



## Teaching Guide

| Identifying Data         |  |        |                       |           | 2021/22 |
|--------------------------|--|--------|-----------------------|-----------|---------|
| Subject (*)              | Reading and new technologies   |        | Code                  | 652438020 |         |
| Study programme          | Mestrado Universitario en Psicoloxía Aplicada  |        |                       |           |         |
| Descriptors              |  |        |                       |           |         |
| Cycle                    | Period   | Year   | Type                  | Credits   |         |
| Official Master's Degree | 2nd four-month period  | First  | Obligatory            | 3         |         |
| Language                 | Spanish  |        |                       |           |         |
| Teaching method          | Face-to-face   |        |                       |           |         |
| Prerequisites            |  |        |                       |           |         |
| Department               | Psicoloxía   |        |                       |           |         |
| Coordinador              | Peralbo Uzquiano, Manuel   | E-mail | manuel.peralbo@udc.es |           |         |
| Lecturers                | Peralbo Uzquiano, Manuel   | E-mail | manuel.peralbo@udc.es |           |         |
| Web                      |  |        |                       |           |         |
| General description      | Neste curso preténdese que o estudante coñeza os diferentes procedementos tecnolóxicos deseñados desde as Tecnoloxías da Información e as Comunicacións para facilitar a aprendizaxe de la lecto-escritura, tratar as dificultades de aprendizaxe neste dominio e mellorar a nosa capacidade tecnolóxica para investigar os procesos que interveñen na comprensión lectora |        |                       |           |         |
| Contingency plan         | <p>1. Modifications to the contents</p> <p>2. Methodologies</p> <p>*Teaching methodologies that are maintained</p> <p>*Teaching methodologies that are modified</p> <p>3. Mechanisms for personalized attention to students</p> <p>4. Modifications in the evaluation</p> <p>*Evaluation observations:</p> <p>5. Modifications to the bibliography or webgraphy</p>        |        |                       |           |         |

## Study programme competences / results

| Code | Study programme competences / results  |
|------|--|
| A3   | Being able to elaborate a scientific report which involves defining a research problem, the hypotheses and variables, and defining the design, the sample and its method of selection, the tools for collecting data and their subsequent analysis and discussion. |
| A5   | Being able to perform a psychological evaluation in the context of a scientific investigation.   |
| A8   | To know the basis for hypotheses establishment with respect to a particular case, and from them to deduce contrastable statements.   |
| A12  | To acquire a basic theoretical knowledge about the state of the art in the different areas involved in applied psychology.   |
| A13  | Knowing and being able to use the different models, theories, methods and assessment and intervention techniques that are specific of the different areas of research in Applied Psychology, and developing a critical attitude typical of the scientific spirit.  |
| A14  | Being able to analyze the bibliographic documentation necessary for a research work.   |
| B2   | Capacity for organization and planning.  |
| B3   | Teamwork.  |
| B6   | Critical thinking.   |
| B13  | Ability to apply knowledge to practice.  |
| C2   | To dominate the expression and understanding of a spoken and written foreign language.   |



|    |   |
|----|---|
| C3 | Using the basic tools of information and communication technologies (ICT) necessary for the exercise of the profession and for lifelong learning. |
| C6 | To critically assess the knowledge, technology and information available to solve the problems they face.   |

