## LanCook and the Common European Framework of Reference for Languages

The LanCook portable kitchen as a tool for language learning, and the learner performance initiated through its use, can be related to the *Common European Framework of References* (CEFR) in two main ways. First, CEFR descriptors can be used by teachers or researchers in order to (A) rate the learners' performance during the cooking sessions. Alternatively, they can be used as a basis for self-assessment by the learners themselves. Second, it becomes possible to (B) set up learning goals that are related to the cooking sessions in the LanCook kitchen and which can take the form of CEFR descriptors. Thus, the kitchen can provide an environment for language learners in which language learning is promoted at all levels of competence.

In general, what needs to be taken into account when relating LanCook to the CEFR, is that one of the key competences promoted in the cooking sessions is listening comprehension. By listening to the digitised cooking instructions in the target language, learners at different competence levels are guided in the preparation of one food item and achieve an outcome, namely the preparation of a dish typical of a European country related to that language. Therefore, specific descriptors for LanCook have been developed on the basis of the descriptors for "Overall listening comprehension" in the CEFR. The scale below illustrates how levels of learner performance outlined in the CEFR (left column) can be combined with actions that the learners perform in the kitchen (right column). In both cases, 'Can-do' terms describe what learners at given "levels" are believed to be able to do.

**Application of CEFR levels:** Overall listening comprehension (chapter 4.4.2, p. 66)

Listening to announcements and instructions (chapter 4.4.2, p. 67)	Level	Application to Cooking Sessions
Has no difficulty in understanding any kind of spoken language, whether live or broadcast, delivered at fast native speed.  As C1	C2	Hardly uses help function.
Can understand enough to follow extended speech on abstract and complex topics beyond his/her own field, though he/she may need to confirm occasional details, especially if the accent is unfamiliar.  Can understand complex technical information, such as	C1	Occasionally makes use of help function during cooking, e.g. for more complex instructions or where accent is unfamiliar.

<sup>&</sup>lt;sup>1</sup>Page numbers in this part of the document refer to the online edition of the CEFR which can be found on the following website: http://www.coe.int/t/dg4/education/elp/elp-reg/Source/Key reference/CEFR EN.pdf.

operating instructions.		
Can understand standard spoken language, live or broadcast, on both familiar and unfamiliar topics normally encountered in personal life.  Can understand the main ideas of propositionally and linguistically complex speech on concrete topics delivered in a standard dialect.  Can understand announcements and messages on concrete and abstract topics spoken in standard dialect at normal speed.	B2	Can understand simple instructions but may have difficulties with more complex ones. Can understand main ideas of more complex instructions with occasional use of help function.
Can understand straightforward factual information about common everyday or job related topics, identifying both general messages and specific details, provided speech is clearly articulated in a generally familiar accent.  Can understand the main points of clear standard speech on familiar matters.  Can understand simple technical information, such as operating instructions for everyday equipment.  Can follow detailed directions.	В1	Can understand instructions that he/she is familiar with. May understand less familiar instructions when using help function.
Can understand enough to be able to meet needs of a concrete type provided speech is clearly and slowly articulated.  Can understand phrases and expressions related to areas of most immediate priority provided speech is clearly and slowly articulated.  Can catch the main point in short, clear, simple messages and announcements.	A2	Can understand main ideas when using help function.
Can follow speech which is very slow and carefully articulated, with long pauses for him/her to assimilate meaning.  Can understand instructions addressed carefully and slowly to him/her.	A1	Can understand instructions when speech is slow and he/she can make use of the help function.

(A) If the aim is to rate learner performance, a possible way of doing this is to look at how many times learners make use of the help function which the tablet computer provides. For instance, if they never use the help function, as native speakers would, an appropriate descriptor could be the one at level C1. If the learners need to listen again and regularly make use of the help function in order to understand the instructions given in the recipes, their listening skills could be said to be at level A2. Here, an indicator could also be whether the instructions are short and clear (cf. A2) rather than long and possibly more complex. The latter could be identified by analysing how often the help function is used in connection with a certain instruction.

(B) If the aim is to formulate learning goals, a possible way of doing this is to specify the "language activities" in which language users engage at different levels (e.g., in the area of listening comprehension, understanding some words, phrases or more complex sentences (instructions) related to cooking). Thus, language learning goals can be identified for individual learners in order to support them in their language learning process.

The following example illustrates how the interaction during a cooking session can be related to the CEFR. In this extract of a transcript, two learners of English are making Scones following the English recipe developed for LanCook. The transcript shows how the specific descriptors that have been developed for LanCook can be used in order to rate learners' performance and to describe their language-related actions.

## Transcript Pair 24Episode 3 00:45 to 04:50

```
KIT:
       Recorded Instruction
       Learner 1
L1:
L2:
       Learner 2
               Line (.) the backing sheet (.) with parchment paper. *H2*
1
       KIT:
               Ja, das haben wir ja.<sup>2</sup>
2
       L1:
3
               ((L2 selects FW))
4
               Weigh eight ounces of flour.
       KIT:
5
               (10)
6
               ((help available))
7
               ((L2 selects help))
               Weigh (.) eight ounces (.) of flour. *H1*
8
       KIT:
9
               Eight ounces of flour.
       L2:
10
       L1:
               (xxx)
11
               ((help available))
12
               ((L2 selects help)
13
               [((help 2 picture))
14
               Weigh eight ounces of flour. *H2*]
       KIT:
15
               ((L1 takes the scale))
16
       L2:
               (xxx)
17
               (3.5)
18
       L2:
               Flour.
               Was sind den acht ounces?<sup>3</sup>
19
       L1:
20
       L2:
               (xxx)
21
               ((L2 takes flour))
22
       L1:
               (xxx)
23
               ((L1 puts the bowl on the scale))
24
               ((L2 weighs eight ounces of flour))
25
               ((L1 takes the bowl from the scale))
```

<sup>2</sup> Yes, we did that.

