	0	0	3	2	0	0	0	0	0	0	0	0	3	1
91	3	3	3	3	2	3	3	3	1	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3

Test 1-2 (a month after the experiment)

[TA = Teacher Assessment, SA = Self-Assessment, NR= Not Rateable]

ID	1		2		3		4		5		6		7		8		9		10		11		12		13		14	
	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA
86	0	0	0	0	0	0	0	0	1	1	0	0	NR	0	0	0	0	0	0	0	3	1	3	1	NR	0	2	1
87	3	3	3	3	0	0	3	3	0	0	3	3	3	3	2	3	0	0	3	3	3	1	3	3	3	0	0	0
88	3	3	0	0	0	0	NR	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0
89	NR	1	NR	1	NR	1	3	1	1	2	0	0	0	0	0	0	0	0	0	0	0	3	2	3	2	NR	1	1
90	0	0	3	1	0	0	2	1	0	0	3	3	3	3	3	1	0	0	0	0	0	3	3	3	1	0	0	0
91	3	3	3	3	3	3	3	2	3	NR	3	2	0	0	3	3	3	3	3	3	3	3	3	3	3	3	3	3

ID	15		16		17		18		19		20		21		22		23		24		25		26		27		28		29	
	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA
	人		アリ		ねずみ		金魚		ライオン		虫		池		うち		木		ベンチ		前		上		下		後ろ		中	
	person/ people		ant		mouse		goldfish		lion		insect		pond		house		tree		bench		front		on/top/ up		under		behind/ back		in/ inside	
	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA
86	3	2	2	1	NR	0	3	1	0	0	0	1	0	0	NR	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
87	3	3	3	3	3	1	3	3	3	3	0	0	0	0	3	3	3	3	3	3	0	0	3	2	3	2	3	3	3	
88	3	NR	NR	0	3	1	3	3	0	0	0	0	0	0	1	NR	0	NR	0	0	0	0	0	0	0	0	0	0	0	
89	0	0	NR	2	NR	2	0	0	0	0	0	0	0	0	1	NR	3	2	0	0	0	0	0	0	0	0	0	0	0	
90	3	3	3	3	3	2	0	0	3	3	0	0	0	0	3	3	0	0	3	1	0	0	3	1	3	1	0	0	3	
91	3	3	3	3	0	NR	3	NR	3	1	3	3	3	3	3	3	3	NR	3	2	3	3	3	3	3	3	NR	3	3	

Learners' comments on knowledge of the target words

The learners were asked to write how well they knew the target words in the follow-up tests, and the following shows their comments on Test 1. The learners who did not write their comments are excluded here.

[TA = Teacher Assessment, SA = Self-Assessment, NR= Not Rateable]

Test 1-1 (a week after the experiment)

1. 犬 (dog)

ID	Written Answer	TA	SA	Comment
86	dog	3	2	Line [= horizontal line of the kanji] and 'spot' [= dot of the right top corner of the kanji] with a man [= 人].
87	dog	3	2	I remember from OHP showing the circle and where each animal lives.
90	[blank]	0	0	Can't recognise kanji.

2. ハト (pigeon/dove)

ID	Written Answer	TA	SA	Comment
86	dove	3	NR	Picture on OHP on lower left hand position.
91	[blank]	0	0	Remember picture was on bottom right somewhere.

3. 猫 (cat)

ID	Written Answer	TA	SA	Comment
90	[blank]	0	0	Don't know kanji.

4. にわとり (chicken)

ID	Written Answer	TA	SA	Comment
86	hen	3	2	I know 'tori (bird)' and learned the 'niwa' in front was hen.
87	chicken	3	3	It's the longest one (bad but true).
88	chicken	3	1	I can read the hiragana but not sure of English.

5. 鳥 (bird)

ID	Written Answer	TA	SA	Comment
90	[blank]	0	0	Don't remember kanji.

9. 猿 (monkey)

ID	Written Answer	TA	SA	Comment
88	monkey	3	1	It looks like a monkey in a tree.
90	[blank]	0	0	Don't remember kanji.

10. 牛 (cow)

ID	Written Answer	TA	SA	Comment
86	cow	3	2	4 hooves.
90	[blank]	0	0	Don't remember kanji.

11. 魚 (fish)

ID	Written Answer	TA	SA	Comment
86	fish	3	2	Fin above.
87	fish	3	2	I remembered 'gold fish'.
90	[blank]	0	0	Don't remember kanji.

12. ゴリラ (gorilla)

ID	Written Answer	TA	SA	Comment
86	gorilla	3	1	I know 'ra' [= ラ].
88	gorilla	3	1	I can recognise the 'リ' [= ri].

13. へび (snake)

ID	Written Answer	TA	SA	Comment
87	snake	3	3	OHP.
88	snake	3	1	It's a guess.

14. 馬 (horse)

ID	Written Answer	TA	SA	Comment
86	horse	3	2	Four legs moving fast.

90	[blank]	0	0	Can't remember kanji.
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15. 人 (person/people)

ID	Written Answer	TA	SA	Comment
86	person/man	3	NR	I always knew it.

16. アリ (ant)

ID	Written Answer	TA	SA	Comment
86	ant	3	3	I remember the position and the two characters on the OHP picture.

18. 金魚 (goldfish)

ID	Written Answer	TA	SA	Comment
86	goldfish	3	3	I remember the kanji for fish and a classmate said the other character was gold and Friday.
90	[blank]	0	0	Can't recognise kanji.

23. 木 (tree)

ID	Written Answer	TA	SA	Comment
86	tree?	3	0	Looks like a tree = a guess could also be a man with a large hat.
90	[blank]	0	0	I missed 2nd part of lesson so don't think I learnt this one.

24. ベンチ (bench)

ID	Written Answer	TA	SA	Comment
90	bench	3	2	Because it is in katakana I can guess this meaning.

25. 前 (front)

ID	Written Answer	TA	SA	Comment
90	[blank]	0	0	I missed 2nd part of lesson so don't think I learnt this one.

26. 上 (on/top/up)

ID	Written Answer	TA	SA	Comment
90	[blank]	0	0	I missed 2nd part of lesson so don't think I learnt this one.

27. 下 (under)

ID	Written Answer	TA	SA	Comment
90	[blank]	0	0	I missed 2nd part of lesson so don't think I learnt this one.

28. 後ろ (behind/back)

ID	Written Answer	TA	SA	Comment
90	[blank]	0	0	Don't know kanji.

29. 中 (in/inside)

ID	Written Answer	TA	SA	Comment
90	inside	3	1	Guessing this one, think I remember it from school days.

Test 1-2 (a month after the experiment)

1. 犬 (dog)

ID	Written Answer	TA	SA	Comment
89	<i>hito</i>	NR	1	Not sure.
91	Dog	3	3	Know the kanji so it was easy enough.

2. ハト (pigeon/dove)

ID	Written Answer	TA	SA	Comment
87	dove	3	3	I can remember the kana and the words but have great difficulty remembering the kanji.
89	<i>ari</i>	NR	1	Not confident that I am correct at all.
90	dove	3	1	Not sure – is a guess.

3. 猫 (cat)

ID	Written Answer	TA	SA	Comment
89	<i>sakana</i>	NR	1	Not confident at all.

4. にわとり (chicken)

ID	Written Answer	TA	SA	Comment
90	goose	2	1	Not sure – is a guess.

5. 鳥 (bird)

ID	Written Answer	TA	SA	Comment
89	horse	1	2	Think it means horse – <i>uchi</i> or similar.

6. ペンギン (penguin)

ID	Written Answer	TA	SA	Comment
91	penguin	3	2	Need more practice with katakana.

7. うさぎ (rabbit)

ID	Written Answer	TA	SA	Comment
89	goldfish	0	NR	Not 100% sure, <i>uchigi</i> .
90	rabbit	3	3	I remember this from my school days.

8. ハチ (bee)

ID	Written Answer	TA	SA	Comment
90	bee	3	1	Only think it is – guessing.

11. 魚 (fish)

ID	Written Answer	TA	SA	Comment
87	fish	3	1	It's part of 'goldfish'.

12. ゴリラ (gorilla)

ID	Written Answer	TA	SA	Comment
89	gorilla	3	2	Remember by the り [= <i>ri</i>] in the middle.
90	gorilla	3	3	Because it is just like English.

13. へび (snake)

ID	Written Answer	TA	SA	Comment
90	snake	3	1	I'm not 100% sure this is correct.

14. 馬 (horse)

ID	Written Answer	TA	SA	Comment
89	sakana	NR	1	Perhaps <i>sakana</i> , 𩺰 [馬-魚] - on the bottom of the kanji.

15. 人 (person/people)

ID	Written Answer	TA	SA	Comment
90	person	3	3	I know this from my school days.

16. アリ (ant)

ID	Written Answer	TA	SA	Comment
86	ant or insect	2	1	Maybe an insect or an ant.
89	ari	NR	2	Because ア = a & リ = ri.
90	ants	3	3	Small word, small insects.

17. ねずみ (mouse)

ID	Written Answer	TA	SA	Comment
88	mouse	3	2	Not sure.
90	mouse/rat	3	2	Not 100% sure.

18. 金魚 (goldfish)

ID	Written Answer	TA	SA	Comment
87	goldfish	3	3	I've seen 'kane' [= 金] a lot before.

19. ライオン (lion)

ID	Written Answer	TA	SA	Comment
90	lion	3	3	Same as English.

91	lion	3	1	Need practise katakana.
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20. 虫 (insect)

ID	Written Answer	TA	SA	Comment
89	[blank]	0	0	Do recognise it but can't remember its meaning.

22. うち (house)

ID	Written Answer	TA	SA	Comment
88	horse	1	NR	Maybe confused with 'uma' for cow.
90	house	3	3	I know this word from school days.

23. 木 (tree)

ID	Written Answer	TA	SA	Comment
89	tree	3	2	One of the few kanji I just know.

24. ベンチ (bench)

ID	Written Answer	TA	SA	Comment
90	bench	3	1	Think this is a bench due to katakana & English sound.

26. 上 (on/top/up)

ID	Written Answer	TA	SA	Comment
90	on/top	3	1	Think it is on top of/above – remember from school.

27. 下 (under)

ID	Written Answer	TA	SA	Comment
90	under	3	1	Think it is under/below – remember from school.

28. 後ろ (behind/back)

ID	Written Answer	TA	SA	Comment
87	behind	3	3	Just the ろ (ro) character helped.

29. 中 (in/inside)

ID	Written Answer	TA	SA	Comment
87	in	3	3	I've seen it many times in ordinary lessons as part of "Tanaka" [= 田中 common Japanese surname].
90	inside	3	3	Remembered from school days.

The results of Test 2

The following tables show the results of Test 2:

Test 2-1 (a week after the experiment)

[TA = Teacher Assessment, SA = Self-Assessment, NR= Not Rateable]

	1		2		3		4		5		6		7		8		9		10		11		12		13		14		
	bird	lion	dog	bee	monkey	cat	penguin	goldfish	cow	gorilla	ant	person/ people	chicken	snake															
	tori	raion	inu	hachi	saru	neko	pengin	kingyo	ushi	gorira	ari	hito	niwatori	hebi															
	ID	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA
	86	3	3	2	2	3	3	3	3	3	2	3	2	3	3	2	3	1	3	NR	3	2	3	3	3	1	3	3	3
	87	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	88	0	2.5	2	3	3	3	0	NR	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	1	3	3
	89	3	3	3	3	3	3	1	3	0	0	3	3	1	3	1	NR	0.5	NR	3	3	3	3	3	3	3	3	3	3
	90	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	3	3	3	3
	91	3	3	3	0	3	3	3	3	0	0	3	3	3	3	3	3	1	2	3	3	3	3	3	3	3	3	3	3

ID	15		16		17		18		19		20		21		22		23		24		25		26		27		28		29	
	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA
	insect		rabbit		pigeon/ dove		horse		fish		mouse		bench		pond		front		under		on/top/ up		house		in/ inside		tree		behind/ back	
	<i>mushi</i>		<i>usagi</i>		<i>hato</i>		<i>uma</i>		<i>sakana</i>		<i>nezumi</i>		<i>benchi</i>		<i>ike</i>		<i>mae</i>		<i>shita</i>		<i>ue</i>		<i>uchi</i>		<i>naka</i>		<i>ki</i>		<i>ushiro</i>	
86	3	2	3	2	2	2	3	2	3	3	3	2	3	2	0	1	3	0	0	0	0	0	3	2	0	0	0	2	0	0
87	3	3	3	3	3	1	3	3	3	3	3	3	3	3	3	3	3	3	0.5	3	3	3	3	3	3	3	3	3	3	3
88	3	3	3	3	1	2	3	3	3	3	3	3	0.5	3	0	0	0	0	0	0	0	2	3	NR	0	0	3	1	0	0
89	3	3	3	3	3	3	0.5	3	3	3	3	3	3	3	0	0	3	3	3	3	3	3	1	3	0	3	3	3	3	3
90	3	3	3	3	3	3	3	3	3	3	3	3	3	3	0	0	0	0	0	0	0	0	3	3	3	1	0	0	0	0
91	0	0	0	0	3	3	3	3	3	3	3	3	3	3	0	0	3	3	3	3	3	3	3	3	3	1	3	3	0	0

Test 2-2 (a month after the experiment)

[TA = Teacher Assessment, SA = Self-Assessment, NR= Not Rateable]

1		2		3		4		5		6		7		8		9		10		11		12		13		14		
bird		lion		dog		bee		monkey		cat		penguin		goldfish		cow		gorilla		ant		person/ people		chicken		snake		
tori		raion		inu		hachi		saru		neko		pengin		kingyo		ushi		gorira		ari		hito		niwatori		hebi		
ID	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA
86	3	0	2	2	3	2	0	0	0	0	0	0	0.5	2	0	NR	0	0	3	2	1	1	3	NR	0	0	0	0
87	3	1	3	3	3	3	0	0	3	3	3	3	3	3	1	2	3	3	3	3	3	3	3	3	3	3	3	3
88	0	2	2	3	3	3	0	0	0	0	0	0	1	3	0	1	1	2	3	3	0	1	3	2	3	2	0	1
89	3	2	3	2	3	1	3	1	0	0	3	3	1	2	0	1	0.5	1	3	3	3	3	3	3	3	3	3	2
90	3	3	3	3	3	3	2	3	0	0	3	3	3	3	0	0	0	0	3	3	3	3	3	1	2	3	2	2
91	3	3	0.5	2	1	1	3	3	NR	0	3	3	3	3	1	3	0	0	3	3	3	3	3	3	3	3	3	3

Learners’ comments on knowledge of the target words

The learners were asked to write how well they knew the target words in the follow-up tests, and the following shows their comments on Test 2. The learners who did not write their comments are excluded here.

[TA = Teacher Assessment, SA = Self-Assessment, NR= Not Rateable]

Test 2-1 (a week after the experiment)

1. Bird (*tori*)

ID	Written Answer	TA	SA	Comment
87	<i>tori</i>	3	3	The comment for them all is the same. I have no problem remembering the words, it's the kanji I can't seen to get in to my head.
88	<i>hato</i>	0	2.5	Confusing it with bird.

2. Lion (*raion*)

ID	Written Answer	TA	SA	Comment
86	<i>lion</i>	2	2	Saw it on OHP. Very like English.

3. Dog (*inu*)

ID	Written Answer	TA	SA	Comment
86	<i>inu</i>	3	3	First position on OHP on right hand side.

4. Bee (*hachi*)

ID	Written Answer	TA	SA	Comment
86	<i>hachi</i>	3	3	Sounds scratching if you get a bee sting you want to scratch.
88	[blank]	0	NR	I can remember its position on the OHP.

5. Monkey (*saru*)

ID	Written Answer	TA	SA	Comment
89	[blank]	0	0	Cannot remember.
91	[blank]	0	0	Feel like never knew the pronunciation (might have just used the kanji).

6. Cat (*neko*)

ID	Written Answer	TA	SA	Comment
86	<i>neko</i>	3	2	You stroke a cat from the neck down its back.

7. Penguin (*pengin*)

ID	Written Answer	TA	SA	Comment
86	<i>pengin</i>	3	2	Very like the English.

8. Gold fish (*kingyo*)

ID	Written Answer	TA	SA	Comment
89	<i>kyukin</i>	1	NR	Know its <i>kyu</i> , not so sure of 'kin' part.

10. Gorilla (*gorira*)

ID	Written Answer	TA	SA	Comment
86	<i>gorira</i>	3	NR	Very like English.

11. Ant (*ari*)

ID	Written Answer	TA	SA	Comment
86	<i>ari</i>	3	2	Begins with A_ , a little word for a little insect.

12. Person/people (*hito*)

ID	Written Answer	TA	SA	Comment
86	<i>hito</i>	3	3	'He' is for man.

13. Chicken (*niwatori*)

ID	Written Answer	TA	SA	Comment
86	<i>tori</i>	1	3	<i>Yakitori</i> – lovely food to eat.
90	<i>niwatori</i>	3	2	Not sure this right word.

