

PE RESEARCH TRENDS – PE THESIS PROPOSAL MAKING

Yogyakarta State University



José V. García-Jiménez (PhD)
University of Murcia, Spain

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Before starting...

UNIVERSIDAD DE
MURCIA

Dr. José Vicente García Jiménez – University of Murcia, Spain

CV



PROFESSIONAL EXPERIENCE

- 2008 – Present: **Associated teacher**. Faculty of Education. University of Murcia
 - Children physical training
 - Didactics of Physical Education
 - Innovation and Research in Primary Physical Education
- 2010 – Present: **Physical Education Teacher**. San Buenaventura High School. Murcia
- 2004-2008. **Physical trainer**. Elpozo Murcia Futsal

RESEARCH LINES

- **Physiologic answers** during physical education lessons and sport activities
- PA levels in students during PE and Sport
- Obesity and intervention programs for children
- **Dehydration and fluid intake in futsal players** (Doctorate Thesis)

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Final objective

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MURCIA

**I CONGRESS ABOUT RESEACH
PROPOSALS IN PHYSICAL EDUCACION**

Yogyakarta, November 2021

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Final objective

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PLANNING

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MURCIA

No	Date	Session
1.	Friday, 24 September 2021	Research Topics in Physical Education
2.	Friday, 1 Oktober 2021	Selection of Research Problems in Physical Education
3.	Friday, 8 Oktober 2021	Literature Review in Physical Education
4.	Friday, 15 Oktober 2021	Types of Research in Physical Education
5.	Friday, 22 Oktober 2021	Research Methodology in Physical Education
6.	Friday, 29 Oktober 2021	Population and Research Sample in Physical Education
7.	Friday, 5 November 2021	Research Instruments and Data Analysis in Physical Education
8.	Friday, 12 November 2021	Virtual Congress – Posters Presentation

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LESSON 1. RESEARCH TOPICS IN PHYSICAL EDUCATION

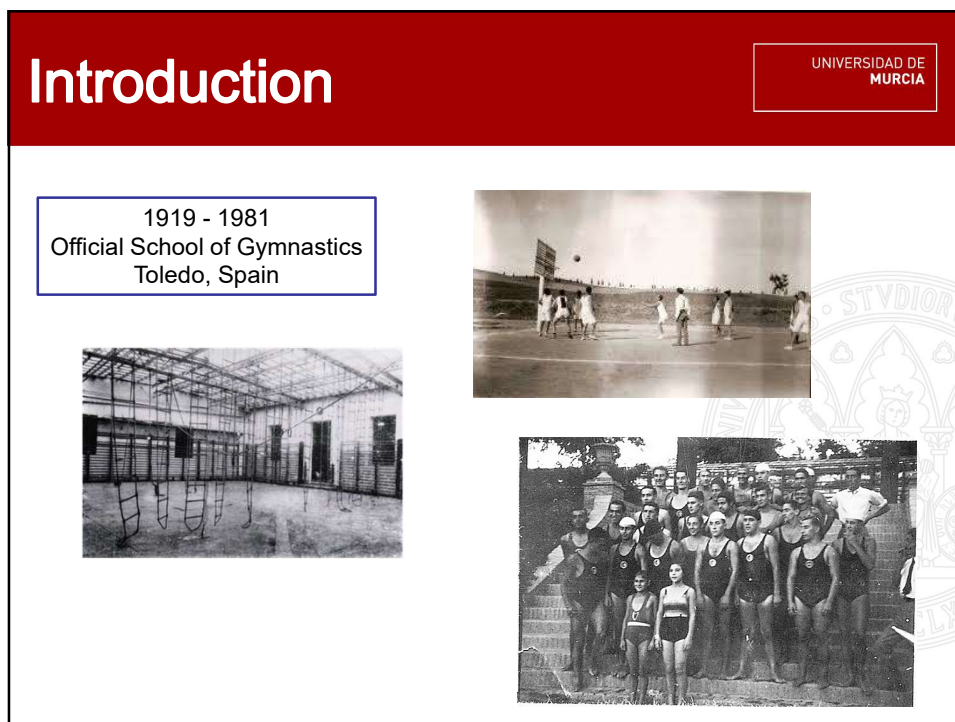


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University of Murcia, Spain

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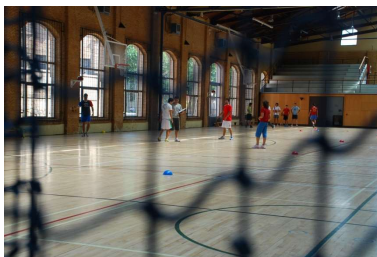


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Introduction

UNIVERSIDAD DE
MURCIA

1998 - Present
Faculty of Sport Sciences,
University of Toledo, Spain



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LESSON 1. RESEARCH TOPICS IN PE

UNIVERSIDAD DE
MURCIA

1. SPORT SCIENCES. EVOLUTION AND CURRENT SITUATION

1900 – 1970
Gymnastics



1970 – 1990
Physical Education



1990 – Nowadays
Sport Science



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LESSON 1. RESEARCH TOPICS IN PE

UNIVERSIDAD DE MURCIA

1. SPORT SCIENCES. EVOLUTION AND CURRENT SITUATION

WHICH ARE OUR AREAS?

The diagram features a central blue box labeled "SPORT SCIENCES". Surrounding this central box are five yellow boxes, each containing a research area: "EDUCATION" (top left), "REHABILITATION" (top right), "RECREATION" (bottom left), "TRAINING" (bottom center), and "SPORT ADMINISTRATION" (bottom right). The background includes a faint watermark of the University of Murcia seal.

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LESSON 1. RESEARCH TOPICS IN PE

UNIVERSIDAD DE MURCIA

1. SPORT SCIENCES. EVOLUTION AND CURRENT SITUATION

WHICH IS OUR NAME?

The diagram uses a map of Europe to illustrate the evolution of names for the field. Five labels with lines pointing to different regions on the map are: "Human Movement Sciences" (pointing to Scandinavia), "Physical Activity and Sports Sciences" (pointing to the British Isles), "Human Motor Skills" (pointing to the Iberian Peninsula), "Sport Sciences" (pointing to Central Europe), and "Physical Education and Sports" (pointing to Southern Europe). The background includes a faint watermark of the University of Murcia seal.

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LESSON 1. RESEARCH TOPICS IN PE

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1. SPORT SCIENCES. EVOLUTION AND CURRENT SITUATION

WHICH IS OUR FIELD OF STUDY?

Physical Education?
Sport?
Human movement
Exercise?



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LESSON 1. RESEARCH TOPICS IN PE

UNIVERSIDAD DE MURCIA

1. SPORT SCIENCES. EVOLUTION AND CURRENT SITUATION

Sport sciences in Spain

“sport, gymnastics, later physical education, represent a social phenomenon for humans, on the margins of the science... Today, **the study of the man in movement** is a new worry an scientific interest about a new are of the human behaviour”
(José María Cagigal, 1996)



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LESSON 1. RESEARCH TOPICS IN PE

UNIVERSIDAD DE MURCIA

1. SPORT SCIENCES. EVOLUTION AND CURRENT SITUATION

WHICH ARE OUR OBJETIVES?

PRACTICAL OBJECTIVES



PHYSICAL EDUCATION



PHYSICAL ACTIVITY AND HEALTH



ELITE SPORT



SPORT-FOR-ALL PROMOTION

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LESSON 1. RESEARCH TOPICS IN PE

UNIVERSIDAD DE MURCIA

1. SPORT SCIENCES. EVOLUTION AND CURRENT SITUATION

WHICH ARE OUR OBJETIVES?

PRACTICAL OBJECTIVES



PHYSICAL EDUCATION



PHYSICAL ACTIVITY AND HEALTH



ELITE SPORT



SPORT-FOR-ALL PROMOTION

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LESSON 1. RESEARCH TOPICS IN PE

UNIVERSIDAD DE MURCIA

1. SPORT SCIENCES. EVOLUTION AND CURRENT SITUATION

SPORT SCIENCES IN SPAIN - SPECIFIC STUDY AREAS

1. SPORT AND PHYSICAL ACTIVITIES

2. PHYSICAL EDUCATION AND SPORT TEACHING

3. SOCIAL AND BEHAVIOUR SCIENCES

4. EXERCISE PHYSIOLOGY, DIRECTED TO HEALTH AND PERFORMANCE

5. BIOMECHANICS AND ERGONOMICS

6. ORGANIZATION AND SPORT PROMOTION

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LESSON 1. RESEARCH TOPICS IN PE

UNIVERSIDAD DE MURCIA

1. SPORT SCIENCES. EVOLUTION AND CURRENT SITUATION

SPORT SCIENCES IN SPAIN - SPECIFIC STUDY AREAS

1. SPORT AND PHYSICAL ACTIVITIES

2. PHYSICAL EDUCATION AND SPORT TEACHING

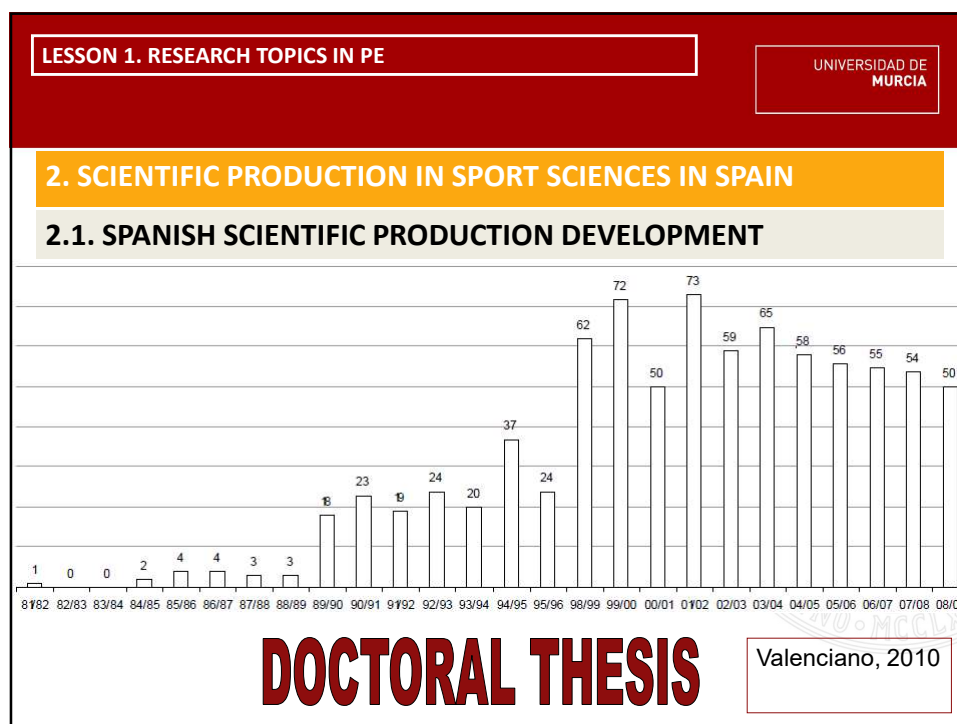
3. SOCIAL AND BEHAVIOUR SCIENCES

4. EXERCISE PHYSIOLOGY, DIRECTED TO HEALTH AND PERFORMANCE

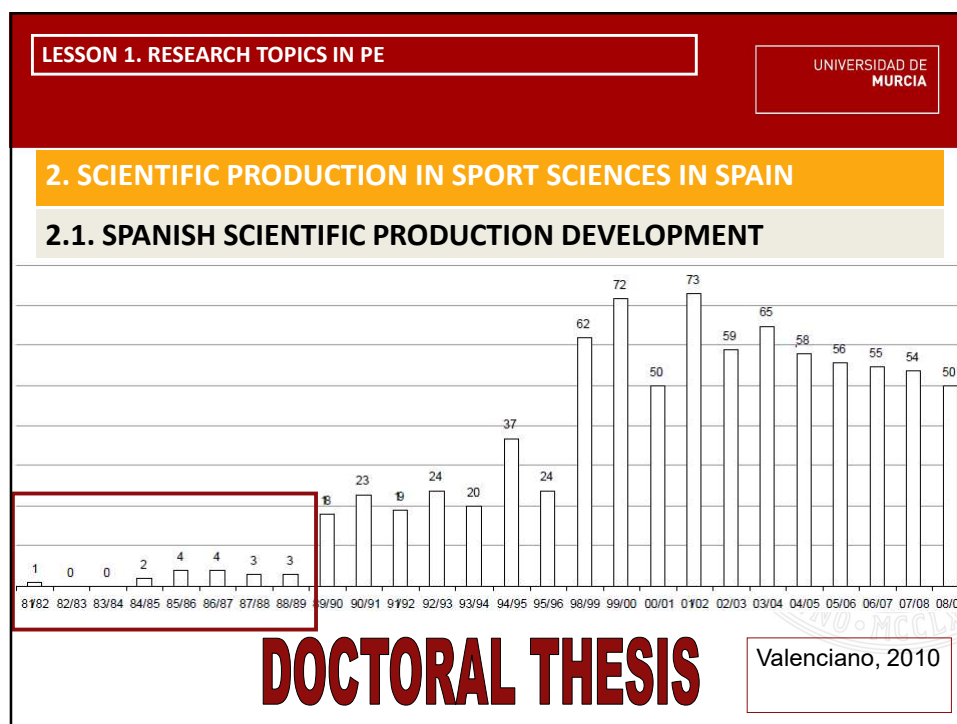
5. BIOMECHANICS AND ERGONOMICS

6. ORGANIZATION AND SPORT PROMOTION

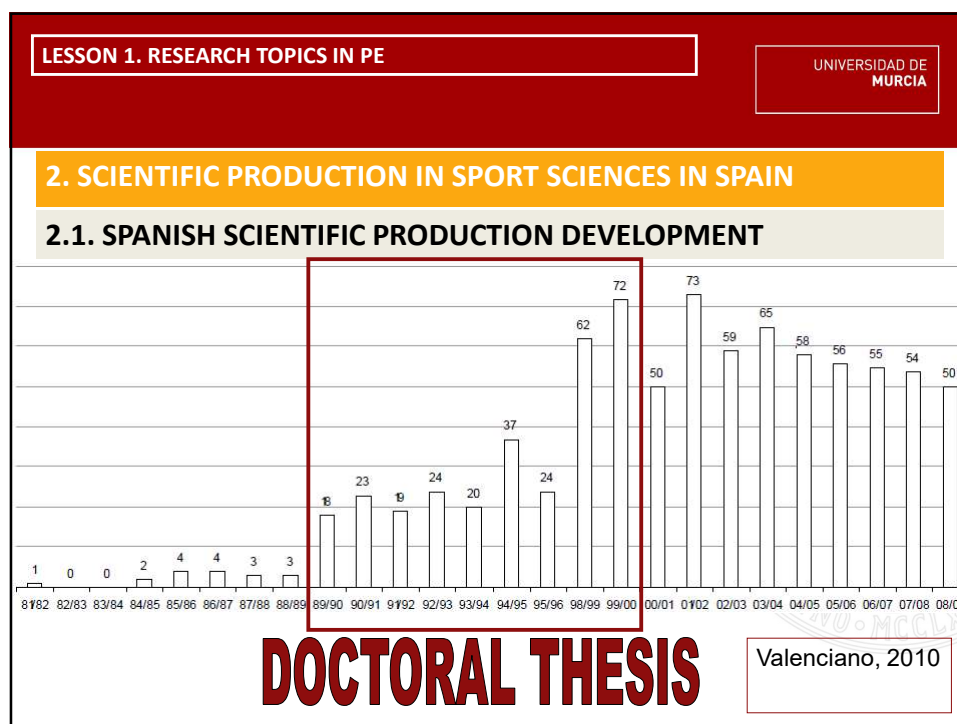
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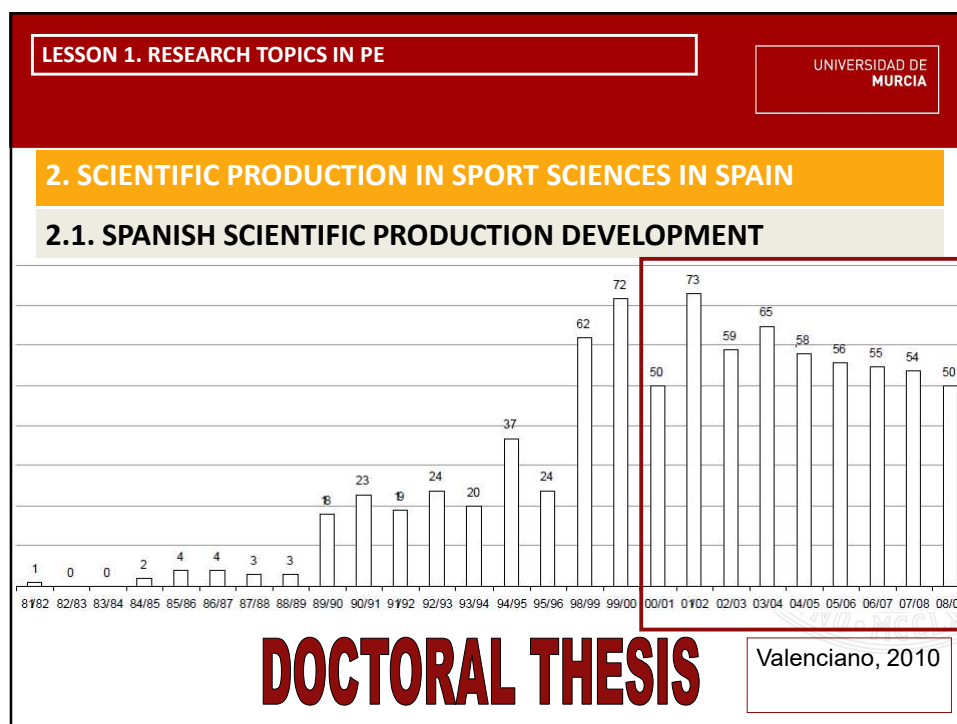
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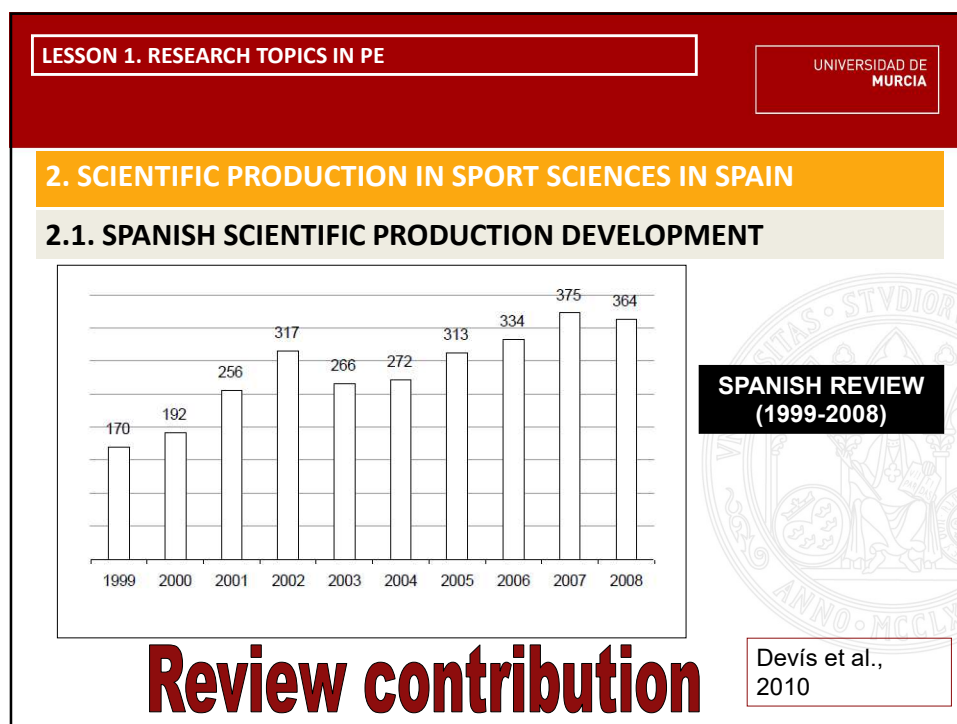
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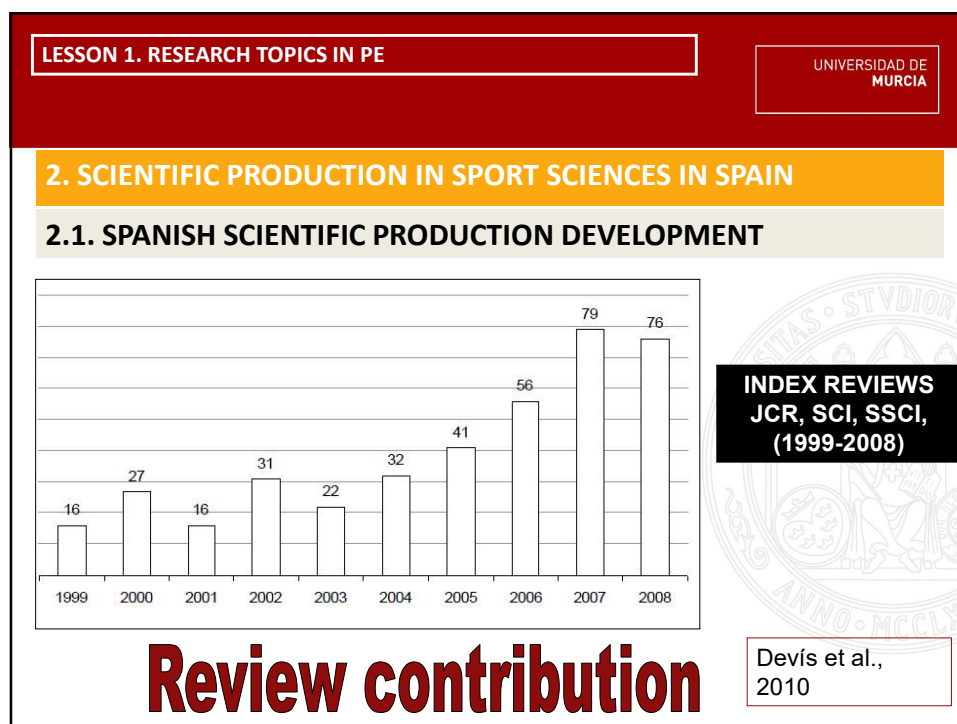
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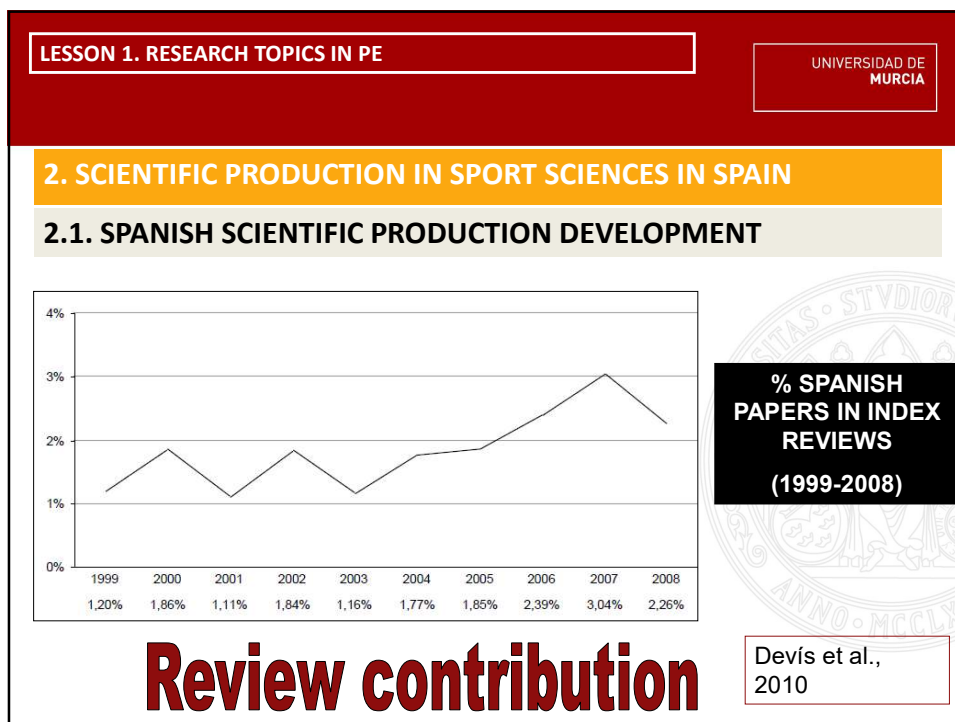
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LESSON 1. RESEARCH TOPICS IN PE

