



Universitat de Lleida

DEGREE CURRICULUM  
**INNOVATIVE TEACHING AND  
INITIATION TO EDUCATIONAL  
RESEARCH - PHYSICAL  
EDUCATION**

Coordination: CASTAÑER BALCELLS, MARTA

Academic year 2018-19

## Subject's general information

<b>Subject name</b>	INNOVATIVE TEACHING AND INITIATION TO EDUCATIONAL RESEARCH - PHYSICAL EDUCATION			
<b>Code</b>	14305			
<b>Semester</b>	ANUAL CONTINUED EVALUATION			
<b>Typology</b>	<b>Degree</b>	<b>Course</b>	<b>Character</b>	<b>Modality</b>
	Master's Degree in Secondary Education Teacher, Training and Language Teaching	1	OPTIONAL	Attendance-based
<b>Course number of credits (ECTS)</b>	5			
<b>Type of activity, credits, and groups</b>	<b>Activity type</b>	PRAULA		TEORIA
	<b>Number of credits</b>	1		4
	<b>Number of groups</b>	2		2
<b>Coordination</b>	CASTAÑER BALCELLS, MARTA			
<b>Department</b>	SPECIAL DIDACTICS			
<b>Teaching load distribution between lectures and independent student work</b>	20 % Class Presencial 80 % holding a permit autonomous Work of the student			
<b>Important information on data processing</b>	Consult <a href="#">this link</a> for more information.			
<b>Language</b>	Català i anglès			
<b>Distribution of credits</b>	3 theoretical credits of the matter 1 theoretical - practical credit intermatter 1 practical credit			
<b>Office and hour of attention</b>	Wednesdays from 10 to 12 at Laboratori d'Observació de la Motricitat			

Teaching staff	E-mail addresses	Credits taught by teacher	Office and hour of attention
CAMERINO FOGUET, OLEGUER	ocamerino@inefc.es	2	
CASTAÑER BALCELLS, MARTA	mcastaner@inefc.es	4	
PLANELL VALLVERDÚ, ANA	anna.planell@udl.cat	2	
REVERTER MASIÀ, JOAQUIN	reverter@didesp.udl.cat	2	
RODRÍGUEZ ARREGUÍ, ROSA MARÍA	rrodriguez@inefc.es	0	

## Subject's extra information

there will be four practical meetings to the pavell ò by which it is needed that the pupils bring clothes adapted by the practice.

Every evidence excels itself in 5 on 10 and it is necessary to approve all the evidences.

## Learning objectives

1. To be open-minded for the needs for innovation and for educational investigation to realize projects of teaching innovation with support of searches of specific and index-linked publications.
2. To design didactic sequences of interdisciplinary appearance immediately after actions to apply in a practical way curriculares interdisciplinary that integrate concepts, methods and activities of the EF with other matters curriculares of the secondary education.
3. To analyze in an objective way, by means of the methodology observacional and the narrated experiences, the proper verbal communicative style and paraverbal (cinèsic; proxèmic; cronèmic and of parallenguatge in five situations of differentiated EF.

## Competences

Generic:

- G1. Team work and at interdisciplinary teams.
- G2. Oral and written communication.
- G5. Skill of management of the information.
- G3. Capacity of analysis and of synthesis.
- G10. With regard to the right equality essentials between men and women, to the promotion of the Human rights and



