Error detection: The learner answers an exercise. If this answer doesn't exactly match the answer stored in the system, it will be submitted to a 3-step procedure:

1) Spell checker. If the answer still doesn't match, then

The FreeText Project

- French in Context: An advanced hypertext CALL system featuring NLP tools for a smart treatment of authentic documents and (relatively) fast production sequences. (http://www.cac.tpj.fr/FreeText)
- Target: Intermediate to advanced learners of French
- Communication approach to second language acquisition, focused on learners' inputs
- NLP Tools for intelligent feedback:
  - Sentence parser
  - Sentence (color grammar)
  - Diagnosis tool
  - Speech synthesis of software and learners' sentences
- Sentence information tool
- funded under the User-Friendly Information Society (IST) program of the 5th framework program of the European Commission and by the Swiss Federal Office for Education and Science
- Four partners participate in the FreeText project:
  - University of Manchester Institute of Science and Technology, Department of Language Engineering (UK)
  - University of Geneva, Department of Linguistics (CH)
  - Université Catholique de Louvain, Centre for English Corpus Linguistics (B)
  - Softsinais S.A.R.L, Paris (F)

FIPS Parser

FIPS is a large-scale, in-depth, modular syntactic parser based on Chomsky's Principles & Parameters Theory, developed since 1990 at the Laboratoire d'Analyse Linguistique et de Théorie du Langage (LALT). It can be tested at http://www.latt.unige.ch/

FIPS output structures are based on a simplification version of the X-bar schema. Spec and Comp are two lists of projections that can be combined to the left and right of their mother projection.

A maximal projection XP corresponds to each lexical (A, AdV, N, V) or functional category (Determiner, Tense, F(unction)). The position X* is the head.

Here is FIPS canonical structure for a French sentence:

The DP (determiner phrase) is usually described as NP and other formalisms, and includes the NP in its complements list.

Here is the structure for “Le président a vu le président”:

Let’s assume that the learner answered “Le président a vu le président” (the small mouse). The expected answer stored in the system, which has to be as complete as possible, is: “La petite souris et grandi” (The small mouse is grey). Here is a simplified PSS structure (see above) for this expected answer (across the dotted line: “souffle de sable”):

The CLS contains the lexical item -gris, which is a state. Verbal properties are given by the state in the output. From this state, the system would generate the verbs être (to be), in the same way given by the verb, with the adjective -gris (grey) and the default verb être (to be). From above, the system can make the difference in the experience of the clause (in this case, the subject). It contains the noun -petit, which means the opposite of the default verb phrase, which would generate a definite determiner -le. This DIFS also has a role, which is to check the position of the the noun -petit in the noun phrase, which is a result of the above state (in this case, the noun -petit, like all the adjectives in this case).

PSS structure:

Let’s assume that the learner answered “Le président a vu le président” (the small mouse). The expected answer stored in the system, which has to be as complete as possible, is: “La petite souris et grandi” (The small mouse is grey). Here is a simplified PSS structure (see above) for this expected answer (across the dotted line: “souffle de sable”):

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3) ‘Semantic’ checking if the analysis is complete:

The learner sees a picture with a small, grey mouse. The question is: “Quelle couleur est la petite souris? (What color is the small mouse?)”

So far, we plan to use this technique with replacement exercises, pronunciation, rules, passive constructions, nominal compounds, compound sentences, inflections, intonations etc. Some tests may also be applicable to open questions.

We also plan to use a synonym dictionary, in order to accept synonyms, hypernyms or hyponyms. If we ask “Qu’est-ce que Jean a acheté?” (What did John buy?), we would like to accept “Jean a acheté un pain” (John has bought a bread), which contains the hypernym (or generic term) “brace” for the expected “pain”.

Virtual satellite of the CLS, DPP, contains the information that is necessary. This level is sometimes optional. Several attributes in the output, nominal and intonational. Generators in output can be displayed in the sentence writer or can be used in other CALL applications, including the production tool.

If an error is found, a tag <ERROR> is inserted into the first element (ARN) which contains the error. An example. Then, if necessary, a tag <ERROR> is inserted into the second element which contains the error and is combined with the <ERROR> tag.