14. Snake (*hebi*)

ID	Written Answer	TA	SA	Comment
86	<i>hebi</i>	3	3	On picture lower left hand corner.

15. Insect (*mushi*)

ID	Written Answer	TA	SA	Comment
86	<i>mushi</i>	3	2	Sounds like buzzing (of insects).

17. Pigeon/dove (*hato*)

ID	Written Answer	TA	SA	Comment
88	<i>hata</i>	1	2	Confusing it with bird.

21. Bench (*benchi*)

ID	Written Answer	TA	SA	Comment
86	<i>benchi</i>	3	2	Just like English.
90	<i>benchi</i>	3	3	I was not at this part of the lesson but remember a couple of words from my school days.

22. Pond (*ike*)

ID	Written Answer	TA	SA	Comment
86	<i>usa?</i>	0	1	Can't remember.
89	[blank]	0	NR	Not sure, think it's ' <i>lai</i> ' or ' <i>zai</i> ' or similar.
91	[blank]	0	0	Feel like never knew the pronunciation (remember kanji 池).

26. House (*uchi*)

ID	Written Answer	TA	SA	Comment
90	<i>uchi</i>	3	3	I was not at this part of the lesson but remember a couple of words from my school days.

27. In/inside (*naka*)

ID	Written Answer	TA	SA	Comment
90	<i>naka</i>	3	1	I was not at this part of the lesson but remember a couple of words from my school days.

28. Tree (*ki*)

ID	Written Answer	TA	SA	Comment
88	<i>ki</i>	3	1	Not sure.

Test 2-2 (a month after the experiment)

1. Bird (*tori*)

ID	Written Answer	TA	SA	Comment
87	<i>tori</i>	3	1	Half of 'chicken'.
89	<i>tori</i>	3	2	Easy enough to remember.

2. Lion (*raion*)

ID	Written Answer	TA	SA	Comment
87	<i>raion</i>	3	3	Similar to English.
89	<i>raion</i>	3	2	Not confident of rōmaji – close to English sound.

3. Dog (*inu*)

ID	Written Answer	TA	SA	Comment
89	<i>inu</i>	3	1	Drew a blank for a few minutes.

4. Bee (*hachi*)

ID	Written Answer	TA	SA	Comment
89	<i>hachi</i>	3	1	Took long time to remember.

5. Monkey (*saru*)

ID	Written Answer	TA	SA	Comment
91	猿	NR	0	Don't remember pronunciation.

8. Gold fish (*kingyo*)

ID	Written Answer	TA	SA	Comment
88	<i>kyo...</i>	0	1	I think it starts with <i>kyo</i> .
89	<i>u...</i>	0	1	Can't remember.

9. Cow (*ushi*)

ID	Written Answer	TA	SA	Comment
88	<i>uchi</i>	1	2	Maybe confused with horse.

89	<i>uru</i>	0.5	1	Don't think I'm right.
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10. Gorilla (*gorira*)

ID	Written Answer	TA	SA	Comment
86	<i>gorira</i>	3	2	Similar to English.
89	<i>gorira</i>	3	3	Similar to English.

11. Ant (*ari*)

ID	Written Answer	TA	SA	Comment
89	<i>ari</i>	3	3	Simple to remember.

12. Person/people (*hito*)

ID	Written Answer	TA	SA	Comment
89	<i>hito</i>	3	3	One of the first words I learnt in Japanese.

13. Chicken (*niwatori*)

ID	Written Answer	TA	SA	Comment
89	<i>niwatori</i>	3	3	Remembered easily – because <i>tori</i> = bird.

14. Snake (*hebi*)

ID	Written Answer	TA	SA	Comment
88	<i>asa</i>	0	1	Not sure.
89	<i>hebi</i>	3	2	Snake remembered reasonably easily.

15. Insect (*mushi*)

ID	Written Answer	TA	SA	Comment
91	虫	NR	0	Don't know pronunciation, just remember kanji.

17. Pigeon/dove (*hato*)

ID	Written Answer	TA	SA	Comment
91	[blank]	0	0	Forgot.

18. Horse (*uma*)

ID	Written Answer	TA	SA	Comment
87	<i>uma</i>	3	3	Uma Thurman!
88	<i>uma</i>	3	2	Maybe confused with cow.

19. Fish (*sakana*)

ID	Written Answer	TA	SA	Comment
87	<i>sakana</i>	3	3	Familiar from class.

20. Mouse (*nezumi*)

ID	Written Answer	TA	SA	Comment
88	<i>nezumi</i>	3	1	Think I am close to being right on this.

21. Bench (*benchi*)

ID	Written Answer	TA	SA	Comment
87	<i>benchi</i>	3	3	Similar to English.
89	<i>benchi</i>	3	3	Similar to English.
90	<i>benchi</i>	3	3	I wasn't in the class for this one.

22. Pond (*ike*)

ID	Written Answer	TA	SA	Comment
90	[blank]	0	0	I wasn't in the class for this one.
91	池	NR	NR	Don't remember pronunciation.

23. Front (*mae*)

ID	Written Answer	TA	SA	Comment
87	<i>mae</i>	3	3	Familiar from regular classes.
90	[blank]	0	0	I wasn't in the class for this one.

24. Under (*shita*)

ID	Written Answer	TA	SA	Comment
87	<i>shita</i>	3	3	Familiar from regular classes.
90	[blank]	0	0	I wasn't in the class for this one.
91	[blank]	0	0	Forgot.

25. On/top/up (*ue*)

ID	Written Answer	TA	SA	Comment
87	<i>ue</i>	3	3	Familiar from regular classes.
90	[blank]	0	0	I wasn't in the class for this one.

26. House (*uchi*)

ID	Written Answer	TA	SA	Comment
87	<i>uchi</i>	3	3	Familiar from regular classes.
90	<i>uchi</i>	3	3	I wasn't in the class for this one.

27. In/inside (*naka*)

ID	Written Answer	TA	SA	Comment
87	<i>naka</i>	3	3	Familiar from regular classes.
90	<i>naka</i>	3	3	I wasn't in the class for this one.
91	中	NR	0	Forgot.

28. Tree (*ki*)

ID	Written Answer	TA	SA	Comment
87	<i>ki</i>	3	3	Familiar from regular classes.
90	[blank]	0	0	I wasn't in the class for this one.

29. Behind/back (*ushiro*)

ID	Written Answer	TA	SA	Comment
87	<i>ushiro</i>	3	3	Familiar from regular classes.

89	<i>ushiro</i>	3	3	Not sure if this is right.
90	[blank]	0	0	I wasn't in the class for this one.
91	[blank]	0	0	Forgot.

Appendix E-7: Data from Class 7

Profiles of participants

ID	Group	Age	Gender	L1	Nationality	Note
92	G1	19	M	English	British	Did not take Test 1-2 & 2-2
93	G1	18	F	English	British	
94	G1	19	F	English	British	
95	G1	28	M	English	British	
96	G2	19	M	Chinese	Chinese	
97	G2	18	F	English	British	
98	G2	18	M	English	British	
99	G2	19	F	English	British	
100	G3	19	M	English	British	
101	G3	19	F	English	British	
102	G3	21	F	Chinese	Chinese	
103	G3	22	M	English	British	Did not take Test 1-1 & 2-1
104	G4	22	M	German	German	
105	G4	19	F	English	British	
106	G4	19	M	English	British	
107	G4	19	M	English	British	

Summary of Questionnaire 1:

Questionnaire 1 was collected from all the students (N= 16), and the following is a summary of their comments extracted from the questionnaire.

Phase 1: Introduction of new words and learning the words with sets of cards

ID	① Activity(-ies): What I was doing	② Learning target(s): What I was trying to learn	③ Problems/difficulties I am having after this phase	④ What I need to do to solve the problem/overcome the difficulty	⑤ How did I fare in relation to the problems I listed above?
92	Memorising the words from the OHP and flash cards.	The names of animals in Japanese. I looked at the picture + learnt the sound.	Difficult to learn kanji from OHP, cards were a lot better.	Sit closer to the projector, or just use cards.	OK.
93	Looking at pictures of animals and learning the Japanese words for them, with and without the words, Look at picture and try remembering.	The Japanese words for the animals. Testing each other with cards-pictures on one side + the word on the other side.	Remembering the new words when testing with a partner. The first go was slightly difficult but the more we practiced, we learnt all the words.	Practice with the cards. Just look at picture without looking at the word on the back.	I felt I remembered all the words after the exercise.
94	Looking at pictures and words and repeating the words while looking at the pictures, after reading the first time.	Trying to memorize the names of animals.	Kanji is still difficult for me.	Write them out a few times while saying the reading and looking at the picture.	Can recognise most of the kanji and can recall most words.
95	Memorizing names of animals from pictures on an OHP and cards.	Learn the names of the animals.	Difficult to remember the words without a bit of time spent memorizing them.	I need to concentrate and I usually need time to memorize. I do not memorize very quickly, I usually need time to find a way to remember a word.	Not as well as other classmates.
96	Learning new words in Japanese.	Remember the vocab of the animal pictures.	Remember them and clearly to distinguish them.	Remember them in several times.	[blank]

97	Learnt words from OHP.	Trying to remember the names of the animal just from looking at the picture.	Kanji – I hadn't learnt some of the kanji before.	Tried to match picture with kanji. Used repetition.	[blank]
98	Learned words from OHP and looked at kanji first picture.	I tried to think how to remember the words: e.g. 'ari' → ant – the 'A' sound of both words made me remember. With 'hachi' – I thought of 8 (<i>hachi</i>) bees buzzing around.	Remembering the words for mouse as it was in Hiragana.	Say it over and over again in my head.	I didn't know many of the words by the OHP stage, but by the pair-learning stage I knew all of them.
99	Learnt words from OHP – overhead projector.	Trying to recognize the kanji and hiragana/katakana words with the pictures.	Remembering the words for the pictures.	Keep saying the words I forgot over in my head.	[blank]
100	Using pictures and trying to link the kanji/kana with them.	Associate kanji/kana and the pictures.	Some kanji look similar, e.g. horse and bird.	Look carefully at the kanji so as to differentiate between them.	I could remember all of the words by the end.
101	Using picture association to remember words.	I was trying to learn the word by recognizing the picture.	Finding a link between the word + what it meant. E.g.: Finding why 鳩 was dove.	Find a way to link them, or simply remember.	I managed to remember by repeating the words many times.
102	Learning the basic vocabulary from OHP.	'Animals' names' – looking at both kanji and image. I found hiragana with kanji is easier for me to learn rather than image with hiragana.	No.	-	-
103	I used picture association and repetition to remember the words.	I tried to repeat the words in my head, and try and link the kanji to what I was learning, this was very helpful.	A lot of the words were easy to remember, e.g. animals whose name was spelt in katakana, but some were more difficult as they were new words, i.e., <i>niwatori</i> and <i>hachi</i> .	The words which are harder to associate with the pictures I repeated in my head while thinking of the picture.	Overall I found it very easy to remember the words, the harder words only needed a small amount of repetition before I could remember them.

104	Learning vocabs with the help of pictures.	Vocabs (animals)	It's difficult to remember all vocabs in this short time.	Time.	Could follow the lesson but need more times to memorise the vocabs.
105	Looking at the words and memorizing them.	How to say each word.	Kanji were still taking a while to recognise.	Memorize kanji at same time as pronunciation.	OK.
106	Looking at pictures and remembering the Japanese & kanji.	New words (animals).	Certain words I can't remember (only one or two like mouse).	Focus learning on these words.	I can almost remember them now.
107	Looking at picture and remember word without looking at word.	Different words.	Remembering words I haven't heard before, e.g. ねずみ [nezumi].	Practice.	Well.

Phase 2: Categorising the words

ID	① Activity(-ies): What I was doing	② Learning target(s): What I was trying to learn	③ Problems/difficulties I am having after this phase	④ What I need to do to solve the problem/overcome the difficulty	⑤ How did I fare in relation to the problems I listed above?
92	Remembering kanji by radicals. Thinking about how many legs.	I was trying to learn to distinguish between similar kanji.	Mixing up similar kanji.	Learn more radicals.	OK.
93	Trying to recognise the kanji that matched the animals, the grouping them.	The kanji. I thought of different possible groups beforehand to try to ease the guessing process.	Recognising the kanji initially, it is therefore difficult to think of the categories straight away.	Learn the kanji. Practice with kanji instead of the hiragana.	Averagely.
94	Using the kanji to categorize.	Trying to recognise the kanji to think about the aspects of the animal.	Kanji – sometimes not sure.	Learn the kanji in the same way as learning the vocab itself.	Not bad.
95	Separating different names/words for animals into groups.	Consolidating the names I had learned.	Still can't remember the names! Also I was unfamiliar with the kanji I didn't recognise.	I may need to find a new way to memorise. I usually compare the new word to a word in English/Welsh and	The kanji was easier to remember than the names.

					make a visual image in my head for this.	
96	Categorising the cards in order of a specific order.	Understanding the criterion and remember the vocab.	Difficulties on distinguish the criterion on specific target.		Throughout a discussion with others in order to agreeing the orders.	[blank]
97	Categorising the cards according to the speed of the animals. Guessed the categories of other groups.	To recognise the words quickly to think what might connect them all.	Recognising kanji.		Say the words over in my head whilst looking at the kanji.	[blank]
98	Difficult in English to categorise them according to speed.	We put the animals into 3 groups.	-		-	-
99	Categorising the cards.	Put the cards into categories depending on how fast they were. Matching pictures with the kanji, hiragana, katakana.	Recognizing some of the kanji.		Focus the picture in my head and became familiar with it.	[blank]
100	Trying to think of simple Japanese words to categorise the animals.	[blank]	No real problems.		-	-
101	Categorising according to if you could eat them.	[blank]	I didn't find it helped me remember what the words meant.		[blank]	I didn't find this a helpful method.
102	To put different cards in different catalogue and match image with names.	Learning kanji and kana of animals' names.	No.		-	-
103	Putting the different words into categories, in my group this was edible and inedible animals.	Same as above [= left].	There was no problem doing this activity, except it was sometimes difficult to guess the categories of the other group. This task also helped		-	-

			with recognising the kanji because there was no pictures.			
104	Putting the animals into categories.		[blank]	[blank]	[blank]	
105	Planning the words with the pictures,	Our group had to put the animals into order (size). Trying to memorise what the kanji meant.	Some kanji took a while to recognise.	Again look at kanji.	OK.	
106	Putting the animals into categories and guessing what others' were.	To develop my memory of these words and context.	I couldn't work out anyone's categories though it was clear when they were told.	Become better at reading Japanese.	Fine.	
107	Trying to place the kanji with the picture.	Any reading of kanji; helped me picture the animal, e.g. - four legs of the horse.	Kanji with no relation, e.g. cow.	Practice.	OK.	

Phase 3: Making a picture with the words learnt

ID	① Activity(-ies): What I was doing	② Learning target(s): What I was trying to learn	③ Problems/difficulties I am having after this phase	④ What I need to do to solve the problem/overcome the difficulty	⑤ How did I fare in relation to the problems I listed above?
92	Reading the instructions and carrying out the task.	• ___ <i>ga imasu</i> . • <i>ushiro</i>	Remembering <i>shita</i> , <i>ue</i> and <i>ushiro</i> .	Learn them more.	OK.
93	Remembering the key sentence: ___ <i>no ni ga imasu</i> . It was then easier to make the sentence structure.	The basic sentence + trying to remember the directions – <i>ue</i> , <i>ushiro</i> , etc.	Getting the sentence structure mixed up. Wanting to say ~ <i>ga arimasu</i> instead of ~ <i>ga imasu</i> .	Practice the sentence. After saying it several times it was easy to do.	I didn't have problems after practicing the sentence structure.
94	Reading instructions to figure out position of animals.	Practising the animal vocab + location vocab.	No difficulties.	-	Good.
95	Using the animal names with locations.		The words I had learned in the past were easy. I was	See above [= left]. I need time at home to memorize.	Better than before, as I had some prior knowledge.

			beginning to remember the names of the animals, so it became easier.			
96	Pasting clip on the picture under the instruction.	Position in Japanese.	Understand the command words on locating the position under the instruction required.	Refer to the example that given in the sheet.	[blank]	
97	Placing the pictures of animals on the main picture.	[blank]	[blank]	[blank]	[blank]	
98	[blank]	[blank]	[blank]	[blank]	[blank]	
99	Following the instructions and putting the animals on the picture.	Trying to learn the structure of the sentences.	-	-	-	
100	Using the words used in the 1st phase as well as descriptions.	To know the names of the animals without seeing the kanji.	Some animals have similar names so it is easy to confuse them, especially katakana where the word is not derived from English.	Try to form an imaginary link in my head with the katakana and the animal.	By the end I could name all the animals without seeing the name written down.	
101	Using the words to make sentences, and a picture.	To know the vocab from picture only.	None.	-	-	
102	Putting pictures to certain places on the paper.	'imasu' form, and also animals' names.	No.	-	-	
103	Putting the pictures on the diagram where they are supposed to be, and then find who had the same pictures.	How to describe where something is in the picture, and ask where something is in the picture.	No problems.	N/A	N/A	
104	Describing the position of the animal.	[blank]	[blank]	[blank]	[blank]	
105	Placing animals in places	Not much – more revision	None.	None.	OK.	

	described.	than learning.			
106	Putting animals into the place described on the sheet.	The new words and how they are used with position indicators.	None.	-	Fine.
107	I was still learning animal names because I have described the places before.	Animal names.	-	-	Well.