HORARI GRUP 2

DIMARTS

DIVENDRES

HORARI GRUP 2

8 GENER 9-13:30 H

DIMARTS	DIVENDRES
<p>INNOVACIÓ DOCENT (OC)</p> <p>8 GENER 9-13:30 H INTERDISCIPLINA CURR. (MC) INNOVACIÓ DOCENT (OC)</p> <p>INTERDISCIPLINA CURR. (MC) 15 GENER 9-13:30 H (MC) (OC)</p>	<p>11 GENER 11:30 H. (MC) (OC)</p> <p>2 PRIMERS GRUPS APLIQUEN INTERD. A TOTS AL PAVELLÓ</p> <p>11 GENER 11:30 H. (MC) (OC)</p> <p>2 PRIMERS GRUPS APLIQUEN INTERD. A TOTS AL PAVELLÓ</p>
<p>SEGÜENTS 2 GRUPS APLIQUEN INTERD. A TOTS AL PAVELLÓ 15 GENER 9-13:30 H (MC) (OC)</p> <p>SEGÜENTS 2 GRUPS APLIQUEN INTERD. A TOTS AL PAVELLÓ 22 GENER (AP)</p> <p>TOTS A L'INSTITUT</p>	<p>18 GENER 11:30 H. (QR)</p> <p>INDICACIONS TFM</p> <p>18 GENER 11:30 H. (QR)</p> <p>INDICACIONS TFM</p>
<p>22 GENER (AP)</p> <p>TOTS A L'INSTITUT</p> <p>29 GENER 9-13:30 H (MC) (OC)</p>	<p>25 GENER 11:30 H. (MC) (OC)</p> <p>SEGÜENTS 2 GRUPS APLIQUEN INTERD. A TOTS AL PAVELLÓ</p> <p>25 GENER 11:30 H. (MC) (OC)</p> <p>SEGÜENTS 2 GRUPS APLIQUEN INTERD. A TOTS AL PAVELLÓ</p>
<p>SEGÜENTS 2 GRUPS APLIQUEN INTERD. A TOTS AL PAVELLÓ</p> <p>29 GENER 9-13:30 H (MC) (OC)</p> <p>SEGÜENTS 2 GRUPS APLIQUEN INTERD. A TOTS AL PAVELLÓ</p>	<p>1 FEBRER 11:30 H. (MC) (OC)</p> <p>SALA MÀSTERS SEQÜÈNCIA DIDÀCTICA INTERDISCIPLINA CURRICULAR</p> <p>1 FEBRER 11:30 H. (MC) (OC)</p> <p>SALA MÀSTERS SEQÜÈNCIA DIDÀCTICA INTERDISCIPLINA CURRICULAR</p>
	<p>8 FEBRER 11:30 H. (QR)</p> <p>INDICACIONS TFM</p> <p>8 FEBRER 11:30 H. (QR)</p> <p>INDICACIONS TFM</p>

15 FEBRER 11:30 H. (MC) (OC)

SALA MÀSTERS CERQUES AL  
WEB OF SCIENCE

**HORARI GRUP 2**

<p>DIMARTS</p>	<p>DIVENDRES 11:30 H. (MC) (OC)</p>
<p>8 GENER 9-13:30 H INNOVACIÓ DOCENT (OC) INTERDISCIPLINA CURR. (MC) PRESENTACIÓ SEQÜÈNCIA DIDÀCTICA TREBALL D'OBSERVACIÓ DE LA COMUNICACIÓ DOCENT</p>	<p>SALA MÀSTERS COMUNICACIÓ DOCENT 11 GENER 11:30 H. (MC) (OC) 2 PRIMERS GRUPS APLIQUEN INTERD. A TOTS AL PAVELLÓ DISCIPLINA I FEDBACK</p>
<p>15 GENER 9-13:30 H (MC) (OC) SEGÜENTS 2 GRUPS APLIQUEN INTERD. A TOTS AL PAVELLÓ</p>	<p>18 GENER 11:30 H. (QR) INDICACIONS TFM</p>
<p>22 GENER (AP) TOTS A L'INSTITUT</p>	<p><b>HORARI GRUP 1</b> DIVENDRES 25 GENER 11:30 H. (MC) (OC) SEGÜENTS 2 GRUPS APLIQUEN INTERD. A TOTS AL PAVELLÓ INNOVACIÓ DOCENT (OC)</p>
<p>29 GENER 9-13:30 H (MC) (OC) SEGÜENTS 2 GRUPS APLIQUEN INTERD. A TOTS AL PAVELLÓ</p>	<p>INTERDISCIPLINA CURR. (MC) 1 FEBRER 11:30 H. (MC) (OC) 18 GENER NO CLASSE SALA MÀSTERS SEQÜÈNCIA DIDÀCTICA INTERDISCIPLINA CURRICULAR</p>
	<p>8 FEBRER 11:30 H. (QR) INDICACIONS TFM</p>