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3. RESEARCH LINES IN PHYSICAL EDUCATION

1. PHYSICAL EDUCATION AS A SCHOOL SUBJECT:

- EDUCATIVE CURRICULUM IN PE
- TEACHER FORMATION
- TEACHING PE METHODOLOGIES
- STUDENT ATTITUDES, INTERESTS AND MOTIVATIONS
- DEVELOPMENT OF TEACHING MATERIALS
- GENDER STUDIES IN PHYSICAL EDUCATION

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LESSON 1. RESEARCH TOPICS IN PE

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3. RESEARCH LINES IN PHYSICAL EDUCATION

2. SPORT AT SCHOOL AND SPORT FOR ALL

- INITIATION TO SPORTS PRACTICE
- MOTIVATION FOR PRACTICING PHYSICAL ACTIVITY AND SPORT
- PLANNING AND DEVELOPMENT OF ACTIVITY PROGRAMS
- STUDENT ATTITUDES, INTERESTS AND MOTIVATIONS
- IMPACT ON HEALTH AND QUALITY OF LIFE OF PRACTICING PHYSICAL-SPORTS ACTIVITIES



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LESSON 1. RESEARCH TOPICS IN PE

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3. RESEARCH LINES IN PHYSICAL EDUCATION

3. COMPETITIVE SPORT

- SPECIFIC PROBLEMS OF SPORT AT SCHOOL
- COMPETITION-ORIENTED SPORTS INITIATION
- TEACHING SPORTS
- STUDENT ATTITUDES, INTERESTS AND MOTIVATIONS
- THE IMPACT OF SPORTS COMPETITION ON HEALTH IN CHILDHOOD AND ADOLESCENCE



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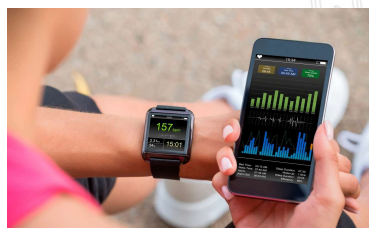
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UNIVERSIDAD DE
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3. RESEARCH LINES IN PHYSICAL EDUCATION

4. MANAGEMENT AND ORGANIZATION OF PHYSICAL-SPORTS ACTIVITIES

- STUDENTS ATTITUDES AND MOTIVATIONS TO PHYSICAL ACTIVITY
- STUDENTS SPORTS PRACTICE HABITS
- ADHERENCE, CONTINUITY AND ABANDONMENT OF PHYSICAL-SPORTS PRACTICE



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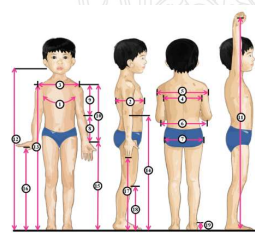
LESSON 1. RESEARCH TOPICS IN PE

UNIVERSIDAD DE
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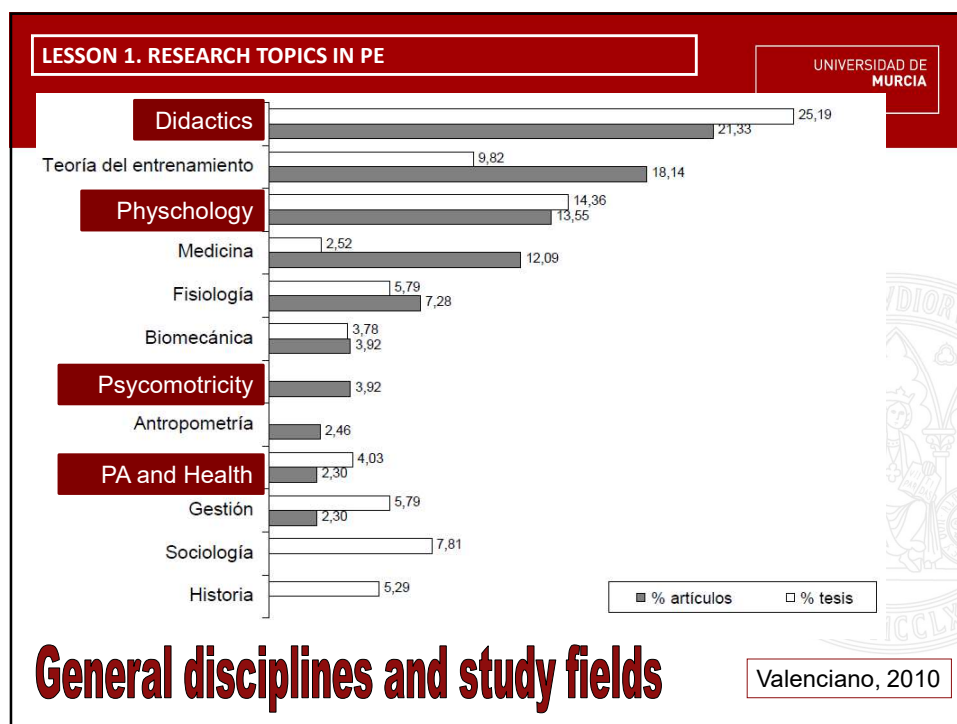
3. RESEARCH LINES IN PHYSICAL EDUCATION

5. STUDY OF HUMAN MOTOR SKILLS FROM THE PHYSICAL PERSPECTIVE AND PHYSIOLOGICAL

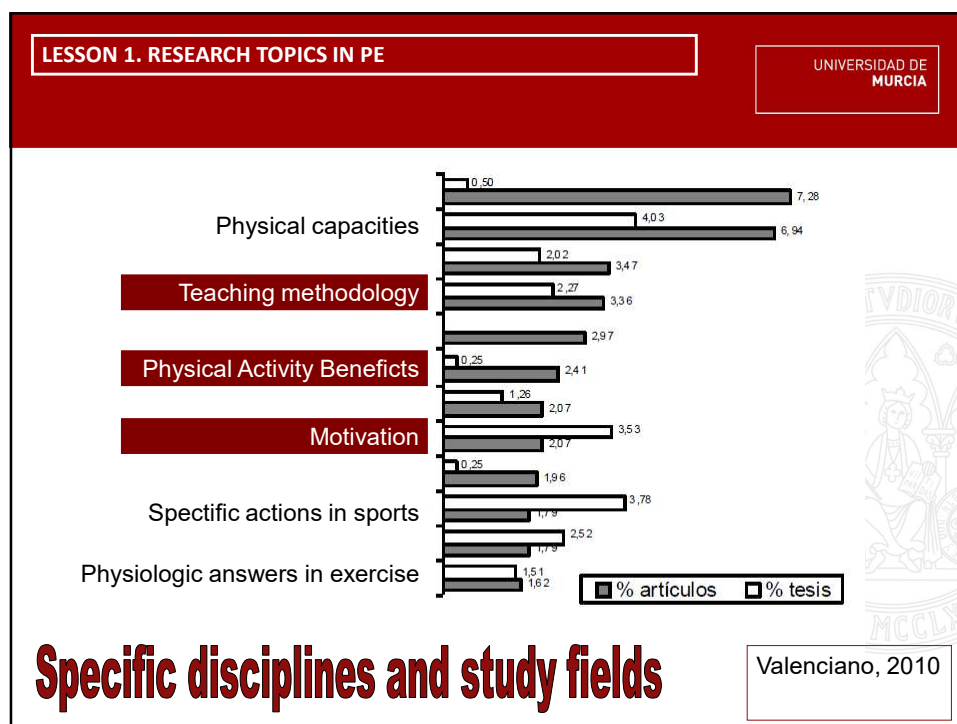
- ANATOMY OF HUMAN MOVEMENT
- SPORT AND PHYSICAL ACTIVITY PHYSIOLOGY
- BIOCHEMISTRY OF HUMAN MOVEMENT
- ANTHROPOMETRIC ANALYSIS AND EFFECTS OF PHYSICAL EXERCISE ON THESE VARIABLES



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LESSON 1. RESEARCH TOPICS IN PE
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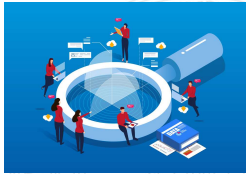
PHYSICAL
EDUCATION AS A
SCHOOL SUBJECT

SPORT AT SCHOOL
AND SPORT FOR
ALL

COMPETITIVE
SPORT


MANAGEMENT AND
ORGANIZATION PA
AND SPORT

STUDY OF HUMAN
SKILLS



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


LESSON 1. RESEARCH TOPICS IN PE
UNIVERSIDAD DE MURCIA



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British Journal of Educational Psychology (2021)
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**What makes a physical education teacher?
Personal characteristics for physical education
development**


Melina Schnitzius* , Alina Kirch , Sarah Spengler ,
Simon Blaschke  and Filip Mess 


Department of Sport and Health Sciences, Associate Professorship of Didactics in
Sport and Health, Technical University of Munich, Germany

Background. The physical education (PE) teacher is a decisive factor for PE development and teaching. Reflecting on and making the best possible use of the PE teachers' personal resources positively influence teacher effectiveness and student achievement. This requires a comprehensive analysis of PE teachers' personal characteristics.

Aims. Consequently, this study aimed to describe PE teachers by using an aggregated examination of PE teachers' synergistic personal characteristics and analysing gender, age, and school type differences.

Sample. 1,163 German PE teachers (61.9% female; $M = 43.16 \pm 10.8$ years) from six different school types participated in the study.




[FULL ARTICLE IN LINK](#)
CLICK


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LESSON 1. RESEARCH TOPICS IN PE

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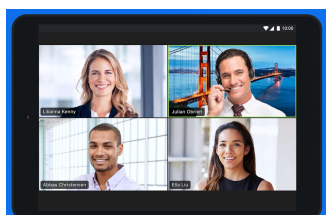
British Journal of Educational Psychology (2021)
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**What makes a physical education teacher?
Personal characteristics for physical education
development**

FULL ARTICLE IN LINK

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1. WHICH IS THE OBJECTIVE IN THIS RESEARCH?
2. WHICH TOOL ARE THEY USING FOR COLLECTING DATA?
3. WHICH ARE MAIN CONCLUSIONS?
4. WHICH ARE UTILITIES OF THIS PAPER FOR A FUTURE TEACHER?

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UNIVERSIDAD DE MURCIA

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PE RESEARCH TRENDS –
PE THESIS PROPOSAL MAKING

Terima kasih atas perhatiannya

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PE RESEARCH TRENDS – PE THESIS PROPOSAL MAKING

Yogyakarta State University



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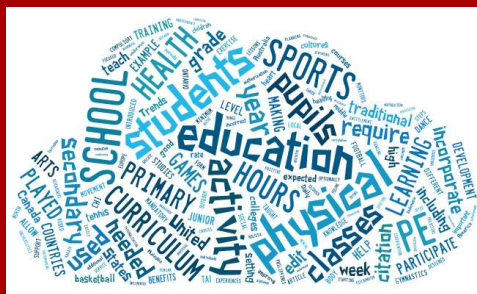
Final objective



UNIVERSIDAD DE MURCIA

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LESSON 2. RESEARCH PROBLEMS SELECTION



Dr. José Vicente García-Jiménez
University of Murcia, Spain

LESSON 1. RESEARCH TOPICS IN PE


LAST WEEK

UNIVERSIDAD DE MURCIA

1. SPORT SCIENCES. EVOLUTION AND CURRENT SITUATION

WHICH IS OUR FIELD OF STUDY?

Physical Education?
Sport?
Human movement
Exercise?

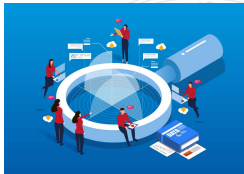


LESSON 1. RESEARCH TOPICS IN PE

LAST WEEK

UNIVERSIDAD DE MURCIA

PHYSICAL EDUCATION AS A SCHOOL SUBJECT	SPORT AT SCHOOL AND SPORT FOR ALL
COMPETITIVE SPORT	MANAGEMENT AND ORGANIZATION PA AND SPORT
STUDY OF HUMAN SKILLS	



LESSON 1. RESEARCH TOPICS IN PE

UNIVERSIDAD DE MURCIA

LAST WEEK


3. RESEARCH LINES IN PHYSICAL EDUCATION


1. PHYSICAL EDUCATION AS A SCHOOL SUBJECT: <ul style="list-style-type: none"> - EDUCATIVE CURRICULUM IN PE - TEACHER FORMATION - TEACHING PE METHODOLOGIES - STUDENT ATTITUDES, INTERESTS AND MOTIVATIONS - DEVELOPMENT OF TEACHING MATERIALS - GENDER STUDIES IN PHYSICAL EDUCATION 	3. COMPETITIVE SPORT <ul style="list-style-type: none"> - SPECIFIC PROBLEMS OF SPORT AT SCHOOL - COMPETITION-ORIENTED SPORTS INITIATION - TEACHING SPORTS - STUDENT ATTITUDES, INTERESTS AND MOTIVATIONS - THE IMPACT OF SPORTS COMPETITION ON H CHILDHOOD AND ADOLESCENCE
2. SPORT AT SCHOOL AND SPORT FOR ALL <ul style="list-style-type: none"> - INITIATION TO SPORTS PRACTICE - MOTIVATION FOR PRACTICING PHYSICAL ACTIVITY AND - PLANNING AND DEVELOPMENT OF ACTIVITY PROGRAMS - STUDENT ATTITUDES, INTERESTS AND MOTIVATIONS - IMPACT ON HEALTH AND QUALITY OF LIFE OF PRACTICING PHYSICAL-SPORTS ACTIVITIES 	4. MANAGEMENT AND ORGANIZATION OF PHYSICAL SPORTS ACTIVITIES <ul style="list-style-type: none"> - STUDENTS ATTITUDES AND MOTIVATIONS TO PHYSICAL ACTIVITY - STUDENTS SPORTS PRACTICE HABITS - ADHERENCE, CONTINUITY AND ABANDONMENT OF PHYSICAL SPORTS PRACTICE
	5. STUDY OF HUMAN MOTOR SKILLS FROM THE PHYSICAL PERSPECTIVE AND PHYSIOLOGICAL <ul style="list-style-type: none"> - ANATOMY OF HUMAN MOVEMENT - SPORT AND PHYSICAL ACTIVITY PHYSIOLOGY - BIOCHEMISTRY OF HUMAN MOVEMENT - ANTHROPOMETRIC ANALYSIS AND EFFECTS OF PHYSICAL EXERCISE ON THESE VARIABLES

LESSON 2. SELECTION OF RESEARCH PROBLEMS IN PE

UNIVERSIDAD DE MURCIA

1. RESEARCH PROBLEMS





LESSON 2. SELECTION OF RESEARCH PROBLEMS IN PE

UNIVERSIDAD DE MURCIA

2. 2020 TRENDING RESEARCH LINES – PHYSICAL EDUCATION



IMPACT ON HEALTH AND QUALITY OF LIFE OF PE, PA AND SPORT

- PHYSICAL ACTIVITY LEVELS IN CHILDREN AND ADOLESCENTS
- PHYSICAL ACTIVITY AND ACADEMIC PERFORMANCE
- COVID 19 AND PHYSICAL EDUCATION



TEACHING PE METHODOLOGIES

- PE PEDAGOGICAL MODELS
- GAMIFICATION
- EVALUATION CHALLENGES

EUPEO, 2021



TEACHING SPORTS

- PE ADAPTATIONS FOR TEACHING SPORTS
- ABANDONMENT OF SPORTS PRACTICE IN ADOLESCENTS


LESSON 2. SELECTION OF RESEARCH PROBLEMS IN PE

UNIVERSIDAD DE MURCIA

2. 2020 TRENDING RESEARCH LINES – PHYSICAL EDUCATION

2.1. IMPACT ON HEALTH AND QUALITY OF LIFE OF PE, PA AND SPORT

PROBLEM 1. PA LEVELS IN CHILDREN AND ADOLESCENTS



WHICH ARE PA LEVELS IN INDONESIAN CHILDREN AND ADOLESCENTS?

ARE THEY CUMPLYING WITH WHO RECOMMENDATIONS?

WHICH IS THE INTENSITY DURING PE LESSONS?

ARE PE LESSONS INTENSE ENOUGH TO CONTRIBUTE TO OFFICIAL RECOMMENDATIONS?

WHICH EXTRA CURRICULAR PHYSICAL ACTIVITY PROMOTES HEALTHY LIVE STYLES?

WHICH IN THE INTENSITY OF RECESS TIME IN INDONESIAN SCHOOLS?

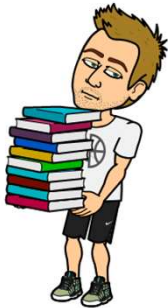
LESSON 2. SELECTION OF RESEARCH PROBLEMS IN PE

UNIVERSIDAD DE MURCIA

2. 2020 TRENDING RESEARCH LINES – PHYSICAL EDUCATION

2.1. IMPACT ON HEALTH AND QUALITY OF LIFE OF PE, PA AND SPORT

PROBLEM 1. PA LEVELS IN CHILDREN AND ADOLESCENTS



Rev.int.med.cienc.act.fis.deporte - vol. 15 - número 58 - ISSN: 1577-0354

Yuste, J.L.; García-Jiménez, J.V. y García-Pellicer, J.J. (2015). Intensidad de las clases de educación física en adolescentes / Intensity of Physical Education Classes in Adolescents. Revista Internacional de Medicina y Ciencias de la Actividad Física y el Deporte, vol. 15 (58) pp. 309-323. <http://icdeporte.rediris.es/revista/revista58/artintensidad584.htm>
DOI: <http://dx.doi.org/10.15366/rmcafd2015.58.007>

ORIGINAL

INTENSITY OF PHYSICAL EDUCATION CLASSES IN ADOLESCENTS

INTENSIDAD DE LAS CLASES DE EDUCACIÓN FÍSICA EN ADOLESCENTES

Yuste, J.L.¹; García-Jiménez, J.V.² & García-Pellicer, J.J.³

1. Profesor Contratado Doctor. Facultad de Educación. Universidad de Murcia. España. jyuste@um.es
2. Profesor Asociado. Facultad de Educación. Universidad de Murcia. España. jvjimenez@um.es
3. Profesor Titular de Universidad. Facultad de Educación. Universidad de Murcia. España. japelli@um.es

Spanish-English translator: Pilar del Rosario Gómez-Huedo Giménez, pilargomezhuedo@gmail.com

Código UNESCO: 2411 Fisiología Humana; 5899 Otras especialidades pedagógicas (Educación Física y Deporte)
Clasificación Consejo de Europa: 06 Fisiología del Ejercicio; 04 Educación

[FULL ARTICLE](#)
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LESSON 2. SELECTION OF RESEARCH PROBLEMS IN PE

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2. 2020 TRENDING RESEARCH LINES – PHYSICAL EDUCATION


2.1. IMPACT ON HEALTH AND QUALITY OF LIFE OF PE, PA AND SPORT

PROBLEM 1. PA LEVELS IN CHILDREN AND ADOLESCENTS

182 ADOLESCENTS

- 97 BOYS AND 85 GIRLS
- 12-17 YEARS OLD
- SEVEN PUBLIC HIGH SCHOOLS FROM REGION OF MURCIA (SPAIN)
- SELECTED RANDOMLY FROM A POPULATION OF 211 STUDENTS





[FULL ARTICLE](#)
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LESSON 2. SELECTION OF RESEARCH PROBLEMS IN PE

UNIVERSIDAD DE MURCIA

2. 2020 TRENDING RESEARCH LINES – PHYSICAL EDUCATION

2.1. IMPACT ON HEALTH AND QUALITY OF LIFE OF PE, PA AND SPORT

PROBLEM 1. PA LEVELS IN CHILDREN AND ADOLESCENTS

RESULTS – SESSION TYPE AND GENDER

Session Type	Boys (min)	Girls (min)
Team Sports	9,67	10,38
Individual Sports	5,1	8,47
Traditional Games	7,15	9,49
Dance	8,45	9,92

[FULL ARTICLE](#) [CLICK](#)

LESSON 2. SELECTION OF RESEARCH PROBLEMS IN PE

UNIVERSIDAD DE MURCIA

2. 2020 TRENDING RESEARCH LINES – PHYSICAL EDUCATION

2.1. IMPACT ON HEALTH AND QUALITY OF LIFE OF PE, PA AND SPORT

PROBLEM 1. PA LEVELS IN CHILDREN AND ADOLESCENTS

Frecuencia cardiaca y niveles de actividad física durante recreos escolares. Un estudio descriptivo

Heart rate and physical activity levels during school recess. A descriptive study

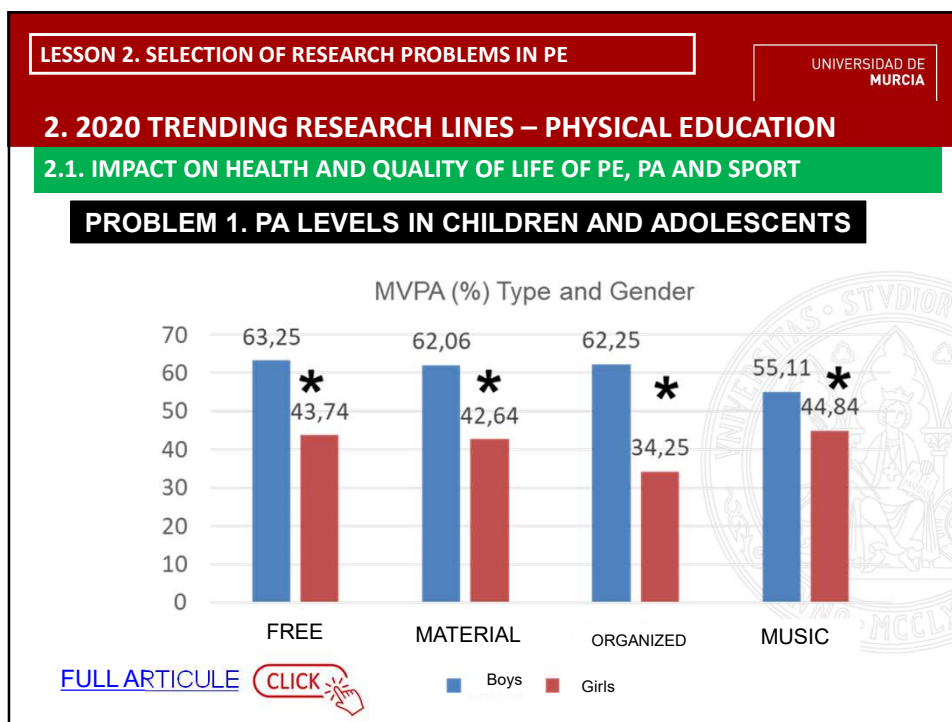
*Marta Hellín-Martínez, *José Vicente García-Jiménez, *Juan José García-Pellicer, **Manuel Alfonso-Asencio
*Universidad de Murcia (España), **Universidad Isabel I (España)

Resumen: Los objetivos de este estudio fueron describir los niveles de actividad física (AF) en los escolares durante los recreos sin intervención, analizarlos en función del género y examinar la contribución de este tipo de recreo a las recomendaciones sobre intensidad de la AF en los recreos. Materiales y métodos. La muestra está compuesta por 32 alumnos (14 niños, 10,78±0,69, 18 niñas, 10,4±0,80) de un centro de Educación Primaria. La recogida de datos tuvo lugar durante 8 recreos y se emplearon pulsómetros Polar Team 2. Resultados y discusión. Los resultados muestran diferencias significativas en el nivel de AF en valores de intensidad de moderada a vigorosa (AFMV %) en función del género de los escolares, alcanzando los niños (63,25±23,15%) valores más altos que las niñas (43,74±26,00%). En cuanto a las recomendaciones de AF en los recreos, un porcentaje mayor de niños (81,33±6,20%) las alcanzan con respecto a las niñas (51,95±6,79%). Estos recreos contribuyen en un 24,79±7,01% con las recomendaciones de AF en valores AFMV diarias. Conclusiones. Los niveles de AFMV en los escolares durante el recreo son medios-bajos. Los niños participan durante el tiempo de recreo con una intensidad significativamente mayor que las niñas. Es necesario estudiar qué variables influyen en el aumento de los niveles de AF en valores AFMV en las niñas, las cuales se muestran más sedentarias.