| Learning outcomes   |                                       |      |     |
|---|---------------------------------------|------|-----|
| Learning outcomes   | Study programme competences / results |      |     |
| Capacidade para utilizar bases de datos sobre a materia   | AR14                                  |      |     |
| Capacidade para utilizar un xestor bibliográfico vinculado ás bases de datos  |                                       |      | CC3 |
| Capacidade para identificar a estado da arte nun tema determinado   | AR12                                  |      |     |
| Ser capaz de idear un obxectivo de investigación que mellore o coñecemento científico sobre un tema   | AR3                                   |      |     |
| Ser capaz de planificar unha investigación en todas as súas fases   | AR3                                   |      |     |
| Ser capaz de traballar colaborativamente no deseño e desenvolvemento dunha investigación  |                                       | BR3  |     |
| Coñecer as ferramentas de software e hardware existentes para preparar a aprendizaxe da lecto-escritura   |                                       |      | CC3 |
| Coñecer as ferramentas de software e hardware existentes para mellorar o proceso de adquisición en nenos e nenas con e sen dificultades de aprendizaxe  |                                       |      | CC3 |
| Coñecer as ferramentas de software e hardware existentes para a investigación dos procesos que interveñen durante o proceso lector  |                                       |      | CC3 |
| Ser capaces de utilizar algunhas destas tecnoloxías de forma competente   |                                       | BR13 |     |
| Ser capaz de elaborar un informe científico que implique definir un problema de investigación, as hipóteses e variables asociadas, así como definir ou deseño, a mostra e ou seu modo de selección, as ferramentas de recollida de datos e a súa consecuente análise e discusión. | AR3                                   |      |     |
| Ser capaz de realizar unha avaliación psicolóxica no contexto dunha investigación científica.   | AR5                                   |      |     |
| Coñecer as bases para establecer hipóteses respecto dun caso concreto e, a partir das mesmas, saber deducir enunciados contrastables.   | AR8                                   |      |     |
| Razoamento crítico.   |                                       | BR6  |     |
| Coñecer e ser capaz de utilizar os diferentes modelos, teorías, métodos e técnicas de avaliación e intervención que son específicos dos distintos ámbitos da investigación en Psicoloxía Aplicada e desenvolver unha actitude crítica propia do espírito científico.              | AR13                                  |      |     |
| Capacidade de organización e planificación.   |                                       | BR2  |     |
| Dominar a expresión e a comprensión de forma oral e escrita dun idioma estranxeiro.   |                                       |      | CC2 |
| Valorar criticamente o coñecemento, a tecnoloxía e a información dispoñible para resolver os problemas cos que deben enfrontarse.   |                                       |      | CC6 |

| Contents  |   |
|---|---|
| Topic   | Sub-topic   |
| 1. Reading processes and their assessment                       |   |
| 2. Software and hardware to prepare literacy learning           |   |
| 2.1. ICT contributions to literacy                              | 2.1.1. Computerized evaluation<br>2.1.2. Web resources for learning and teaching literacy<br>2.1.3. Usefulness of voice recognition systems |
| 2.2. Assessment and development of initial language skills      | 2.2.1. Oral Language, Written Language: Assessment (LolEva)<br>2.2.2. Psychometric properties   |
| 3.- ICT applications for the treatment of learning difficulties |   |
| 3.1. Multimedia and intervention                                | 3.1.1. Web resources for intervention on literacy difficulties<br>3.1.2. M.I.L. and Gliffing  |
| 3.2. SMS and literacy   | 3.2.1. SMS and reading comprehension<br>3.2.2. SMS and writing difficulties<br>3.2.3. Intervention through homophone-based abbreviations    |



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|---|---|
| 4. Computerized systems and technological tools for the evaluation and measurement of the processes involved during reading | 4.1. P.E.B.L.<br>4.2. Eye movements and reading |
|---|---|

| Planning                       |                        |                                      |                               |             |
|--------------------------------|------------------------|--------------------------------------|-------------------------------|-------------|
| Methodologies / tests          | Competencies / Results | Teaching hours (in-person & virtual) | Student's personal work hours | Total hours |
| ICT practicals                 | A5 B13 C3              | 2                                    | 4                             | 6           |
| Student portfolio              | A12 A14 B2 B6 C2<br>C6 | 0                                    | 11                            | 11          |
| Case study                     | A3 A5 A8 B3 B13        | 3                                    | 9                             | 12          |
| Guest lecture / keynote speech | A12 A13                | 15                                   | 30                            | 45          |
| Personalized attention         |                        | 1                                    | 0                             | 1           |

(\*The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.