	25 GENER 9-13:30 H. (MC) (OC)
	2 PRIMERS GRUPS APLIQUEN INTERD. A TOTS AL PAVELLÓ
	1 FEBRER 9-13:30 H. (MC) (OC)
	SEGÜENTS 2 GRUPS APLIQUEN INTERD. A TOTS AL PAVELLÓ
	<b>HORARI GRUP 2</b>
<b>DIMARTS</b>	<b>DIVENDRES</b>
8 GENER 9-13:30 H INNOVACIÓ DOCENT (OC) INTERDISCIPLINA CURR. (MC) 15 FEBRER 9-11:30 H. (MC) (OC)	8 FEBRER 9-13:30 H. (AP) TOTS A L'INSTITUT 11 GENER 11:30 H. (MC) (OC) 2 PRIMERS GRUPS APLIQUEN INTERD. A TOTS AL PAVELLÓ
14 FEBRER 9-13:30 H (MC) (OC) SALA MÀSTERS SEQÜÈNCIA DIDÀCTICA INTERDISCIPLINAR SEGÜENTS 2 GRUPS APLIQUEN INTERD. A TOTS AL PAVELLÓ	15 FEBRER 9-13:30 H. (QR) INDICACIONS TFM 18 GENER 11:30 H. (QR) INDICACIONS TFM
21 FEBRER 9-13:30 H. (MC) (OC) 22 GENER (AP) SEGÜENTS 2 GRUPS APLIQUEN INTERD. A TOTS AL PAVELLÓ	22 FEBRER 9-13:30 H. (MC) (OC) SALA MÀSTERS CERQUES AL WEB OF SCIENCE I COMUNICACIÓ DOCENT 25 GENER 11:30 H. (MC) (OC) SEGÜENTS 2 GRUPS APLIQUEN INTERD. A TOTS AL PAVELLÓ
	<b>DIJOUS 25 ABRIL SALA MASTERS 9 A 13:30 H (MC) (OC)</b>
29 GENER 9-13:30 H (MC) (OC) SEGÜENTS 2 GRUPS APLIQUEN INTERD. A TOTS AL PAVELLÓ	30 GENER 11:30 H. (MC) (OC) SALA MÀSTERS SEQÜÈNCIA DIDÀCTICA INTERDISCIPLINAR
Evidences 1 and 2 are need to be passed obtaining 4 points from 8 points maximum (80% of the global evaluation)	1 FEBRER 11:30 H. (MC) (OC) SALA MÀSTERS SEQÜÈNCIA DIDÀCTICA INTERDISCIPLINAR
Evidence 3 is optional over a maximum od 2 points (20% of the global evaluation)	
The first block: The introductory and Second block: Analysis of an innovation procedure for the teacher	
Description of the evidence:	8 FEBRER 11:30 H. (QR) INDICACIONS TFM
(a) To analyze in an objective way, by means of the methodology observational and the narrated experiences, the proper verbal communicative style and paraverbal (cinèsic; proxèmic; cronèmic and of parallenguatge in five	

situations of differentiated EF.

(b) To complement the analysis with a table summary of indicators of innovation of strategies and communication immediately after 6 articles index-linked according to that one worn out in the first block

Competences to be evaluated:

E25 - to Know and to apply methodologies and educational basic skills of investigation and evaluation and to be capable of designing and of developing research projects, innovation and evaluation.

E23 - to Analyze critically the task of the teaching, of the good practices and of the orientation using indicators of the quality.

E24 - to Identify the problems relative to the education and learning of the matters of the specialization and to raise alternatives and solutions.

G5 - Skill of management of the information.

G3 - Capacity of analysis and of synthesis.

G11 - Use of the foreign language.

G2 - oral and written Communication.

G10 - With regard to the right equality essentials between men and women, to the promotion of the Human rights and to the proper values of the culture of the peace and to the democratic values.

Punctuation: 25 % (a) 25 % (b)

Maximum date of delivery: On April 28

Indicators: Table summary of indicators of innovation of strategies and communication immediately after 6 articles index-linked according to that one worn out in the first block.

The dossier of the objective analysis of the proper verbal communicative style and paraverbal it includes two parts: a) to complete descriptively every pigeonhole of the table of teaching actions that the teacher will deliver. It is a table of double entry that crosses type of actions cinèsiques, proxèmiques, cronèmiques and of parallenguatge with the moments of the meeting of explanation, instruction and development. b) on three situations of filmed EF of the proper teaching action to realize: record of the categories of analyses that will be indicated to the theoretical meetings and immediately after here doing a small statistical analysis and of detection of communicative bosses as well as a descriptive analysis, daily type, of autoobservació and self-criticism of the proper communication in every situation.

The second block: The interdiscipline curricular (IC), a procedure of educational innovation for the discent

Description of two evidences:

(a) A root of the application of a practical way the interdiscipline meetings curricular of February,

(b) to design didactic sequences of interdisciplinary appearance that integrate concepts, methods and activities of the EF with other matters curriculares of the secondary education.