Palabras clave: actividad física, recreos, AFMV, Educación Física.

Abstract: The goals of this study were to describe the levels of physical activity (PA) in children during recess without intervention, analyze them according to gender and examine the contribution of this type of recess to the recommendations

[FULL ARTICLE](#) [CLICK](#)




LESSON 2. SELECTION OF RESEARCH PROBLEMS IN PE

UNIVERSIDAD DE MURCIA

2. 2020 TRENDING RESEARCH LINES – PHYSICAL EDUCATION

2.1. IMPACT ON HEALTH AND QUALITY OF LIFE OF PE, PA AND SPORT

PROBLEM #2. PA LEVELS AND ACADEMIC PERFORMANCE



ARE ACTIVE CHILDREN BETTER IN SCHOOL?

IS THERE ANY RELATION BETWEEN PA AND BRAIN ACTIVITY?

WHICH TYPE OF ACTIVITIES ARE BETTER FOR POSTERIOR ACADEMIC SUBJECTS?

ARE ACTIVE BREAKS EFFECTIVE IN CHILDREN?

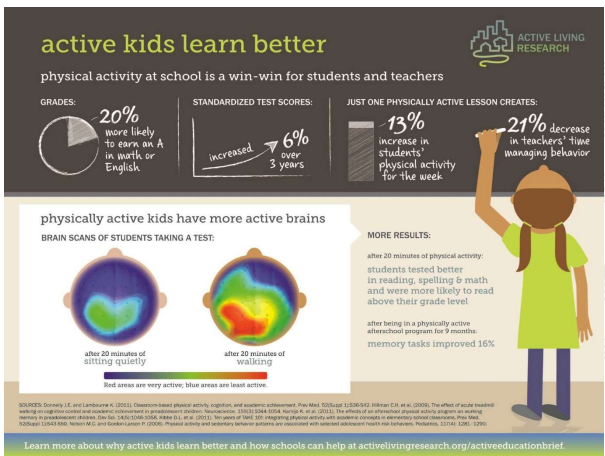
LESSON 2. SELECTION OF RESEARCH PROBLEMS IN PE

UNIVERSIDAD DE MURCIA

2. 2020 TRENDING RESEARCH LINES – PHYSICAL EDUCATION

2.1. IMPACT ON HEALTH AND QUALITY OF LIFE OF PE, PA AND SPORT

PROBLEM #2. PA LEVELS AND ACADEMIC PERFORMANCE



active kids learn better

physical activity at school is a win-win for students and teachers

GRADES:	STANDARDIZED TEST SCORES:	JUST ONE PHYSICALLY ACTIVE LESSON CREATES:
20% more likely to earn an A in math or English	increased 6% over 3 years	13% increase in students' physical activity for the week
		21% decrease in teachers' time managing behavior

physically active kids have more active brains

BRAIN SCANS OF STUDENTS TAKING A TEST:

after 20 minutes of sitting quietly

after 20 minutes of walking

Red areas are very active; blue areas are least active.

MORE RESULTS:

after 20 minutes of physical activity: students tested better in reading, spelling & math and were more likely to read above their grade level

after being in a physically active afterschool program for 9 months: memory tasks improved 16%

SOURCES: Donnelly, V.E. and Lambourne, A. (2012). Classroom-based physical activity, cognition, and academic achievement. *Prog Med*, 32(264-265). Wilson, C.H. et al. (2010). The effect of acute treadmill walking on cognitive control and academic achievement in preadolescent children. *Neuroscience*, 170(3), 1044-1048. Knapik, K. et al. (2013). The effects of an after-school physical activity program on reading fluency in preadolescent children. *Dev Sci*, 16(5), 658-668. Huh, J.-U. et al. (2012). The effect of P402: Physical activity and academic achievement in elementary school children. *Asia Res*, 1(2), 10-15. Nelson, M.C. and Leamon, L. (2006). Physical activity and secondary behavior problems are associated with reduced adolescent health risk behaviors. *Pediatrics*, 117(4), 1281-1286.


Learn more about why active kids learn better and how schools can help at activelivingresearch.org/activeeducationbrief.

LESSON 2. SELECTION OF RESEARCH PROBLEMS IN PE
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2. 2020 TRENDING RESEARCH LINES – PHYSICAL EDUCATION

2.1. IMPACT ON HEALTH AND QUALITY OF LIFE OF PE, PA AND SPORT

PROBLEM #2. PA LEVELS AND ACADEMIC PERFORMANCE



Contents lists available at ScienceDirect
Journal of Science and Medicine in Sport
journal homepage: www.elsevier.com/locate/jsams

Review
Evaluation of school-based interventions of active breaks in primary schools: A systematic review and meta-analysis
Alice Masini^a, Sofia Marini^b, Davide Gori^{a,*}, Erica Leoni^a, Andrea Rochira^c, Laura Dailito^b

^a Department of Biomedical and NeuroMotor Sciences, Unit of Hygiene, Public Health and Medical Statistics, University of Bologna, Italy
^b Department of Life Quality Studies, University of Bologna, Campus of Rimini, Italy
^c Department of Biomedical and NeuroMotor Sciences, School of Hygiene and Preventive Medicine, University of Bologna, Italy

22 INTERVENTIONS

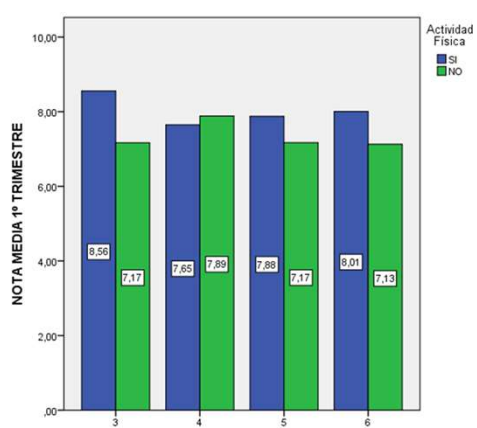
- ABs had a facilitating effect on children's PA levels, contributing **to reach the 60 min** per day of MVPA recommended by the WHO.
- ABs are more likely to enhance **Time on Task behavior** of children during the school day.

LESSON 2. SELECTION OF RESEARCH PROBLEMS IN PE
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2. 2020 TRENDING RESEARCH LINES – PHYSICAL EDUCATION

2.1. IMPACT ON HEALTH AND QUALITY OF LIFE OF PE, PA AND SPORT

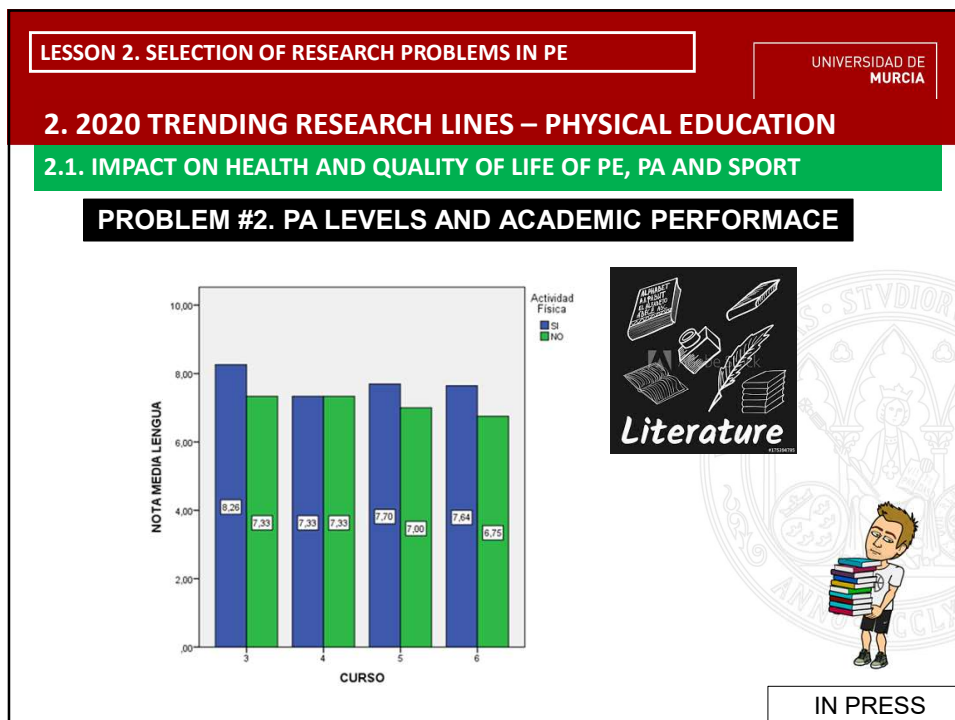
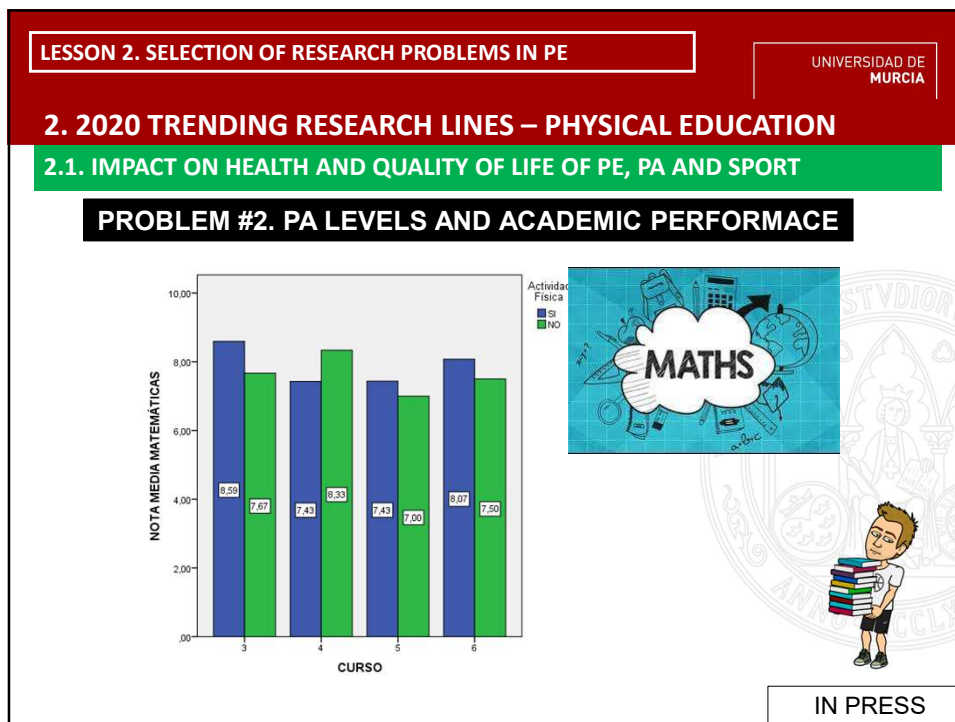
PROBLEM #2. PA LEVELS AND ACADEMIC PERFORMANCE



CURSO	Si (Actividad Física)	NO
3	8.56	7.17
4	7.65	7.89
5	7.88	7.17
6	8.01	7.13



IN PRESS




LESSON 2. SELECTION OF RESEARCH PROBLEMS IN PE
UNIVERSIDAD DE MURCIA

2. 2020 TRENDING RESEARCH LINES – PHYSICAL EDUCATION

2.1. IMPACT ON HEALTH AND QUALITY OF LIFE OF PE, PA AND SPORT

PROBLEM #3. COVID 19 AND PHYSICAL EDUCATION



HAVE COVID19 PRODUCED A REDUCTION IN PA LEVELS IN INDONESIAN STUDENTS?

HOW HAD COVID19 CHANGED PHYSICAL EDUCATION LESSONS?

WHICH CONSEQUENCES FROM COVID19 CAN BE USEFUL TO IMPROVE PE LESSONS?

LESSON 2. SELECTION OF RESEARCH PROBLEMS IN PE
UNIVERSIDAD DE MURCIA

2. 2020 TRENDING RESEARCH LINES – PHYSICAL EDUCATION

2.1. IMPACT ON HEALTH AND QUALITY OF LIFE OF PE, PA AND SPORT

PROBLEM #3. COVID 19 AND PHYSICAL EDUCATION

International Journal of
Environmental Research
and Public Health

MDPI

Article
**Promoting Physical Activity during School Closures
 Imposed by the First Wave of the COVID-19
 Pandemic: Physical Education Teachers' Behaviors
 in France, Italy and Turkey**

Erica Gobbi¹, Silvio Maltagliati², Philippe Sarrazin³, Selenia di Fronzo⁴,
 Alessandra Colangelo⁵, Boris Cheval⁶, Geraldine Escrive-Boulley⁷, Damien Tessier⁷,
 Gıyasettin Demirtaş⁸, Gökçe Erbuğ⁹, Yılmaz Yüksel¹⁰, Athanasios Papaioannou¹,
 Maurizio Bertollo^{11,12} and Attilio Cavara^{13,14} *

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⁸ Hasan Dوغان School of Physical Education and Sport, Karabük University, 78050 Karabük, Turkey



LESSON 2. SELECTION OF RESEARCH PROBLEMS IN PE
UNIVERSIDAD DE MURCIA

2. 2020 TRENDING RESEARCH LINES – PHYSICAL EDUCATION

2.1. IMPACT ON HEALTH AND QUALITY OF LIFE OF PE, PA AND SPORT

PROBLEM #3. COVID 19 AND PHYSICAL EDUCATION

Original Research Article

EPER
European Physical Education Review
1-14
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'Let them do PE!' The 'becoming' of Swedish physical education in the age of COVID-19

Seguya Kamoga
Örebro University, Sweden

Valeria Varea
Örebro University, Sweden

Abstract
Sweden received worldwide attention for its approach to managing the COVID-19 pandemic. Notably, throughout the pandemic, Sweden was one of the few countries that did not implement any lockdown measures. This meant that primary schools remained open and classes proceeded as usual, including the delivery of physical education (PE). This paper explores PE teachers' perceptions of the effects of the COVID-19 pandemic on Swedish PE. Data were collected through semi-structured interviews with seven PE teachers. Results suggest that teaching PE during COVID-19 has led to disparate challenges and changes for teachers, including modifications in context, content, roles and responsibilities, as well as the handling of issues concerning physical contact and proximity among students and teachers. The conclusions of this study reveal that in the midst of the COVID-19 pandemic, the parameters of PE in Sweden are changing more rapidly now than ever before. Understanding how the pandemic has impacted the subject of PE and its delivery might create opportunities for further discussions, possible solutions and subsequent necessary adjustments in dealing with the ongoing COVID-19 situation.

LESSON 2. SELECTION OF RESEARCH PROBLEMS IN PE
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2. 2020 TRENDING RESEARCH LINES – PHYSICAL EDUCATION

2.2. TEACHING PE METHODOLOGIES

PROBLEM 4. PE PEDAGOGICAL MODELS

Teaching Games for Understanding

Sports based model

Cooperative Learning

Personal responsibility


LESSON 2. SELECTION OF RESEARCH PROBLEMS IN PE

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MURCIA

2. 2020 TRENDING RESEARCH LINES – PHYSICAL EDUCATION

2.2. TEACHING PE METHODOLOGIES

PROBLEM 4. PE PEDAGOGICAL MODELS



WHICH PEDAGOGICAL MODELS COULD INCREASE MOTIVATION IN INDONESIAN ADOLESCENTS?

CAN WE HYBRIDATE PEDAGOGICAL MODELS?

CAN WE COMPARE PEDAGOGICAL MODELS EFFECTS IN PE EDUCATION VS SPORTS CLUBS?

LESSON 2. SELECTION OF RESEARCH PROBLEMS IN PE

UNIVERSIDAD DE
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2. 2020 TRENDING RESEARCH LINES – PHYSICAL EDUCATION

2.2. TEACHING PE METHODOLOGIES

PROBLEM 4. PE PEDAGOGICAL MODELS

REVISIÓN

MODELOS PEDAGÓGICOS EN EDUCACIÓN FÍSICA: CONSIDERACIONES TEÓRICO-PRÁCTICAS PARA DOCENTES

Javier FERNÁNDEZ-RÍOL, Antonio CALDERÓN¹, David HORTIGÜELA-ALCALÁ², Ángel PÉREZ-PUEYO³ y Mónica AZNAR CEBAMANOS⁴

¹Facultad de Formación del Profesorado y Educación, Universidad de Oviedo, España/
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³Facultad de Educación, Universidad de Burgos, España/
⁴Facultad de Ciencias de la Actividad Física y el Deporte, Universidad del León, España/
⁵Facultad de Educación, Universidad de Zaragoza, España

Article

Does A Multiple-Sport Intervention Based on the TGfU Pedagogical Model for Physical Education Increase Physical Fitness in Primary School Children?

Armando Ceca^{1,*}, Jovanny Edmundo Carbojal Baca², Germán Hernández Cruz^{3,4} and Michaela Ceca⁵

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²Degree in Sport Training, State University of Screen, Boulevard Rosales 189, Colonia Centro, 83070 Hermosillo, Mexico; jvannyed@hotmail.com
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Received: 30 June 2020; Accepted: 29 July 2020; Published: 31 July 2020

Abstract: Teaching Games for Understanding (TGfU) is one of the pedagogical models used for increasing health through physical education (PE), being associated with several psychological benefits. However, only few studies have studied the effect of TGfU on physical fitness. This study aims at assessing the changes in students' physical fitness after a six-month TGfU-based program with primary school children. A total of eight schools from the state of Sonora (Mexico) were randomly distributed into experimental (EG) and control group (CG). The final sample consisted of 188 pupils (100 boys, 88 girls; age = 10.22 ± 0.76 years) from the 5th and 6th grade. Employing a quasi-experimental design, physical fitness was assessed by means of the Eurofit test battery. At post-test, EG obtained significantly higher scores than CG in flexibility, abdominals, speed ($p < 0.001$), handgrip ($p = 0.002$), low-limb power ($p = 0.032$), and cardiorespiratory fitness ($p = 0.048$). Our findings suggest that TGfU can be a valid alternative to traditional methodologies not only when the aim of a PE unit is to stimulate the cognitive domain, but also for the development of physical fitness attributes that may help pupils develop in a comprehensive manner.

Keywords: physical education; children; physical fitness; pedagogical models; health; sports

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LESSON 2. SELECTION OF RESEARCH PROBLEMS IN PE

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2. 2020 TRENDING RESEARCH LINES – PHYSICAL EDUCATION

2.2. TEACHING PE METHODOLOGIES

PROBLEM 5. GAMIFICATION



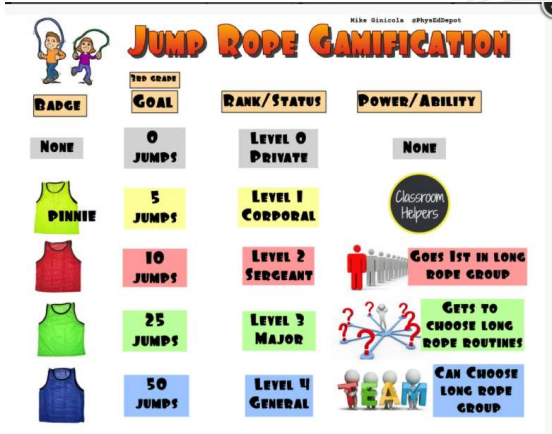
LESSON 2. SELECTION OF RESEARCH PROBLEMS IN PE

UNIVERSIDAD DE MURCIA

2. 2020 TRENDING RESEARCH LINES – PHYSICAL EDUCATION

2.2. TEACHING PE METHODOLOGIES

PROBLEM 5. GAMIFICATION



BADGE	GOAL	RANK/STATUS	POWER/ABILITY
NONE	0 JUMPS	LEVEL 0 PRIVATE	NONE
5 JUMPS	5 JUMPS	LEVEL 1 CORPORAL	Classroom Helpers
10 JUMPS	10 JUMPS	LEVEL 2 SERGEANT	GOES 1ST IN LONG ROPE GROUP
25 JUMPS	25 JUMPS	LEVEL 3 MAJOR	GETS TO CHOOSE LONG ROPE ROUTINES
50 JUMPS	50 JUMPS	LEVEL 4 GENERAL	CAN CHOOSE LONG ROPE GROUP


LESSON 2. SELECTION OF RESEARCH PROBLEMS IN PE

UNIVERSIDAD DE MURCIA

2. 2020 TRENDING RESEARCH LINES – PHYSICAL EDUCATION

2.2. TEACHING PE METHODOLOGIES

PROBLEM 5. GAMIFICATION



WHICH IS THE PE TEACHERS POINT OF VIEW ABOUT GAMIFICATION?

CAN GAMIFICATION INCREASE MOTIVATION IN INDONESIAN STUDENTS?

