

## PleaseApp: AN APP FOR THE ASSESSMENT, DYNAMIC EVALUATION AND TREATMENT OF PRAGMATIC AND SOCIAL COMMUNICATION SKILLS IN CHILDREN FROM 3 TO 12 YEARS OF AGE

### DESCRIPTION OF THE TECHNOLOGY

Researchers from the Universitat Jaume I in Castelló and the Universitat Oberta de Catalunya have developed PleaseApp, an application (app) designed to enable the evaluation, dynamic assessment and treatment of pragmatic and social communication skills in children aged between 3 and 12 years, through the use of an environment that children will find attractive, fun and familiar.

The design of the items is based on empirical studies and reviews. The milestones in the development of pragmatic and social communication skills have been taken into account, first, in typically developing children and, second, in others with disorders such as Developmental Language Disorder (DLD), also known as Specific Language Disorder (SLD), or Autism Spectrum Disorder (ASD).

The app (developed as both native and webapp versions) has been validated with a population of children between 3 and 12 years of age (with and without neurodevelopmental disorders), and has proved to be capable of detecting whether a child has age-appropriate pragmatic and social communication skills, as well as specifying which particular problems each child has at ten different levels:

- Figurative language comprehension
- Learning new words
- Ordering sequences – narrative
- Metapragmatic skills in conversation
- Understanding indirect requests
- Reference skills
- Understanding humour
- Gesture-speech-context integration

- Use of polite forms of address
- Understanding complex intentionality

Each of the ten levels corresponds to a different context, and the characters are mostly children. The scenes (app screens) take place in contexts that schoolchildren are familiar with, for example, school, zoo, park or cinema.

The adult (professional) can create as many participants as he or she wishes and include information about them, such as code, gender, date of birth, diagnosis, school, level of education and observations. In addition, either a male or a female version can be chosen for each participant.

At each level, the participant (child) receives an instruction to help the main character solve the entire level. On each screen they must choose from several options. Each written text that appears in the app, whether an instruction, a dialogue or an option, has its corresponding audio. Depending on the adult's objective (evaluation, dynamic assessment or treatment) and the characteristics of the child (age and abilities), the adult will have to accompany them in order to provide supervision and help to a greater or lesser extent.

In addition, the app has an evaluation mode and an intervention mode that will allow it to be used in its evaluation, dynamic assessment and treatment functions on each of the ten levels. First, in the evaluation mode, it allows the child's level of ability to be determined. Second, with dynamic assessment, it is possible to evaluate the learning process and potential as well as the help the child needs with their skills. And third, the treatment mode allows such competence to be trained, since the intervention items can be used within an intervention programme dealing with the components of pragmatics.

Finally, the user (professional) can obtain a report on what each participant (child) has done. As soon as the participant completes a level, the adult can access a report on the activity at that level.



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### SECTORS FOR COMMERCIAL APPLICATION

The app is designed for psychologists, speech therapists and other professionals working with children with developmental disorders, especially those with pragmatic and social communication difficulties.

### TECHNICAL ADVANTAGES AND COMMERCIAL BENEFITS

- It is an innovative method that provides a specific or dynamic perspective of the child's pragmatic and social communication skills.
- Its items fully cover different pragmatic and social communication skills.
- The result of the evaluation provides information that will be useful in the field of education to plan subsequent interventions adapted to the real needs of the child.
- It is a fun and motivating method of intervention, which includes systems of rewards and feedback for improvement.

### STAGE OF DEVELOPMENT OF THE TECHNOLOGY

Fully developed computer application ready for installation and use in Windows / Mac. The tool has been tested with children through empirical studies.

### INDUSTRIAL AND INTELLECTUAL PROPERTY RIGHTS

Registered software.

### COLLABORATION SOUGHT

Licensing agreement.

### RELATED IMAGES



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