Competences to be evaluated:

E22 to Know and to apply innovative teaching proposals in the ambience of the experienced specialization.

E24 to Identify the problems relative to the education and learning of the matters of the specialization and to raise alternatives and solutions.

E25. To know and to apply methodologies and educational basic skills of investigation and evaluation and to be capable of designing and of developing research projects, innovation and evaluation.

G12 - Aptitude to design and to manage a project.

G1 - I Am employed at team and at interdisciplinary teams.



G11 - Use of the foreign language.

Maximum date of delivery of the first evidence: (a) every group will apply the practical meeting the day that is assigned of every Thursday of February. (b) on Feb. 18

Punctuation: 25 % (a) 25 % (b)

Indicators: The structure of every practical meeting has to fulfill the aspects that the teacher explicitará in class: temporality and place of application; clear description of the contents and targets to work according to the place that the meeting has inside the set of the didactic sequence; activities adapted at the level of knowledge of the participants and that show an interdisciplinary and not juxtaposed contents making. At the end of the meeting a putting is done together of the strong and weak points of the meeting that the drivers of the meeting will gather as report and will present like a point of in the exhibition of the didactic sequence of the second evidence.

Exhibition for groups of the interdisciplinary didactic sequence in exhibition of 15 ' with a power point or similar ruled to 10 of slides that they will include: title adapted to the interdisciplinary work; introduction with the paragraphs of description and justification; relation tables between the contents, the competitions and the targets; possible relations with a PEC and a pedagogic Project of team that will have already been assigned in the beginning of this block; orientations for the pedagogic intervention; development of the meetings with the structure that will be detailed; linked and attached evaluation items.

Recuperation all evidences on May 5.

## Bibliography

- Aibar, A., Julián, J. A., Murillo, B., García-González, L., Estada, S., and Bois, J. (2015). Actividad física y apoyo de la autonomía: El rol del profesor de Educación Física. *Rev. Psicol. Deporte*. 24(1), 155-161.
- Anguera, M. T. (2003). "Observational methods (general)," in *Encyclopedia of Psychological Assessment*, eds R. Fernández-Ballesteros (London: Sage), 632–637. doi: 10.4135/9780857025753.n136
- Arias-Pujol, E., and Anguera M.T. (2017). Observation of Interactions in Adolescent Group Therapy: A Mixed Methods Study. *Front. Psychol.* 8:1188. doi: 10.3389/fpsyg.2017.01188
- Anguera, M. T., Camerino, O., Castañer, M., and Sánchez-Algarra, P. (2014). Mixed methods en actividad física y deporte. *Rev. Psicol. Deporte*. 23, 123–130.
- Anguera, M. T., Camerino, O., Castañer, M., Sánchez-Algarra, P., and Onwuegbuzie, A. (2017). Sports Sciences: Moving Forward in Mixed Methods Research and Proposals for Achieving Quantitative and Qualitative Symmetry. *Front. Psychol.* 8:2196. doi: 10.3389/fpsyg.2017.02196
- Araujo, R., Mesquita, I., and Hastie, P.A. (2014). Review of the status of learning in research on sport education: future research and practice. *J. Sport. Sci. Med.* 13(4), 846-858.
- Armour, K., Quennerstedt, M., Chambers, F., & Makopoulou, K. (2017). What is 'effective'CPD for contemporary physical education teachers? A Deweyan framework. *Sport. Educ. Soc.* 22(7), 799-811. doi:10.1080/13573322.2015.1083000
- Barbat, B. E. (2008). E-Maieutics. Rationale and approach. *Int. J. Comput. Commun.* 3, 40-54.
- Belando, N., Ferriz-Morell, R., & Moreno-Murcia, J. A. (2012). Propuesta de un modelo para la mejora personal y social a través de la promoción de la responsabilidad en la actividad físico-deportiva. *RICYDE*, 8(29), 202-222. doi:10.5232/ricyde2012.02902
- Brill, M., Jonsson, G. K., Magnusson, M. S., and Schwab, F. (2016). "Immersive dynamics: presence