COMPARATIVE STUDY ABOUT SKILLS LEARNIG: GAMIFICATION VS TRADITIONAL STYLES


LESSON 2. SELECTION OF RESEARCH PROBLEMS IN PE

UNIVERSIDAD DE MURCIA

2. 2020 TRENDING RESEARCH LINES – PHYSICAL EDUCATION

2.2. TEACHING PE METHODOLOGIES

PROBLEM 6. EVALUATION CHALLENGES




LESSON 2. SELECTION OF RESEARCH PROBLEMS IN PE

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2. 2020 TRENDING RESEARCH LINES – PHYSICAL EDUCATION

2.2. TEACHING PE METHODOLOGIES


PROBLEM 6. EVALUATION CHALLENGES



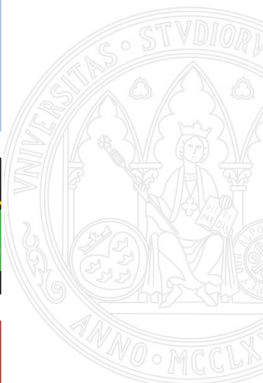
SUMATIVE



FORMATIVE



SELF ASSESMENT




LESSON 2. SELECTION OF RESEARCH PROBLEMS IN PE

UNIVERSIDAD DE MURCIA

2. 2020 TRENDING RESEARCH LINES – PHYSICAL EDUCATION

2.2. TEACHING PE METHODOLOGIES


PROBLEM 6. EVALUATION CHALLENGES



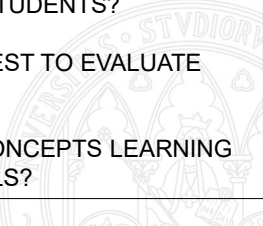
HOW DO PE TEACHERS EVALUATE STUDENTS?

WHICH IS THE ROLE OF PHYSICAL TEST TO EVALUATE PHYSICAL EDUCATION STUDENTS?

CAN WE COMPARE STUDENTS PE CONCEPTS LEARNING FROM DIFFERENT EVALUATION TOOLS?

[FULL ARTICLE](#) 

1 Alternative Assessment in Physical Education: A Review of
2 International Literature
3
4
5
6 Abstract
7 Assessment is one of the most fraught and troublesome issues physical educators have
8 had to deal with over the past forty years or so. In light of the challenges this situation
9 presents, in this paper we provide an overview of the international literature on
10 assessment in school physical education. We give an account of both traditional and
11 alternative forms of assessment, focusing in particular on recent approaches that may
12 be considered belong to the latter category of assessment. We found that traditional




LESSON 2. SELECTION OF RESEARCH PROBLEMS IN PE
UNIVERSIDAD DE MURCIA

2. 2020 TRENDING RESEARCH LINES – PHYSICAL EDUCATION

2.3. TEACHING SPORTS

PROBLEM 7. PE ADAPPTIONS FOR TEACHING SPORTS



ARE THE SAME SPORT AND SCHOOL THAN SPORT AT CLUBS?

WHICH ARE CONSEQUENCES ABOUT PE ORIENTED TO SPORT?

HOW CAN WE ADAPT SPORTS TO BE TAUGHT IN PHYSICAL EDUCATION?

WHICH KIND OF SPORTS INCREASE MOTIVATION IN STUDENTS?

WHICH ARE GENDER PREFERENCES ABOUT SPORT IN SCHOOL?

LESSON 2. SELECTION OF RESEARCH PROBLEMS IN PE
UNIVERSIDAD DE MURCIA

2. 2020 TRENDING RESEARCH LINES – PHYSICAL EDUCATION

2.3. TEACHING SPORTS

PROBLEM 7. PE ADAPPTIONS FOR TEACHING SPORTS

Article

A comparative analysis of physical education and non-physical education teachers who coach high school sport teams

Martin Camiré¹, Meredith Rocchi² and Kelsey Kendellen¹

Abstract
Although high school sport in Canada has traditionally been an extracurricular activity overseen by physical education teachers, recent findings demonstrate how the majority (n= 1677, 60%) of coaches are in fact non-physical education teachers. The purpose of the present study was to compare physical education and non-physical education teachers who coach high school sport teams. A national sample of 2890 Canadian high school teacher-coaches (males = 1967, 68%) from all 10 provinces and 3 territories responded to an online survey. Significant differences were found between physical education teacher-coaches and non-physical education teacher-coaches in terms of demographic variables, perceived teacher-coach benefits, and perceived coaching efficacy, whereby physical education teacher-coaches tended to have more favorable perceptions. Based on the results, access to coach education should be facilitated, particularly for non-physical education teacher coaches.

International Journal of
Sports Science
& Coaching

International Journal of Sports Science
& Coaching

DOI: 1-8

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2. 2020 TRENDING RESEARCH LINES – PHYSICAL EDUCATION

2.3. TEACHING SPORTS

PROBLEM 8. SPORT PRACTICE ABANDONMENT IN ADOLESCENTS

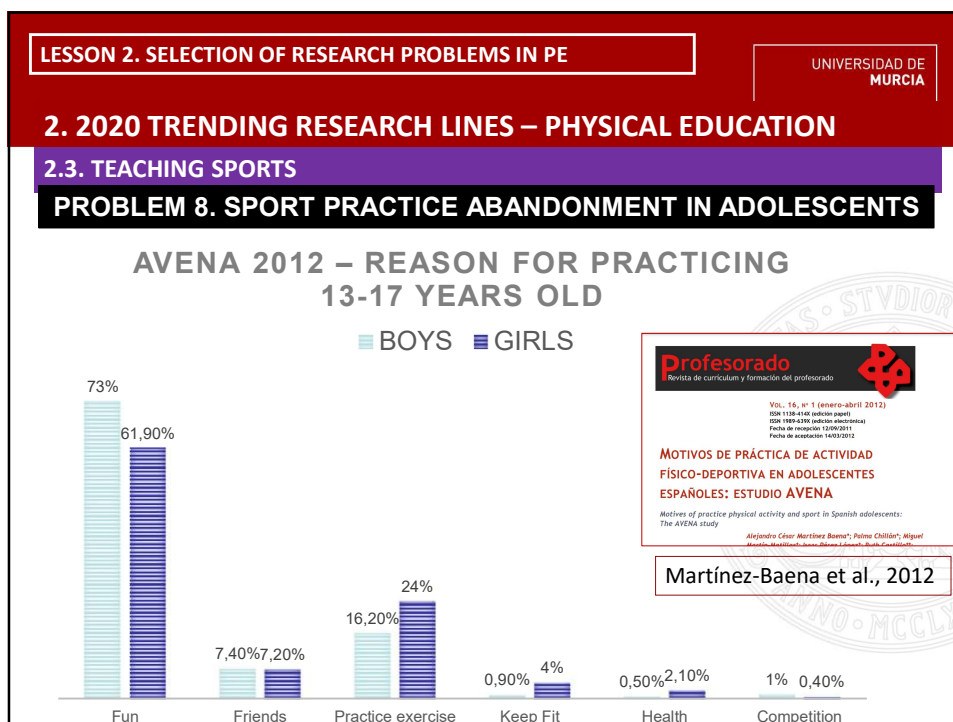


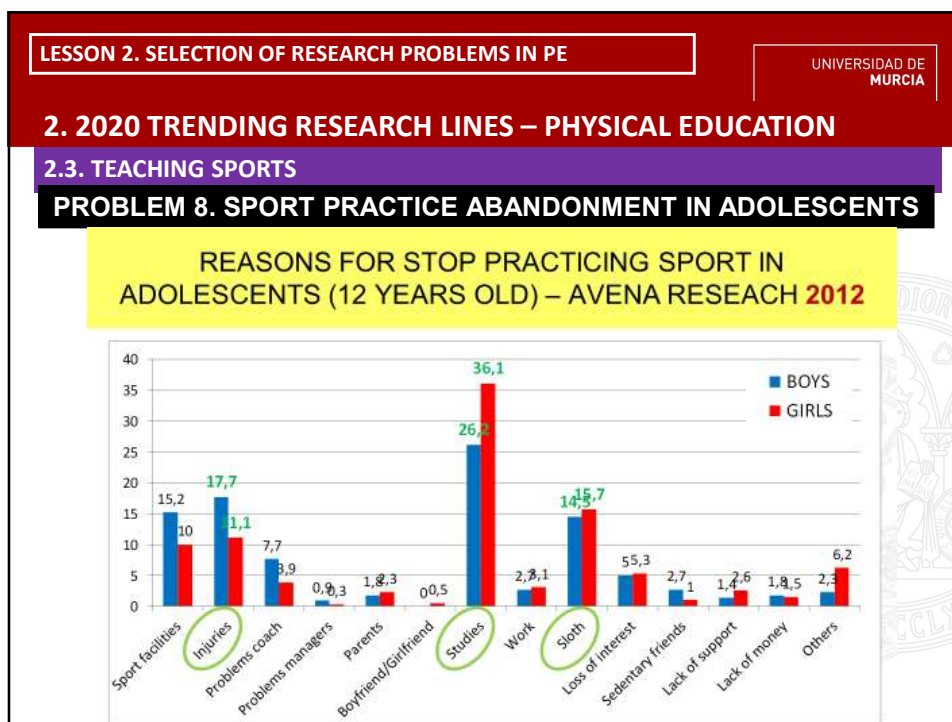
WHICH ARE THE REASONS FOR INDONESIAN ADOLESCENTS TO PRACTICE SPORT?

WHICH ARE THE REASONS FOR INDONESIAN ADOLESCENTS TO **STOP PRACTICING** SPORT?

WHICH ARE GENDER DIFFERENCES IN ORDER TO PRACTICE OR STOP PRACTICING SPORTS?

WHICH ARE INTERNATIONAL POLITICES TO PROMOTE SPORT IN ADOLESCENTS?





LESSON 2. SELECTION OF RESEARCH PROBLEMS IN PE

UNIVERSIDAD DE MURCIA

2. 2020 TRENDING RESEARCH LINES – PHYSICAL EDUCATION



IMPACT ON HEALTH AND QUALITY OF LIFE OF PE, PA AND SPORT

- PHYSICAL ACTIVITY LEVELS IN CHILDREN AND ADOLESCENTS
- PHYSICAL ACTIVITY AND ACADEMIC PERFORMANCE
- COVID 19 AND PHYSICAL EDUCATION



TEACHING PE METHODOLOGIES

- PE PEDAGOGICAL MODELS
- GAMIFICATION
- EVALUATION CHALLENGES

EUPEO, 2021



TEACHING SPORTS

- PE ADAPTATIONS FOR TEACHING SPORTS
- ABANDONMENT OF SPORTS PRACTICE IN ADOLESCENTS

Team Work

UNIVERSIDAD DE MURCIA



I CONGRESS ABOUT RESEACH PROPOSALS IN PHYSICAL EDUCACION
Yogyakarta, November 2021



TITLE

Author¹, Author¹, Author¹, Author¹, Author¹, Author¹

¹Department of XXXXXX, Research Mentors: NAME PROFESSOR(S) AND GRADUATE STUDENTS HERE

Introduction

Objectives

Methods

Data Analysis

Graphic Elements

Graphic Elements

Graphic Elements

Graphic Elements

Results

Graphic Elements

Graphic Elements

Conclusions

Graphic Elements

Acknowledgements

References

YOGYAKARTA STATE UNIVERSITY – FACULTY OF SPORT SCIENCES -

PLANNING

UNIVERSIDAD DE
MURCIA

No	Date	Session
1.	Friday, 24 September 2021	Research Topics in Physical Education
2.	Friday, 1 Oktober 2021	Selection of Research Problems in Physical Education
3.	Friday, 8 Oktober 2021	Literature Review in Physical Education
4.	Friday, 15 Oktober 2021	Types of Research in Physical Education
5.	Friday, 22 Oktober 2021	Research Methodology in Physical Education
6.	Friday, 29 Oktober 2021	Population and Research Sample in Physical Education
7.	Friday, 5 November 2021	Research Instruments and Data Analysis in Physical Education
8.	Friday, 12 November 2021	Virtual Congress – Posters Presentation

PE RESEARCH TRENDS –
PE THESIS PROPOSAL MAKING

Terima kasih atas perhatiannya

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 @CheviProfe

+ 34 868 88 7086

PE RESEARCH TRENDS – PE THESIS PROPOSAL MAKING

Yogyakarta State University



José V. García-Jiménez (PhD)
University of Murcia, Spain

Final objective



PLANNING

UNIVERSIDAD DE
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No	Date	Session
1.	Friday, 24 September 2021	Research Topics in Physical Education
2.	Friday, 1 Oktober 2021	Selection of Research Problems in Physical Education
3.	Friday, 8 Oktober 2021	Literature Review in Physical Education
4.	Friday, 15 Oktober 2021	Types of Research in Physical Education
5.	Friday, 22 Oktober 2021	Research Methodology in Physical Education
6.	Friday, 29 Oktober 2021	Population and Research Sample in Physical Education
7.	Friday, 5 November 2021	Research Instruments and Data Analysis in Physical Education
8.	Friday, 12 November 2021	Virtual Congress – Posters Presentation

LESSON 3. LITERATURE REVIEW IN PHYSICAL EDUCATION



Dr. José Vicente García-Jiménez
University of Murcia, Spain

LESSON 2. SELECTION OF RESEARCH PROBLEMS IN PE

UNIVERSIDAD DE MURCIA

LAST WEEK

2. 2020 TRENDING RESEARCH LINES – PHYSICAL EDUCATION



IMPACT ON HEALTH AND QUALITY OF LIFE OF PE, PA AND SPORT

- PHYSICAL ACTIVITY LEVELS IN CHILDREN AND ADOLESCENTS
- PHYSICAL ACTIVITY AND ACADEMIC PERFORMANCE
- COVID 19 AND PHYSICAL EDUCATION



TEACHING PE METHODOLOGIES

- PE PEDAGOGICAL MODELS
- GAMIFICATION
- EVALUATION CHALLENGES

EUPEO, 2021




TEACHING SPORTS


- PE ADAPTATIONS FOR TEACHING SPORTS
- ABANDONMENT OF SPORTS PRACTICE IN ADOLESCENTS

PLANNING

UNIVERSIDAD DE MURCIA

No	Date	Session
1.	Friday, 24 September 2021	Research Topics in Physical Education
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6.	Friday, 29 Oktober 2021	Population and Research Sample in Physical Education
7.	Friday, 5 November 2021	Research Instruments and Data Analysis in Physical Education
8.	Friday, 12 November 2021	Virtual Congress – Posters Presentation

LET'S MOVE! PHYSICAL ACTIVITY DURING RECESS			
García-Jiménez, J.V., Saryono Sar. Department of Physical Education and Sport, Yogyakarta State University			
Introduction	Data Analysis	Results	Conclusions
----- Objectives -----	Graphic Elements	-----	-----
Methods	Graphic Elements	Graphic Elements	Graphic Elements
	Graphic Elements		----- Acknowledgements ----- References
YOGYAKARTA STATE UNIVERSITY – FACULTY OF SPORT SCIENCES - 2021			

LESSON 3. LITERATURE REVIEW	UNIVERSIDAD DE MURCIA
1. TITLE	
<div style="text-align: center;">  https://www.wooclap.com/MUYIXP WHICH IS THE TITLE OF YOUR RESEARCH PROPOSAL? </div>	

LESSON 2. SELECTION OF RESEARCH PROBLEMS IN PE

UNIVERSIDAD DE MURCIA

1. TITLE

OBJECTIVE 1. OUR TITLE SHOULD **PREDICE** RESEARCH CONTENT.

OBJECTIVE 2. OUR TITLE MUST BE **INTERESTING**

OBJECTIVE 3. IT MUST HAVE AN **ACADEMIC** STYLE

OBJECTIVE 4. IT MUST INCLUDE **KEYWORDS**

Hairston, Maxine and Keene, 2003

LESSON 2. SELECTION OF RESEARCH PROBLEMS IN PE

UNIVERSIDAD DE MURCIA

1. TITLE

TIP 1. ENSURE TITLE IS CLEAR, INTERESTING, AND **ATTRACTS** READERS ATTENTION

TIP 2. TITLE SHOULD BE **AROUND 10 – 15 WORDS**. HIGHLIGHT KEY ASPECTS OF YOUR STUDY USING KEYWORDS. SHORTER TITLE INCREASE CITATIONS


TIP 3. **AVOID UNNECESARY WORDS** AND TECHNICAL JARGONS. MAKE SURE CONFORM JOURNAL GUIDELINES

USC, 2020

LESSON 3. LITERATURE REVIEW


UNIVERSIDAD DE MURCIA

1. TITLE



<https://www.woodclap.com/MUYIXP>

WHICH IS THE RIGHT TITLE?




LESSON 3. LITERATURE REVIEW

UNIVERSIDAD DE MURCIA

1. TITLE

WHICH IS THE RIGHT TITLE?

TITLE	PREDICE CONTENT?	INTERESTING?	ACADEMIC?	KEYWORDS?
Physical activity during recess. A descriptive research	YES	NO	NO	YES
Are intense enough school recess physical activities?	NO	YES	YES	NO
Improve their free time!	NO	YES	NO	NO
Moving and playing. A descriptive research about physical activity levels of children during recess.	YES	YES	YES	YES

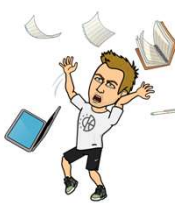


LESSON 3. LITERATURE REVIEW

UNIVERSIDAD DE MURCIA

2. INTRODUCTION - JUSTIFICATION

TIPS FOR A GREAT INTRODUCTION



1. START BROADLY

Briefly describe the broad research area and then narrow down to your particular focus. This will help position your research topic within the broader field, making the work accessible to a broader audience, not just to specialists in your field.


The population's lifestyle has been modified by social progress and the development of the welfare state. While most of these changes are associated with social improvements, the hypokinetic behavior of the population can lead to short- and long-term health problems. Inactivity, sedentary lifestyle and improper diet are some of the most common examples that can be found in adults as well as children. The lack of physical activity and unbalanced diet are some of the most influential factors in the development of obesity.

LESSON 3. LITERATURE REVIEW

UNIVERSIDAD DE MURCIA

2. INTRODUCTION - JUSTIFICATION

TIPS FOR A GREAT INTRODUCTION



2. STATE AIMS AND IMPORTANCE

Say what you want to achieve and why your reader should be interested in finding out whether you achieve it. The basic structure can be as simple as "We aim to do X, which is important because it will lead to Y."

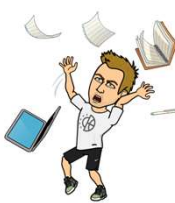
The purpose in this paper is to check the effect of different activities —soccer, badminton, aerobics and motor skills— on the intensity of Physical Education lessons, because it is proved that the type of content may affect the intensity of the lessons.

LESSON 3. LITERATURE REVIEW

UNIVERSIDAD DE MURCIA

2. INTRODUCTION - JUSTIFICATION

TIPS FOR A GREAT INTRODUCTION



3. CITE THOROUGHLY BUT NOT EXCESSIVELY

Once you get readers attraction, you should thoroughly cover the most recent and most relevant literature pertaining to your study. Your review of the literature should be complete, but not overly long—remember, **you're not writing a review article.**


*According to **Strong et al (2005)** school-age youth should take part in a 60-minutes physical activity five days a week. Regarding exercise intensity, the American College of Sports Medicine (ACSM) recommends an intensity between 40-89 % of heart rate reserve (HRR), called Moderate to Vigorous Physical Activity (MVPA). These recommendations have resulted in an improvement in cardiorespiratory fitness and, therefore, they can help prevent the rise of overweight and obesity rates (**American College of Sports Medicine, 2011**).*

LESSON 3. LITERATURE REVIEW

UNIVERSIDAD DE MURCIA

2. INTRODUCTION - JUSTIFICATION

TIPS FOR A GREAT INTRODUCTION



4. CLEARLY STATE EITHER YOUR HYPOTHESIS OR RESEARCH QUESTION

For research in formal and social sciences or exploratory research, you could consider stating a research question instead: "In this study, we examine the following research question: Is X related to Y?"

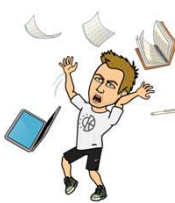
Previous studies have shown that there is no uniformity in the results obtained in this field. Therefore, further research is needed on heart rate response in this environment (PE), in order to check if it complies with official recommendations.

LESSON 3. LITERATURE REVIEW

UNIVERSIDAD DE MURCIA

2. INTRODUCTION - JUSTIFICATION

TIPS FOR A GREAT INTRODUCTION



5. KEEP IT SHORT

Try to avoid an overly long introduction. A good target is 500 to 1000 words, although checking the journal's guidelines and past issues will provide the clearest guidance.

6. SHOW, DON'T TELL


One of the most common pitfalls is to simply say, "Subject X is important." Instead of simply saying that the topic is important, show why the topic is important.

LESSON 3. LITERATURE REVIEW

UNIVERSIDAD DE MURCIA

2. INTRODUCTION - JUSTIFICATION

TIPS FOR A GREAT INTRODUCTION



7. ORGANIZE YOUR INFORMATION

• BRIEF RESUME OF OUR PAPER

• SEDENTARY PROBLEMS IN CHILDREN

• PHYSICAL ACTIVITY LEVELS

• INTENSITY OF PE LESSONS

• RESEARCH OBJECTIVES

LESSON 3. LITERATURE REVIEW

UNIVERSIDAD DE MURCIA

3. LITERATURE REVIEW

WHERE CAN I FIND INFORMATION?

wooclap

<https://www.wooclap.com/MUYIXP>

WHICH DATABASES DO YOU KNOW?

LESSON 3. LITERATURE REVIEW

UNIVERSIDAD DE MURCIA

3. LITERATURE REVIEW

WHERE CAN I FIND INFORMATION?

SCOPUS

WEB OF SCIENCE™

PublMed

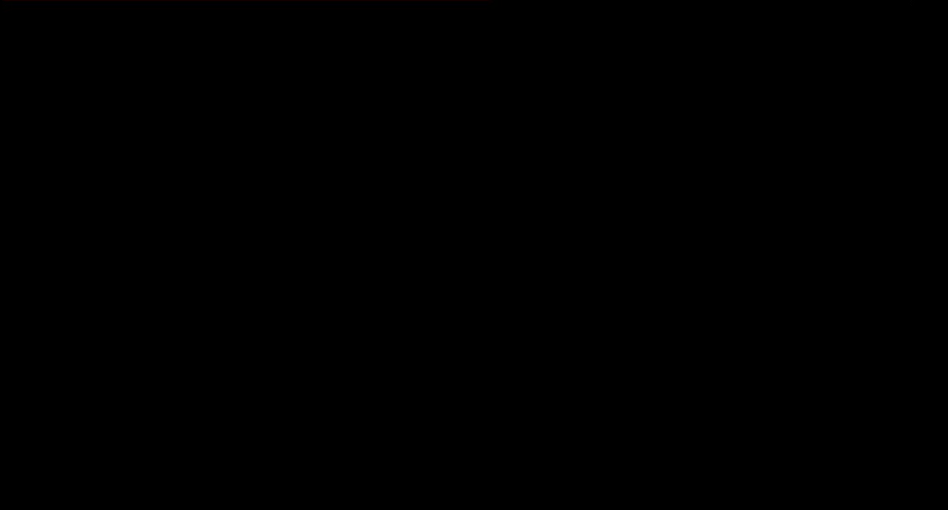
ERIC
Institute of Education Sciences

R^G ResearchGate

LESSON 3. LITERATURE REVIEW

UNIVERSIDAD DE MURCIA

3. LITERATURE REVIEW

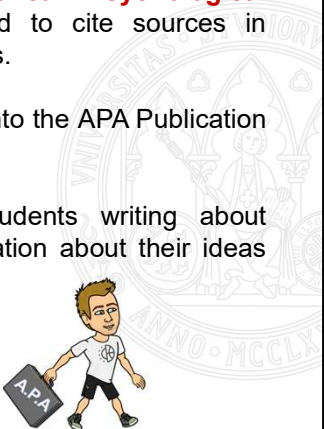



LESSON 3. LITERATURE REVIEW

UNIVERSIDAD DE MURCIA

4. NORMATIVE - APA

- APA format is the official style of the **American Psychological Association** (APA) and is commonly used to cite sources in psychology, education, and the social sciences.
- These guidelines were eventually expanded into the APA Publication Manual.
- By using APA style, researchers and students writing about psychology are able to communicate information about their ideas and experiments in a consistent format.