Phase 4: Finding out people who have the same picture

ID	① Activity(-ies): What I was doing	② Learning target(s): What I was trying to learn	③ Problems/difficulties I am having after this phase	④ What I need to do to solve the problem/overcome the difficulty	⑤ How did I fare in relation to the problems I listed above?
92	Walking around the classroom and asking questions to my peers.	What was on other peoples' sheets.	-	-	OK.
93	Practising the sentence/questions + remembering to say my picture at the beginning + <i>nani ga imasu ka</i> at the end.	The different directions + question structure.	It was quite straight forward, but confusion with directions occasionally.	Memorise the different places/directions.	OK.
94	Asking questions to ascertain other people's locations.	Practising conversation – questions + answers,	Difficulty in fluency of speech, a bit slow.	Practise speaking more.	Not bad.
95	Asking questions and answering them, in full sentences.	How to apply the new words learned in conversation.	This was easier, as the conversation was quite basic.	Practice conversation more often.	Quite well. I achieved the objective quickly.
96	Asking other to find the match picture.	Using Japanese to describe and listening to confirm the	Unfamiliar Japanese command word.	More careful to listen.	[blank]

		fact.					
97	Asking people where the animals were in the picture.	The sentence pattern.	[blank]	[blank]	[blank]	[blank]	[blank]
98	[blank]	[blank]	[blank]	[blank]	[blank]	[blank]	[blank]
99	Asking questions and answering questions to find out if people had the same picture as me.	Trying to learn how to ask people questions using the sentence structure + remembering the words of the pictures.	-	-	-	-	-
100	Using interrogatives to find matching pictures.	Question word and appropriate answers and referring Phase 1 vocabulary.	-	-	-	-	-
101	Putting the vocab into sentences.	How to use the vocab in a conversation.	It was harder to remember the sentence grammar + the vocab, rather than just the vocab.	-	-	-	I coped OK.
102	Trying to find people who have the same pictures as me.	Practise oral Japanese, 'imasu' form and animals' names.	No.	-	-	-	-
103	Finding people with the same picture.	Ask where something is in the picture and to describe it.	-	-	-	-	I liked this exercise because it linked grammar points with the vocabulary we just learnt, this was helpful as it put the vocabulary in the correct context.
104	[blank]	[blank]	[blank]	[blank]	[blank]	[blank]	[blank]
105	Asking people what they had or telling them what I had.	Who had the same picture as me.	None.	N/A	N/A	OK.	OK.
106	Walking around and asking	How to ask questions	None, except I saw someone	Not look in future.	Fine.		

	questions/sentences about picture.	involving words/position.	else's picture and knew it was the same.		
107	I understood everything and remembered all animal names by this time.	-	-	-	Very well.

Summary of Questionnaire 2:

Questionnaire 2 was collected from all the students (N= 16), and the following is a summary of their comments extracted from the questionnaire. As to Question 2, 3 and 4, the learners' comments are classified into categories according to types of activity or types of material.

Question 1: Did you enjoy the class? Yes / No (Circle appropriate answer)

If you answer “No”, write the reasons.

All the students answered “Yes”.

Question 2: Comment on which activities of the class you liked or found helpful

ID	Comments	Categories
92	Flash card learning between peers, and categorising vocab, because it allowed you to become more familiar with the vocab, and was more personal than class OHP work. The picture work was fun.	Use of flashcards Group work (pair work) Categorising activity Making a picture
93	Learning vocabulary through pictures + testing how much I had learnt by removing words underneath.	Use of flashcards
94	Repeating vocab at the beginning is good for me. I liked beginning with pictures and words, then becoming harder with no words...etc.	Use of flashcards
95	I enjoyed the conversations. Also, I enjoyed the picture.	Oral activity Making a picture
96	Vocabulary learning.	Activities in general
97	Checking vocabulary cards with partner.	Use of flashcards Group work (pair work)
98	Helpful learning with flashcards, kanji I found was the easiest to recognise straight away.	Use of flashcards Use of Japanese scripts
99	Found everything helpful apart from the categorising I think.	Activities in general
100	I found that linking the two colour cards together really helped me to learn the words as it allowed me to associate the kanji/kana with the picture in my own time.	Use of flashcards Use of Japanese scripts
101	I found using the cards really helpful. I found I remembered things better that way. I enjoyed all of the class. However, I didn't find categorising the vocab useful.	Use of flashcards Activities in general
102	Introduction of new words and learning the words with sets of cards is the first step of learning as usual, and I found the second part, categorising the words was quite interesting and helpful.	Categorising activity
103	I liked the last exercise as it linked the vocabulary we learnt with grammar.	Oral activity
104	[blank]	

105	Learning new words. Activities were more fun than normal. Group work was helpful.	Activities in general Group work
106	I liked the picture you had to stick cards on because it helped remember the words and their context in sentences (above, under, etc.)	Making a picture
107	The method of memorising the vocab, i.e. matching together and sorting into groups.	Categorising activity

Question 3: Comment on which activities of the class you did not like or found unhelpful.

ID	Comments	Categories
92	I did not like the OHP work, I found it un-engaging, lacking in colour and too slow.	Practice of new words with OHP
93	Using the kanji for the animal names.	Use of Japanese scripts (kanji)
94	Matching up the kanji with the pictures and then taking away the pictures- at that point I was not yet sure on the kanji.	Use of flashcards (not enough time to remember kanji)
95	I didn't enjoy learning the new words, as I feel that it is difficult for me to remember words 'just like that'.	Introduction and practice of new words
96	Phase 2	Categorising activity
97	-	
98	The placing of the pictures did not help with the meaning of the words.	Making a picture
99	Categorising I think I found unhelpful – I couldn't relate to this and also it confused me a little – I couldn't even do the exercise in English!	Categorising activity
100	-	
101	I found the category exercise less helpful than the others.	Categorising activity
102	The last part is not very helpful, I think, and the reason is that may be we've learnt those sentence forms already, so not as fresh as the first part when we learnt something new.	Oral activity
103	-	
104	[blank]	
105	None.	
106	-	
107	I didn't find the third activity helpful because it was repetitive.	Oral activity

Question 4: Any other comments

ID	Comments	Categories
92	Flashcards are really useful. The picture work was fun but perhaps too time consuming.	Use of flashcards (Positive) Making a picture (Negative – time consuming)
93	[blank]	
94	Thank you! It is fun to work with different activities.	Class (Positive)
95	I was a bit disheartened that I couldn't pick the words up as quickly as everyone else seemed to. The	Motivation (Negative)

	difference in learning vocabulary between different people.	
96	[blank]	
97	I think I needed a bit more time to learn vocab properly. I didn't know the kanji. I think writing hiragana as well as kanji would be helpful.	Time management (Negative) Use of Japanese scripts (Positive)
98	[blank]	
99	[blank]	
100	I feel that I can take some of the ideas from the class to help with my personal study.	Ideas for personal study (Positive)
101	I feel I learned more using these techniques than I normally do in class.	Use of vocabulary learning techniques (Positive)
102	[blank]	
103	This was a very helpful session for learning vocabulary.	Class (Positive)
104	[blank]	
105	[blank]	
106	[blank]	
107	[blank]	

Results of Questionnaire 2: This table was created based on the learners' comments¹ summarised above section.

Question 1 Did you enjoy the class?

Yes	No
16	0

Question 2 Comment on which activities of the class you liked or found helpful

Phase 1	Phase 2	Phase 1 - 2	Phase 3	Phase 1-3	Phase 4	Phase 1- 4
Use of flashcards	Categorising activity	Group work (Pair work)	Making a picture	Use of Japanese scripts	Oral activity	Activities in general
7	3	3	3	2	2	4

Question 3 Comment on which activities of the class you did not like or found unhelpful

Phase 1		Phase 2	Phase 3	Phase 1-3	Phase 4
Use of flashcards (not enough time to remember kanji)	Practice of new words with OHP	Introduction and practice of new words	Categorising activity	Making a picture	Use of Japanese scripts (kanji)
1	1	1	3	1	2

Question 4 Any other comments

Positive				Negative	
Use of flashcards	Class was fun/helpful	Use of Japanese scripts	Use of vocabulary learning techniques	Ideas for personal study	Making a picture (fun but time-consuming)
1	2	1	1	1	1
					Motivation (others were quicker to learn)
					1

¹ Question 2, 3 and 4 were open-response questions, and multiple answers were allowed.

The results of Test 1

The following tables show the results of Test 1:

Test 1-1 (a week after the experiment)

[TA = Teacher Assessment, SA = Self-Assessment, NR= Not Rateable]																													
1		2		3		4		5		6		7		8		9		10		11		12		13		14			
犬		ハト		猫		にわとり		鳥		ペンギン		うさぎ		ハチ		猿		牛		魚		ゴリラ		へび		馬			
dog	pigeon/ dove	cat	chicken	bird	penguin	rabbit	bee	monkey	cow	fish	gorilla	snake	horse																
														TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA		
ID	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	
92	3	3	3	2	3	3	3	3	3	3	3	3	3	3	2	3	1	3	3	3	3	3	NR	3	3	3	1	2	
93	3	3	3	2	0	0	0	0	0	3	3	3	3	3	2	0	0	0	0	0	0	3	3	3	3	3	1	2	
94	3	2	3	2	3	1	3	2	1	2	3	3	0	1	1	1	0	0	3	2	3	2	3	2	0	1	3	1	
95	3	3	0	0	0	0	1	2	1	2	3	3	3	1	0	0	0	0	0	3	1	3	3	3	2	3	3	3	
96	3	3	0	0	3	3	3	3	3	3	3	3	3	3	3	1	3	3	3	3	3	2	3	3	2	3	3	3	
97	3	3	0	0	1	0	3	2	1	3	3	3	3	1	3	2	0	0	0	3	2	3	2	3	2	3	2	2	
98	3	3	3	2	3	3	3	1	3	3	3	3	2	3	3	3	3	1	3	3	3	3	3	3	2	3	3	3	
99	3	3	3	2	0	0	3	1	1	1	3	3	0	1	3	1	0	0	3	2	3	3	3	3	2	3	2	2	
100	3	3	3	2	3	1	3	3	2	3	3	3	3	3	3	1	0	0	3	3	3	3	3	0	3	3	2	2	
101	3	3	3	3	3	2	3	3	3	3	3	3	3	3	3	3	0	0	3	3	3	3	3	3	3	3	3	3	
102	3	3	NR	2	3	3	NR	2	3	3	NR	3	3	3	3	1	3	3	3	3	3	2	1	3	3	3	3	3	
103	Did not take the test																												
104	3	2	0	0	0	0	3	2	1	0	3	2	0	0	0	0	0	0	0	3	2	0	2	3	2	3	2	2	
105	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
106	3	2	0	0	0	0	3	2	0	0	3	3	3	3	0	0	0	0	0	3	3	3	3	3	3	3	3	3	
107	3	3	3	1	3	3	3	3	1	2	3	3	0	1	0	0	1	1	0	0	3	3	3	3	2	3	2	3	NR

15	16	17	18	19	20	21	22	23	24	25	26	27	28	29		
人	アリ	ねずみ	金魚	ライオン	虫	池	うち	木	ベンチ	前	上	下	後ろ	中		
person/ people	ant	mouse	goldfish	lion	insect	pond	house	tree	bench	front	on/top/ up	under	behind/ back	in/ inside		
ID	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA		
92	3	NR	3	NR	3	NR	0	3	3	3	NR	3	NR	0	3	NR
93	3	NR	0	3	NR	0	0	3	3	3	3	3	3	3	3	3
94	3	3	0	0	0	1	3	3	3	3	3	3	3	0	3	3
95	3	3	0	0	0	0	1	1	3	3	3	3	3	2	3	3
96	3	3	3	3	3	3	3	3	0	3	3	3	3	3	3	3
97	3	3	3	3	3	0	0	3	3	2	3	3	3	1	3	2
98	3	3	3	2	3	3	3	3	3	3	3	3	3	3	3	3
99	3	3	3	2	3	1	3	2	3	2	3	3	3	3	3	3
100	3	3	3	2	3	3	3	3	3	3	NR	3	NR	3	2	3
101	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
102	3	3	3	1	3	3	3	3	0	3	3	3	3	3	3	3
103	Did not take the test															
104	0	0	0	3	1	0	0	0	2	0	0	3	NR	0	3	2
105	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
106	3	2	3	2	3	3	3	3	3	3	3	3	3	0	3	3
107	3	3	3	1	0	1	3	3	3	NR	0	1	2	3	3	3

Test 1-2 (a month after the experiment)

[TA = Teacher Assessment, SA = Self-Assessment, NR= Not Rateable]

1		2		3		4		5		6		7		8		9		10		11		12		13		14		
犬		ハト		猫		にわとり		鳥		ペンギン		うさぎ		ハチ		猿		牛		魚		ゴリラ		へび		馬		
dog		pigeon/ dove		cat		chicken		bird		penguin		rabbit		bee		monkey		cow		fish		gorilla		snake		horse		
ID	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA		
92	Did not take the test																											
93	NR	3	NR	NR	0	0	0	NR	0	0	3	NR	3	NR	3	NR	0	0	0	0	0	3	NR	3	NR	0	0	
94	3	2	3	1	0	0	3	2	1	1	3	3	0	0	0	0	0	3	1	3	2	3	3	3	1	1	1	
95	3	3	0	0	0	0	1	2	1	1	3	3	3	2	0	0	0	0	2	3	3	3	3	0	0	3	3	
96	3	3	0	0	3	3	3	3	3	3	3	3	3	3	0	2	3	3	3	NR	3	2	3	0	1	3	3	
97	3	3	1	1	0	0	3	2	3	2	3	3	3	2	2	1	0	0	0	3	3	3	3	3	1	3	3	
98	3	3	3	3	3	3	3	1	3	3	3	3	3	1	3	2	3	2	3	3	3	3	3	3	3	3	3	
99	3	3	3	1	0	0	0	2	1	1	3	3	0	0	3	1	0	0	3	2	NR	3	3	3	3	3	1	
100	3	3	3	3	3	3	3	3	3	3	3	3	3	3	0	2	0	0	3	3	3	3	3	0	2	3	2	
101	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	0	0	3	3	3	3	3	3	3	3	3	3	
102	3	3	3	2	3	3	NR	3	3	3	3	3	3	3	3	2	3	3	3	3	3	NR	2	3	3	3	3	
103	3	3	1	2	0	0	2	1	0	0	3	3	3	3	0	2	0	0	0	3	3	3	3	3	1	3	2	
104	3	2	0	0	0	0	3	1	1	1	3	2	0	0	0	0	0	0	0	3	2	3	2	3	1	0	0	
105	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
106	3	1	0	0	1	2	3	3	1	2	3	3	3	3	0	0	0	3	0	3	3	3	3	3	3	3	3	
107	NR	3	NR	2	0	0	NR	3	NR	1	NR	3	0	1	0	0	0	0	0	NR	3	NR	3	NR	3	NR	1	

15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
人	アリ	ねずみ	金魚	ライオン	虫	池	うち	木	ベンチ	前	上	下	後ろ	中
person/ people	ant	mouse	goldfish	lion	insect	pond	house	tree	bench	front	on/top/ up	under	behind/ back	in/ inside
ID	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA
92	Did not take the test													
93	0	0	0	0	0	0	0	0	0	0	0	0	0	0
94	3	3	3	1	0	0	0	0	0	0	0	0	0	0
95	3	3	0	0	0	0	1	0	0	3	3	3	3	3
96	3	3	3	3	0	0	3	3	3	1	3	3	3	3
97	3	3	3	1	3	2	3	NR	3	3	0	0	0	0
98	3	3	3	2	3	1	3	3	3	3	3	3	3	3
99	3	3	3	2	3	2	3	3	3	3	2	0	0	0
100	3	3	0	1	3	3	3	3	3	3	0	0	0	0
101	3	3	3	3	3	3	3	3	3	3	3	3	3	3
102	3	3	3	3	3	3	3	3	3	3	3	3	3	3
103	3	3	0	0	3	1	3	3	3	3	3	0	0	0
104	0	0	0	0	3	1	0	0	0	0	0	0	0	0
105	3	3	3	3	3	3	3	3	3	3	2	3	3	3
106	3	3	3	3	3	2	3	3	3	3	3	3	0	0
107	NR	3	NR	3	0	0	NR	3	NR	3	0	NR	3	NR

Learners’ comments on knowledge of the target words

The learners were asked to write how well they knew the target words in the follow-up tests, and the following shows their comments on Test 1. The learners who did not take the test or did not write their comments are excluded here.