- experiences and patterns of attention,” in *Discovering Hidden Temporal Patterns in Behavior and Interactions: T-Pattern Detection and Analysis with THEME*, eds M. S. Magnusson, J. K. Burgoon, M. Casarrubea, and D. McNeill (New York, NY: Springer), 183–194.
- Burgoon, J. K., Wilson, D., Hass, M., and Schuetzlr, R. (2016). “Interactive deception in group decision-making: new insights from communication pattern analysis,” in *Discovering Hidden Temporal Patterns in Behavior and Interactions: T-Pattern Detection and Analysis with THEME*, eds M. S. Magnusson, J. K. Burgoon, M. Casarrubea, and D. McNeill (New York, NY: Springer), 37–61.
- Camerino, O., Castañer, M., and Anguera, M. T. (2012). *Mixed Methods Research in the Movement Sciences: Cases in Sport, Physical Education and Dance*. Abingdon: Routledge.
- Casarrubea, M., Jonsson, G. K., Faulisi, F., Sorbera, F., Di Giovanni, G., Benigno, A. et al. (2015). T-pattern analysis for the study of temporal structure of animal and human behavior: a comprehensive review. *J. Neurosci. Meth.* 239, 34–46. doi: 10.1016/j.jneumeth.2014.09.024
- Castañer M, Andueza J, Hileno R, Puigarnau S, Prat Q and Camerino O (2018) Profiles of Motor Laterality in Young Athletes' Performance of Complex Movements: Merging the MOTORLAT and PATHoops Tools. *Frontiers in Psychology*. 9:916. doi: 10.3389/fpsyg.2018.00916.
- Castañer, M., Barreira, D., Camerino, O., Anguera, M. T., Canton, A., and Hileno, R. (2016). Goal scoring in soccer: a polar coordinate analysis of motor skills used by Lionel Messi. *Front. Psychol.* 7:806. doi: 10.3389/fpsyg.2016.00806
- Castañer, M., Barreira, D., Camerino, O., Anguera, M. T., Fernandes, T., and Hileno, R. (2017). Mastery in goal scoring, T-pattern detection and polar coordinate analysis of motor skills used by Lionel Messi and Cristiano Ronaldo. *Front. Psychol.* 8:741. doi: 10.3389/fpsyg.2017.00741
- Castañer, M. y Camerino, O. (2006). *Manifestaciones Básicas de la Motricidad*. INEFC. Publicacions de la Universitat de Lleida.
- Castañer, M and Camerino O. (2013). Enfoque Dinámico e Integrado de la Motricidad (EDIM). *Acción Motriz*. 11, 5-12.
- Castañer, M., Camerino, O., Anguera, M. T., and Jonsson, G. K. (2013). Kinesics and proxemics communication of expert and novice PE teachers. *Qual. Quant.* 47:4, 1813-1829.
- Castañer, M., Camerino, O., Anguera, M. T., and Jonsson, G. K. (2016). “Paraverbal Communicative Teaching T-Patterns Using SOCIN and SOPROX Observational Systems,” in *Discovering Hidden Temporal Patterns in Behavior and Interaction*, eds M. S. Magnusson, J. K. Burgoon, and M. Casarrubea (New York: Springer), 83-100. doi: 10.1007/978-1-4939-3249-8.
- Castañer, M., Camerino, O., Landry, P., & Parés, N. (2016). Quality of physical activity of children in exergames: Sequential body movement analysis and its implications for interaction design. *International Journal of Human-Computer Studies*, 96, 67–78. <http://dx.doi.org/10.1016/j.ijhcs.2016.07.007>. [COMPUTER SCIENCES, CYBERNETICS-SCIE, 2016; RANK: 5/22; FI: 2,863, Q1].
- Castañer, M., Franco, S., Rodrigues, J., and Miguel, C. (2012). “Optimizing verbal and nonverbal communication in PE teachers, instructors and sport coaches,” in *Mixed Methods Research in the Movement Sciences: Cases in Sport, Physical Education and Dance*, eds O. Camerino, M. Castañer, and M. T. Anguera (UK: Routledge), 177-214.
- Cecchini, J. , Montero, J., Alonso, A., Izquierdo, M., and Contreras, O. (2007). Effects of personal and social responsibility on fair play in sports and self-control in school-aged youths. *Eur J Sport Sci.* 7(4), 203-211. doi: 10.1080/17461390701718497
- Creswell, J. W. (2003). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches, 2nd Edn*. Thousand Oaks, CA: Sage.
- Creswell, J. W. (2015). *A Concise Introduction to Mixed Methods Research*. Thousand Oaks, CA: Sage.
- Cutforth, N., and Puckett, K. (1999). An investigation into the organization, challenges, and impact of an

urban apprentice teacher program. *The Urban Review*, 31(2), 153-172.