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Running head

Section label

Page number
2

APA abstract.docx

SOCIAL COMPARISONS ON SOCIAL MEDIA

Abstract

The present study experimentally investigated the effect of Facebook usage on women's mood and body image, whether these effects differ from an online fashion magazine, and whether appearance comparison tendency moderates any of these effects. Female participants (N = 112) were randomly assigned to spend 10 min browsing their Facebook account, a magazine website, or an appearance-neutral control website before completing state measures of mood, body dissatisfaction, and appearance discrepancies (weight-related, and face, hair, and skin-related). Participants also completed a trait measure of appearance comparison tendency. Participants who spent time on Facebook reported being in a more negative mood than those who spent time on the control website. Furthermore, women high in appearance comparison tendency reported more facial, hair, and skin-related discrepancies after Facebook exposure than exposure to the control website. Given its popularity, more research is needed to better understand the impact that Facebook has on appearance concerns.

Keywords: Facebook, social media, magazine, appearance-related social comparison, body image concerns, mood

Scribbr



Keywords

Double spaced

LESSON 3. LITERATURE REVIEW

UNIVERSIDAD DE MURCIA

4. NORMATIVE - APA



HOW TO CITE... A BOOK

Reference entry
Smith, T. (2020). *The citation manual for students: A quick guide* (2nd ed.). Wiley.

In-text citation
Parenthetical: (Smith, 2020)
Narrative: Smith (2020)

Reference entry
Smith, T., & Williams, B. M. (2020). *The citation manual for students: A quick guide* (2nd ed.). Wiley.

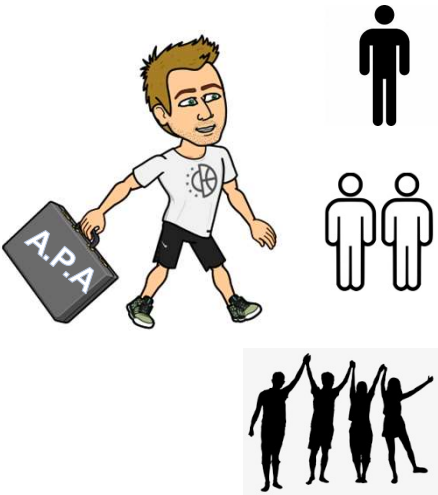
In-text citation
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Narrative: Smith and Williams (2020)

Reference entry
Smith, T., Williams, B. M., & Streefkerk, R. (2020). *The citation manual for students: A quick guide* (2nd ed.). Wiley.

In-text citation
Parenthetical: (Smith et al., 2020)
Narrative: Smith et al. (2020)

LESSON 3. LITERATURE REVIEW
UNIVERSIDAD DE MURCIA

4. NORMATIVE - APA



HOW TO CITE... A PAPER

Reference entry ①
 Andreff, W. (2000). The evolving European model of professional sports finance. *Journal of Sports Economics*, 1(3), 257–276. <https://doi.org/10.1177/152700250000100304>

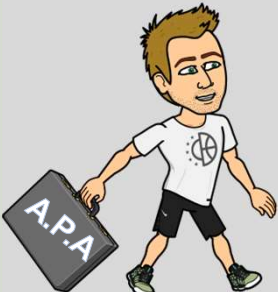
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 Narrative: Andreff (2000)

Reference entry ②
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In-text citation ②
 Parenthetical: (Andreff & Staudohar, 2000)
 Narrative: Andreff and Staudohar (2000)

Reference entry ③
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In-text citation ③
 Parenthetical: (Andreff et al., 2000)
 Narrative: Andreff et al. (2000)



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APA reference page.docx

35

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Low, C., & Yuan, S. (2019). Influencer marketing: How message value and credibility affect consumer trust of branded content on social media. *Journal of Interactive Advertising*, 19(1), 58–73. <https://doi.org/10.1080/15252019.2018.1533501>

Section label

Double spaced

Webpage citation

Journal citation

Book citation

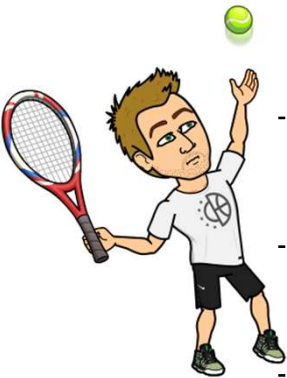
Dr. D. José Vicente García Jiménez
 (University of Murcia, Spain) -
 jvgjimenez@um.es

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LESSON 3. LITERATURE REVIEW

UNIVERSIDAD DE
MURCIA

5. WRITING OBJECTIVES




- OBJECTIVES SHOW THE RESULT THAT IS INTENDED TO BE ACHIEVED WITH THE PROJECT
- OBJECTIVES ARE THE POINTS THAT GUIDE THE PROJECT
- OBJECTIVES MUST BE WRITTEN IN INFINITIVE AND SUSCEPTIBLE TO BE MEASURED
- YOU CAN DEFINE GENERAL AND SPECIFIC OBJECTIVES

LESSON 3. LITERATURE REVIEW

UNIVERSIDAD DE
MURCIA

5. WRITING OBJECTIVES



Objective 1. **To describe** the levels of physical activity of the boys and girls during recess, taking as a reference their participation during this time.

Objective 2. **To analyze** the relationship between the FCM and MVPA values of girls and girls during recess times and the contribution to the recommendations of physical activity for health.

Objective 3. **To generate** scientific knowledge of interest in the field of Physical Education on how to plan breaks to achieve health-oriented physical activity values

Final objective


UNIVERSIDAD DE MURCIA



I CONGRESS ABOUT RESEARCH PROPOSALS IN PHYSICAL EDUCACION
Yogyakarta, November 2021

LET'S MOVE! PHYSICAL ACTIVITY DURING RECESS

García-Jiménez, J.V., Saryono Sar.
Department of Physical Education and Sport. Yogyakarta State University



Introduction	Data Analysis	Results	Conclusions
Objectives	Graphic Elements		
		Graphic Elements	Graphic Elements
Methods	Graphic Elements	Graphic Elements	
			Acknowledgements
			References

YOGYAKARTA STATE UNIVERSITY – FACULTY OF SPORT SCIENCES - 2021

PLANNING

UNIVERSIDAD DE
MURCIA

No	Date	Session
1.	Friday, 24 September 2021	Research Topics in Physical Education
2.	Friday, 1 Oktober 2021	Selection of Research Problems in Physical Education
3.	Friday, 8 Oktober 2021	Literature Review in Physical Education
4.	Friday, 15 Oktober 2021	Types of Research in Physical Education
5.	Friday, 22 Oktober 2021	Research Methodology in Physical Education
6.	Friday, 29 Oktober 2021	Population and Research Sample in Physical Education
7.	Friday, 5 November 2021	Research Instruments and Data Analysis in Physical Education
8.	Friday, 12 November 2021	Virtual Congress – Posters Presentation

PE RESEARCH TRENDS –
PE THESIS PROPOSAL MAKING

Terima kasih atas perhatiannya

José Vicente García Jiménez (PhD)

University of Murcia - Spain

jvgjimenez@um.es

 @CheviProfe

+ 34 868 88 7086

PE RESEARCH TRENDS – PE THESIS PROPOSAL MAKING

Yogyakarta State University



José V. García-Jiménez (PhD)
University of Murcia, Spain

Final objective



PLANNING

UNIVERSIDAD DE
MURCIA

No	Date	Session
1.	Friday, 24 September 2021	Research Topics in Physical Education
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LESSON 4. TYPES OF RESEARCH IN PHYSICAL EDUCATION



Dr. José Vicente García-Jiménez
University of Murcia, Spain

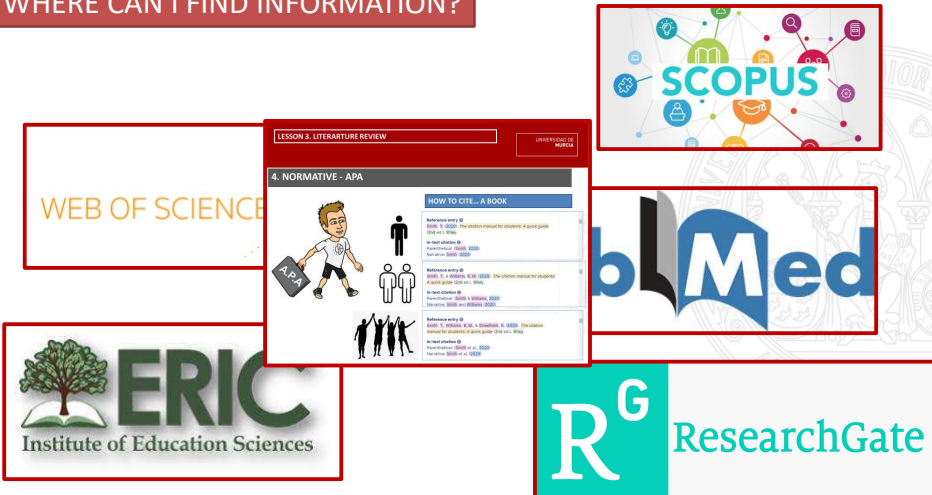
LESSON 3. LITERATURE REVIEW

LAST WEEK

UNIVERSIDAD DE MURCIA


3. LITERATURE REVIEW

WHERE CAN I FIND INFORMATION?



LET'S MOVE! PHYSICAL ACTIVITY DURING RECESS

García-Jiménez, J.V., Saryono Sar.
Department of Physical Education and Sport. Yogyakarta State University




Introduction	Data Analysis	Results	Conclusions
Objectives	Graphic Elements		
		Graphic Elements	Graphic Elements
Methods	Graphic Elements	Graphic Elements	
			Acknowledgements
			References

YOGYAKARTA STATE UNIVERSITY – FACULTY OF SPORT SCIENCES - 2021

LESSON 4. TYPES OF RESEARCH IN PHYSICAL EDUCATION

UNIVERSIDAD DE MURCIA

1. RESEARCH MODELS IN PHYSICAL EDUCATION



<https://www.woodclap.com/MUYIXP>

WHICH TYPES OF RESEARCH DO YOU KNOW?

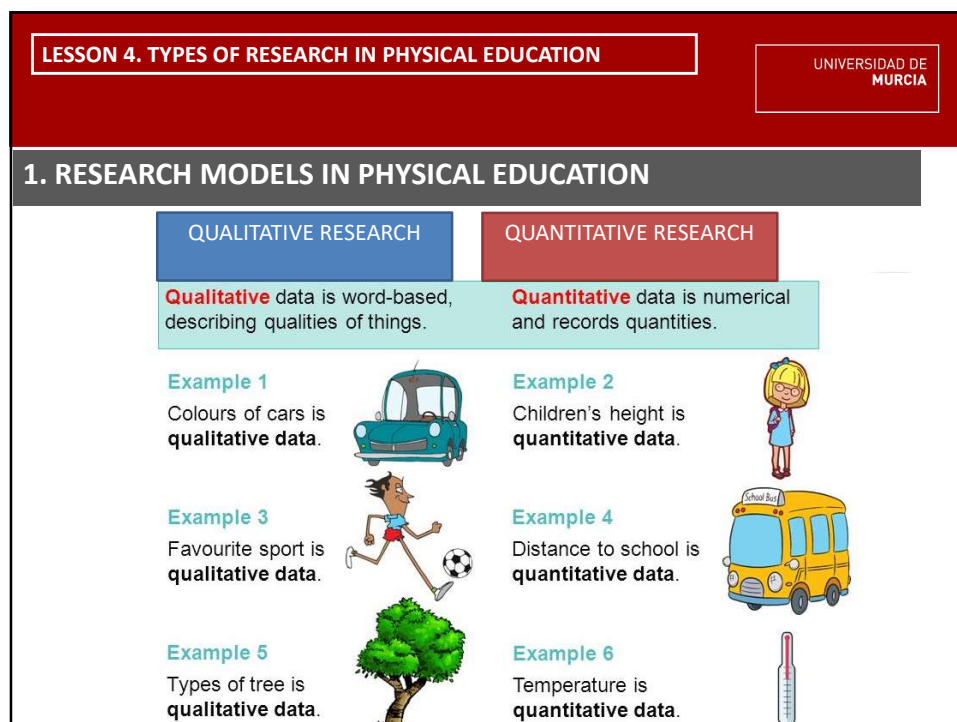
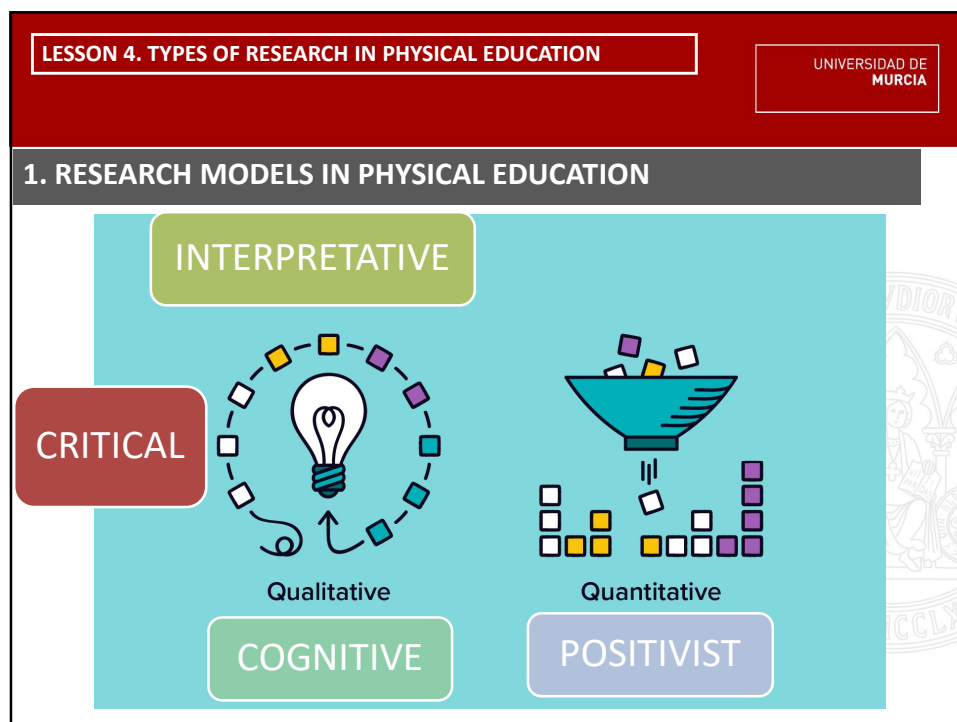
LESSON 4. TYPES OF RESEARCH IN PHYSICAL EDUCATION

UNIVERSIDAD DE MURCIA

1. RESEARCH MODELS IN PHYSICAL EDUCATION

POSITIVIST	<ul style="list-style-type: none"> TO DESCRIBE SPECIFIC ASPECTS OF THE ENVIROMENT RELATED WITH DESCRIPTIVE METHODOLOGY
COGNITIVE	<ul style="list-style-type: none"> THE OBJECT OF STUDY IS TEACHERS AND THE PARTICIPANTS WHO PROCESS INFORMATION AND MAKE DECISIONS FOCUS ON TEACHING-LEARNING PROCESS
INTERPRETATIVE	<ul style="list-style-type: none"> ANALYSIS AND UNDERSTANDING OF THE DIFFERENT VARIABLES INVOLVED IN A CERTAIN SOCIAL OR EDUCATIONAL CONTEXT IT IDENTIFIES WITH A QUALITATIVE METHODOLOGY OF ANALYSIS
CRITICAL	<ul style="list-style-type: none"> AIMS TO ANALYZE REALITY AND ITS UNDERSTANDING TO PRODUCE MECHANISMS OF ACTION AND CHANGE WITHIN SOCIETY OR THE EDUCATIONAL ENVIRONMENT

Fernández García, 2003



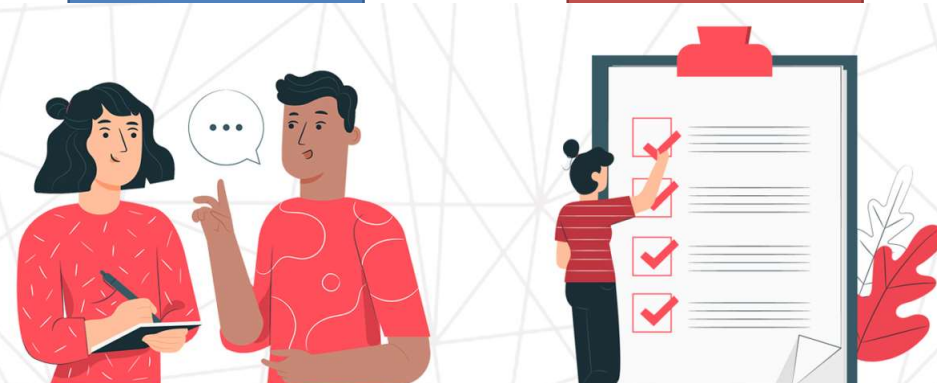
LESSON 4. TYPES OF RESEARCH IN PHYSICAL EDUCATION

UNIVERSIDAD DE MURCIA

1. RESEARCH MODELS IN PHYSICAL EDUCATION

QUALITATIVE RESEARCH

QUANTITATIVE RESEARCH



The illustration is divided into two parts. On the left, under 'QUALITATIVE RESEARCH', two people are shown in a conversation; a woman is holding a notepad and a pen, while a man is gesturing with his hand. A speech bubble with three dots is between them. On the right, under 'QUANTITATIVE RESEARCH', a person is standing next to a large clipboard, checking off items on a list with red checkmarks. A red leaf is visible on the right side of the clipboard.

LESSON 4. TYPES OF RESEARCH IN PHYSICAL EDUCATION


UNIVERSIDAD DE MURCIA

1. RESEARCH MODELS IN PHYSICAL EDUCATION

wooclap

<https://www.wooclap.com/MUYIXP>

**WHICH RESEARCH TYPES DO YOU
RELATE WITH QUALITATIVE MODELS?**




The slide features a large, faint watermark of the University of Murcia seal in the background on the right side. The seal includes the text 'UNIVERSITAS · STVDIORVM' and 'ANNO · MCCLX'.

LESSON 4. TYPES OF RESEARCH IN PHYSICAL EDUCATION

UNIVERSIDAD DE MURCIA

1. RESEARCH MODELS IN PHYSICAL EDUCATION



<https://www.woodclap.com/MUYIXP>

**WHICH RESEARCH TYPES DO YOU
RELATE WITH QUANTITATIVE MODELS?**

LESSON 4. TYPES OF RESEARCH IN PHYSICAL EDUCATION

UNIVERSIDAD DE MURCIA

1. RESEARCH TYPES IN PHYSICAL EDUCATION

Según su finalidad

- ▶ **Básica**
Su propósito es de aplicación inmediata. No aporta conocimiento nuevo.
- ▶ **Aplicada**
Tiene la intención de mejorar la calidad de vida y contribuir con la construcción del conocimiento nuevo.

Según su diseño

- ▶ **Experimental**
Su intención es modificar, a lo largo de la investigación, las condiciones de vida del objeto de estudio (personas o fenómenos).
- ▶ **No experimental**
No requiere la modificación de las variables.

Según su enfoque

- ▶ **Cuantitativo**
Se basa a la medición numérica.
- ▶ **Cualitativo**
Tiene como propósito la descripción de las

Según su alcance

- ▶ Es el más complicado porque no solo describe y relaciona, sino requiere encontrar las causas de un fenómeno.
- ▶ Relaciona dos o más conceptos para medir similitudes y diferencias.
- ▶ Describe de cualidades o características del objeto de estudio a través de censos o encuestas.
- ▶ Estudia temas poco trabajados, sin embargo esto no quiere decir que no exista información.

Según su fuente de datos

- ▶ **Investigación de campo**
Examen directo, interacción con el objeto de estudio, directamente por
- ▶ **Documentales**
La información se busca en

Explicativo

Correlacional

Descriptivo

Explorativo

LESSON 4. TYPES OF RESEARCH IN PHYSICAL EDUCATION

UNIVERSIDAD DE MURCIA

1. RESEARCH TYPES IN PHYSICAL EDUCATION

1.1. ACCORDING TO ITS PURPOSE


BASIC RESEARCH	APPLIED RESEARCH
<ul style="list-style-type: none"> • ITS PURPOSE IS OF IMMEDIATE APPLICATION. • IT DOES NOT BRING NEW KNOWLEDGE 	<ul style="list-style-type: none"> • IT INTENDS TO IMPROVE THE QUALITY OF LIFE • IT CONTRIBUTES TO THE CONSTRUCTION OF NEW KNOWLEDGE

LESSON 4. TYPES OF RESEARCH IN PHYSICAL EDUCATION

UNIVERSIDAD DE MURCIA

1. RESEARCH TYPES IN PHYSICAL EDUCATION

1.2. ACCORDING TO ITS METHOD



WE WILL TALK ABOUT YOU LATER...