[TA = Teacher Assessment, SA = Self-Assessment, NR= Not Rateable]

Test 1-1 (a week after the experiment)

1. 犬 (dog)

ID	Written Answer	TA	SA	Comment
92	dog	3	3	Knew already.
93	dog	3	3	I remember it because we’ve learnt the kanji before.
94	dog	3	2	I already knew it a little.
95	dog	3	3	Easy – similar to ‘big’ [= 大], like a dog chasing a ball.
96	dog	3	3	Know it because learnt it before.
97	dog	3	3	I’ve learnt this kanji before so I can remember it easily.
98	dog	3	3	I already knew this.
99	dog	3	3	Learnt before.
100	dog	3	3	Already known.
101	dog	3	3	Already knew.
102	dog	3	3	I know this word before.
104	dog	3	2	One of the kanji I learned before.
105	dog	3	3	Already knew this before lesson.
106	dog	3	2	I know the kanji fairly well.
107	dog	3	3	Easy to recognise because the kanji looks like a dog.

2. ハト (pigeon/dove)

ID	Written Answer	TA	SA	Comment
93	dove	3	2	Relatively easy because it is in katakana and not kanji.

94	dove	3	2	For some reason the number 8 helped me (はち = 8 [hachi - eight]).
97	[blank]	0	0	I could recognise it if I saw it on the OHP.
98	pigeon/dove	3	2	I made up a story in my head to remember this one.
100	dove	3	2	Katakana may not be taken from the English.
102	[drawing]	NR	2	I just do not know this word in English.
105	dove/pigeon	3	3	Quite good.
107	dove	3	1	Hard to relate to dove.

3. 猫 (cat)

ID	Written Answer	TA	SA	Comment
94	cat	3	1	Think I have seen it before the class.
96	cat	3	3	Kanji and learnt.
97	birds	1	0	I don't know the kanji.
98	cat	3	3	Knew already.
99	rabbit	0	0	Can't recognise kanji.
100	cat	3	1	Confuse with number 9 [= 猿 monkey].
101	cat	3	2	I'm not sure of the kanji. I could recognise it easily if it was in hiragana.
102	cat	3	3	I know this word before.
105	cat	3	3	Could possibly recognise kanji before class.
107	cat	3	3	Kanji.

4. にわとり (chicken)

ID	Written Answer	TA	SA	Comment
92	chicken	3	3	とり = birds
94	hen	3	2	The relationship with とり reinforced it + I knew にわ is garden.
95	dove/pigeon	1	2	にわ = garden, とり is also easy word to remember.
96	chicken	3	3	Different pronunciation from others (4 sounds).

97	hen/chicken	3	2	I can only recognise it because the word has been given. I wouldn't be able to think of it off the top of my head.
98	chicken	3	1	I remember this OHP with the big bird and the writing next to it.
100	chicken	3	3	Two parts, にわ and とり help in recognition.
102	cockery ¹	NR	2	Not sure about the English way of writing.
105	chicken	3	3	Had heard this word before.
106	chicken	3	2	Garden is helpful to remember a chicken.
107	hen	3	3	とり = bird, so easy to remember.

5. 鳥 (bird)

ID	Written Answer	TA	SA	Comment
94	horse	1	2	馬 looks like legs.
95	cow	1	2	Quite distinctive.
96	bird	3	3	Kanji.
97	cow	1	1	I'm guessing the kanji means cow because it's similar to horse.
98	bird	3	3	Knew already.
100	bird	3	2	Easy to confuse with horse.
101	bird	3	3	Already knew.
102	bird	3	3	I know this word before.
105	bird	3	3	Kanji harder to recognise than word pronunciation but kanji looks like a bit like horse 馬.
107	cow	1	2	Kanji, but difficult to distinguish between cow and horse.

6. ペンギン (penguin)

ID	Written Answer	TA	SA	Comment
92	penguin	3	3	Katakana.
93	penguin	3	3	Remember the photos on the OHP + it is in katakana.

¹ The first language of Student 11 is Chinese and it was difficult to mark her answer for this word due to spelling mistake. Therefore, it was decide to regard it as 'NR' (= Not Rateable).

94	penguin	3	3	Katakana sounds like English.
95	penguin	3	3	Same as English.
96	penguin	3	3	Katakana.
97	penguin	3	3	Katakana word almost exactly the same to that of English.
98	penguin	3	3	Sounds like the English word.
99	penguin	3	3	Remember seeing on OHP.
100	penguin	3	3	Katakana taken from English – easy to see.
102	[drawing]	NR	3	Very easy word to remember, but forgot the English way of writing.
104	penguin	3	2	Katakana easy to remember.
105	penguin	3	3	Katakana is easy when it's from English.
106	penguin	3	3	This is easy to remember because it has the same sound.
107	penguin	3	3	Sounds like the English words.

7. うさぎ (rabbit)

ID	Written Answer	TA	SA	Comment
92	rabbit	3	3	Knew already.
93	rabbit	3	1	This was on the 2 nd slide on the OHP, so slightly harder to remember.
94	monkey	0	1	Vaguely remember.
95	rabbit	3	1	Does not sound like an English word.
96	rabbit	3	3	Kind of remember.
98	rabbit	3	2	I just remember this one.
100	rabbit	3	3	Already known.
101	rabbit	3	3	Already knew.
102	rabbit	3	3	Very easy word to remember.
105	rabbit	3	3	Had heard this word about once before.
107	mouse	0	1	No relation to English word and no kanji.

8. ハチ (bee)

ID	Written Answer	TA	SA	Comment
93	bee/wasp	3	2	Remember the pictures.
94	dove	1	1	Oops I think this one is dove instead of the other.
96	bee	3	1	Not sure.
97	bee	3	2	I can remember the OHP picture.
98	bees	3	3	I made up a story about 8 (はち [= <i>hachi</i> - eight]) bees.
100	bee	3	1	Confuse with ant.
102	bees	3	1	Not sure.
105	bee	3	3	Quite good.
107	monkey	0	0	Same reason as above [= No relation to English word and no kanji.].

9. 猿 (monkey)

ID	Written Answer	TA	SA	Comment
94	[blank]	0	0	No idea.
96	monkey	3	3	Kanji.
97	[blank]	0	0	I don't know the kanji.
98	monkey	3	3	I remember this was the only kanji I didn't know. And it has the beast (犼 [→猿]) radical.
99	[blank]	0	0	Can't recognise kanji.
100	[blank]	0	0	Confuse with number 3 [=猫 cat].
101	[blank]	0	0	I don't know the kanji.
102	monkey	3	3	I've known this before.
105	monkey	3	3	Kanji is complicated but looks crazy enough to be monkey.
107	bird	1	1	Kanji.

10. 牛 (cow)

ID	Written Answer	TA	SA	Comment
92	cow	3	3	Knew already.
94	cow	3	2	Looks like 'year' [= 年] – think of year of the cow.
95	ox/cow	3	3	Form kanji.
93	cow	3	1	I am unsure on this one.
99	cow	3	2	Remembering seeing on OHP.
100	cow	3	3	Links with picture.
101	cow	3	3	Already knew.
102	ox	3	3	I've known this before.
105	cow	3	3	Already know this kanji but not pronunciation until class.
107	[blank]	0	0	Unrecognisable kanji.

11. 魚 (fish)

ID	Written Answer	TA	SA	Comment
92	fish	3	3	Knew already.
94	fish	3	2	Looks like a shopping basket – buying fish at supermarket.
95	fish	3	1	Quite fish-like.
96	fish	3	3	Kanji.
97	fish	3	2	I've learnt this kanji before.
98	fish	3	3	Know already.
100	fish	3	3	Already known.
101	fish	3	3	Already knew.
102	fish	3	3	I've known this before.
104	fish	3	2	Kanji learned before.
105	fish	3	3	Knew kanji and word before.

106	fish	3	3	Have done this kanji before. It looks like a fish as well.
107	fish	3	3	Kanji.

12. ゴリラ (gorilla)

ID	Written Answer	TA	SA	Comment
92	gorilla	3	NR	Katakana.
93	gorilla	3	3	Katakana + one of the first pictures we saw.
94	gorilla	3	2	Like English.
95	gorilla	3	3	Same as English.
96	ape	2	3	Sounds easy to me as imagine in English.
97	gorilla	3	2	This word is the same in English.
98	gorilla	3	3	Sounds like the English word.
99	gorilla	3	3	Remember seeing on OHP.
100	gorilla	3	3	Katakana taken from English – easy to see.
105	gorilla	3	3	Katakana from English.
107	gorilla	3	3	Sounds like English word.

13. へび (snake)

ID	Written Answer	TA	SA	Comment
92	snake	3	3	Katakana.
93	snake	3	3	Remember from the flash cards.
94	mouse	0	1	Not sure.
95	snake	3	2	Short and easy to remember.
96	snake	3	2	Kind of remember.
98	snake	3	2	The OHP helped me learn this one.
99	snake	3	2	Remember seeing on OHP.
100	insects	0	3	Links with picture.

101	snake	3	3	Already knew.
102	snake	3	3	Very easy word to remember.
104	snake	3	2	Easy to remember due to the pronouncing.
105	snake	3	3	Cool word.
106	snake	3	3	This is short and memorable.
107	snake	3	2	Short word makes it easy to remember.

14. 馬 (horse)

ID	Written Answer	TA	SA	Comment
93	fish	1	2	I think I have learnt this kanji before.
94	horse	3	1	I think this one is horse actually.
95	horse	3	3	As in station [= 駅]. Quite distinctive.
96	horse	3	3	Kanji.
97	horse	3	2	I've learnt this kanji before.
98	horse	3	3	Knew already.
100	horse	3	2	Easy to confuse with bird.
102	horse	3	3	I've known this before.
105	horse	3	3	Knew this before class.
106	horse	3	3	Looks like a horse.

15. 人 (person/people)

ID	Written Answer	TA	SA	Comment
92	man	3	NR	Looks like a man.
94	person	3	3	Used this many times before.
95	man	3	3	Very simple.
96	people	3	3	Taught and kanji.
97	person	3	3	This kanji is easy to remember.

98	person	3	3	Knew already.
99	person	3	3	Learnt before.
100	person	3	3	Already known.
101	person	3	3	Already knew.
102	person	3	3	I've known this before.
105	person	3	3	Knew this before and use it regularly.
106	person	3	2	I know this kanji well, but was confused by trying to think of an animal.
107	person	3	3	Kanji.

16. アリ (ant)

ID	Written Answer	TA	SA	Comment
92	ant	3	NR	Katakana similar sound.
94	[blank]	0	0	Can't remember.
96	ant	3	3	Katakana.
97	ant	3	3	It's small, easy to remember word.
98	ant	3	2	Made up a story: <u>A</u> ri → <u>A</u> nt
100	ant	3	2	Picture helps.
105	ant	3	3	Possibly easier because it begins with same letter in English.
107	ant	3	1	Never come across word before.

17. ねずみ (mouse)

ID	Written Answer	TA	SA	Comment
92	mouse	3	NR	Knew already.
94	insects	0	1	Not sure.
96	rat	3	1	Kind of remember, is sort of thing like this.
100	mouse	3	3	Sound link.
101	rat/mouse	3	3	Already knew.

102	rat	3	3	I've known this before.
105	mouse	3	3	Sounds like a mouse to me.
107	rabbit	0	1	Sound similar to う さ ぎ [= usagi].

18. 金魚 (goldfish)

ID	Written Answer	TA	SA	Comment
92	goldfish	3	NR	金 = gold.
94	goldfish	3	3	Know gold as from 'Friday' [= 金] + same reason for fish as before.
95	goldfish	3	3	Quite simple.
96	goldfish	3	3	Kanji.
97	goldfish	3	3	I could work this kanji out because I know them both individually.
98	gold fish	3	3	I knew each kanji separately.
99	goldfish	3	2	Remember on OHP.
100	goldfish	3	3	Kanji help in understanding.
102	golden fish	3	3	Same as that in my first language.
105	goldfish	3	3	Kanji is easy = gold + fish.
106	goldfish	3	3	I know the kanji (gold + fish).
107	goldfish	3	3	Kanji.

19. ライオン (lion)

ID	Written Answer	TA	SA	Comment
92	lion	3	NR	Katakana.
93	lion	3	3	In katakana.
94	lion	3	3	Like English.
95	lion	3	3	Same as English.
96	lion	3	3	Katakana.
97	lion	3	3	Word is the same in English.

98	lion	3	3	Sounds like English.
99	lion	3	2	Remember on OHP.
100	lion	3	3	Katakana matches English.
102	lion	3	3	Same as English.
105	lion	3	3	Katakana from English.
107	lion	3	NR	Sounds like English.

20. 虫 (insect)

ID	Written Answer	TA	SA	Comment
92	insects	3	NR	Knew already.
96	insect	3	3	Kanji.
97	[blank]	0	0	I don't know this kanji.
98	insects	3	3	I just remember this quite simple kanji.
99	insects	3	1	Unsure if I recognise kanji.
102	insect	3	3	Same as in my first language.
105	insect	3	3	Kanji is difficult to remember but pronunciation is cool.

21. 池 (pond)

ID	Written Answer	TA	SA	Comment
95	ground	1	1	Not obvious. Water radical makes it easier.
96	pool	3	3	Kanji.
97	[blank]	0	0	I know it has something to do with water as 氵 is the water radical.
98	pond	3	1	It has the (氵) water radical.
101	pond	3	3	Already knew.
102	pond	3	3	Have something common in my first language.
105	lake	2	3	Used radical of water plus context to guess lake.
107	ground	1	2	I have learnt before.

22. うち (house)

ID	Written Answer	TA	SA	Comment
92	house	3	3	Knew already.
93	home	3	3	Have learnt before.
94	house	3	3	Know before.
95	house	3	2	Quite simple
96	home	3	3	Learnt before.
97	house	3	3	This is one of the first words we learnt in Japanese.
98	house	3	3	Knew already.
99	house	3	2	Learnt before class.
100	house	3	3	Already known.
101	house	3	3	Already knew.
102	house	3	3	I've known this before.
104	house	3	NR	Vocab we learned before.
105	house	3	3	Knew before, used often.
107	house	3	3	I have learnt before.

23. 木 (tree)

ID	Written Answer	TA	SA	Comment
92	tree	3	3	Knew already.
94	book	1	3	Knew before.
95	tree	3	3	Nice, easy tree-like pattern.
96	tree	3	3	Learnt before and kanji.
97	tree	3	3	I know this kanji.
98	tree	3	3	Knew already.
99	tree	3	2	Learnt before class.

100	tree	3	3	Already known.
101	tree	3	3	Already knew.
102	tree	3	3	I've known this before.
105	tree	3	3	Knew before.
107	tree	3	3	I have learnt before.

24. ベンチ (bench)

ID	Written Answer	TA	SA	Comment
92	bench	3	3	Katakana.
94	bench	3	3	Like English.
95	bench	3	3	Same as English.
97	bench	3	3	Word similar in English.
98	bench	3	3	Sounds like English.
99	bench	3	2	Remember using word in final stage – with picture.
100	bench	3	3	Katakana matches English.
102	punch	0	3	I've known this before.
105	bench	3	3	Katakana from English.
107	bench	3	3	I have learnt before.

25. 前 (front)

ID	Written Answer	TA	SA	Comment
92	in, before	3	NR	Knew already.
93	in front	3	3	Have learnt these directions before.
94	in front of/ before	3	3	Knew before.
95	in front of	3	3	Like a knife and fork 'in front of' you.
96	front	3	3	Kanji.
98	in front of	3	3	Knew already.

99	in front of	3	2	Learnt before class.
100	in front	3	3	Already known.
101	in front of	3	3	Already knew.
102	before	3	3	I've known this before.
104	in front	3	2	Learned before.
105	in front	3	3	Knew before.
106	before	3	3	I knew this before.
107	in front	3	3	I have learnt before.

26. 上 (on/top/up)

ID	Written Answer	TA	SA	Comment
92	above	3	NR	Knew already.
94	above	3	3	Knew before.
95	above	3	3	Easy to remember.
96	above	3	3	Kanji.
97	on top	3	3	This kanji is easy to remember.
98	above	3	3	Knew already.
99	above/ on top	3	3	Learnt before class.
100	above	3	NR	Kanji symbolizes the meaning.
101	above	3	3	Already knew.
102	up	3	3	I've known this before.
104	on	3	2	Learned before.
105	on top	3	3	Knew before.
106	above	3	3	I knew this before.
107	above	3	3	I have learnt before.

27. 下 (under)

ID	Written Answer	TA	SA	Comment
92	below	3	NR	Knew already.
94	below	3	3	Knew before.
95	below	3	3	Logical.
96	below	3	3	Kanji.
98	below	3	3	Knew already.
99	beneath/ below	3	3	Learnt before class.
100	below	3	NR	Kanji symbolizes the meaning.
101	below	3	3	Already knew.
102	down	3	3	I've known this before.
104	under	3	2	Learned before.
105	under	3	3	Knew before.
106	under	3	3	I knew this before.
107	below	3	3	I have learnt before.

28. 後ろ (behind/back)

ID	Written Answer	TA	SA	Comment
95	behind	3	2	Looks like something being held 'behind.'
96	behind	3	3	Kanji.
98	behind	3	3	Knew already.
99	behind	3	3	Learnt before class.
100	behind	3	2	Already known.
102	back	3	3	I've known this before.
105	behind	3	3	Knew before.
106	[blank]	0	0	I knew this before.