<sup>3</sup>What are eight ounces?

```
26
               ((L1 selects FW))
27
               ((help available))
28
       L1:
               Das hat noch gar nichts gesagt.<sup>4</sup>
29
       L1/L2: (xxx)
30
               ((L1 selects FW))
31
               Next (.) sift the flour into the mixing bowl.
       KIT:
               Das haben wir doch gerade!<sup>5</sup>
32
       L1:
33
       L2:
34
               ((L1 selects FW))
35
       KIT:
               Using the measuring spoons, add two tablespoons of baking powder (.) to the
36
37
       L1:
               (xxx)
38
               ((L2 points to the tablet))
39
               ((help available))
               Ich würde da einen Teelöffel reintun.<sup>7</sup>
40
       L1:
41
       L2:
               Ja<sup>8</sup>
42
               ((L2 selects help))
               So was haben wir denn?<sup>9</sup>
43
       L1:
44
               ((L1 takes the measuring spoons))
               Using the measuring spoons (.) add two tablespoons (.) of baking powder (.) to
45
       KIT:
46
                       the flour. *H1*
47
               ((L2 points to a spoon))
48
               ((help available))
49
       KIT:
               Do you need any -
50
               ((L2 selects help))
               Was?<sup>10</sup>
51
       L2:
               Ja?<sup>11</sup>
52
       L1:
53
                       [((help 2 picture))
54
               KIT:
                       Using the measuring spoons, add two tablespoons of baking powder to
55
                       the flour. *H2*1
               ((L2 selects a spoon and is measuring the baking powder))
56
57
               ((success sound))
               Hey, hör auf! Nicht so schnell!<sup>12</sup>
58
       L1:
59
       KIT:
               Next using the measuring spoons, add half a teaspoon of salt to the flour and
60
                       baking powder in the mixing bowl.
61
               ((L1 is still measuring the baking powder))
62
       L1:
               (xxx)
63
               ((help available))
```

4 It did not say anything.

<sup>5</sup> We did that already.

<sup>6</sup> Yes.

<sup>7</sup> I would add one teaspoon.

<sup>8</sup> Yes.

<sup>9</sup> So, what do we have?

<sup>10</sup> What?

<sup>11</sup> Yes?

<sup>12</sup> Hey, stop! Not so fast!

As the transcript shows, the learners need to make use of the help function in order to be able to follow the instructions and frequently do so during the interaction. At different points in the cooking process (cf. ll. 7, 12, 42, 50), the possibility to repeatedly listen to the instructions and to make additional use of pictures that illustrate the requested action enables the learners to complete a step successfully and to move on to the next step. The learners' difficulties to understand what they are supposed to do become especially obvious when the instructions are more complex. In l. 45, the instruction given by the kitchen (KIT) is "Using the measuring spoons, add two tablespoons of baking powder to the flower". Here, the learners' difficulties to understand the instruction become obvious in comments such as "What?" or "Yes?" (cf. ll. 50, 51), which accompany their actions.

But even with shorter and presumably less complex instructions we can see that the two learners have comprehension difficulties. For example, after the instruction "Weigh eight ounces of flour" (cf. l. 4), one of the learners selects the help function (H1) as soon as it is made available by the system (cf. ll. 6-7). Although after a slower and more careful repetition of the instruction provided by the help function (cf. l. 8), the learner is able to repeat part of the instruction ("Eight ounces of flour", cf. l. 9), both learners decide to use the help function again (H2). This time, it provides a picture of the action in addition to the spoken instruction (cf. l. 14). The picture, displaying the action of weighing flour, helps the learners identify the scale and the flour which they need in order to perform the action. However, the words "eight ounces" still pose a problem for them (cf. l. 19) because this is the only information that they need to extract from the spoken instruction. At this point, the learners rely on one another and collaboratively perform the action.

As a result, the learners in the example can be assigned to level A1 and the respective descriptor developed for LanCook. It states that the learner "can understand instructions when speech is slow and he/she can make use of the help function". This descriptor refers directly to the descriptors which the CEFR provides for "Overall listening comprehension" at the same level (A1), namely "Can follow speech which is very slow and carefully articulated, with long pauses for him/her to assimilate meaning." and "Can understand instructions addressed carefully and slowly to him/her."

All in all, this example shows that even beginner learners can complete cooking instructions in the target language successfully. The digital kitchen is designed so it can be used by learners at any level of competence as it offers a variety of resources for learning. It caters to the learners' needs by providing the support that is necessary at a certain level and can thus promote individual language learning processes. While low level students will spend

a lot of time on pre-learning of vocabulary and using the photos and videos provided for every instruction, higher level students will make less use of the help function and use more active learning strategies such as working things out from context. Also, as all learners work in pairs, they may also use each other as a resource for learning. It should also be pointed out here, that the language used in the instructions is closely interwoven with the activity of cooking. This means that previous cooking experience and genre-specific language skills may also have an influence on a learner's performance, and that expert chefs may even use non-linguistic culinary knowledge. However, this also reflects how language is used in everyday life, where language skills often consist of genre-specific knowledge of language use.

In conclusion, it can be said that different perspectives can be taken when relating the CEFR to LanCook. While cooking, learners at different levels of competence demonstrate how well they can understand and follow the instructions. On this basis, the CEFR can be used to both rate the performance and to set future language learning goals. As the CEFR is not language specific but relevant to all languages, descriptors which capture learner performance in the kitchen are equally applicable to the six different languages and the recipes involved in LanCook.