EXPERIMENTAL RESEARCH	NON EXPERIMENTAL RESEARCH
<ul style="list-style-type: none"> • ITS INTENTION IS TO MODIFY, THROUGHOUT THE INVESTIGATION, THE LIVING CONDITIONS OF THE SUBJECT OR OBJECT OF STUDY 	<ul style="list-style-type: none"> • IT DOESN'T REQUIRE VARIABLE MODIFICATIONS

LESSON 4. TYPES OF RESEARCH IN PHYSICAL EDUCATION

UNIVERSIDAD DE
MURCIA

1. RESEARCH TYPES IN PHYSICAL EDUCATION

1.3. ACCORDING TO ITS FOCUS

CUANTITATIVE RESEARCH	CUALITATIVE RESEARCH
<ul style="list-style-type: none"> • IT IS BASED ON NUMERICAL MEASUREMENT 	<ul style="list-style-type: none"> • IT PURPOSE IS TO DESCRIBE

LESSON 4. TYPES OF RESEARCH IN PHYSICAL EDUCATION

UNIVERSIDAD DE
MURCIA

1. RESEARCH TYPES IN PHYSICAL EDUCATION

1.4. ACCORDING TO ITS SCOPE

EXPLORATIVE RESEARCH <ul style="list-style-type: none"> • STUDY LITTLE-WORKED TOPICS 	DESCRIPTIVE RESEARCH <ul style="list-style-type: none"> • IT DESCRIBES QUALITIES OR CHARACTERISTICS OF THE OBJECT OF STUDY THROUGH SURVEYS OR MEASUREMENTS
CORRELATIONAL RESEARCH <ul style="list-style-type: none"> • RELATES TWO OR MORE CONCEPTS TO MEASURE SIMILARITIES OR DIFFERENCES 	EXPLANATORY RESEARCH <ul style="list-style-type: none"> • IT IS THE MOST COMPLICATED, BECAUSE IT NOT ONLY DESCRIBES AND RELATES, BUT ALSO TRIES TO FIND THE CAUSES OF A PHENOMENON

LESSON 4. TYPES OF RESEARCH IN PHYSICAL EDUCATION
UNIVERSIDAD DE MURCIA

1. RESEARCH TYPES IN PHYSICAL EDUCATION

1.5. ACCORDING TO ITS SOURCE OF DATA

FIELD RESEARCH	DOCUMENTAL RESEARCH
<ul style="list-style-type: none"> • DIRECT EVALUATION • DIRECT INTERACTION WITH RESEARCH OBJECT 	<ul style="list-style-type: none"> • LOOKING FOR INFORMATION IN DATA BASES

LESSON 4. TYPES OF RESEARCH IN PHYSICAL EDUCATION
UNIVERSIDAD DE MURCIA

<https://www.wooclap.com/MUYIXP>

**TITLE: INTENSITY OF PHYSICAL EDUCATION CLASSES:
TEAM SPORTS VS. INDIVIDUAL SPORTS**

ABSTRACT:

INTRODUCTION: Due to the increase of childhood obesity, it is recommended for them to practice 60 minutes of exercise most days of the week, with an intensity of moderate to vigorous (MVPA) on most days a week. However, Physical Education lessons are the only time where students are required to exercise.

OBJECTIVES: To check the effect of team sports (TS) or individual sport (IS) in the intensity of Physical Education lessons. **METHOD:** ¿? Mean heart rate from 107 students from Region of Murcia (60 boys and 47 girls), aged between 12 and 18 years, was assessed during 9 different Physical Education lessons.

RESULTS: Significantly higher ($p=0.000$; $p=0.004$) average heart rates and time spent in MVPA existed for TS (141.77 ± 14.75 ppm; 9.94 ± 4.43 min.) compared to IS (119.06 ± 19.20 ppm; 6.98 ± 6.98 min.). There was a low effect of session type (TS vs. IS) on average heart rate, % MVPA and time spent at MVPA values ($ES < 0.020$). Boys attained higher MVPA percentage time during TS, while girls had higher results during IS, not being significant ($p > 0.05$).

CONCLUSIONS: Although results show that intensity and duration of analyzed classes do not comply with recommendations to become an adequate cardiovascular exercise, the highest heart rate values were observed in lessons with TS as main content.

KEYWORDS: Heart rate, Physical Education, MVPA, Session type, Secondary Education.

LESSON 4. TYPES OF RESEARCH IN PHYSICAL EDUCATION

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<https://www.wooclap.com/MUYIXP>

GAMIFICATION AND PHYSICAL EDUCATION. VIABILITY AND PRELIMINARY VIEWS FROM STUDENTS AND TEACHERS


ABSTRACT:
Background: A novel pedagogical approach that is becoming increasingly popular in educational contexts is called Gamification. To our knowledge, empirical research on its effectiveness in education is scarce, and almost absent in physical education. **Purpose:** The goal was to explore how Gamification can be used in physical education, and what experiential effects may have on students and teachers. **Participants and settings:** Two hundred and ninety students (age range 6–14 years) enrolled in four schools located in four regions of Spain agreed to participate. The study involved five different grades (from year two of primary school to year two of secondary school), and 12 different classes. Four physical education teachers, one from each school, also agreed to participate. All participating classes experienced the same intervention programme: MarvEF [MarvPE], based on the Marvel universe of super heroes. The project lasted 15 weeks, the whole fall semester, for a total of 30 physical education sessions (2 per week/ 50 min each). Gamification was the basic methodological approach used to design the three consecutive learning units experienced by all the participating students. **Research design:** The study followed a pre-experimental, one group pretest-post-test design, where the same dependent variable (intrinsic motivation) is measured in only one group of participants prior and after the intervention. **Data collection:** A mixed methods approach was followed. It included quantitative information obtained from a questionnaire for the older students (n = 161), and qualitative information extracted from the younger students' drawings (n = 126), discussion groups with the participating teachers (n = 5), and teachers' diary (n = 2). **Data analysis:** Quantitative data was analysed using the statistical package SPSS (version 22.0). Qualitative data was assessed through content analysis and constant comparison. **Findings:** Quantitative results showed a significant increase in the students' intrinsic motivation after experiencing Gamification. Students' responses reflected one major theme: enjoyment, and two minor themes: friends and learning. On the other hand, teachers' responses showed three themes: workload, portfolio and narrative. **Conclusions:** Gamification, implemented on a long-term basis, has been found an instructional framework capable of increasing students

LESSON 4. TYPES OF RESEARCH IN PHYSICAL EDUCATION

UNIVERSIDAD DE MURCIA

1. RESEARCH TYPES IN PHYSICAL EDUCATION

1.2. ACCORDING TO THE NATURE OF THE RESEARCH



EXPERIMENTAL RESEARCH	NON EXPERIMENTAL RESEARCH
<ul style="list-style-type: none"> ITS INTENTION IS TO MODIFY, THROUGHOUT THE INVESTIGATION, THE LIVING CONDITIONS OF THE SUBJECT OR OBJECT OF STUDY 	<ul style="list-style-type: none"> IT DOESN'T REQUIRE VARIABLE MODIFICATIONS

LESSON 4. TYPES OF RESEARCH IN PHYSICAL EDUCATION



1. EXPERIMENTAL RESEARCH IN PHYSICAL EDUCATION

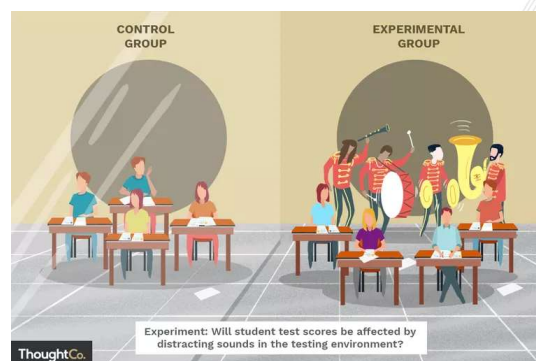
- EXPERIMENTAL RESEARCH IS **THE MOST FAMILIAR TYPE** OF RESEARCH DESIGN FOR INDIVIDUALS IN THE PHYSICAL SCIENCES AND A HOST OF OTHER FIELDS.
- EXPERIMENTAL RESEARCH IS A SCIENTIFIC APPROACH TO RESEARCH, WHERE **ONE OR MORE INDEPENDENT VARIABLES ARE MANIPULATED** AND APPLIED TO ONE OR MORE DEPENDENT VARIABLES TO MEASURE THEIR EFFECT ON THE LATTER
- THE EFFECT OF THE INDEPENDENT VARIABLES ON THE DEPENDENT VARIABLES **IS USUALLY OBSERVED AND RECORDED** OVER SOME TIME, TO AID RESEARCHERS IN DRAWING A REASONABLE CONCLUSION REGARDING THE RELATIONSHIP BETWEEN THESE 2 VARIABLE TYPES.

LESSON 4. TYPES OF RESEARCH IN PHYSICAL EDUCATION



1. EXPERIMENTAL RESEARCH IN PHYSICAL EDUCATION

- THE EXPERIMENTAL RESEARCH METHOD IS WIDELY USED IN PHYSICAL AND SOCIAL SCIENCES, PSYCHOLOGY, AND EDUCATION. **IT IS BASED ON THE COMPARISON BETWEEN TWO OR MORE GROUPS** WITH A STRAIGHTFORWARD LOGIC, WHICH MAY, HOWEVER, BE DIFFICULT TO EXECUTE



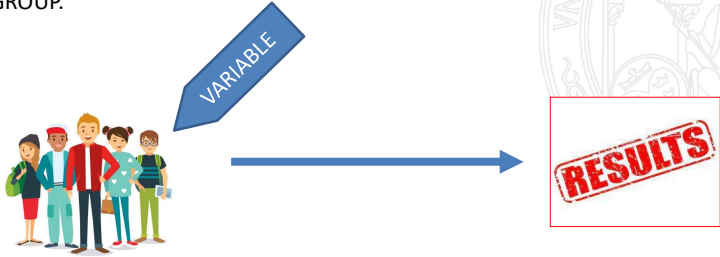
LESSON 4. TYPES OF RESEARCH IN PHYSICAL EDUCATION

UNIVERSIDAD DE
MURCIA

1. EXPERIMENTAL RESEARCH IN PHYSICAL EDUCATION

TYPE 1. PRE – EXPERIMENTAL RESEARCH DESIGN

- EITHER A GROUP OR VARIOUS DEPENDENT GROUPS ARE OBSERVED FOR THE EFFECT OF THE APPLICATION OF AN INDEPENDENT VARIABLE WHICH IS PRESUMED TO CAUSE CHANGE.
- IT IS THE SIMPLEST FORM OF EXPERIMENTAL RESEARCH DESIGN AND IS TREATED WITH NO CONTROL GROUP.



The diagram illustrates the experimental process. On the left, a group of five diverse people (two men and three women) are standing. A blue arrow labeled 'VARIABLE' points from above towards them. A horizontal blue arrow points from the group to a red rectangular box on the right containing the word 'RESULTS' in a bold, red, stamp-like font.

LESSON 4. TYPES OF RESEARCH IN PHYSICAL EDUCATION

UNIVERSIDAD DE
MURCIA

1. EXPERIMENTAL RESEARCH IN PHYSICAL EDUCATION

TYPE 1. PRE – EXPERIMENTAL RESEARCH DESIGN

ONE SHOT CASE STUDY
In this type of experimental study, **only one dependent group or variable is considered**. The study is carried out after some variable change which was presumed to cause change, making it a posttest study.

ONE GROUP PRETEST - POSTTEST
This research design **combines both posttest and pretest** study by carrying out a test on a single group before the variable is changed.


STATIC GROUP COMPARISSON
In a static-group comparison study, 2 or more groups are placed under observation, where **only one of the groups is subjected to some variable changes** while the other groups are held static. All the groups are post-tested, and the observed differences between the groups are assumed to be a result of the change.

LESSON 4. TYPES OF RESEARCH IN PHYSICAL EDUCATION
UNIVERSIDAD DE MURCIA

1. EXPERIMENTAL RESEARCH IN PHYSICAL EDUCATION

TYPE 2. QUASY – EXPERIMENTAL RESEARCH DESIGN

- THE QUASI-EXPERIMENTAL RESEARCH BEARING A RESEMBLANCE TO THE TRUE EXPERIMENTAL RESEARCH, BUT NOT THE SAME. IN QUASI-EXPERIMENTS, THE PARTICIPANTS ARE NOT RANDOMLY ASSIGNED, AND AS SUCH, THEY ARE USED IN SETTINGS WHERE RANDOMIZATION IS DIFFICULT OR IMPOSSIBLE.
- THIS IS VERY COMMON IN EDUCATIONAL RESEARCH, WHERE ADMINISTRATORS ARE UNWILLING TO ALLOW THE RANDOM SELECTION OF STUDENTS FOR EXPERIMENTAL SAMPLES.



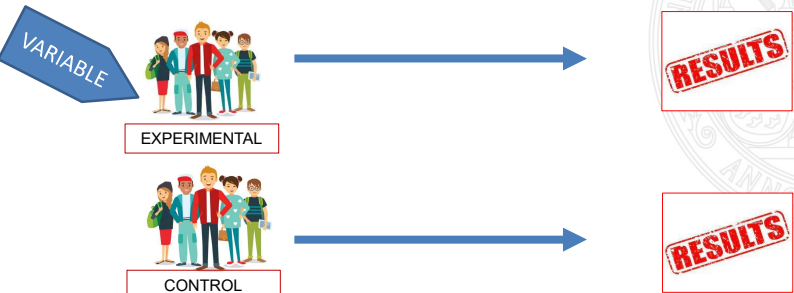
The diagram illustrates a quasi-experimental design. It shows two groups of participants, represented by icons of students. A blue arrow labeled 'VARIABLE' points to the first group. Both groups then lead to a red box labeled 'RESULTS'.

LESSON 4. TYPES OF RESEARCH IN PHYSICAL EDUCATION
UNIVERSIDAD DE MURCIA

1. EXPERIMENTAL RESEARCH IN PHYSICAL EDUCATION

TYPE 3. TRUE – EXPERIMENTAL RESEARCH DESIGN

- THE TRUE EXPERIMENTAL RESEARCH DESIGN RELIES ON STATISTICAL ANALYSIS TO APPROVE OR DISPROVE A HYPOTHESIS.
- THE TRUE EXPERIMENTAL RESEARCH DESIGN MUST CONTAIN A CONTROL GROUP, A VARIABLE THAT CAN BE MANIPULATED BY THE RESEARCHER, AND THE DISTRIBUTION MUST BE RANDOM



The diagram illustrates a true experimental design. It shows two groups of participants, labeled 'EXPERIMENTAL' and 'CONTROL'. A blue arrow labeled 'VARIABLE' points to the 'EXPERIMENTAL' group. Both groups then lead to a red box labeled 'RESULTS'.

LESSON 4. TYPES OF RESEARCH IN PHYSICAL EDUCATION

UNIVERSIDAD DE MURCIA

1. RESEARCH MODELS IN PHYSICAL EDUCATION

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WRITE AN EXAMPLE OF A QUASY-EXPERIMENTAL DESIGN

LESSON 4. TYPES OF RESEARCH IN PHYSICAL EDUCATION


UNIVERSIDAD DE MURCIA

1. EXPERIMENTAL RESEARCH IN PHYSICAL EDUCATION

DATA COLLECTION METHODS IN EXPERIMENTAL DESIGN

OBSERVATIONAL STUDY


- This type of study is carried out over a long period.
- It measures and observes the variables of interest without changing existing conditions.
- Example: carrying heavy backpack causes back pain.



LESSON 4. TYPES OF RESEARCH IN PHYSICAL EDUCATION

UNIVERSIDAD DE MURCIA

1. RESEARCH MODELS IN PHYSICAL EDUCATION



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WHICH ELEMENTS ARE IMPORTANT TO
ELABORATE AN OBSERVATIONAL
STUDY?

LESSON 4. TYPES OF RESEARCH IN PHYSICAL EDUCATION


UNIVERSIDAD DE MURCIA

1. EXPERIMENTAL RESEARCH IN PHYSICAL EDUCATION

DATA COLLECTION METHODS IN EXPERIMENTAL DESIGN

SURVEY

- A survey is a tool used to gather relevant data about the characteristics of a population and is one of the most common data collection tools
- A survey consists of a group of questions prepared by the researcher, to be answered by the research subject.
- Example: students point of view about gamification in PE



ENVIRONMENT	
I feel physically safe in Joey's lessons.	0 0 5 20
I feel emotionally safe in Joey's lessons.	0 2 10 13
I am able to focus on my learning in PE without other students distracting me.	0 7 14 4
Joey treats everyone fairly.	0 2 9 14
People respect Joey.	0 3 16 6
Joey treats us with respect.	0 1 5 19

LESSON 4. TYPES OF RESEARCH IN PHYSICAL EDUCATION

UNIVERSIDAD DE MURCIA

1. RESEARCH MODELS IN PHYSICAL EDUCATION

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**WHICH ELEMENTS ARE IMPORTANT TO
ELLABORATE A SURVEY?**

Final objective

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LET'S MOVE! PHYSICAL ACTIVITY DURING RECESS

García-Jiménez, J.V., Saryono Sar.
Department of Physical Education and Sport, Yogyakarta State University



Introduction
Data Analysis
Results
Conclusions

Objectives

Graphic Elements

Methods

Graphic Elements

Graphic Elements

Graphic Elements

Graphic Elements

Acknowledgements


References

YOGYAKARTA STATE UNIVERSITY – FACULTY OF SPORT SCIENCES - 2021

PLANNING		
UNIVERSIDAD DE MURCIA		
No	Date	Session
1.	Friday, 24 September 2021	Research Topics in Physical Education
2.	Friday, 1 Oktober 2021	Selection of Research Problems in Physical Education
3.	Friday, 8 Oktober 2021	Literature Review in Physical Education
4.	Friday, 15 Oktober 2021	Types of Research in Physical Education
5.	Friday, 22 Oktober 2021	Research Methodology in Physical Education
6.	Friday, 29 Oktober 2021	Population and Research Sample in Physical Education
7.	Friday, 5 November 2021	Research Instruments and Data Analysis in Physical Education
8.	Friday, 12 November 2021	Virtual Congress – Posters Presentation

PE RESEARCH TRENDS –
PE THESIS PROPOSAL MAKING

Terima kasih atas perhatiannya

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PE RESEARCH TRENDS – PE THESIS PROPOSAL MAKING

Yogyakarta State University



José V. García-Jiménez (PhD)
University of Murcia, Spain

PLANNING

UNIVERSIDAD DE
MURCIA

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6.	Friday, 29 Oktober 2021	Research Instruments and Data Analysis in Physical Education
7.	Friday, 5 November 2021	Results, Discussion and Conclusions in Research Paper and Thesis.
8.	Friday, 12 November 2021	Virtual Congress – Posters Presentation

Final objective

UNIVERSIDAD DE MURCIA




I CONGRESS ABOUT RESEACH PROPOSALS IN PHYSICAL EDUCACION
Yogyakarta, November 2021

YOGYAKARTA STATE UNIVERSITY – FACULTY OF SPORT SCIENCES - 2021

LET'S MOVE! PHYSICAL ACTIVITY DURING RECESS

García-Jiménez, J.V., Saryono Sar.
Department of Physical Education and Sport. Yogyakarta State University



Introduction	Data Analysis	Results	Conclusions
Objectives	Graphic Elements	Graphic Elements	Graphic Elements
Methods	Graphic Elements	Graphic Elements	Acknowledgements
			References

YOGYAKARTA STATE UNIVERSITY – FACULTY OF SPORT SCIENCES - 2021

LESSON 3. LITERATURE REVIEW

LAST WEEK


UNIVERSIDAD DE MURCIA

1. TYPES OF RESEARCH

LESSON 4. TYPES OF RESEARCH IN PHYSICAL EDUCATION

1. RESEARCH MODELS IN PHYSICAL EDUCATION

QUALITATIVE RESEARCH QUANTITATIVE RESEARCH

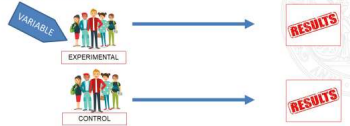


LESSON 4. TYPES OF RESEARCH IN PHYSICAL EDUCATION

1. EXPERIMENTAL RESEARCH IN PHYSICAL EDUCATION

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LESSON 4. TYPES OF RESEARCH IN PHYSICAL EDUCATION

1. RESEARCH TYPES IN PHYSICAL EDUCATION

1.4. ACCORDING TO ITS SCOPE

EXPLORATIVE RESEARCH	DESCRIPTIVE RESEARCH
• STUDY LITTLE-KNOWN TOPICS	• IT DESCRIBES QUALITIES OR CHARACTERISTICS OF THE OBJECT OF STUDY THROUGH SURVEYS OR MEASUREMENTS
CORRELATIONAL RESEARCH	EXPLANATORY RESEARCH
• RELATES TWO OR MORE CONCEPTS TO MEASURE SIMILARITIES OR DIFFERENCES	• IT IS THE MOST COMPLICATED, BECAUSE IT NOT ONLY DESCRIBES AND RELATES, BUT ALSO TRIES TO FIND THE CAUSES OF A PHENOMENON

LESSON 5. RESEARCH METHODOLOGY IN PHYSICAL EDUCATION

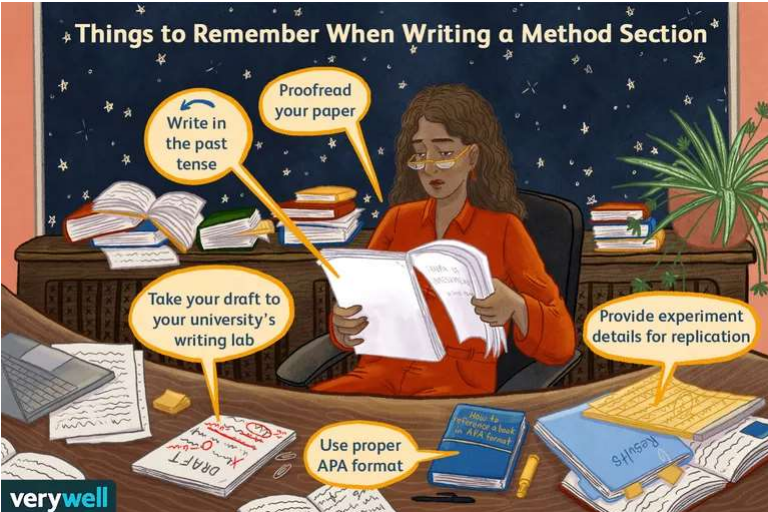
Dr. José Vicente García-Jiménez
University of Murcia, Spain

LESSON 5. RESEARCH METHODOLOGY IN PHYSICAL EDUCATION

UNIVERSIDAD DE MURCIA

1. HOW TO WRITE A RESEARCH METHODOLOGY

Things to Remember When Writing a Method Section




verywell

LESSON 5. RESEARCH METHODOLOGY IN PHYSICAL EDUCATION

UNIVERSIDAD DE MURCIA

1. HOW TO WRITE A RESEARCH METHODOLOGY



HOW WAS THE DATA COLLECTED OR GENERATED?

HOW WAS IT ANALYZED?

LESSON 5. RESEARCH METHODOLOGY IN PHYSICAL EDUCATION
UNIVERSIDAD DE MURCIA

1. HOW TO WRITE A RESEARCH METHODOLOGY

PARTS IN METHODOLOGY

TYPE OF RESEARCH

PARTICIPANTS

- Who was in the study

PROCEDURES

- What happened in the study

MEASURES

- What measures were used – like surveys
- What materials or physical test

DATA ANALYSIS

LESSON 5. RESEARCH METHODOLOGY IN PHYSICAL EDUCATION
UNIVERSIDAD DE MURCIA

1. HOW TO WRITE A RESEARCH METHODOLOGY

1.1. TYPE OF RESEARCH

LESSON 4. TYPES OF RESEARCH IN PHYSICAL EDUCATION
UNIVERSIDAD DE MURCIA

1. RESEARCH MODELS IN PHYSICAL EDUCATION

QUALITATIVE RESEARCH

QUANTITATIVE RESEARCH

1. RESEARCH TYPES IN PHYSICAL EDUCATION

1.4. ACCORDING TO ITS SCOPE

EXPLORATIVE RESEARCH <ul style="list-style-type: none"> STUDY LITTLE-KNOWN TOPICS 	DESCRIPTIVE RESEARCH <ul style="list-style-type: none"> IT DESCRIBES QUALITIES OR CHARACTERISTICS OF THE OBJECT OF STUDY THROUGH SURVEYS OR MEASUREMENTS
CORRELATIONAL RESEARCH <ul style="list-style-type: none"> RELATES TWO OR MORE CONCEPTS TO MEASURE SIMILARITIES OR DIFFERENCES 	EXPLANATORY RESEARCH <ul style="list-style-type: none"> IT IS THE MOST COMPLICATED, BECAUSE IT NOT ONLY DESCRIBES AND RELATES, BUT ALSO TRIES TO FIND THE CAUSES OF A PHENOMENON

LESSON 4. TYPES OF RESEARCH IN PHYSICAL EDUCATION
UNIVERSIDAD DE MURCIA

1. EXPERIMENTAL RESEARCH IN PHYSICAL EDUCATION

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VARIABLE

EXPERIMENTAL

CONTROL

→

RESULTS

RESULTS

LESSON 5. RESEARCH METHODOLOGY IN PHYSICAL EDUCATION

UNIVERSIDAD DE MURCIA

1. HOW TO WRITE A RESEARCH METHODOLOGY

1.2. PARTICIPANTS

HOW MANY?
A proposal should say exactly how many participants are intended

A completed study should say exactly how many were in the study when all data were collected

WHAT IS SAMPLE SIZE?
If your sample **is too small**, you may include a disproportionate number of individuals which are outliers and anomalies. These skew the results and **you don't get a fair picture** of the whole population.