107	[blank]	0	0	Can't remember the kanji.
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29. 中 (in/inside)

ID	Written Answer	TA	SA	Comment
92	middle, in	3	NR	Knew already
93	inside	3	3	Remember from the fish being inside the pond.
94	middle	3	3	Knew before.
95	inside	3	3	Easy – commonly used.
96	inside	3	3	Kanji.
98	inside	3	3	Knew already.
99	inside	3	3	Learnt before class.
100	in	3	3	Kanji symbolizes the meaning.
101	inside	3	3	Already knew.
102	middle	3	3	I've known this before.
104	inside	3	2	Learned before.
105	in the middle of	3	3	Knew before.
106	inside	3	3	I knew this before.
107	inside	3	3	I have learnt before.

Test 1-2 (a month after the experiment)

1. 犬 (dog)

ID	Written Answer	TA	SA	Comment
93	いぬ	NR	NR	I think I remember the kanji from before.
94	dog	3	2	Knew before.
95	dog	3	3	Like a person.
96	dog	3	3	Leant it in class.

97	dog	3	3	I know the kanji.
98	dog	3	3	Knew before.
99	dog	3	3	Learnt before.
100	dog	3	3	Already knew.
102	dog	3	3	I knew this before.
104	dog	3	2	All the vocabs I filled in we covered before. The ones we learned in your lesson I've forgotten. Sorry! Too long ago.
105	dog	3	3	Knew before.
107	enu	NR	3	Learnt before.

2. ハト (pigeon/dove)

ID	Written Answer	TA	SA	Comment
93	dove	3	NR	I'm not sure if I'm correct.
96	[blank]	0	0	Can't remember.
98	pigeon	3	3	Made up story to remember it.
99	dove	3	1	Unsure if I remember word.
100	dove	3	3	Remember picture.
102	dove	3	2	New word to me, but now feel familiar.
103	bee	1	2	I am unsure about this one, I think it means insect or bee.
107	hato	NR	2	I relate this with bird.

3. 猫 (cat)

ID	Written Answer	TA	SA	Comment
93	[blank]	0	0	Cannot remember the kanji.
96	cat	3	3	Learnt it in class.
98	cat	3	3	Knew before.
99	[blank]	0	0	Don't recognise kanji.
100	cat	3	3	Already knew.

102	cat	3	3	I knew this before.
106	cow	1	2	Not sure if it's right.
107	[blank]	0	0	Don't recognise kanji.

4. にわとり (chicken)

ID	Written Answer	TA	SA	Comment
93	mouse	0	NR	I think I remember the photos on the OHP.
94	hen	3	2	Garden bird.
95	pigeon	1	2	Bird + garden.
96	chicken	3	3	Especially long word.
97	chicken	3	2	I only recognise the word after seeing it. I wouldn't be able to think of it off the top of my head.
98	chicken	3	1	I knew <i>tori</i> was a bird and that one of the words was chicken.
99	mouse	0	2	Recognise from OHP.
100	chicken	3	3	Know as 'garden bird'.
102	cokery ²	NR	3	I knew this before.
103	chicken	3	1	I am unsure about this, I remember that とり means bird.
107	hen	3	3	とり = bird.

5. 鳥 (bird)

ID	Written Answer	TA	SA	Comment
93	[blank]	0	0	Cannot remember the kanji.
95	cow	1	1	Not sure.
96	bird	3	3	Kanji.
97	bird	3	2	Recognise the kanji.
98	bird	3	3	Knew before.

² The first language of Student 11 is Chinese and it was difficult to mark her answer for this word due to spelling mistake. Therefore, it was decided to regard it as 'NR' (= Not Rateable).

99	cat	1	1	Get confused with this kanji and horse kanji.
100	bird	3	3	Already knew.
102	bird	3	3	I knew this before.
103	[blank]	0	0	I first thought this was the kanji for horse, but realized it was different.
107	ushi/uma	NR	1	I recognise the 𤝵 [鳥-馬] as 4 legs.

6. ペンギン (penguin)

ID	Written Answer	TA	SA	Comment
93	penguin	3	NR	Katakana easy to remember.
94	penguin	3	3	Like English.
95	penguin	3	3	The same as English.
96	penguin	3	3	Katakana.
97	penguin	3	3	Same in English.
98	penguin	3	3	Sounds like English.
99	penguin	3	3	Katakana word – same as English.
100	penguin	3	3	Same as English.
102	penguin	3	3	English word.
103	penguin	3	3	As of the vocabulary written in katakana is reasonably easy to understand.
105	penguin	3	3	Katakana as English.
106	penguin	3	3	Easy because its phonetic is English.
107	penguin	3	3	Word sounds similar to English.

7. うさぎ (rabbit)

ID	Written Answer	TA	SA	Comment
93	rabbit?	3	NR	A bit uncertain, but I recognise the word.
95	rabbit	3	2	Hiragana is not as difficult as kanji.
96	rabbit	3	3	Learnt, just remember.

97	rabbit	3	2	I think it's an easy word to remember.
98	rabbit	3	1	Just remember, remember it in hiragana.
99	[blank]	0	0	Don't recognise word.
100	rabbit	3	3	Already knew.
102	rabbit	3	3	I knew this before.
103	rabbit	3	3	I remembered this easily.

8. ハチ (bee)

ID	Written Answer	TA	SA	Comment
93	bee	3	3	As above [= A bit uncertain, but I recognise the word.].
96	ant	0	2	Katakana.
97	bugs	2	1	I'm not sure between this one and ハト.
98	bee	3	2	Made up story.
99	bee?	3	1	Get confused between this and ハト.
100	ant	0	2	Unsure if correct.
102	bee	3	2	Not sure.
103	bee or insect	2	0	I am unsure if this is the word for bee, insects, or something else.

9. 猿 (monkey)

ID	Written Answer	TA	SA	Comment
93	[blank]	0	0	Do not remember the kanji.
96	monkey	3	2	Kanji.
97	[blank]	0	0	Maybe if I saw the word in hiragana I could recognise it.
98	monkey	3	2	Remember this was the only kanji I didn't know.
99	[blank]	0	0	Don't recognise kanji.
100	[blank]	0	0	Cannot remember – difficult kanji.
101	[blank]	0	0	I don't know the kanji.

102	monkey	3	3	I knew this before.
103	[blank]	0	0	I cannot remember these kanji or even take a guess at what it means.
107	[blank]	0	0	Cannot recognise kanji.

10. 牛 (cow)

ID	Written Answer	TA	SA	Comment
93	[blank]	0	0	Do not remember the kanji.
96	cow	3	3	Kanji.
97	[blank]	0	0	I recognise the kanji but I can't think of what it is.
98	cow	3	3	Knew before.
100	cow	3	3	Already knew.
102	ox	3	3	I knew this before.
103	[blank]	0	0	I know this kanji but have forgotten its meaning.
105	cow	3	3	Knew before.
106	cow	3	0	Might be cow if I got it wrong.
107	[blank]	0	0	Cannot recognise kanji.

11. 魚 (fish)

ID	Written Answer	TA	SA	Comment
93	[blank]	0	0	Do not remember the kanji.
94	fish	3	2	Looks like shopping basket.
95	fish	3	3	Learned before.
96	fish	3	3	Kanji.
97	fish	3	3	Know the kanji.
98	fish	3	3	Knew before.
100	fish	3	3	Already knew.
101	fish	3	3	I knew this before.

103	fish	3	3	This kanji I could remember very easily.
105	fish	3	3	Knew before.
106	fish	3	3	Done before.
107	<i>sakana</i>	NR	3	Have learnt before.

12. ゴリラ (gorilla)

ID	Written Answer	TA	SA	Comment
93	gorilla	3	NR	Katakana easier to understand.
94	gorilla	3	3	Like English.
95	gorilla	3	3	Same as English.
96	ape	2	3	Katakana.
97	gorilla	3	3	Same in English.
98	gorilla	3	3	Sounds like English.
99	gorilla	3	3	Katakana word – same as English.
100	gorilla	3	3	Same as English.
102	<i>goria</i>	NR	2	Not sure.
103	gorilla	3	3	Very easy to understand, it's the same as the English word.
105	gorilla	3	3	Katakana as English.
106	gorilla	3	3	Easy because phonetic.
107	<i>gorira</i>	NR	3	Sounds like English.

13. へび (snake)

ID	Written Answer	TA	SA	Comment
93	snake	3	NR	Remember the picture on OHP.
96	bee	0	1	Not sure.
97	snake	3	1	Both the letters look like the shape of a snake. I tried to remember this.
98	snake	3	3	'へ' looks a bit like a snake.

100	insect	0	2	Not sure if correct.
102	snake	3	3	I knew this before.
103	snake	3	1	I think this is correct, but I am unsure.

14. 馬 (horse)

ID	Written Answer	TA	SA	Comment
93	[blank]	0	0	Do not remember kanji.
94	cow	1	1	Not sure.
95	horse	3	3	Appears in 駅 [駅]and other kanji.
96	horse	3	3	Kanji.
97	horse	3	3	Know the kanji.
98	horse	3	3	Knew before.
99	horse	3	1	Unsure if this is horse or cat.
100	horse	3	2	Not sure if correct.
11	horse	3	3	I knew this before.
102	horse	3	3	This kanji was easy to understand.
103	horse	3	3	Knew kanji.
106	horse	3	3	Done before.
107	ushi/uma	NR	1	Same reason as No. 5 [= I recognise the 𠂔 as 4 legs.] but I can't tell the difference.

15. 人 (person/people)

ID	Written Answer	TA	SA	Comment
93	[blank]	0	0	Cannot remember.
94	person	3	3	Learnt before.
95	person	3	3	Very simple – 2 strokes.
96	man	3	3	Kanji.

97	person	3	3	Kanji easy to remember.
98	person	3	3	Knew before.
99	Person	3	3	Learnt before.
100	person	3	3	Already knew.
102	people	3	3	I knew this before. It is Chinese.
103	person	3	3	Very easy to understand.
105	person	3	3	Knew before.
106	person	3	3	I see this kanji before.
107	<i>hite</i>	NR	3	Have learnt before.

16. アリ (ant)

ID	Written Answer	TA	SA	Comment
93	[blank]	0	0	Cannot remember.
96	ant	3	3	Remember, katakana.
97	ant	3	1	Both ant and アリ [= <i>ari</i>] start with 'A' sound.
98	ant	3	2	Made up story.
99	ant	3	2	Katakana word – same as English.
100	bee	0	1	Not sure if correct.
102	ant	3	3	Not difficult to pronounce.
103	ant	0	0	I cannot remember this.
106	ant	3	3	Sounds like ant.

17. ねずみ (mouse)

ID	Written Answer	TA	SA	Comment
93	[blank]	0	0	Cannot remember.
98	rat	3	1	Hard to remember but I remember vaguely seeing the hiragana and the picture together.
99	mouse	3	2	Remember on OHP.

100	mouse	3	3	Already knew.
102	rat	3	3	I knew this before.
103	mouse	3	1	I think this is correct, but I am unsure.

18. 金魚 (goldfish)

ID	Written Answer	TA	SA	Comment
93	[blank]	0	0	Cannot remember.
94	goldfish	3	2	Know 'gold' + 'fish'.
95	goldfish	3	3	Money/metal/gold + fish.
96	goldfish	3	3	Kanji.
97	goldfish	3	NR	Recognise the kanji – I don't know how to say it though.
98	goldfish	3	3	I know both the kanji separately.
99	goldfish	3	3	Remember the kanji gold ... and fish...
100	goldfish	3	3	Already knew.
102	goldfish	3	3	I knew this before.
103	goldfish	3	3	This was easy to understand the first kanji meaning gold, and second means fish.
105	goldfish	3	3	Knew kanji.
106	goldfish	3	3	The kanji is translated as gold + fish.
107	kingo	NR	3	The gold and fish kanji's make this easy.

19. ライオン (lion)

ID	Written Answer	TA	SA	Comment
93	lion	3	NR	Easier to understand katakana.
94	lion	3	2	As English.
95	lion	3	3	As English.
96	lion	3	3	Katakana.
97	lion	3	3	Same in English.

98	lion	3	3	Sounds like English.
99	lion	3	3	Same as English.
100	lion	3	3	Same as English.
102	lion	3	3	English pronunciation.
103	lion	3	3	Very easy.
105	lion	3	3	Katakana as English.
106	lion	3	3	Phonetic.
107	<i>raion</i>	NR	3	Sounds like English.

20. 虫 (insect)

ID	Written Answer	TA	SA	Comment
93	[blank]	0	0	Cannot remember kanji.
95	snake	0	1	Not sure.
96	insect	3	3	Kanji.
97	[blank]	0	0	I recognise the kanji but can't think of the word.
98	insect	3	3	Simple kanji I remembered.
99	insect	3	2	Remember kanji.
100	[blank]	0	0	Unsure.
102	insect	3	3	I knew this before.
103	[blank]	0	0	I recognise this kanji but cannot remember its meaning.
106	[blank]	0	0	No idea.
107	[blank]	0	0	Kanji I do not recognise.

21. 池 (pond)

ID	Written Answer	TA	SA	Comment
93	[blank]	0	0	Cannot remember kanji.
96	pool	3	3	Kanji.

97	[blank]	0	0	I think it has something to do with water.
98	pond	3	2	シ[→池]- is the water radical ...
99	[blank]	0	0	Don't recognise kanji.
100	[blank]	0	0	Unsure.
102	pond	3	3	I knew this before.
103	[blank]	0	0	I cannot remember this kanji.
106	[blank]	0	0	No idea.
107	[blank]	0	0	Kanji I do not recognise.

22. うち (house)

ID	Written Answer	TA	SA	Comment
93	house	3	NR	Learnt word from before.
94	house	3	2	Learnt before.
95	house	3	3	Quite easy two syllables.
96	home	3	1	Not sure about this one.
97	house	3	3	Use the word a lot in class.
98	house	3	3	Knew before.
99	house	3	3	Learnt before.
100	house	3	3	Already knew.
102	home	3	3	I knew this before.
105	house	3	3	Knew.
106	house	3	3	Done before.
107	uchi	NR	3	Have learnt before

23. 木 (tree)

ID	Written Answer	TA	SA	Comment
93	tree	3	NR	Learnt before.

94	tree	3	2	Learnt before.
95	tree	3	3	Easy looks like a tree.
96	tree	3	3	Kanji.
97	tree	3	3	Use the kanji a lot in class.
98	tree	3	3	Knew before.
99	tree	3	3	Learnt before.
100	tree	3	3	Already knew.
102	tree	3	3	I knew this before.
103	tree	3	3	Very easy.
105	tree	3	3	Knew.
106	tree	3	3	Looks like a tree.
107	き	NR	3	Have learnt before

24. ベンチ (bench)

ID	Written Answer	TA	SA	Comment
93	bench	3	NR	Katakana easy to read.
94	bench	3	3	Like English.
95	bench	3	3	As English.
96	bench	3	3	Katakana.
97	bench	3	3	Same in English.
98	bench	3	3	Knew before.
99	bench	3	3	Same as English.
100	bench	3	3	Already knew.
102	punch	0	3	English word.
105	bench	3	3	English.
106	bench	3	3	Phonetic.

107	<i>benchi</i>	NR	3	Have learnt before
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25. 前 (front)

ID	Written Answer	TA	SA	Comment
93	before	3	NR	Have learnt it before.
94	in front	3	2	Knew before.
95	in front of	3	3	Looks like a knife and fork 'in front of' you!
96	in front	3	3	Kanji.
97	in front	3	3	I find this kanji easy to remember.
98	in front of	3	3	Knew before.
99	in front, before	3	3	Learnt before.
100	in front	3	3	Already knew.
102	before	3	3	I knew this before.
105	in front	3	3	Knew.
106	in front of/ before	3	3	Done before.
107	<i>mae</i>	NR	3	Have learnt before

26. 上 (on/top/up)

ID	Written Answer	TA	SA	Comment
93	above	3	NR	Learnt before.
94	above	3	2	Knew before.
95	above	3	3	Logical.
96	above	3	3	Kanji.
97	above	3	3	I know this kanji.
98	above	3	3	Knew before.
99	on/top/ above	3	3	Learnt before.
100	above	3	3	Already knew.

102	up	3	3	I knew this before.
103	[blank]	0	0	I recognise this kanji but have forgotten its meaning.
105	on top	3	3	Knew.
106	above	3	3	Done before.
107	ue	NR	3	Have learnt before

27. 下 (under)

ID	Written Answer	TA	SA	Comment
93	under	3	NR	Learnt before.
94	below	3	2	Knew before.
95	beneath	3	3	Logical.
96	under	3	3	Kanji.
98	below	3	3	Knew before.
99	under	3	3	Learnt before.
100	below	3	3	Already knew.
102	down	3	3	I knew this before.
103	[blank]	0	0	I recognise this kanji but have forgotten its meaning.
105	under	3	3	Knew.
106	below	3	3	Done before.
107	shita	NR	3	Have learnt before

28. 後ろ (behind/back)

ID	Written Answer	TA	SA	Comment
93	うしろ	NR	NR	Don't recognise kanji but I think it's うしろ.
95	behind	3	2	Radicals are recognisable.
96	behind	3	3	Kanji.
98	behind	3	3	Knew before.