DeBusk, M., & Hellison, D. (1989). Implementing a Physical Education Self-Responsibility Model for delinquency-prone youth. *J. Teach. Phys. Educ. Journal of teaching in physical education*, 8(2), 104-112. doi: 10/1123/jtpe.8.2.104

Deci, E. L., and Ryan, R. M. (2000). The “what” and “why” of goal pursuits: human needs and the self-determination of behavior. *Psychol. Inq.* 11, 227–268. doi: 10.1207/S15327965PLI1104\_01.

Deci, E. L., and Ryan, R. M. (2012). “Self-determination theory,” in *Handbook of Theories of Social Psychology*, eds P. A. M. Van Lange, A. W. Kruglanski, and E. T. Higgins (Thousand Oaks, CA: Sage), 416–437. doi: 10.4135/9781446201022

Escartí, A., Pascual, C., & Gutiérrez, M. (2005). *Responsabilidad Personal y Social a través de la educación física y el deporte*. Barcelona: Graó.

Escartí, A., Gutiérrez M., Pascual C, and Marín, D. (2010a). Application of Hellison’s Teaching Personal and Social Responsibility model in physical education to improve self-efficacy for adolescents at risk of dropping-out of school. *Span. J. Psychol.* 13(2), 667–676.

Escartí, A., Gutiérrez, M., Pascual, C. and Llopis, R. (2010b). Implementation of the Personal and Social Responsibility Model to improve Self-Efficacy during Physical Education Classes for Primary School Children. *IJP&PT*, 10:3, 387-402. doi: 10.4100/jhse.2012.82.10

Escartí, A., Wright, P., Pascual, C. and Gutiérrez, M. (2015). Tool for Assessing Responsibility-based Education (TARE) 2.0: Instrument Revisions, Inter-rater Reliability, and Correlations between Observed Teaching Strategies and Student Behaviors. *Universal Journal of Psychology*, 3(2), 55-63, 2015 <http://www.hrpub.org> Doi: 10.13189/ujp.2015.030205

Escartí, A., Gutiérrez, M., Pascual, C., & Wright, P. (2013). Observación de las estrategias que emplean los profesores de educación física para enseñar la responsabilidad (TARE). *RPD*, 22(1), 159-166.

Escartí, A., Llopis-Goig, R., and Wright, P. M. (2018). Assessing the Implementation Fidelity of a School-based Teaching Personal and Social Responsibility Program in Physical Education and Other Subject Areas. *J. Teach. Phys. Educ.* 37:1, 12-23. doi: 10.1123/jtpe.2016-0200

Etcheberrigaray, G., Lagos, J., Cornejo, R., Albornoz, N., and Fernández, R. (2017). Concepciones sobre docencia en el nuevo marco regulatorio del sistema escolar chileno. *Rev. Psicol (Santiago)*, 26(1), 14-26. doi: 10.5354/0719-0581.2017.46693

Furley, P., and Memmert, D. (2015). Creativity and working memory capacity in sports: working memory capacity is not a limiting factor in creative decision making amongst skilled performers. *Front. Psychol.* 6:115. doi: 10.3389/fpsyg.2015.00115

Gabin, B., Camerino, O., Anguera, M. T., & Castañer, M. (2012). Lince: multiplatform sport analysis software. *Procedia - Social and Behavioral Sciences*, 46. 4692-4694.

Gibbs, P.; Cartney, P.; Wilkinson, K.; Parkinson, J.; Cunningham, S.; James-Reynolds, C.; Zoubir, T.; Brown, V.; Barter, P.; Sumner, P.; MacDonald, A.; Dayananda, A. & Pitt, A. (2016) Literature review on the use of action research in higher education, *Educational Action Research*, 25(1), 3-22. DOI: 10.1080/09650792.2015.1124046

Gillies, R. M. (2014). Developments in cooperative learning: review of research. *An. Psicol.* 30:3, 792-801. doi:10.6018/analesps.30.3.201191

Gillies, R. M. (2016). Cooperative Learning: Review of Research and Practice. *AJTE*, 41(3), 39-54. doi: 10.14221/ajte.2016v41n3.3

Gold, J., and Shadlen, M. (2007). The neural basis of decision making. *Annu. Rev. Neurosci.* 30, 535–574. doi: 10.1146/annurev.neuro.29.051605.113038