| Methodologies                  |  |
|--------------------------------|--|
| Methodologies                  | Description  |
| ICT practicals                 | - In a group formed by two or three, the students will make a blog on the subject activities.<br>- Students should be able to use some of the ICT tools available for the evaluation and treatment of reading-writing difficulties |
| Student portfolio              | Students must prepare a portfolio in which they will collect the material, comments and activities that they have carried out individually or in groups throughout the course.   |
| Case study                     | Students must analyze cases of reading and writing difficulties and ICT resource programs for their treatment.   |
| Guest lecture / keynote speech | Each topic will be introduced by the teacher who will present an outline of the contents of each section of the program  |

| Personalized attention |  |
|------------------------|--|
| Methodologies          | Description  |
| ICT practicals         | Each student will be able to carry out an individual tutorial in which the existing doubts about the use of the technique to be used in the evaluation practice will be addressed. The date of this tutorial will be set by email. |

| Assessment                     |                        |  |               |
|--------------------------------|------------------------|--|---------------|
| Methodologies                  | Competencies / Results | Description  | Qualification |
| ICT practicals                 | A5 B13 C3              | Students will receive up to 10 points for the correct performance of an assessment practice through an ICT resource.   | 10            |
| Student portfolio              | A12 A14 B2 B6 C2<br>C6 | Students may receive up to 50 points for the quality of their portfolio.<br>Students who have justified their legal inability to participate in the course full time will be evaluated through an exam that will cover all the matter. For him they will be able to receive 100% of the qualification. | 50            |
| Case study                     | A3 A5 A8 B3 B13        | Students may receive up to 30 points for the work of analysis of resources for the evaluation and treatment of the cases studied.  | 30            |
| Guest lecture / keynote speech | A12 A13                | In the evaluation, 10 points will be assigned for attending the presentations that the teacher will make of the topics of the program (to receive it, it will be mandatory to attend at least 80% of the classes)  | 10            |

