**Which students need to take the Proficiency Assessment?**

If a student took the same or next lower-level class in the previous semester and was evaluated as ‘Promotable’, the student does not need to take the assessment. All other students will take the Morse Code Proficiency Assessment.

**The Assessment Process Itself**

If the student needs to take the assessment, the sign-up program sends the student to the Proficiency Assessment Program: <https://cw-assessment.vercel.app> specifying the assessment level. The assessment parameters are set in the program as specified in this table:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Level** | **Character Speed** | **Farnsworth Speed** | **Number of Questions** | **Words per Question** | **Characters per Word** |
| Beginner | 15 wpm | 4 wpm | 5 | 2 | <=2 |
| Fundamental | 25 wpm | 6 wpm | 5 | 2 | <=2 |
| Intermediate | 25 wpm | 10 wpm | 5 | 2 | <=3 |
| Advanced | 25 wpm | 20 wpm | 5 | 2 | <=4 |

The assessment results are written to database table wpw1\_cwa\_new\_assessment\_data as the score is given to the student.

The student is allowed to do the assessment a second time.

If the student’s score is 60% or higher, and the level is not Advanced, the student is given the option to take the next higher-level assessment.

It is possible that a student may have up to eight assessment records from a single assessment. All assessment records for an assessment session are grouped together in the database. The sign-up program sends a token to the Proficiency Assessment. Each record written to the database during that session has the same token.

The student has the option to quit the assessment at any time. Any records already written to the database remain in the database if the student quits the assessment.

When the student finishes the assessment and clicks on “Return to CWOps”, the assessment program either closes the window / tab, or the URL supplied when the assessment program was called is loaded.

The structure of wpw1\_cwa\_new\_assessment\_data:

|  |  |  |  |
| --- | --- | --- | --- |
| **Field Name** | **Type and Size** | **Default** | **Contents** |
| record\_id | Integer |  | Primary Key. Increments up by 1 for each record written to the database |
| callsign | varchar(20) | Blank | Student’s callsign |
| level | varchar(15) | Blank | Level for this assessment record |
| cpm | tinyint | 0 | Keying speed in words per minute |
| eff | tinyint | 0 | Effective (Farnsworth) speed |
| freq | varchar(50) | Blank | The frequency or frequencies used for this assessment. Same for every record for this assessment |
| questions | tinyint | 0 | Number of questions presented |
| words | tinyint | 0 | Number of words presented for each question |
| characters | tinyint | 0 | Maximum number of characters in each word presented |
| score | tinyint | 0 | The percentage of words correctly selected |
| details | text | Blank | A json object that contains what was sent, what the student selected, and how many points the student was awarded for each question |
| token | varchar(30) | abcde | A random number provided by the calling program. Every assessment record for this assessment will have the same token |
| date\_written | varchar(20) | Blank | The date the record was stored in the database in the format yyyy-mm-dd hh:mm:ss |

**How the Student Registration Program Uses the Assessment Information**

When the student returns from the assessment, the sign-up program queries the assessment table wpw1\_cwa\_new\_assessment\_data for any assessment records for the student which are then evaluated per the process below.

**The Assessment Evaluation Process**

The registration program obtains the highest score for each level assessed. It then makes recommendations based on the student’s requested level and the assessment information:

|  |  |  |
| --- | --- | --- |
| **Requested**  **Level** | **Highest**  **Score** | **Recommendations** |
| Beginner | 40% or less | Continue to register as a Beginner |
|  | 40% - 60% | Option to register for Fundamental or as a Beginner |
|  | More than 60% | Recommend registering for Fundamental, allow option to register as a Beginner |
| Fundamental | 40% or less | Recommend registering for Beginner, allow option to register for Fundamental |
|  | 40% - 60% | Continue to register for Fundamental |
|  | More than 60% | Determine if the student took an Intermediate assessment. If not, continue to register for Fundamental.  If the Intermediate assessment was taken and the score was less than 60%, continue to register as Fundamental.  If the Intermediate assessment was taken and the score was 60% or higher, determine if the student took an Advanced assessment. If not, offer option to register as Fundamental or as Intermediate.  If the Advanced assessment was 70% or higher, offer option to register for Intermediate and for Advanced. Otherwise, offer Fundamental and recommend Intermediate. |
| Intermediate | 40% or less | Switch to Fundamental |
|  | 40% - 60% | Recommend Fundamental, allow option to register for Intermediate |
|  | More than 60% | If the student also took an Advanced assessment and the score was **70%** or higher, allow option to register for Intermediate as well as option to register for Advanced.  Otherwise, continue to register for Intermediate |
| Advanced | 40% or less | Switch to Intermediate |
|  | 40% - 60% | Switch to Intermediate |
|  | More than 60% | If less than 80% switch to Intermediate. Otherwise continue to register for Advanced |