99	behind	3	3	Learnt before.
100	behind	3	3	Already knew.
102	back	3	3	I knew this before.
105	behind	3	3	Knew.
107	<i>ushi</i> 𪛗	NR	3	Have learnt before

29. 中 (in/inside)

ID	Written Answer	TA	SA	Comment
93	inside	3	NR	Remember kanji from before.
94	in the middle	3	2	Knew before.
95	inside	3	3	Easy to remember 'in the middle of'.
96	inside	3	3	Kanji.
97	inside	3	3	I've learnt this kanji before.
98	inside	3	3	Knew before.
99	inside	3	3	Learnt before.
100	inside	3	3	Already knew.
102	middle	3	3	I knew this before.
105	inside (centre)	3	3	Knew.
106	inside	3	3	Easy to remember kanji.
107	<i>naka</i>	NR	3	Have learnt before

The results of Test 2

The following tables show the results of Test 2:

Test 2-1 (a week after the experiment)

[TA = Teacher Assessment, SA = Self-Assessment, NR= Not Rateable]

1		2		3		4		5		6		7		8		9		10		11		12		13		14		
bird		lion		dog		bee		monkey		cat		penguin		goldfish		cow		gorilla		ant		person/ people		chicken		snake		
tori		raion		inu		hachi		saru		neko		pengin		kingyo		ushi		gorira		ari		hito		niwatori		hebi		
ID	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA
92	3	3	3	2	3	3	3	3	3	3	3	3	2	3	2	0	1	3	3	3	2	3	3	3	3	3	3	3
93	0	0	3	2	3	3	3	2	0.5	1	3	3	3	3	1	1	2	3	NR	3	0	0	3	3	0	0	3	3
94	3	3	3	3	3	3	0	0	0	0	3	3	3	3	3	1	1	0	0	3	3	3	3	3	3	0	0	0
95	3	3	3	2	3	3	0	0	0	0	3	3	1	3	1	1	1	3	2	0	0	3	3	0	0	0	0	0
96	0	0	3	1	3	2	0	0	0	0	0.5	1	1	1	1	1	1	3	1	3	2	3	2	1	1	0	0	0
97	0	0	3	3	3	2	3	2	0	0	0	0	3	NR	0	0	0.5	1	3	NR	3	2	3	3	2	3	2	2
98	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	2	2	3	3	3	3	3	3	3	3	3	3	3
99	0	1	2	3	3	2	3	1	0.5	1	3	2	1	2	1	1	3	2	3	2	0	1	3	3	0	0	3	2
100	3	3	2	2	3	3	1	2	0	2	3	3	3	3	1	1	3	3	2	0.5	1	3	3	3	3	0	0	0
101	3	3	3	2	3	3	3	3	3	3	3	3	3	2	3	3	3	3	3	3	2	3	3	3	3	3	3	3
102	3	3	3	2	3	3	3	1	3	3	3	3	1	2	0.5	3	3	3	3	3	1	3	3	3	3	3	3	3
103	Did not take the test																											
104	0	0	0	0	3	2	0	0	0	0	3	NR	0	0	0	0	3	1	0	0	0	0	3	2	0	1	3	2
105	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	3	3	3	3	3	3	3	3	3	3	3	3
106	3	2	2	3	3	3	3	NR	0.5	1	3	3	3	2	1	2	0.5	1	3	3	3	3	3	3	3	3	3	3
107	3	3	3	NR	3	2	3	1	0	0	3	2	0.5	3	1	3	3	3	3	3	1	3	3	3	3	3	3	3

15		16		17		18		19		20		21		22		23		24		25		26		27		28		29							
insect		rabbit		pigeon/ dove		horse		fish		mouse		bench		pond		front		under		on/top/ up		house		in/ inside		tree		behind/ back							
mushi		usagi		hato		uma		sakana		nezumi		benchi		ike		mae		shita		ue		uchi		naka		ki		ushiro							
ID	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA					
92	3	3	3	3	3	1	3	3	3	3	3	3	3	3	0	1	3	3	3	3	3	3	3	3	3	3	3	0	3	3					
93	0	0	0	0	3	2	3	3	3	3	0	1	3	3	0	0	3	3	2	3	2	3	3	3	3	3	3	3	2	3					
94	0	0	0	0	3	2	3	3	3	3	0	0	3	3	0	0	3	3	3	3	3	3	3	3	3	3	3	0.5	3	3					
95	0	0	1	1	0	1	3	3	3	3	0	0	3	3	0	0	3	3	0	1	3	2	0.5	2	3	3	3	0	0	3					
96	0	0	1	1	0	0	3	3	3	2	0	0	3	2	0	0	3	3	3	3	3	3	3	3	3	3	3	3	3	3					
97	0	0	0	0	0	0	3	2	3	NR	0	0	3	3	0	0	3	3	3	3	3	3	3	3	3	3	3	3	0	0					
98	3	3	3	3	3	3	3	3	3	3	3	1	3	3	0.5	0	3	3	3	3	3	3	3	3	3	3	3	3	3	3					
99	3	2	0	0	3	1	3	NR	3	NR	0.5	1	3	3	0	0	3	NR	1	3	3	3	3	3	3	3	3	3	3	3					
100	0	0	3	3	3	2	3	3	3	3	1	3	3	3	0	1	3	3	3	3	3	3	3	3	3	3	3	3	3	3					
101	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3					
102	3	3	3	3	3	0	3	3	3	3	3	3	1	3	1	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3					
103	Did not take the test																																		
104	0	0	0	0	0	0	3	NR	3	NR	1	1	3	3	1	0	0	1	NR	3	NR	3	NR	3	NR	3	NR	3	0	0					
105	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3					
106	3	3	0.5	2	3	0	3	3	3	3	0	0	3	3	3	0	0	3	3	3	3	3	3	3	3	3	3	3	3	3					
107	0	0	0.5	1	3	2	3	3	3	3	0	1	3	3	3	0	0	3	3	3	3	3	3	3	3	3	3	3	1	1					

Test 2-2 (a month after the experiment)

[TA = Teacher Assessment, SA = Self-Assessment, NR= Not Rateable]

1		2		3		4		5		6		7		8		9		10		11		12		13		14																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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	15		16		17		18		19		20		21		22		23		24		25		26		27		28		29	
	insect		rabbit		pigeon/ dove		horse		fish		mouse		bench		pond		front		under		on/top/ up		house		in/ inside		tree		behind/ back	
	<i>mushi</i>		<i>usagi</i>		<i>hato</i>		<i>uma</i>		<i>sakana</i>		<i>nezumi</i>		<i>benchi</i>		<i>ike</i>		<i>mae</i>		<i>shita</i>		<i>ue</i>		<i>uchi</i>		<i>naka</i>		<i>ki</i>		<i>ushiro</i>	
ID	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA	TA	SA
92	Did not take the test																													
93	0	0	0	0	0	0	NR	2	NR	3	0	0	NR	3	0	0	NR	3	NR	2	NR	3	NR	3	NR	3	NR	3	NR	3
94	0	0	0	0	3	1	3	3	3	3	0	0	3	3	0	0	3	3	1.5	3	2	3	2	3	3	3	3	3	3	3
95	0	0	0	1	0	3	3	3	3	3	0	0	3	3	0	0	3	3	3	3	3	3	3	3	3	3	3	3	1	1
96	0	0	3	1	0	0	0.5	1	3	1	3	1	NR	2	0	0	3	3	3	3	2	3	2	3	2	3	3	3	3	3
97	0	0	0.5	0	0	0	0	0	3	3	0	0	3	NR	0	0	3	3	3	3	3	3	3	3	3	3	NR	0	0	0
98	3	2	3	2	3	3	3	3	3	3	3	1	3	NR	3	1	3	3	3	3	3	3	3	3	3	3	3	3	3	3
99	0	1	0	0	0	0	3	2	3	3	0	0	3	3	0	0	3	NR	0	3	3	3	NR	3	NR	3	NR	0	1	1
100	0	0	3	3	3	3	3	3	3	3	3	3	3	3	0	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
101	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2
102	3	3	3	3	3	3	3	3	3	3	3	3	1	2	1	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
103	0	0	0	0	0	0	3	3	3	3	0	1	0	0	0	0	3	3	0	0	2	3	3	3	3	0	3	0	0	0
104	0	0	0	0	0	0	3	1	3	1	0	0	0	0	0	0	3	2	NR	2	3	2	3	2	3	2	3	2	NR	0
105	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
106	1	3	0.5	2	0	2	1	3	3	3	0	0	3	3	0	0	3	3	3	3	1	3	3	3	3	3	3	3	1	3
107	0	0	0	0	3	3	3	3	3	3	0	0	3	3	0	0	3	3	3	3	3	3	3	3	3	3	3	3	1	3

Learners’ comments on knowledge of the target words

The learners were asked to write how well they knew the target words in the follow-up tests, and the following shows their comments on Test 2. The learners who did not take the test or did not write their comments are excluded here.

[TA = Teacher Assessment, SA = Self-Assessment, NR= Not Rateable]

Test 2-1 (a week after the experiment)

1. Bird (*tori*)

ID	Written Answer	TA	SA	Comment
92	<i>tori</i>	3	3	Knew already.
95	<i>tori</i>	3	3	Easy to remember. Similar to many English words.
96	[blank]	0	0	Can't remember.
97	[blank]	0	0	I might be able to remember it with OHP.
98	<i>tori</i>	3	3	Knew already.
100	<i>tori</i>	3	3	Already known.
101	<i>tori</i>	3	3	Already knew.
102	<i>tori</i>	3	3	I've known this before.
105	<i>tori</i>	3	3	Sounds right.
106	<i>tori</i>	3	2	Remember this from chicken.
107	<i>tori</i>	3	3	Easy to remember.

2. Lion (*raion*)

ID	Written Answer	TA	SA	Comment
92	<i>raion</i>	3	2	I don't know if there are - 's.
93	<i>raion</i>	3	2	Found difficult to use 'ra' instead of 'ri'.
94	<i>raion</i>	3	3	Like English.
95	<i>raion</i>	3	2	Not sure of the Japanese pronunciation.

96	<i>raion</i>	3	1	Similar to English.
98	<i>raion</i>	3	3	Sounds like English.
99	<i>rion</i>	2	3	Easy to remember.
100	<i>rāion</i>	2	2	Not too sure where length marks go.
102	<i>raion</i>	3	2	Same as that in English.
105	<i>raion</i>	3	3	Same (nearly) as English.
106	<i>rion</i>	2	3	Easy because it has the same sound.
107	<i>raion</i>	3	NR	Sounds like English.

3. Dog (*inu*)

ID	Written Answer	TA	SA	Comment
92	<i>inu</i>	3	3	Knew already.
94	<i>inu</i>	3	3	Used a lot previously.
95	<i>inu</i>	3	3	Sounds like 'emu'.
96	<i>inu</i>	3	2	Learnt before.
97	<i>inu</i>	3	2	I sometimes get confused between cat and a dog as they similar.
98	<i>inu</i>	3	3	Knew already.
99	<i>inu</i>	3	2	Learnt before.
100	<i>inu</i>	3	3	Already known.
102	<i>inu</i>	3	3	I've known this before.
104	<i>inu</i>	3	2	Learned before.
105	<i>inu</i>	3	3	Knew before.
106	<i>inu</i>	3	3	Know already.
107	<i>inu</i>	3	2	Confused with cat.

4. Bee (*hachi*)

ID	Written Answer	TA	SA	Comment
92	<i>hachi</i>	3	3	Mix up with <i>hato</i> .
93	<i>hachi</i>	3	2	Difficult to write ' <i>chi</i> ' without wanting to put 't' in the word as well.
96	[blank]	0	0	Can't remember.
98	<i>hachi</i>	3	3	Same reason as Test 1 [= I made up story about 8 (はち [= <i>hachi</i> – eight]) bees.].
100	<i>achi</i>	1	2	New reading.
102	<i>hachi</i>	3	1	Not sure. Did not remember this word.
105	<i>hachi</i>	3	3	Sounds like <i>hachi</i> meaning eight which might help.
106	<i>hachi</i>	3	NR	Couldn't remember the katakana on other test but know I can remember now.
107	<i>hachi</i>	3	1	Monkey, bee and ant are easily confused.

5. Monkey (*saru*)

ID	Written Answer	TA	SA	Comment
92	<i>saru</i>	3	3	Knew already.
93	<i>sagi</i>	0.5	1	I don't think the word is correct.
94	[blank]	0	0	Would recognize if heard it.
96	<i>saru</i>	0	0	Can't remember.
98	<i>saru</i>	3	3	Just remember hiragana showed on OHP.
100	<i>monkī</i>	0	2	Same as 2 [= Not too sure where length marks go.].
102	<i>saru</i>	3	3	I've known this before.
105	<i>saru</i>	3	3	A classmate told me how in his class at A level they used a character called assassination monkey to learn called <i>ansatsu saru</i> . So I remember this because it's funny.
106	<i>sawa</i>	0.5	1	Not sure.
107	[blank]	0	0	Monkey, bee and ant are easily confused.

6. Cat (*neko*)

ID	Written Answer	TA	SA	Comment
92	<i>neko</i>	3	3	Knew already.
93	<i>neko</i>	3	3	Have used the word several times and am used to it.
94	<i>neko</i>	3	3	Used a lot before.
95	<i>neko</i>	3	3	Sounds like 'neck'.
96	<i>kone</i>	0.5	1	Though learnt before. Hard to remember.
98	<i>neko</i>	3	3	Knew already.
99	<i>neko</i>	3	2	Learnt before.
100	<i>neko</i>	3	3	Already known.
102	<i>neko</i>	3	3	I've known this before.
104	<i>neko</i>	3	NR	Learned before.
105	<i>neko</i>	3	3	Knew before.
106	<i>neko</i>	3	3	Done before.
107	<i>neko</i>	3	2	Confused with dog.

7. Penguin (*pengin*)

ID	Written Answer	TA	SA	Comment
92	<i>pengin</i>	3	2	Unsure of spelling.
93	<i>pengin</i>	3	1	Difficult to work out in romaji.
94	<i>pengin</i>	3	3	Like English.
95	<i>penguin</i>	1	3	Sounds like English.
96	<i>pengen</i>	1	1	Similar to English.
97	<i>pengin</i>	3	NR	It was an easy enough word to remember as it's similar to English.
98	<i>pengin</i>	3	3	Sounds like English.
99	<i>pingin</i>	1	2	Easy to remember.

100	<i>pengin</i>	3	3	Matches English pronunciation.
102	<i>peigin</i>	1	2	Same as that in English.
105	<i>pengin</i>	3	3	Same (nearly) as English.
106	<i>pengin</i>	3	2	Could remember the word, but not Japanese pronunciation.
107	<i>penguin</i>	0.5	3	Sounds like English.

8. Goldfish (*kingyo*)

ID	Written Answer	TA	SA	Comment
92	<i>gin</i>	0	1	Cannot remember other reading of <i>sakana</i> .
93	<i>kingyon</i>	1	2	I know the beginning of the word but the end spelling was difficult.
94	<i>kinsakana</i>	1	1	Not sure of pronunciation.
95	<i>kinsakana?</i>	1	1	Not sure about Japanese/Chinese pronunciation.
96	<i>kin_sana</i>	1	1	Can't remember.
97	[blank]	0	0	I can picture the kanji.
98	<i>kingyō</i>	2	2	I know the kanji, but cannot remember how it is spelt.
100	<i>kinsakana</i>	1	1	Not sure of kanji compound 金魚.
102	<i>ginjō</i>	0.5	3	Nearly same as in my first language.
105	<i>kingyō</i>	2	3	Gold + fish reading, also knew <i>gyō</i> as part of mermaid = <i>ningyō</i> .
106	<i>kinsakana</i>	1	2	Not sure but this is what I think it is.
107	<i>kingin</i>	1	3	Related to <i>kin</i> gold/money in Japanese.

9. Cow (*ushi*)

ID	Written Answer	TA	SA	Comment
92	<i>ushi</i>	3	3	Knew already.
93	<i>ushi</i>	3	NR	Got confused between cow and horse.
94	[blank]	0	0	Would recognize if heard it.
95	<i>ushi</i>	3	2	Simple, 2 syllables.

96	<i>ushi</i>	3	1	Not sure but similar to ^{うま} 馬 [= <i>uma</i>].
98	<i>ushi</i>	3	2	I know the kanji, but cannot remember how it is spelt.
100	<i>ushi</i>	3	3	Already known.
102	<i>ushi</i>	3	3	I think I remember this word well.
104	<i>ushi</i>	3	1	Like the pronouncing.
105	<i>ushi</i>	3	3	Knew kanji but not pronunciation before.
106	<i>oshi</i>	0.5	1	Not sure but this is what I think it is.
107	<i>ushi</i>	3	3	Similar to horse.