- Goldberger, M., Ashworth, S., and Byra, M. (2012). Spectrum of Teaching Styles retrospective 2012. *Quest*, 64, 268–282. doi: 10.1080/00336297.2012.706883
- Goodyear, V. A., Casey, A., & Kirk, D. (2014). Tweet me, message me, like me: using social media to facilitate pedagogical change within an emerging community of practice. *Sport. Educ. Soc*, 19:7, 927-943. Doi: 10.1080/13573322.2013.858624
- Goodyear, V. A. (2017). Sustained professional development on cooperative learning: Impact on six teachers' practices and students' learning. *Research quarterly for exercise and sport*, 88(1), 83-94. doi: 10.1080/02701367.2016.1263381
- Gordon, B. (2010). An examination of the Responsibility Model in a New Zealand secondary school physical education program. *J. Teach. Phys. Educ.* 29:1, 21–37. doi: 10.1123/jtpe.29.1.21
- Gulyaev, S. and Stonyer H., (2002). Making a map of science: general systems theory as a conceptual framework for tertiary science education. *Int. J. Sci. Educ.* 24, 753-769. doi: 10.1080/09500690210126504.
- Hastie, P. A., de Ojeda, D. M., and Luquin, A. C. (2011). A review of research on Sport Education: 2004 to the present. *Phys. Educ. Sport Pedagog.*, 16(2), 103-132.
- Hellison, D. (1978). *Beyond balls and bats: alienated (and other) youth in the gym*. Washington DC: AAHPER.
- Hellison, D. (1985). *Goals and strategies for teaching physical education*. Champaign, IL: Human Kinetics.
- Hellison, D. (2011). *Teaching responsibility through physical activity*. 3rd ed. Champaign, IL: Human Kinetics.
- Hellison, D., and Wright, P. M (2003). Retention in an urban extended day program: A process-based assessment. *J. Teach. Phys. Educ.*, 22:4, 369-381. doi: 10.1123/jtpe.22.4.369.
- Hemphill, M. A., Templin, T. J., and Wright, P. M. (2015). Implementation and outcomes of a responsibility-based continuing professional development protocol in physical education. *Sport. Educ. Soc*. 20:3, 398-419. doi: 10.1080/13573322.2012.761966
- Hernández-Mendo, A., Castellano, J., Camerino, O., Jonsson, G., Blanco-Villaseñor, A., Lopes, A. et al. (2014). Observational software, data quality control and data analysis. *Rev. Psicol. Deporte*. 23, 111–121.
- Kluge, A. (2008). What you train is what you get? Task requirements and training methods in complex problem-solving. *Comput. Hum. Behav.* 24:2, 284-308. doi: 10.1016/j.chb.2007.01.013
- Kolb, D. A. (1984). *Experiential Learning: Experience as the Source of Learning and Development*. Englewood Cliffs, NJ: Prentice-Hall.
- Lee, O., and Choi, E. (2015). The influence of professional development on teachers' implementation of the Teaching Personal and Social Responsibility model. *JTPE*, 34:4, 603-625.
- Levene, Howard (1960). «Robust tests for equality of variances». En Ingram Olkin, Harold Hotelling, et alia. Stanford University Press. pp. 278-292.
- Likífa, B. (1990). Hiding beneath the Stairwell-A dropout prevention program for Hispanic youth. *JOPERD*, 61(6), 40-41. doi: 10.1080/07303084.1990.10604548.
- LOMCE (Ley orgánica para la mejora de la calidad educativa) (Ley Orgánica 8/2013, 9 de diciembre). Boletín Oficial del Estado, nº 295, 2013, 10 diciembre.
- López, J., Valero, A., Anguera, M. T., and Díaz, A. (2016). Disruptive behavior among elementary students in physical education. *SpringerPlus* 5:1154. doi: 10.3389/fpsyg.2017.00741
- Lorente, E., & Kirk, D. (2016). Student teachers' understanding and application of assessment for

learning during a physical education teacher education course. *European Physical Education Review*, 2(1) 65–81.

Magnusson, M. S., Burgoon, J. K., and Casarrubea, M. (eds.). (2016). *Discovering Hidden Temporal Patterns in Behavior and Interaction: T-Pattern Detection and Analysis with THEME™*. New York, NY: Springer-Verlag.