If the sample **is too big**, the whole study becomes complex, expensive and time-consuming to run, and although the results are more accurate, the benefits don't outweigh the costs.

LESSON 5. RESEARCH METHODOLOGY IN PHYSICAL EDUCATION

UNIVERSIDAD DE MURCIA

1. HOW TO WRITE A RESEARCH METHODOLOGY

1.2. PARTICIPANTS

HOW TO CALCULATE SAMPLE SIZE?

You must take into consideration **CONFIDENCE INTERVAL (MARGIN OF ERROR):**

The confidence interval tells you **how confident you can be that the results** from a study reflect what you would expect to find if it were possible to survey the entire population being studied

For example, if your confidence interval is 6 and 60% percent of your sample picks an answer, you can be confident that if you had asked the entire population, between 54% (60-6) and 66% (60+6) would have picked that answer.

LESSON 5. RESEARCH METHODOLOGY IN PHYSICAL EDUCATION

UNIVERSIDAD DE MURCIA

1. HOW TO WRITE A RESEARCH METHODOLOGY

1.2. PARTICIPANTS

HOW TO CALCULE SAMPLE SIZE?

- COCHRAN'S SAMPLE SIZE FORMULA
$$n_0 = \frac{Z^2 pq}{e^2}$$
- MODIFICATION FOR THE COCHRAN FORMULA FOR SAMPLE SIZE CALCULATION IN SMALLER POPULATIONS
$$n = \frac{n_0}{1 + \frac{(n_0 - 1)}{N}}$$
- YAMANE'S FORMULA
$$n = \frac{N}{1 + N(e)^2}$$

<https://www.calculator.net/sample-size-calculator.html>

LESSON 5. RESEARCH METHODOLOGY IN PHYSICAL EDUCATION

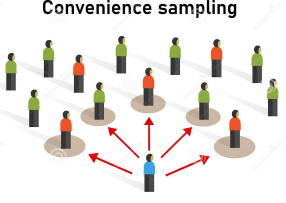
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1. HOW TO WRITE A RESEARCH METHODOLOGY

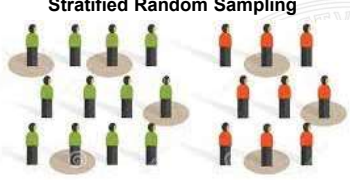
1.2. PARTICIPANTS

WHAT TYPE OF SAMPLE WAS IT?


Convenience sampling



Stratified Random Sampling



Simple random sampling



LESSON 5. RESEARCH METHODOLOGY IN PHYSICAL EDUCATION

UNIVERSIDAD DE MURCIA

1. HOW TO WRITE A RESEARCH METHODOLOGY

1.2. PARTICIPANTS

IMPORTANT CHARACTERISTICS

- **AGE:** SHOULD INCLUDE AGE RANGE
- **GENDER:** SHOULD INCLUDE NUMBERS AND/OR PERCENTS
- IN SOME CASES: **PHYSICAL CHARACTERISTICS**
- IF NECESSARY: **INCLUSION CHARACTERISTICS**
- **EXCLUSION CHARACTERISTICS**

Methods and Materials
Participants
 The study was conducted on 544 PETE trainees, including 372 male and 172 female PETE trainees doing various courses within the state of Kerala only. With ASK-PE Battery (Ayers, S. F., 2001b) ^[3], a sheet to collect some demographic information regarding the course in which they are studying, gender and name of the institution also was given. These details were used for grouping the participants in the testing programme. In the present study 39 (7.2%) were from VHSE, 56 (10.3%) were from CPED, 142 (26.1%) were from BPED, 40 (7.4%) were from BPE, 221 (40.6%) were from MPED and 46 (8.5%) were from MPE courses.

LESSON 5. RESEARCH METHODOLOGY IN PHYSICAL EDUCATION

UNIVERSIDAD DE MURCIA

1. HOW TO WRITE A RESEARCH METHODOLOGY

1.3. PROCEDURES

- EXPLAIN **WHAT YOU HAD PARTICIPANTS DO**, HOW YOU COLLECTED DATA, AND THE ORDER IN WHICH STEPS OCCURRED.
- KEEP THIS SUBSECTION CONCISE YET DETAILED. **EXPLAIN WHAT YOU DID AND HOW YOU DID IT**, BUT DO NOT OVERWHELM YOUR READERS WITH TOO MUCH INFORMATION

An examiner interviewed children individually at their physical education session that lasted 20 minutes on average. The examiner explained to each child that he or she would be to complete two cognitive exercises, one for memory, one for order series. All sessions were videotaped so the data could later be coded.

IN THIS PART, REFERS TO THE GENERAL MODE OF THE INSTRUMENTS: SURVEYS, INTERVIEWS, OBSERVATIONS, FOCUS GROUPS, NEUROIMAGING, COGNITIVE TESTS, AND SO ON. SUMMARIZE EXACTLY HOW YOU COLLECTED THE NECESSARY DATA.

LESSON 5. RESEARCH METHODOLOGY IN PHYSICAL EDUCATION

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MURCIA

1. HOW TO WRITE A RESEARCH METHODOLOGY

1.4. MATERIALS

- DESCRIBE THE **MATERIALS, MEASURES, EQUIPMENT**, OR STIMULI USED IN THE EXPERIMENT. THIS MAY INCLUDE TESTING INSTRUMENTS, TECHNICAL EQUIPMENT, OR OTHER MATERIALS USED DURING THE COURSE OF RESEARCH
- **SPECIALIZED EQUIPMENT**, ESPECIALLY IF IT IS SOMETHING THAT IS COMPLEX OR CREATED FOR A NICHE PURPOSE, SHOULD BE GIVEN GREATER DETAIL.
- IN SOME INSTANCES, SUCH AS IF YOU CREATED A SPECIAL MATERIAL OR APPARATUS FOR YOUR STUDY, YOU MAY NEED TO PROVIDE **AN ILLUSTRATION OF THE ITEM** THAT CAN BE INCLUDED IN YOUR APPENDIX AND THEN REFERRED TO IN YOUR METHOD SECTION.

LESSON 5. RESEARCH METHODOLOGY IN PHYSICAL EDUCATION

UNIVERSIDAD DE
MURCIA

1. HOW TO WRITE A RESEARCH METHODOLOGY

1.4. MATERIALS

OBSERVATIONAL STUDY

- This type of study is carried out over a long period.
- **It measures and observes the variables of interest without changing existing conditions.**
- Example: carrying heavy backpack causes back pain.



LESSON 5. RESEARCH METHODOLOGY IN PHYSICAL EDUCATION

UNIVERSIDAD DE MURCIA

1. HOW TO WRITE A RESEARCH METHODOLOGY

1.4. MATERIALS

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**WHICH ELEMENTS ARE IMPORTANT TO
ELLABORATE AN OBSERVATIONAL
STUDY?**

LESSON 5. RESEARCH METHODOLOGY IN PHYSICAL EDUCATION

UNIVERSIDAD DE MURCIA

1. HOW TO WRITE A RESEARCH METHODOLOGY

1.4. MATERIALS

OBSERVATIONAL STUDY

1. IDENTIFY YOUR OBJECTIVE
2. ESTABLISH RECORDING METHOD
3. DEVELOP QUESTIONS AND TECHNIQUES
4. OBSERVE AND TAKE NOTES
5. ANALYZE BEHAVIOURS AND INFERENCES

LESSON 5. RESEARCH METHODOLOGY IN PHYSICAL EDUCATION

UNIVERSIDAD DE
MURCIA


1. HOW TO WRITE A RESEARCH METHODOLOGY

1.4. MATERIALS

OBSERVATIONAL STUDY

1. IDENTIFY YOUR OBJECTIVE

- DETERMINE **WHAT YOU WANT TO OBSERVE** AND WHY. ARE LOOKING TO SEE HOW STUDENTS RESPOND TO A NEW ENVIRONMENT?
- WHEN CONDUCTING OBSERVATIONS, YOU ARE **TRYING TO LEARN HABITS**, PATTERNS, BEHAVIORS, REACTIONS, AND GENERAL INFORMATION ABOUT PEOPLE IN A PARTICULAR ENVIRONMENT TO BETTER UNDERSTAND WHAT THEY DO



LESSON 5. RESEARCH METHODOLOGY IN PHYSICAL EDUCATION

UNIVERSIDAD DE
MURCIA


1. HOW TO WRITE A RESEARCH METHODOLOGY

1.4. MATERIALS

OBSERVATIONAL STUDY

2. ESTABLISH RECORDING METHOD

- TO MAKE OBSERVATIONS MOST EFFECTIVE, IT'S IMPORTANT THAT YOU MINIMIZE OR ELIMINATE ANY DISRUPTIVE OR UNFAMILIAR DEVICES INTO THE ENVIRONMENT YOU WISH TO OBSERVE.
- WITH PE STUDENTS, TRY TO ACT IN NORMAL SITUATIONS, **WITH THEIR PE TEACHER**, FOR EXAMPLE



LESSON 5. RESEARCH METHODOLOGY IN PHYSICAL EDUCATION

UNIVERSIDAD DE MURCIA


1. HOW TO WRITE A RESEARCH METHODOLOGY

1.4. MATERIALS

OBSERVATIONAL STUDY

3. DEVELOP QUESTIONS AND TECHNIQUES

- DETERMINE **WHETHER YOU ARE CONDUCTING** AN INFORMAL OR A FORMAL OBSERVATION
- **WHAT YOU HOPE TO LEARN** WILL HELP YOU KNOW WHAT SPECIFICALLY TO LOOK FOR
- BE PREPARED WHEN ENTERING AN OBSERVATION SPACE BY HAVING A SOUND UNDERSTANDING OF THE TYPE OF INFORMATION YOU ARE TRYING LEARN



LESSON 5. RESEARCH METHODOLOGY IN PHYSICAL EDUCATION

UNIVERSIDAD DE MURCIA


1. HOW TO WRITE A RESEARCH METHODOLOGY

1.4. MATERIALS

OBSERVATIONAL STUDY

4. OBSERVE AND TAKE NOTES

- VISIT THE SPACE YOU ARE HOPING TO GET INFORMATION FROM.
- BE AS **UNOBTRUSIVE AS POSSIBLE**, TAKING NOTES, PHOTOGRAPHS, AUDIO, AND FILM, ONLY WHERE IT IS ALLOWED, YOU HAVE PERMISSION, AND IT MAKES SENSE FOR THE RESEARCH WITHOUT DISRUPTING THE ENVIRONMENT



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UNIVERSIDAD DE
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1. HOW TO WRITE A RESEARCH METHODOLOGY

1.4. MATERIALS

OBSERVATIONAL STUDY

5. ANALYZE BEHAVIOURS AND INFERENCES

- SEPARATE THE DIFFERENCE BETWEEN WHAT YOU OBSERVED (WHICH ARE FACTUAL BEHAVIORS) AND **WHY WHAT YOU OBSERVED HAPPENED.**
- MAKE CONNECTIONS BETWEEN INTERACTIONS, RESPONSES, BEHAVIORS, AND OTHER PHENOMENA



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1. HOW TO WRITE A RESEARCH METHODOLOGY

1.4. MATERIALS

OBSERVATIONAL STUDY

Increasing Physical Activity in Under-Resourced Communities Through School-Based, Joint-Use Agreements, Los Angeles County, 2010–2012

Mariah Lefleur, MPH,¹ Eloisa Gonzalez, MD, MPH, Liz Schwarte, MPH, Rajni Banthia, PhD, Tony Kuo, MD, MSHS, Joanie Verderber, PhD, and Paul Simon, MD, MPH

Trained observers conducted the joint-use site observations and assessments from April 2011 through February 2012. Observers began data collection as agreements were adopted and implemented. The evaluation team adapted the System for Observing Play and Recreation in Communities (SOPARC) tool from McKenzie et al (14) as the primary study instrument for collecting data on the number, demographics, and physical activity levels of community members who used the joint-use school sites. The adapted SOPARC simplified the age group and race/ethnicity observations by documenting only whether the observed persons appeared to be aged under (child) or over (adult) 18 years and whether they appeared to be white or nonwhite. The observers were trained using the SOPARC introduction, assessment, practice, and training DVD and the SOPARC protocols, data path coding forms, and mapping strategies documents (15). Mock fieldwork–trainings were provided as needed. This training was a refresher course for most observers, who had previous experience using the SOPARC observational tool. Because of resource and time constraints, only 1 observer at a time was able to make observations at each site. As a result, the evaluation team could not carry out a meaningful assessment of inter-rater reliability.

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1.4. MATERIALS

OBSERVATIONAL STUDY

1. IDENTIFY YOUR OBJECTIVE
2. ESTABLISH RECORDING METHOD
3. DEVELOP QUESTIONS AND TECHNIQUES
4. OBSERVE AND TAKE NOTES
5. ANALYZE BEHAVIOURS AND INFERENCES

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SURVEY

- A survey is a tool used to gather relevant data about the characteristics of a population and is one of the most common data collection tools
- A survey consists of a group of questions prepared by the researcher, to be answered by the research subject.
- Example: students point of view about gamification in PE

ENVIRONMENT		
I feel physically safe in Joey's lessons.	0	0 5 20
I feel emotionally safe in Joey's lessons.	0	2 10 13
I am able to focus on my learning in PE without other students distracting me.	0	7 14 4
Joey treats everyone fairly.	0	2 9 14
People respect Joey.	0	3 16 6
Joey treats us with respect.	0	1 5 19

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1. HOW TO WRITE A RESEARCH METHODOLOGY

1.4. MATERIALS

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WHICH ELEMENTS ARE IMPORTANT TO ELABORATE A SURVEY?



LESSON 5. RESEARCH METHODOLOGY IN PHYSICAL EDUCATION


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1. HOW TO WRITE A RESEARCH METHODOLOGY

1.4. MATERIALS

SURVEYS

1. DETERMINE PARTICIPANTS
2. IDENTIFY PLATFORM AND DISTRIBUTION METHOD
3. DEVELOP QUESTIONS
4. DISTRIBUTE SURVEY
5. ANALYZE DATA
6. GENERATE HYPOTHESIS
7. CONDUCT FURTHER RESEARCH



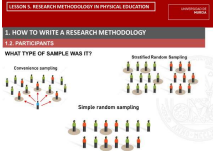
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1. HOW TO WRITE A RESEARCH METHODOLOGY

1.4. MATERIALS


SURVEY

1. IDENTIFY PARTICIPANTS



2. IDENTIFY PLATFORM DISTRIBUTION AND METHOD

- IS THIS A SURVEY THAT **CAN DISTRIBUTED FOR FREE**, CREATED ON A PLATFORM LIKE SURVEYMONKEY AND SENT THROUGH SOCIAL MEDIA?
- IS THIS SOMETHING YOU WOULD SEND IN AN EMAIL TO PEOPLE IN YOUR DATABASE?




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1. HOW TO WRITE A RESEARCH METHODOLOGY

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SURVEY

3. DEVELOP QUESTIONS



- WRITE QUESTIONS THAT WILL GIVE YOU THE MOST USEFUL RESPONSES.. SOME TYPES OF QUESTIONS INCLUDE:
 - **CLOSED** (MULTIPLE CHOICE WITH ONLY ONE OPTION)
 - **OPEN** (MULTIPLE CHOICE WITH MULTIPLE OPTIONS)
 - **LIKERT** (GIVES OPTIONS FOR A SCALE, SUCH AS "NEVER," "SOMETIMES," AND "ALWAYS")
 - **FREE RESPONSE** (ALLOWS WRITTEN ANSWERS)
 - **REQUEST** (ASKS FOR SUGGESTS OR QUESTIONS)

LESSON 5. RESEARCH METHODOLOGY IN PHYSICAL EDUCATION

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1. HOW TO WRITE A RESEARCH METHODOLOGY

1.4. MATERIALS

SURVEY

4. DISTRIBUTE SURVEYS

- SEND THE SURVEY TO THE PEOPLE YOU DETERMINED. BE SURE TO LET RESPONDENTS KNOW IN ADVANCE THREE THINGS:
 - 1. WHY YOU'RE CONDUCTING THE SURVEY AND/OR WHY THEY SHOULD CARE.
 - 2. HOW LONG THE SURVEY WILL TAKE
 - 3. WHEN THEY NEED TO HAVE IT COMPLETED BY.
- KEEP SURVEY **RELATIVELY SHORT** (THE LESS TIME IT TAKES, THE HIGHER THE RESPONSE RATE YOU WILL USUALLY GET.) SEND REMINDERS IF NECESSARY.



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1. HOW TO WRITE A RESEARCH METHODOLOGY

1.4. MATERIALS

SURVEY

5. ANALYZE DATA

- COLLECT ALL SURVEY RESPONSES AND DETERMINE **HOW MANY OF PEOPLE** RESPONDED.
- MAKE **CONNECTIONS** BETWEEN RESPONSES, LOOKING FOR PATTERNS, TRENDS, AND OTHER INSIGHTFUL INFORMATION.
- IF YOUR SURVEY SAMPLE WAS LARGE ENOUGH AND THE RESPONSES MERIT QUANTIFYING THE RESULTS, **DO A STATISTICAL ANALYSIS**.



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1. HOW TO WRITE A RESEARCH METHODOLOGY

1.4. MATERIALS

SURVEY

6. GENERATE HYPHOTESIS

- ONCE YOU HAVE ANALYZED YOUR DATA AND MADE CONNECTIONS ABOUT ATTITUDES AND BEHAVIORS, YOU ARE IN A POSITION **TO HYPOTHEZIZE WHAT YOUR PARTICIPANTS THINK OR FEEL.**
- YOUR HYPOTHESIS **ISN'T A CONCLUSION**, BUT RATHER A STATEMENT THAT WILL LIKELY DRAW MORE SPECIFIC QUESTIONS.
- SURVEYS ARE BEST USED IN COMBINATION WITH OTHER RESEARCH METHODS, SINCE THE SUBJECT RESPONSES AREN'T USUALLY A GREAT MEASURE ON THEIR OWN OF ACTUAL, GENERALIZABLE DATA



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SURVEY

7. CONDUCT FURTHER RESEARCH (IF NECESSARY)

- SURVEYS ARE **GREAT ADDITIONS TO A BODY OF RESEARCH** BUT THEY RARELY SHOULD BE USED ON THEIR OWN AS DECISION-MAKING RESEARCH.
- SURVEYS LEAD RESEARCHERS TO ASK EVEN MORE POINTED QUESTIONS, **ESTABLISHING IDEAS** FOR MORE DETAILED QUESTIONNAIRES, OBSERVATION METHODS, USABILITY TESTS, INTERVIEWS, POLLS, AND OTHER METRICS.



LESSON 5. RESEARCH METHODOLOGY IN PHYSICAL EDUCATION

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1. HOW TO WRITE A RESEARCH METHODOLOGY

1.4. MATERIALS

SURVEYS

1. DETERMINE PARTICIPANTS
2. IDENTIFY PLATFORM AND DISTRIBUTION METHOD
3. DEVELOP QUESTIONS
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7. CONDUCT FURTHER RESEARCH

LESSON 5. RESEARCH METHODOLOGY IN PHYSICAL EDUCATION

UNIVERSIDAD DE
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1. HOW TO WRITE A RESEARCH METHODOLOGY

1.4. MATERIALS

SURVEY

Student's Basic Psychological Needs Satisfaction. The Basic Psychological Needs in Exercise Scale (BPNES) [34], translated and validated in Portuguese by Moutão et al. [35] was used. However, for the present research items were adapted to PE context [36,37], keeping the original 12 item structure. Items are answered on a five-point Likert scale varying from 1 ("I totally disagree") to 5 ("I totally agree"), and grouped in 3 factors (4 items each), reflecting BPN based on SDT.

Student's Basic Psychological Needs Satisfaction. The Basic Psychological Needs in Exercise Scale (BPNES) [34], translated and validated in Portuguese by Moutão et al. [35] was used. However, for the present research items were adapted to PE context [36,37], keeping the original 12 item structure. Items are answered on a five-point Likert scale varying from 1 ("I totally disagree") to 5 ("I totally agree"), and grouped in 3 factors (4 items each), reflecting BPN based on SDT.

Motivational determinants of physical education grades and the intention to practice sport in the future

[Luís Cid](#), Conceptualization, Formal analysis, Funding acquisition, Investigation, Methodology, Writing – original draft, Writing – review & editing,^{1,2,*} [Ana Pires](#), Data curation, Investigation, Writing – original draft,³ [Carla Borrego](#), Data curation, Investigation, Writing – original draft,^{1,4} [Pedro Duarte-Mendes](#), Data curation, Investigation, Writing – review & editing,^{5,6} [Diogo S. Teixeira](#), Conceptualization, Formal analysis, Investigation, Writing – review & editing,⁷ [João M. Moutão](#), Conceptualization, Formal analysis, Funding acquisition, Investigation, Methodology,^{1,2} and [Diogo Monteiro](#), Conceptualization, Formal analysis, Funding acquisition, Investigation, Methodology, Writing – original draft^{1,2}

LESSON 5. RESEARCH METHODOLOGY IN PHYSICAL EDUCATION

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1. HOW TO WRITE A RESEARCH METHODOLOGY

1.5. DATA ANALYSIS

- REMEMBER, A DATA ANALYSIS SECTION IS PROVIDED RIGHT AFTER THE METHODS AND APPROACHES USED.
- THERE, **YOU SHOULD EXPLAIN HOW YOU ORGANIZED YOUR DATA**, WHAT STATISTICAL TESTS WERE APPLIED, AND HOW YOU EVALUATED THE OBTAINED RESULTS.
- **SOME TIPS** TO IMPROVE YOUR DATA ANALYSIS PART IN METHODOLOGY:

Avoid analyzing your results in the data analysis section

Report what software you used to gather and analyze your data

Provide your main research questions and the analysis methods that were applied to answer them

Explain how the data were summarized and what measures of variability you have used

Make sure that you included the full name of statistical tests used

LESSON 5. RESEARCH METHODOLOGY IN PHYSICAL EDUCATION

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1. HOW TO WRITE A RESEARCH METHODOLOGY

1.5. DATA ANALYSIS

ORIGINAL

INTENSITY OF PHYSICAL EDUCATION CLASSES IN ADOLESCENTS

Means and standard deviations were calculated for each of the output measured analyzed. The Kolmogorov-Smirnov statistic was used to check the normal distribution. Independent sample t-test was carried out to test gender differences and different lesson types, with regard to mean heart rate, time spent in MVPA and percent of lesson in MVPA values.