10. Gorilla (*gorira*)

ID	Written Answer	TA	SA	Comment
92	<i>gorira</i>	3	2	Knew already.
93	<i>gorira</i>	3	3	But I'm not sure if the romaji spelling is correct.
94	<i>gorira</i>	3	3	Like English.
95	<i>gorira</i>	3	2	The same as the English.
96	<i>gorira</i>	3	NR	Similar to English.
97	<i>gorira</i>	3	NR	Similar to English.
98	<i>gorira</i>	3	3	Sounds like English.
99	<i>gorira</i>	3	2	Easy to remember.
100	<i>gorīra</i>	2	2	Same as 2 [= Not too sure where length marks go.].
102	<i>gorira</i>	3	3	Nearly same as that in English.
105	<i>gorira</i>	3	3	Same (nearly) as English.
106	<i>gorira</i>	3	3	I cannot remember where the long vowels are.
107	<i>gorira</i>	3	3	Sounds like English.

11. Ant (*ari*)

ID	Written Answer	TA	SA	Comment
92	<i>ari</i>	3	3	Knew already.
94	<i>ari</i>	3	3	Begins with 'a'.
96	<i>ari</i>	3	2	Easy to remember.
97	<i>ari</i>	3	2	Small words are easier to remember.
98	<i>ari</i>	3	3	Same reason as Test 1 [= Made up a story: <u>A</u> ri → <u>A</u> nt.].
100	<i>ato</i>	0.5	1	Confuse with bee.
102	<i>ari</i>	3	1	I did not remember this word well.
105	<i>ari</i>	3	3	Starts with same letter.
106	<i>ari</i>	3	3	The short ones are easy, especially when they have the same sound.
107	<i>ari</i>	3	1	Monkey, bee and ant are easily confused.

12. Person/people (*hito*)

ID	Written Answer	TA	SA	Comment
92	<i>hito</i>	3	3	Knew already.
93	<i>hito</i>	3	3	Have used word many times.
94	<i>hito</i>	3	3	Used a lot.
95	<i>hito</i>	3	3	Commonly heard word.
96	<i>hito</i>	3	2	Learnt before.
97	<i>hito</i>	3	3	We've used this word a lot.
98	<i>hito</i>	3	3	Knew already.
100	<i>hito</i>	3	3	Already known.
102	<i>hito</i>	3	3	I've known this before.
104	<i>hito</i>	3	2	Learned before.
105	<i>hito</i>	3	3	Knew before.

106	<i>hito</i>	3	3	Have to remember all the time.
107	<i>hito</i>	3	3	Use often in class.

13. Chicken (*niwatori*)

ID	Written Answer	TA	SA	Comment
92	<i>niwatori</i>	3	3	Knew already.
94	<i>niwatori</i>	3	3	Garden – bird.
96	<i>niwa</i>	1	1	Can't remember. Too long.
98	<i>niwatori</i>	3	3	Same reason as Test 1 [= I remember the OHP with big bird and the writing next to it.].
99	<i>ni...</i>	0	0	Think it starts with に [= <i>ni</i>].
100	<i>niwatori</i>	3	3	Already known.
102	<i>niwatori</i>	3	3	I've known this before.
105	<i>niwatori</i>	3	3	Heard of once before on a Japanese new year card.
106	<i>niwatori</i>	3	3	This animal helps me to remember birds and because a chicken lives in the garden it is quite memorable.
107	<i>niwatori</i>	3	3	と じ [= <i>tori</i> – bird] helps to remember.

14. Snake (*hebi*)

ID	Written Answer	TA	SA	Comment
92	<i>hebi</i>	3	3	Knew already.
93	<i>hebi</i>	3	3	I can remember the spelling from the OHP.
96	[blank]	0	0	Can't remember the pronunciation.
98	<i>hebi</i>	3	3	Same reason as Test 1 [= The OHP helped me learn this one.].
102	<i>hebi</i>	3	3	I've known this before.
105	<i>hebi</i>	3	3	Cool word.
106	<i>hebi</i>	3	3	This is quite short + memorable.
107	<i>hebi</i>	3	3	Recognisable word.

15. Insect (*mushi*)

ID	Written Answer	TA	SA	Comment
92	<i>mushi</i>	3	3	Knew already.
94	[blank]	0	0	I would recognize it if I heard it.
96	[blank]	0	0	Can't remember the pronunciation.
98	<i>mushi</i>	3	3	I remember the hiragana from the flashcards.
102	<i>mushi</i>	3	3	Easy to remember.
105	<i>mushi</i>	3	3	Cool word.
106	<i>mushi</i>	3	3	I remembered this quite easily in the lesson.

16. Rabbit (*usagi*)

ID	Written Answer	TA	SA	Comment
92	<i>usagi</i>	3	3	Knew already.
94	[blank]	0	0	I would recognize it if I heard it.
95	<i>uyagi</i>	1	1	Not sure. 3 syllables is more difficult.
96	<i>usaki</i>	1	1	Kind of not sure.
97	[blank]	0	0	I know it starts with 'h'.
98	<i>usagi</i>	3	3	I remember the hiragana from the flashcards.
99	[blank]	0	0	Can't remember word.
100	<i>usagi</i>	3	3	Already known.
102	<i>usagi</i>	3	3	I've known this before.
105	<i>usagi</i>	3	3	Cool word.
106	<i>osaki</i>	0.5	2	I'm not sure about the last syllable.
107	<i>niwagi</i>	0.5	1	Rabbit and mouse sounds same.

17. Pigeon/dove (*hato*)

ID	Written Answer	TA	SA	Comment
92	<i>hato</i>	3	1	Unsure.
93	<i>hato</i>	3	2	I think it's the right word + the spelling is right.
94	<i>hato</i>	3	2	Not sure.
95	<i>niwatori</i>	0	1	Logical addition of garden + bird.
96	[blank]	0	0	Can't remember.
98	<i>hato</i>	3	3	Same reason as Test 1 [= I made up a story in my head to remember this one.]
100	<i>hato</i>	3	2	Remember the picture.
102	<i>hato</i>	3	0	I don't know this English.
105	<i>hato</i>	3	3	Nice word.
106	<i>hato</i>	3	0	Might be <i>hato</i> but I don't know.

18. Horse (*uma*)

ID	Written Answer	TA	SA	Comment
92	<i>uma</i>	3	3	Knew already.
93	<i>uma</i>	3	3	Have used word many times + I'm used to the spelling.
95	<i>uma</i>	3	3	Like 'Uma' Thurman.
96	<i>uma</i>	3	3	Learnt before and short pronunciation.
97	<i>uma</i>	3	2	We've used this word a lot.
98	<i>uma</i>	3	3	Knew already.
100	<i>uma</i>	3	3	Already known.
102	<i>uma</i>	3	3	I've known this before.
104	<i>uma</i>	3	NR	Learned before.
105	<i>uma</i>	3	3	Knew before.
106	<i>uma</i>	3	3	I have done this before.

107	<i>uma</i>	3	3	Have learnt before.
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19. Fish (*sakana*)

ID	Written Answer	TA	SA	Comment
92	<i>sakana</i>	3	3	Knew already.
93	<i>sakana</i>	3	3	I am used to the word.
94	<i>sakana</i>	3	3	Used a lot previously.
95	<i>sakana</i>	3	3	Easy because it has 3 'a' 's.
96	<i>sakana</i>	3	2	Kind of remember. Not sure.
97	<i>sakana</i>	3	NR	We've used this word a lot.
98	<i>sakana</i>	3	3	Knew already.
100	<i>sakana</i>	3	3	Already known.
102	<i>sakana</i>	3	3	I've known this before.
104	<i>sakana</i>	3	NR	Learned before.
105	<i>sakana</i>	3	3	Knew before.
106	<i>sakana</i>	3	3	I have done this before.
107	<i>sakana</i>	3	3	Have learnt before.

20. Mouse (*nezumi*)

ID	Written Answer	TA	SA	Comment
92	<i>nezumi</i>	3	3	Knew already.
93	<i>niwadori</i>	0	1	I'm not sure if this is the correct word.
96	[blank]	0	0	Can't remember.
97	[blank]	0	0	I think it starts with 'nu'.
100	<i>mezumi</i>	1	3	Already known.
102	<i>nezumi</i>	3	3	I've known this before.
105	<i>nezumi</i>	3	3	Cool word.

106	[blank]	0	0	I can't remember but I know it has 3 syllables.
107	<i>usagi</i>	0	1	Rabbit and mouse sounds same.

21. Bench (*benchi*)

ID	Written Answer	TA	SA	Comment
92	<i>benchi</i>	3	3	Knew already.
93	<i>benchi</i>	3	3	Have used word often. Katakana spelling is easier.
94	<i>benchi</i>	3	3	Like English.
95	<i>benchi</i>	3	3	Same as English.
96	<i>benchi</i>	3	2	Katakana.
98	<i>benchi</i>	3	3	Sounds like English.
99	<i>benchi</i>	3	3	Easy to remember.
100	<i>benchi</i>	3	3	Already known.
102	<i>penchi</i>	1	3	I've known this before.
105	<i>benchi</i>	3	3	Sounds like English.
106	<i>benchi</i>	3	3	It starts the same in Japanese.
107	<i>benchi</i>	3	3	Sounds like English.

22. Pond (*ike*)

ID	Written Answer	TA	SA	Comment
92	<i>pondo</i>	0	1	Unsure.
96	[blank]	0	0	Can't remember.
98	<i>ita</i>	0.5	0	I can remember the kanji but not the pronunciation.
99	[blank]	0	0	Can't remember word.
100	<i>pondo</i>	0	1	Don't think this is correct.
102	<i>yike</i>	1	3	I've known this before.
105	<i>ike</i>	3	3	Difficult to remember pronunciation as 'lake' was not particularly what we were trying to learn = animals were.

106	[blank]	0	0	I think it has a <i>sa</i> sound.
107	[blank]	0	0	Haven't used this word before.

23. Front (*mae*)

ID	Written Answer	TA	SA	Comment
92	<i>mae</i>	3	3	Knew already.
93	<i>mae</i>	3	3	Use word often.
94	<i>mae</i>	3	3	Lot of practice previously.
95	<i>mae</i>	3	3	Short and simple.
96	<i>mae</i>	3	3	Learnt before.
98	<i>mae</i>	3	3	Knew already.
99	<i>mae</i>	3	NR	Learnt before.
100	<i>mae</i>	3	3	Already known.
102	<i>mae</i>	3	3	I've known this before.
104	<i>maei</i>	1	NR	Learned before.
105	<i>mae</i>	3	3	Knew before.
106	<i>mae</i>	3	3	Done before.
107	<i>mae</i>	3	3	Have learnt before.

24. Under (*shita*)

ID	Written Answer	TA	SA	Comment
92	<i>shita</i>	3	3	Knew already.
93	<i>shita</i>	3	2	A bit confused with <i>shi</i> . Can't remember if 'っ' [= double consonants] is needed.
94	<i>shita</i>	3	3	Lot of practice previously.
95	<i>isha</i>	0	1	A bit like Welsh ' <i>isa</i> ' (lowest/lower).
96	<i>shita</i>	3	3	Learnt before.
98	<i>shita</i>	3	3	Knew already.

99	<i>shito</i>	1	3	Learnt before.
100	<i>shita</i>	3	3	Already known.
102	<i>shita</i>	3	3	I've known this before.
104	<i>shita</i>	3	NR	Learned before.
105	<i>shita</i>	3	3	Knew before.
106	<i>shita</i>	3	3	Done before.
107	<i>shita</i>	3	3	Have learnt before.

25. On/top/up (*ue*)

ID	Written Answer	TA	SA	Comment
92	<i>ue</i>	3	3	Knew already.
93	<i>ue</i>	3	2	Not sure if there are 2 u's in the word + whether it should be <i>ūe</i> .
94	<i>ue</i>	3	3	Lot of practice previously.
95	<i>ue</i>	3	2	Two syllables, easy.
96	<i>ue</i>	3	3	Learnt before.
98	<i>ue</i>	3	3	Knew already.
99	<i>ue</i>	3	3	Learnt before.
100	<i>ue</i>	3	3	Already known.
102	<i>ue</i>	3	3	I've known this before.
104	<i>ue</i>	3	NR	Learned before.
105	<i>ue</i>	3	3	Knew before.
106	<i>ue</i>	3	3	Done before.
107	<i>ue</i>	3	3	Have learnt before.

26. House (*uchi*)

ID	Written Answer	TA	SA	Comment
92	<i>uchi</i>	3	3	Knew already.

93	<i>uchi</i>	3	3	Used word many times.
94	<i>uchi</i>	3	3	Lot of practice previously.
95	<i>uma</i>	0.5	2	Like Uma Thurman.
96	<i>uchi</i>	3	3	Learnt before.
98	<i>uchi</i>	3	3	Knew already.
99	<i>uchi</i>	3	3	Learnt before.
100	<i>uchi</i>	3	3	Already known.
102	<i>uchi</i>	3	3	I've known this before.
104	<i>uchi</i>	3	NR	Learned before
105	<i>uchi</i>	3	3	Knew before.
106	<i>uchi</i>	3	3	Done before.
107	<i>uchi</i>	3	3	Have learnt before.

27. In/inside (*naka*)

ID	Written Answer	TA	SA	Comment
92	<i>naka</i>	3	3	Knew already.
93	<i>naka</i>	3	3	Simple spelling.
94	<i>naka</i>	3	3	Lot of practice previously.
95	<i>naka</i>	3	3	Quite easy, 2 'a' 's.
96	<i>naka</i>	3	3	Learnt before.
98	<i>naka</i>	3	3	Knew already.
99	<i>naka</i>	3	3	Learnt before.
100	<i>naka</i>	3	3	Already known.
102	<i>naka</i>	3	3	I've known this before.
104	<i>naka</i>	3	NR	Learned before
105	<i>naka</i>	3	3	Knew before.

106	<i>naka</i>	3	3	Done before.
107	<i>naka</i>	3	3	Have learnt before.

28. Tree (*ki*)

ID	Written Answer	TA	SA	Comment
92	<i>ki</i>	3	3	Knew already.
93	<i>ki</i>	3	3	Short word, easy to remember.
94	<i>ki</i>	3	3	Lot of practice previously.
95	<i>ki</i>	3	3	1 syllable, simple.
96	<i>ki</i>	3	3	Learnt before.
98	<i>ki</i>	3	3	Knew already.
99	<i>ki</i>	3	3	Learnt before.
100	<i>ki</i>	3	3	Already known.
102	<i>ki</i>	3	3	I've known this before.
104	<i>ki</i>	3	NR	Learned before
105	<i>ki</i>	3	3	Knew before.
106	<i>ki</i>	3	3	Done before.
107	<i>ki</i>	3	3	Have learnt before.

29. Behind/back (*ushiro*)

ID	Written Answer	TA	SA	Comment
92	<i>tonari</i>	0	3	Knew already.
93	<i>ushiro</i>	3	2	Not sure about spelling.
94	<i>oshiro</i>	0.5	3	Lot of practice previously.
96	<i>ushiro</i>	3	3	Learnt before.
98	<i>ushiro</i>	3	3	Knew already.
99	<i>ushiro</i>	3	3	Learnt before.

100	<i>ushiro</i>	3	3	Already known.
102	<i>ushiro</i>	3	3	I've known this before.
105	<i>ushiro</i>	3	3	Knew before.
106	<i>ushiro</i>	3	3	Done before.
107	<i>ushiru</i>	1	1	Longer than similar location words.

Test 2-2 (a month after the experiment)

1. Bird (*tori*)

ID	Written Answer	TA	SA	Comment
95	<i>tori</i>	3	3	Sounds like English word 'Tory' or Welsh word 'torri' = to cut.
96	<i>tori</i>	3	2	Learnt in textbook.
97	<i>tori</i>	3	3	It's an easy short word to remember.
98	<i>tori</i>	3	3	Knew before.
100	<i>tori</i>	3	3	Already knew.
102	<i>tori</i>	3	3	I knew this before.
107	<i>tori</i>	3	3	Easy to remember – small word.

2. Lion (*raion*)

ID	Written Answer	TA	SA	Comment
93	ライオン	NR	3	Easier to write katakana.
94	<i>rayon</i>	0.5	3	Like English.
95	<i>raion</i>	3	3	Like English.
98	<i>raion</i>	3	NR	Sounds like English.
99	<i>rion</i>	2	3	Same as English.
100	<i>raion</i>	3	3	Because of katakana, it's easy.
102	<i>raion</i>	3	3	It's English.

105	<i>raion</i>	3	3	Similar to English.
106	<i>rion</i>	2	3	Looks like English.
107	<i>raion</i>	3	3	Sound like English.