Malecic, A. (2017). Footprints of General Systems Theory. *Syst. Res. Behav. Sci.* 34, 631-636. doi: 10.1002/sres.2484

Metzler, M. W. (1985). On styles. *Quest*, 35, 145–154.

Moreno-Murcia, J. A., Parra, N., and González-Cutre, D. (2008). Influencia del apoyo a la autonomía, las metas sociales y la relación con los demás sobre la desmotivación en educación física. *Psicothema*, 20(4), 636-641.

Mosston, M., and Ashworth, S. (1990). *The Spectrum of Teaching Styles: From Command to Discovery*. White Plains, NY: Addison-Wesley Longman Ltd.

O'Cathain, A., Murphy, E., and Nicholl, J. (2010). Three techniques for integrating data in mixed methods studies. *Br. Med. J.* 341:c4587. doi: 10.1136/bmj.c4587

Pardo, R. (2008). *La transmisión de valores a jóvenes socialmente desfavorecidos a través de la actividad física y el deporte. Estudio Múltiple de Casos: Getafe, L'Aquila y Los Ángeles*. Tesis Doctoral. Universidad Politécnica de Madrid: Madrid.

Piaget, J., and Cook, M. (1952). *The origins of intelligence in children*. New York, NY: International University Press.

Pozo, P., Grao-Cruces, A., and Pérez-Ordás, R. (2016). Teaching personal and social responsibility model-based programmes in physical education. *Eur. Phys. Educ. Rev.* 24:1, 56-75. doi: 10.1177/1356336X16664749

Prat, Q., Camerino, O., Castañer, M., Andueza, J., and Puigarnau, S. (2019)(in press). The pedagogical model of personal and social responsibility to enhance innovation in physical education. *Apunts d'Educació Física*.

Puigarnau, S., Camerino, O., Castañer, M., Prat, Q., and Anguera, M. T. (2016). El apoyo a la autonomía en practicantes de centros deportivos y de fitness para aumentar su motivación. *RICYDE*, 43:12, 48-64. doi:10.5232/ricyde2016.04303

Rodríguez-Dorta, M., and Borges, A. (2017). Behavioral Patterns in Special Education. Good Teaching Practices. *Front. Psychol.* 8:631. doi: 10.3389/fpsyg.2017.00631.

Sánchez-Alcaraz, B.J., Mármol, A., Valero, A. and De la Cruz, E. (2013). Aplicación de un programa para la mejora de la responsabilidad personal y social en las clases de Educación Física. *Motricidad*, 30, 121-129. doi: 10.25115/ecp.v9i8.997

Smithikrai, C. (2013). The mediating roles of academic stress and life satisfaction in the relationship between personal responsibility and academic performance, en F. Lumban, S. Kadry, Taylor, M. and Shen, P (eds). *Innovation, Communication and Engineering* (383-387). London: Taylor & Francis Group.

Tissington, P., and Senior, C. (2017). Research Activity and the New Pedagogy: Why Carrying Out Research Is Essential for Effective Learning. *Front. Psychol.* 8:1838. doi: 10.3389/fpsyg.2017.01838

Torrents, C., Castañer, M., Dinusova, M., and Anguera, M. T. (2013). Dance divergently in physical education: teaching using open-ended questions, metaphors, and models. *Res. Danc. Educ.* 2:14, 104-119. doi:10.1080/14647893.2012.712100

Valero, A. and Conde, J.L. (2003). *La iniciación al atletismo a través de los juegos*. Málaga: Aljibe.

Vieluf, S., Hochweber, J., Klieme, E., and Kunter, M. (2015). Who has good relationship with the teachers? A comparison of comprehensive education systems with education systems using between

school tracking. *Oxford. Rev. Educ.* 41:1, 3-25. doi: 10.1080/03054985.2014.992874

Waring, M., and Evans, C. (2015). *Understanding pedagogy: developing a critical approach to teaching and learning*. Abingdon, Oxford: Routledge.

Wright, P. M., and Craig, M. W. (2011). Tool for assessing responsibility-based education (TARE): Instrument development, content validity, and inter-rater reliability. *Measurement in Physical Education and Exercise Science*, 15:3, 204-219.

Wright, P. M., Li, W., Ding, S., and Pickering, M. (2010). Integrating a personal and social responsibility program into a wellness course for urban high school students: Assessing implementation and educational outcomes. *Sport. Educ. Soc.*, 15:3, 277-298. doi: 10.1080/13573322.2010.493309