| Assessment comments |
|---------------------|
|                     |





Basic

Amante, L. (2004). Explorando as novas tecnoloxías em contexto de educación pré-escolar: A actividade escrita. / exploring new technologies in the preschool educational context: Writing activities. *Análise Psicológica*, 22(1), 139-154. Aparici, R.; García, A.; Gutiérrez, A. (coords.). (2011). Educación Mediática & Competencia Digital. La cultura de la participación. Segovia: E.U. de Magisterio (UVA). Cabero, J. (coord.). (2007). Nuevas tecnologías aplicadas a la educación. Madrid: McGraw-Hill. Castañeda, L., Adell, J. (2013). Entornos Personales de Aprendizaje: claves para el ecosistema educativo en red. Alcoy: Marfil. Recuperado <http://www.um.es/ple/libro/> Chapelle, C. A., & Douglas, D. (2006). Assessing language through computer technology. New York, NY, US: Cambridge University Press. Del Moral, M.E. (coord.). (2010). Televisión: desarrollo de la creatividad e infancia. Barcelona: Octaedro. Fernández Amado, M.L., Peralbo, M. y Mayo, M.A. (2003). Hablo, escribo y leo: La utilidad del software de reconocimiento de voz para el aprendizaje de la lectoescritura. *Revista Galego-Portuguesa de Psicoloxía e Educación*, 10, 2231- 2240. Fernández Amado, M.L., Peralbo, M., Mayor, M.A., Zubiauz, B., y Tuñas, A. (2008). Efectos del Sistema de Reconocimiento de Voz en los inicios del aprendizaje de la lectura. En Díez, E. (ed.): Estudios de desarrollo del lenguaje y educación (pp. 349- 356). Oviedo: Aula Abierta, volumen 32. Goig, R.M. (2014). Formación del profesorado en la sociedad digital. Investigación, innovación y recursos didácticos. Madrid: UNED. Hartley, J. (2007). Longitudinal studies of the effects of new technologies on writing: Two case studies. New York, NY, US: Elsevier Science. Henao Alvarez, O., Ramirez Salazar, D. A., & Medina Medina, M. (2004). Increasing the reading capacity of the deaf using new technologies. [Potenciando la capacidad lectora de los sordos con el apoyo de nuevas tecnologías] *Lectura y Vida*, 25(4), 18-25. Irausquin, R. S., Drent, J., & Verhoeven, L. (2005). Benefits of computer-presented speed training for poor readers. *Annals of Dyslexia*, 55(2), 246-265. Jiménez, J. E., Hernández-Valle, I., Ramírez, G., del Rosario Ortiz, M., Rodrigo, M., Estévez, A., et al. (2007). Computer speech-based remediation for reading disabilities: The size of spelling-to-sound unit in a transparent orthography. *The Spanish Journal of Psychology*, 10(1), 52-67. Korat, O., & Shamir, A. (2007). Electronic books versus adult readers: Effects on children's emergent literacy as a function of social class. *Journal of Computer Assisted Learning*, 23(3), 248-259. LoPresti, E. F., Mihailidis, A., & Kirsch, N. (2004). Assistive technology for cognitive rehabilitation: State of the art. *Neuropsychological Rehabilitation*, 14(1-2), 5-39. MacArthur, C. A. (2006). The effects of new technologies on writing and writing processes. New York, NY, US: Guilford Press. MacArthur, C. A., Ferretti, R. P., Okolo, C. M., & Cavalier, A. R. (2001). Technology applications for students with literacy problems: A critical review. *The Elementary School Journal. Special Issue: Instructional Interventions for Students with Learning Disabilities*, 101(3), 273-301. Martínez-Salanova, E. (2002). Aprender con el cine, aprender de película. Una visión didáctica para aprender e investigar con el cine. Huelva: Grupo Comunicar. Mostow, J., Aist, G., Burkhead, P., Corbett, A., Cuneo, A., Eitelman, S., et al. (2003). Evaluation of an automated reading tutor that listens: Comparison to human tutoring and classroom instruction. *Journal of Educational Computing Research*, 29(1), 61-117. O'Neil, H. F., & Perez, R. S. (Eds.). (2006). *Web-based learning: Theory, research, and practice* Mahwah, NJ, US: Lawrence Erlbaum Associates Publishers. Pardo-Vázquez, J. L., & Fernández-Rey, J. (2008). External validation of the computerized, group administrable adaptation of the "operation span task". *Behavior Research Methods*, 40(1), 46-54. Peralbo, M., Mayor, M.A., Zubiauz, B., Risso, A., Fernández, M.L. y Tuñas, A. (2015). The Loleva Oral and Written Language Test: Psychometric Properties. *Spanish Journal of Psychology*, 18, e18, 1?12. doi:10.1017/sjp.2015.15 Raquel Fernández Abella, Manuel Peralbo Uzquiano, Montserrat Durán Bouza, Juan Carlos Brenlla Blanco, Manuel García Fernández (2018) Virtual intervention program to improve the working memory and basic mathematical skills in early childhood education. *Revista de Psicodidáctica* DOI <https://doi.org/10.1016/j.psicod.2018.09.002> Ray, R. D., & Belden, N. (2007). Teaching college level content and reading comprehension skills simultaneously via an artificially intelligent adaptive computerized instructional system. *Psychological Record*, 57(2), 201-218. Reinking, D. (2005). *Multimedia learning of reading*. New York, NY, US: Cambridge University Press. Salinas, J. (coord.) (2008) *Innovación educativa y uso de las TIC*. Sevilla: Universidad Internacional de Andalucía. Sands, W. A., Waters, B. K., & McBride, J. R. (Eds.). (1997). *Computerized adaptive testing: From inquiry to operation* Washington, DC, US: American Psychological Association. Solano, I.M. (coord.). (2010). *Podcast educativo. Aplicaciones y orientaciones del m-learning para la enseñanza*. Sevilla: Eduforma. Steuer, F. B., & Hustedt, J. T. (2002). *TV or no TV? A primer on the psychology of television*. Lanham, MD, US: University Press of America. Taffe, S. W., & Gwinn, C. B. (2007). *Integrating literacy and technology: Effective practice for grades K-6*. New York, NY, US: Guilford Press. Tareq Alzubi, Raquel Fernández Abella, Julián Flores

González, Montserrat Durán Bouza, José Manuel Cotos Yañez (2018) Improving the working memory during early childhood education through the use of an interactive gesture game-based learning approach . IEEE DOI <https://doi.org/10.1109/access.2018.2870575>Wilson, C.; Grizzle, A.; Tuazon, R.; Akyempong, K.; Cheung, C.K. (2011). Alfabetización Mediática e Informativa. Curriculum para Profesores. Paris: UNESCO.



|               |  |
|---------------|--|
| Complementary |  |
|---------------|--|

## Recommendations

Subjects that it is recommended to have taken before

Subjects that are recommended to be taken simultaneously

Subjects that continue the syllabus

Other comments

(\*)The teaching guide is the document in which the URV publishes the information about all its courses. It is a public document and cannot be modified. Only in exceptional cases can it be revised by the competent agent or duly revised so that it is in line with current legislation.