3. Dog (*inu*)

ID	Written Answer	TA	SA	Comment
93	いぬ	NR	3	Knew word before.
94	<i>inu</i>	3	3	Knew before.
95	<i>inu</i>	3	3	Sounds like 'emu'.
96	<i>inu</i>	3	3	Learnt.
97	<i>inu</i>	3	3	Used the word a lot in class.
98	<i>inu</i>	3	3	Knew before.
99	<i>inu</i>	3	3	Learnt before.
100	<i>inu</i>	3	3	Already knew.
102	<i>inu</i>	3	3	I knew this before.
103	<i>inu</i>	3	3	I can remember the kanji for this.
105	<i>inu</i>	3	3	Knew before.
107	<i>inu</i>	3	3	Have learnt before.

4. Bee (*hachi*)

ID	Written Answer	TA	SA	Comment
93	ハチ	NR	2	I think I recognised the word from the OHP.
96	[blank]	0	0	Can't remember.
97	<i>hato</i>	0.5	2	I don't think I could remember the word if I hadn't seen it in the previous test.
98	<i>hachi</i>	3	NR	Made up story.
100	<i>achi</i>	1	1	Unsure.
102	<i>hachi</i>	3	2	Quite sure, confused with <i>ari</i> .

103	<i>hato</i>	0.5	1	I think this is correct but I am unsure.
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5. Monkey (*saru*)

ID	Written Answer	TA	SA	Comment
93	さぎ	NR	1	A bit uncertain.
96	[blank]	0	0	Can't remember.
97	[blank]	0	0	I can't remember the word at all.
98	<i>saru</i>	3	1	Not sure if it is <i>saru</i> or <i>saro</i> .
99	<i>saru</i>	3	2	Remember word.
100	<i>saru</i>	3	3	Already knew.
102	<i>saru</i>	3	3	I knew this before.
103	[blank]	0	1	I cannot remember this.
106	[blank]	0	0	No idea.

6. Cat (*neko*)

ID	Written Answer	TA	SA	Comment
93	ねこ	NR	3	Knew the word before.
94	<i>neko</i>	3	3	Knew before.
95	<i>neko</i>	3	3	Sounds like 'neck'.
96	<i>neko</i>	3	2	Learnt.
97	<i>neko</i>	3	3	Used the word a lot in class.
98	<i>neko</i>	3	3	Knew before.
99	<i>neko</i>	3	3	Learnt before.
100	<i>neko</i>	3	3	Already knew.
102	<i>neko</i>	3	3	I knew this before.
105	<i>neko</i>	3	3	Knew before.
107	<i>neko</i>	3	3	Have learnt before.

7. Penguin (*pengin*)

ID	Written Answer	TA	SA	Comment
93	ペンギン	NR	3	But found difficult to write + remember the katakana.
94	<i>pengin</i>	3	3	Like English.
95	<i>penguin</i>	1	3	Like English.
96	[blank]	0	0	Can't remember.
97	<i>pengin</i>	3	3	Pronunciation almost the same in English.
98	<i>pengin</i>	3	3	Sounds like English.
99	<i>pingin</i>	1	3	Same as English.
100	<i>pengin</i>	3	3	Because of katakana.
102	<i>peigin</i>	0.5	2	It is English.
105	<i>pengin</i>	3	3	Like English.
107	<i>pingin</i>	1	3	Sound like English.

8. Goldfish (*kingyo*)

ID	Written Answer	TA	SA	Comment
93	[blank]	0	0	Cannot remember.
95	<i>kinsakana?</i>	1	2	Not sure of pronunciation. Gold + fish?
96	<i>kinsakana</i>	1	2	Sound familiar.
97	[blank]	0	0	I know the kanji but I don't know how to say the word.
98	<i>kingyō</i>	2	1	I'm unsure about the 'gyo' part.
99	[blank]	0	0	Recognise kanji but can't remember how to say.
100	<i>kinsakana</i>	1	1	Unsure of kanji reading.
102	<i>gingyo</i>	1	3	It is Chinese pronunciation.
103	<i>...sakana</i>	0	1	I cannot remember the word for gold, but I recognize the kanji.
105	<i>kingyo</i>	3	3	Gold + fish.

107	<i>kingin</i>	1	2	Relate to the Japanese for gold.
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9. Cow (*ushi*)

ID	Written Answer	TA	SA	Comment
93	うし	NR	2	I think I remember because it sounds similar to horse.
95	<i>ushi</i>	3	1	Not sure.
96	<i>hie</i>	0	1	Not sure.
98	<i>ushi</i>	3	2	I think this is right.
99	<i>ushi</i>	3	3	OHP.
100	<i>ushi</i>	3	3	Already knew.
102	<i>ushi</i>	3	3	I knew this before.
103	[blank]	0	0	I cannot remember.
107	<i>ushi</i>	3	3	Small word.

10. Gorilla (*gorira*)

ID	Written Answer	TA	SA	Comment
93	ゴリラ	NR	3	But difficulty with katakana spelling.
94	<i>gorira</i>	3	3	Like English.
95	<i>gorira</i>	3	3	Like English.
96	<i>gorira</i>	3	2	Katakana word.
97	<i>gorira</i>	3	3	Same in English.
98	<i>gorira</i>	3	2	Sounds like English.
99	<i>gorira</i>	3	3	Same as English.
100	<i>goriira</i>	2	3	Because of katakana.
102	<i>gorira</i>	3	3	It is English.
103	<i>gorira</i>	3	3	Very easy to remember.
105	<i>gorira</i>	3	3	Like English.

107	<i>gorira</i>	3	3	Sound like English.
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11. Ant (*ari*)

ID	Written Answer	TA	SA	Comment
93	[blank]	0	0	Cannot remember.
94	<i>ari</i>	3	2	Begins with 'a'.
96	<i>achi</i>	1	2	Katakana.
97	<i>ari</i>	3	3	Both start with 'a'.
98	<i>ari</i>	3	3	<u>A</u> ri → <u>a</u> nt.
99	[blank]	0	0	Can't remember.
100	<i>ato</i>	0.5	1	Unsure of kanji reading.
102	<i>ari</i>	3	2	Not quite sure. I feel confused about <i>ari</i> and <i>hachi</i> .
103	[blank]	0	0	I cannot remember.
107	<i>ari</i>	3	3	Small word.

12. Person/people (*hito*)

ID	Written Answer	TA	SA	Comment
93	ひと	NR	3	Knew word before.
94	<i>hito</i>	3	3	Knew before.
95	<i>hito</i>	3	3	Like 'Emperor Hirohito'.
96	<i>hito</i>	3	2	Learnt.
97	<i>hito</i>	3	3	We use this word a lot.
98	<i>hito</i>	3	3	Knew before.
99	<i>hito</i>	3	3	Learnt before.
100	<i>hito</i>	3	3	Already knew.
102	<i>hito</i>	3	3	I knew this before.
103	<i>hito</i>	3	3	Very easy to remember.

105	<i>hito</i>	3	3	Knew.
107	<i>hito</i>	3	3	Have learnt before.

13. Chicken (*niwatori*)

ID	Written Answer	TA	SA	Comment
94	<i>niwatori</i>	3	3	I know garden + bird.
96	<i>niwatori</i>	3	2	Sound good.
99	[blank]	0	0	Can't remember how to say.
100	<i>niwatori</i>	3	3	Already knew.
102	<i>niwatori</i>	3	3	I knew this before.
103	<i>niwatori</i>	3	2	I can remember this fairly easily.
105	<i>niwatori</i>	3	3	Year of the rooster reminded me.
107	<i>niwatori</i>	3	3	Has bird at the end.

14. Snake (*hebi*)

ID	Written Answer	TA	SA	Comment
100	[blank]	0	0	Unsure of reading.
102	<i>hebi</i>	3	3	I knew this before.
103	<i>hachi</i>	0	1	I am very unsure of this.
107	<i>hebi</i>	3	3	Small word.

15. Insect (*mushi*)

ID	Written Answer	TA	SA	Comment
98	<i>mushi</i>	3	2	I can recognize the kanji easier than the pronunciation.
100	[blank]	0	0	Unsure of reading.
102	<i>mushi</i>	3	3	It is reasonably easy.
103	[blank]	0	0	I cannot remember.

16. Rabbit (*usagi*)

ID	Written Answer	TA	SA	Comment
95	<i>u...</i>	0	1	Starts with 'u' I think.
96	<i>usagi</i>	3	1	Sound familiar.
97	<i>nisagi</i>	0.5	0	I think it sounds something like <i>nisagi</i> .
99	[blank]	0	0	Can't remember.
100	<i>usagi</i>	3	3	Already knew.
102	<i>usagi</i>	3	3	I knew this before.
103	[blank]	0	0	I cannot remember how to pronounce this, but if I saw the hiragana I would remember immediately what it meant.

17. Pigeon/dove (*hato*)

ID	Written Answer	TA	SA	Comment
94	<i>hato</i>	3	1	Not sure.
95	<i>niwatori</i>	0	3	<i>Niwa</i> = 'newer', <i>tori</i> = Welsh 'torri'.
98	<i>hato</i>	3	3	Just remember using story.
99	[blank]	0	0	Can't remember.
100	<i>hato</i>	3	3	Already knew.
102	<i>hato</i>	3	3	I've been remembered for many times.
103	[blank]	0	0	Cannot remember.
107	<i>hato</i>	3	3	Small word.

18. Horse (*uma*)

ID	Written Answer	TA	SA	Comment
93	う み	NR	2	I think it begins with u.
94	<i>uma</i>	3	3	Knew before.
95	<i>uma</i>	3	3	Like 'Uma Thurman'.
96	<i>hima</i>	0.5	1	Not sure.

97	[blank]	0	0	I know the kanji.
98	<i>uma</i>	3	3	Knew before.
99	<i>uma</i>	3	2	Learnt before.
100	<i>uma</i>	3	3	Already knew.
102	<i>uma</i>	3	3	I knew this before.
107	<i>uma</i>	3	3	Have learnt before.

19. Fish (*sakana*)

ID	Written Answer	TA	SA	Comment
93	さかな	NR	3	Knew word before.
94	<i>sakana</i>	3	3	Knew before.
95	<i>sakana</i>	3	3	Easy because it has 3 'a' 's.
96	<i>sakana</i>	3	1	Not sure.
97	<i>sakana</i>	3	3	The word flows easily, each syllable ending in 'a'.
98	<i>sakana</i>	3	3	Knew before.
99	<i>sakana</i>	3	3	Learnt before.
100	<i>sakana</i>	3	3	Already knew.
102	<i>sakana</i>	3	3	I knew this before.
105	<i>sakana</i>	3	3	Knew.
107	<i>sakana</i>	3	3	Have learnt before.

20. Mouse (*nezumi*)

ID	Written Answer	TA	SA	Comment
96	<i>nezumi</i>	3	1	Kind of remember.
98	<i>nezumi</i>	3	1	I think it begins with ね [ne], not sure.
100	<i>nezumi</i>	3	3	Already knew.
102	<i>nezumi</i>	3	3	I knew this before.

103	[blank]	0	1	I like rabbit, I cannot remember the Japanese word for this.
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21. Bench (*benchi*)

ID	Written Answer	TA	SA	Comment
93	ベンチ	NR	3	Because it sounds like the English word bench.
94	<i>benchi</i>	3	3	Like English.
95	<i>benchi</i>	3	3	Like English.
96	ベンチ	NR	2	Katakana.
97	<i>benchi</i>	3	NR	Near enough the same in English.
98	<i>benchi</i>	3	3	Sounds like English.
99	<i>benchi</i>	3	3	Same as English.
100	<i>benchi</i>	3	3	Already knew.
102	<i>penchi</i>	1	2	It is English.
105	<i>benchi</i>	3	3	Like English.
106	<i>benchi</i>	3	3	Easy because it's phonetic.
107	<i>benchi</i>	3	3	Sound like English.

22. Pond (*ike*)

ID	Written Answer	TA	SA	Comment
98	<i>ike</i>	3	1	Unsure of pronunciation, can recognise kanji.
100	<i>pondo</i>	0	3	Already knew.
102	<i>yike</i>	1	3	Reasonably easy.

23. Front (*mae*)

ID	Written Answer	TA	SA	Comment
93	まえ	NR	3	Knew word before.
94	<i>mae</i>	3	3	Knew before.
95	<i>mae</i>	3	3	Like 'Mae West'.

96	<i>mae</i>	3	3	Learnt.
97	<i>mae</i>	3	3	I find this word easy to remember because it's short and easy to say.
98	<i>mae</i>	3	3	Knew before.
99	<i>mae</i>	3	NR	Learnt before.
100	<i>mae</i>	3	3	Already knew.
102	<i>mae</i>	3	3	Very easy word.
103	<i>mae</i>	3	3	I remember the kanji, 前.
105	<i>mae</i>	3	3	Knew.
106	<i>mae</i>	3	3	Done in grammar.
107	<i>mae</i>	3	3	Have learnt before.

24. Under (*shita*)

ID	Written Answer	TA	SA	Comment
93	した	NR	2	Knew word before.
94	<i>shita</i>	3	3	Knew before.
95	<i>shita</i>	3	3	Easy, 2 syllables.
96	<i>shita</i>	3	3	Learnt.
98	<i>uchiro</i>	3	3	Knew before.
99	<i>shita</i>	0	3	Learnt before.
100	<i>shita</i>	3	3	Already knew.
102	<i>shita</i>	3	3	Very easy word.
103	[blank]	0	0	Cannot remember.
105	<i>shita</i>	3	3	Knew.
106	<i>shita</i>	3	3	Done in grammar.
107	<i>shita</i>	3	3	Have learnt before.

25. On/top/up (ue)

ID	Written Answer	TA	SA	Comment
93	う え	NR	3	Knew word before.
94	ue	3	3	Knew before.
95	ue	3	3	Two vowel-syllables.
96	ue	3	2	Learnt.
97	ue	3	3	We've worked a lot with locations in class so this vocab is stuck in my head.
98	ue	3	3	Knew before.
99	ue	3	3	Learnt before.
100	ue	3	3	Already knew.
102	ue	3	3	Very easy word.
103	ue	3	2	I think this is correct.
105	ue	3	3	Knew.
106	oue	1	3	Done in grammar.
107	ue	3	3	Have learnt before.

26. House (uchi)

ID	Written Answer	TA	SA	Comment
93	う ち	NR	3	Knew word before.
94	uchi	3	3	Knew before.
95	uchi	3	3	2 syllables = easy.
96	uchi	3	2	Learnt.
97	uchi	3	3	We've worked a lot with locations in class so this vocab is stuck in my head.
98	uchi	3	3	Knew before.
99	uchi	3	NR	Learnt before.
100	uchi	3	3	Already knew.

102	<i>uchi</i>	3	3	Very easy word.
103	<i>uchi</i>	3	3	Very easy to remember.
105	<i>uchi</i>	3	3	Knew.
106	<i>ouchi</i>	1	3	Done in grammar.
107	<i>uchi</i>	3	3	Have learnt before.

27. In/inside (*naka*)

ID	Written Answer	TA	SA	Comment
93	なか	NR	3	Knew word before.
94	<i>naka</i>	3	3	Knew before.
95	<i>naka</i>	3	3	Easy, has just two 'a' hiragana.
96	<i>naka</i>	3	2	Learnt.
97	<i>naka</i>	3	3	We've worked a lot with locations in class so this vocab is stuck in my head.
98	<i>naka</i>	3	3	Knew before.
99	<i>naka</i>	3	NR	Learnt before.
100	<i>naka</i>	3	3	Already knew.
102	<i>naka</i>	3	3	Very easy word.
103	<i>naka</i>	3	3	I remember kanji, 中.
105	<i>naka</i>	3	3	Knew.
106	<i>naka</i>	3	3	Done in grammar.
107	<i>naka</i>	3	3	Have learnt before.

28. Tree (*ki*)

ID	Written Answer	TA	SA	Comment
93	き	NR	3	Knew word before.
94	<i>ki</i>	3	3	Knew before.
95	<i>ki</i>	3	3	Easy – just one syllable.

96	<i>ki</i>	3	3	Learnt & short.
97	<i>ki</i>	3	3	Use this word a lot.
98	<i>ki</i>	3	3	Knew before.
99	<i>ki</i>	3	NR	Learnt before.
100	<i>ki</i>	3	3	Already knew.
102	<i>ki</i>	3	3	Very easy word. Similar to Chinese pronunciation.
103	<i>moku</i>	0	3	I remember kanji, 木.
105	<i>ki</i>	3	3	Knew.
106	<i>ki</i>	3	3	Done in grammar.
107	<i>ki</i>	3	3	Have learnt before.

29. Behind/back (*ushiro*)

ID	Written Answer	TA	SA	Comment
93	うしろ	NR	3	Knew word before.
94	<i>ushiro</i>	3	3	Knew before.
95	<i>ushiro</i>	3	1	More difficult. 3 different syllables.
96	<i>ushiro</i>	3	3	Learnt.
98	<i>ushiro</i>	3	3	Knew before.
100	<i>ushiro</i>	3	3	Already knew.
102	<i>ushiro</i>	3	3	Quite easy to remember, as a set with above words [= other location words].
103	[blank]	0	0	Cannot remember.
105	<i>ushiro</i>	3	3	Knew.
106	<i>oushiro</i>	1	3	Done in grammar.
107	<i>ushiru</i>	1	3	Have learnt before.