One-way ANOVA was used to identify differences in mean time spent in MVPA in MVPA values between the four PE lesson types (team sports, individual sports, traditional games or dancing), using Bonferroni post hoc test to identify where significant differences occurred. Where data were not normal, Kruskal-Wallis test was used.

Effect sizes were also calculated using Cohen's d for time in MVPA values in relation to gender and session type, interpreted as small (0.20), medium (0.50), and large (0.80). For all statistical test a significance level of $p < 0.05$ was established, and in case of Bonferroni test, significance level (α) will be α / k (k : number of comparison). Statistical analysis was carried out using IBM SPSS Statistics 15 for Windows (SPSS Inc®, Chicago, USA).

LESSON 5. RESEARCH METHODOLOGY IN PHYSICAL EDUCATION

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1. HOW TO WRITE A RESEARCH METHODOLOGY

PARTS IN METHODOLOGY

-  **TYPE OF RESEARCH**
-  **PARTICIPANTS**
 - Who was in the study
-  **PROCEDURES**
 - What happened in the study
-  **MEASURES**
 - What measures were used – like surveys
 - What materials or physical test
-  **DATA ANALYSIS**

LESSON 5. RESEARCH METHODOLOGY IN PHYSICAL EDUCATION

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1. HOW TO WRITE A RESEARCH METHODOLOGY

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**TRUE OR FALSE ABOUT WRITING
METHODOLOGY?**

PLANNING

UNIVERSIDAD DE
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No	Date	Session
1.	Friday, 24 September 2021	Research Topics in Physical Education
2.	Friday, 1 Oktober 2021	Selection of Research Problems in Physical Education
3.	Friday, 8 Oktober 2021	Literature Review in Physical Education
4.	Friday, 15 Oktober 2021	Types of Research in Physical Education
5.	Friday, 22 Oktober 2021	Research Methodology in Physical Education
6.	Friday, 29 Oktober 2021	Research Instruments and Data Analysis in Physical Education
7.	Friday, 5 November 2021	Results, Discussion and Conclusions in Research Paper and Thesis.
8.	Friday, 12 November 2021	Virtual Congress – Posters Presentation

PE RESEARCH TRENDS –
PE THESIS PROPOSAL MAKING

Terima kasih atas perhatiannya

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PE RESEARCH TRENDS – PE THESIS PROPOSAL MAKING

Yogyakarta State University



José V. García-Jiménez (PhD)
University of Murcia, Spain

PLANNING

UNIVERSIDAD DE
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Final objective

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I CONGRESS ABOUT RESEACH PROPOSALS IN PHYSICAL EDUCACION
Yogyakarta, November 2021

YOGYAKARTA STATE UNIVERSITY – FACULTY OF SPORT SCIENCES - 2021

LET'S MOVE! PHYSICAL ACTIVITY DURING RECESS

García-Jiménez, J.V., Saryono Sar.
Department of Physical Education and Sport. Yogyakarta State University



Introduction

Data Analysis

Graphic Elements

Objectives

Graphic Elements

Graphic Elements

Graphic Elements

Graphic Elements

Methods

Acknowledgements

References

YOGYAKARTA STATE UNIVERSITY – FACULTY OF SPORT SCIENCES - 2021

LESSON 3. LITERATURE REVIEW

LAST WEEK

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1. TYPES OF RESEARCH

LESSON 5. RESEARCH METHODOLOGY IN PHYSICAL EDUCATION

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1. HOW TO WRITE A RESEARCH METHODOLOGY

PARTS IN METHODOLOGY

- TYPE OF RESEARCH
- PARTICIPANTS
 - Who was in the study
- PROCEDURES
 - What happened in the study
- MEASURES
 - What measures were used – like surveys
 - What materials or physical test
- DATA ANALYSIS

LESSON 5. RESEARCH METHODOLOGY IN PHYSICAL EDUCATION

UNIVERSIDAD DE MURCIA

1. HOW TO WRITE A RESEARCH METHODOLOGY

1.2. PARTICIPANTS

WHAT TYPE OF SAMPLE WAS IT?

Convenience sampling

Stratified Random Sampling

Simple random sampling

LESSON 6. RESEARCH INSTRUMENTS AND DATA ANALYSIS IN PHYSICAL EDUCATION

Dr. José Vicente García-Jiménez

University of Murcia, Spain

LESSON 6. RESEARCH INSTRUMENTS AND DATA ANALYSIS IN PE

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1. STATISTICAL ANALYSIS

LESSON 6. RESEARCH INSTRUMENTS AND DATA ANALYSIS IN
PHYSICAL EDUCATIONUNIVERSIDAD DE
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1. STATISTICAL ANALYSIS



LESSON 6. RESEARCH INSTRUMENTS AND DATA ANALYSIS IN PHYSICAL EDUCATION

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1.1. SPSS – CUANTITATIVE DATA ANALYSIS



LESSON 6. RESEARCH INSTRUMENTS AND DATA ANALYSIS IN PHYSICAL EDUCATION

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1.1. SPSS – CUANTITATIVE DATA ANALYSIS


PHYSICAL ACTIVITY LEVELS AND ACADEMIC PERFORMANCE IN PRIMARY EDUCATION CHILDREN

DEPENDENT VARIABLES:

- **ACADEMIC PERFORMANCE** → SUBJECTS EVALUATION
- **PA LEVELS** → APALQ QUESTIONAIRE
- **PHYSICAL CONDITION** → PHYSICAL TEST

INDEPENDENT VARIABLES:

- GENDER
- COURSE



LESSON 6. RESEARCH INSTRUMENTS AND DATA ANALYSIS IN PHYSICAL EDUCATION

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1.1. SPSS – CUANTITATIVE DATA ANALYSIS

PHYSICAL ACTIVITY LEVELS AND ACADEMIC PERFORMANCE IN PRIMARY EDUCATION CHILDREN

STEP 1- ORGANIZE DATA IN EXCEL

COURSE	GENDER	AGE	SPEED TEST	AGILITY TEST	RESISTANCE TEST	LONG JUMP TEST	MEDICINE BALL TEST	PHYSICAL CONDITION	MATHS	LITERATURE	HISTORY	ENGLISH	SCIENCES	P.E.	ACADEMIC PERFORMANCE	APALQ
3	1	9	7.98	8.23	8.16	7.19	5.54	8.83	8	9	7	7	9	8	8.00	1
3	2	8	9.47	9.70	9.45	9.00	6.46	9.58	6	8	7	8	8	9	7.67	2
3	1	8	9.54	10.01	9.90	7.50	6.71	8.83	8	8	9	10	10	9	9.00	3
3	1	8	9.26	9.87	8.93	8.75	8.21	9.92	7	8	8	10	10	9	8.67	3
3	1	8	8.48	8.85	9.76	8.13	10.00	9.31	7	8	9	9	9	9	8.50	2
3	1	9	9.35	8.95	8.97	8.13	8.50	9.31	9	9	10	9	9	9	9.17	3

PHYSICAL TEST (OVER 10 POINTS)

ACADEMIC PERFORMANCE

PA LEVEL – APALQ FORM:
1: SEDENTARY
2: MODERATE
3: VERY ACTIVE

LESSON 6. RESEARCH INSTRUMENTS AND DATA ANALYSIS IN PHYSICAL EDUCATION

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1.1. SPSS – CUANTITATIVE DATA ANALYSIS

PHYSICAL ACTIVITY LEVELS AND ACADEMIC PERFORMANCE IN PRIMARY EDUCATION CHILDREN

STEP 2 – CREATE VARIABLES (SAME FROM EXCEL)

Sin título2 [Conjunto de Datos] - IBM SPSS Statistics Editor de datos

	Nombre	Tipo	Anchura	Decimales	Etiqueta	Valores	Perdidos	Columnas	Alineación	Medida	Rol
1	COURSE	Númerico	8	0	Students Year	Ninguno	Ninguno	8	Derecha	Escala	Entrada
2	GENDER	Númerico	8	0		{1, Boys}...	Ninguno	8	Derecha	Nominal	Entrada
3	AGE	Númerico	8	0		Ninguno	Ninguno	8	Derecha	Escala	Entrada
4	SPEED	Númerico	8	0		{1, Sedentar...	Ninguno	8	Derecha	Escala	Entrada
5	AGILITY	Númerico	8	2		Ninguno	Ninguno	8	Derecha	Escala	Entrada
6	RESISTANCE	Númerico	8	2		Ninguno	Ninguno	8	Derecha	Escala	Entrada
7	LONG_JUMP	Númerico	8	2		Ninguno	Ninguno	8	Derecha	Escala	Entrada
8	BALL	Númerico	8	2		Ninguno	Ninguno	8	Derecha	Escala	Entrada
9	PHYSICAL...	Númerico	8	2	Mean Physical...	Ninguno	Ninguno	8	Derecha	Escala	Entrada
10	MATHS	Númerico	8	2		Ninguno	Ninguno	8	Derecha	Escala	Entrada
11	LITERATURE	Númerico	8	2		Ninguno	Ninguno	8	Derecha	Escala	Entrada
12	HISTORY	Númerico	8	2		Ninguno	Ninguno	8	Derecha	Escala	Entrada
13	ENGLISH	Númerico	8	2		Ninguno	Ninguno	8	Derecha	Escala	Entrada
14	SCIENCE	Númerico	8	2		Ninguno	Ninguno	8	Derecha	Escala	Entrada
15	PHYSED	Númerico	8	2		Ninguno	Ninguno	8	Derecha	Escala	Entrada
16	ACADEMIC...	Númerico	8	2	Mean Academi...	Ninguno	Ninguno	8	Derecha	Escala	Entrada
17	PA_LEVELS	Númerico	8	0	Physical Activit...	{1, Sedentar...	Ninguno	8	Derecha	Nominal	Entrada
18											
19											
20											
21											
22											

Vista de datos Vista de variables

LESSON 6. RESEARCH INSTRUMENTS AND DATA ANALYSIS IN PHYSICAL EDUCATION

1.1. SPSS – CUANTITATIVE DATA ANALYSIS

PHYSICAL ACTIVITY LEVELS AND ACADEMIC PERFORMANCE IN PRIMARY EDUCATION CHILDREN

STEP 3- DUMP DATA TO SPSS NEW DOCUMENT

	COURSE	GENDER	AGE	SPEED	AGILITY	RESISTANCE	LONG JUMP	BALL	PHYSICAL CONDITION	MATHS	LITERATURE	HISTORY	ENGLISH	SCIENCE
1	3	1	9	8	8.23	8.16	7.19	5.54	8.83	8.00	9.00	7.00	7.00	9.00
2	3	2	8	9	9.70	9.45	9.00	8.46	9.58	6.00	8.00	7.00	8.00	8.00
3	3	1	8	10	10.01	9.90	7.50	6.71	8.83	8.00	8.00	9.00	10.00	10.00
4	3	1	8	9	9.87	8.93	8.75	8.21	9.32	7.00	8.00	8.00	10.00	10.00
5	3	1	8	8	8.85	9.76	8.13	10.00	9.31	7.00	8.00	9.00	9.00	9.00
6	3	1	9	9	8.95	8.97	8.13	8.50	9.31	9.00	9.00	10.00	9.00	9.00
7	3	1	8	9	8.36	9.77	8.75	7.14	9.04	7.00	9.00	8.00	7.00	8.00
8	3	2	8	9	9.14	9.39	7.67	6.15	9.03	8.00	9.00	8.00	8.00	8.00
9	3	1	8	8	8.62	8.92	8.44	6.86	9.02	6.00	5.00	6.00	6.00	6.00
10	3	2	8	10	9.75	9.55	6.67	7.88	9.25	9.00	8.00	7.00	8.00	10.00
11	3	1	8	8	8.44	8.94	6.88	8.93	9.09	10.00	9.00	10.00	9.00	10.00
12	3	1	9	9	10.00	9.62	10.00	10.00	9.61	10.00	8.00	8.00	10.00	10.00
13	3	1	8	10	9.30	9.70	9.06	7.25	9.20	10.00	10.00	10.00	10.00	10.00
14	3	1	8	9	8.97	9.63	8.13	8.11	9.07	10.00	9.00	9.00	9.00	10.00
15	3	2	9	8	8.47	8.36	8.33	5.92	9.31	8.00	7.00	6.00	9.00	8.00
16	3	1	8	9	8.95	8.88	7.81	7.32	9.03	10.00	8.00	8.00	10.00	9.00
17	3	2	8	9	10.00	8.79	7.53	5.46	9.04	10.00	10.00	10.00	10.00	10.00
18	3	2	7	9	8.43	9.15	9.33	3.85	9.05	6.00	5.00	6.00	6.00	6.00
19	3	2	8	8	7.99	9.24	7.00	4.23	8.75	9.00	8.00	7.00	7.00	7.00

LESSON 6. RESEARCH INSTRUMENTS AND DATA ANALYSIS IN PHYSICAL EDUCATION

1.1. SPSS – CUANTITATIVE DATA ANALYSIS

PHYSICAL ACTIVITY LEVELS AND ACADEMIC PERFORMANCE IN PRIMARY EDUCATION CHILDREN

DESCRIPTIVE ANALYSIS

MEAN ESTÁNDAR DEVIATION MAXIMUM MINIMUM

ANALYZE

DESCRIPTIVES

SELECT VARIABLES

LESSON 6. RESEARCH INSTRUMENTS AND DATA ANALYSIS IN PHYSICAL EDUCATION

UNIVERSIDAD DE MURCIA

1.1. SPSS – CUANTITATIVE DATA ANALYSIS

PHYSICAL ACTIVITY LEVELS AND ACADEMIC PERFORMANCE IN PRIMARY EDUCATION CHILDREN

DESCRIPTIVE ANALYSIS

Estadísticos descriptivos

	N	Mínimo	Máximo	Media	Desviación estándar
Mean Physical Condition	110	8,23	9,75	9,0540	,30780
N válido (por lista)	110				

LESSON 6. RESEARCH INSTRUMENTS AND DATA ANALYSIS IN PHYSICAL EDUCATION

UNIVERSIDAD DE MURCIA

1.1. SPSS – CUANTITATIVE DATA ANALYSIS

PHYSICAL ACTIVITY LEVELS AND ACADEMIC PERFORMANCE IN PRIMARY EDUCATION CHILDREN

DESCRIPTIVE ANALYSIS – BY GENDER / BY AGE / BY COURSE

```

graph TD
    ANALYZE[ANALYZE] --> EXPLORE[EXPLORE]
    EXPLORE --> DEPENDENT_VARIABLES[DEPENDENT VARIABLES]
    DEPENDENT_VARIABLES --> LABEL[LABEL]
  
```

LESSON 6. RESEARCH INSTRUMENTS AND DATA ANALYSIS IN PHYSICAL EDUCATION

UNIVERSIDAD DE MURCIA

1.1. SPSS – CUANTITATIVE DATA ANALYSIS

PHYSICAL ACTIVITY LEVELS AND ACADEMIC PERFORMANCE IN PRIMARY EDUCATION CHILDREN

DESCRIPTIVE ANALYSIS – BY GENDER / BY AGE / BY COURSE

		Descriptivos		Estadístico	Error estándar	
Mean Physical Condition	Boys	Media		8,9832	,03893	
		95% de intervalo de confianza para la media		8,9054		
				9,0611		
		Media recortada al 5%		8,9814		
		Mediana		9,0050		
			Varianza		,094	
			Desviación estándar		,30653	
			Mínimo		8,29	
			Máximo		9,66	
			Rango		1,37	
			Rango intercuartil		,43	
			Asimetría		,054	,304
			Curtosis		-,479	,599
	Girls	Media		9,1454	,04149	
		95% de intervalo de confianza para la media		9,0620		
			9,2289			
Media recortada al 5%			9,1500			
Mediana			9,1250			
			Varianza		,083	
			Desviación estándar		,28744	
			Mínimo		8,23	
			Máximo		9,75	
			Rango		1,52	
			Rango intercuartil		,29	
			Asimetría		-,339	,343
			Curtosis		1,426	,674

LESSON 6. RESEARCH INSTRUMENTS AND DATA ANALYSIS IN PHYSICAL EDUCATION

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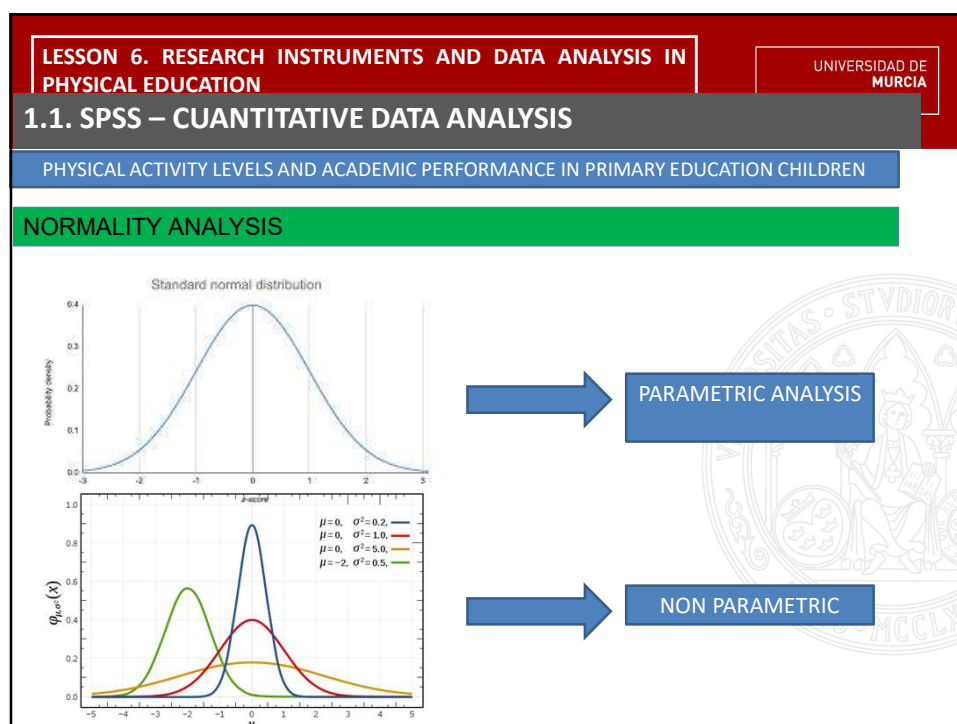
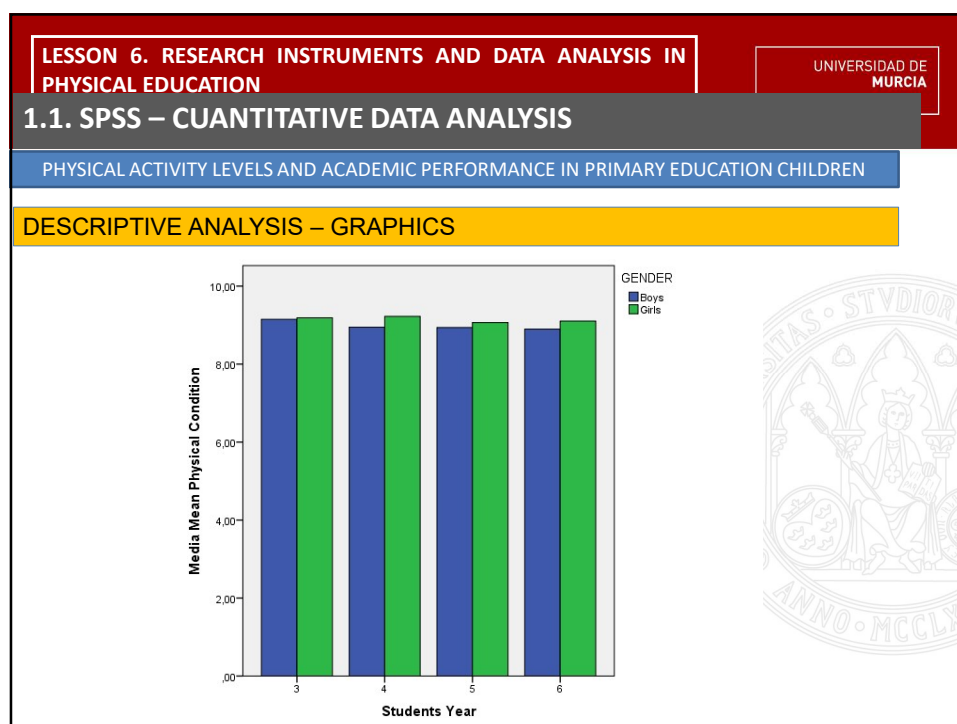
1.1. SPSS – CUANTITATIVE DATA ANALYSIS

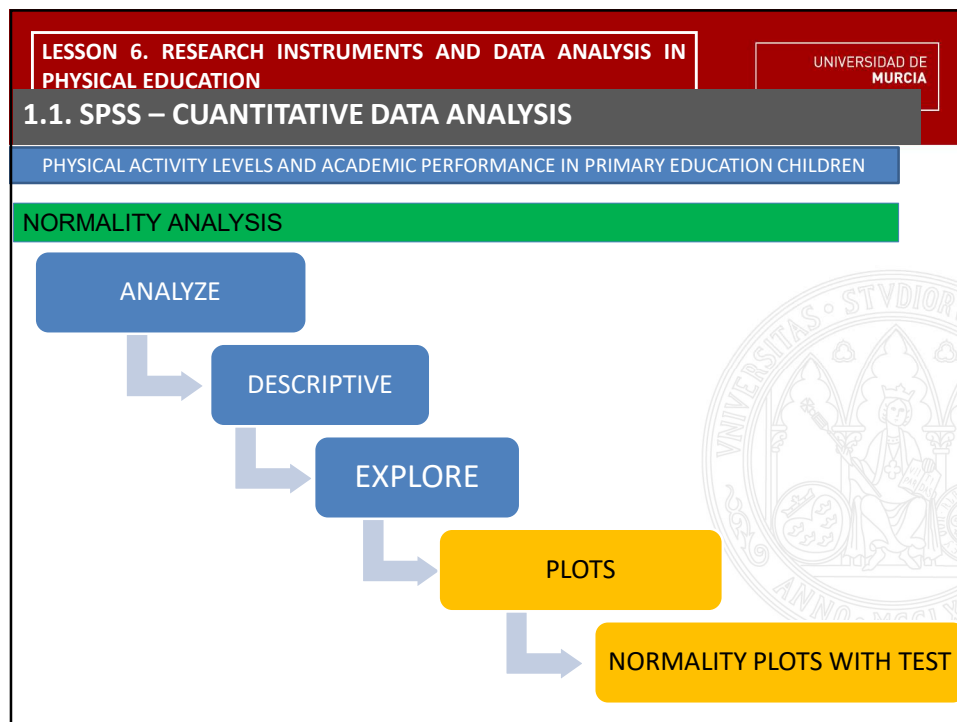
PHYSICAL ACTIVITY LEVELS AND ACADEMIC PERFORMANCE IN PRIMARY EDUCATION CHILDREN

DESCRIPTIVE ANALYSIS – GRAPHICS

```

graph TD
    A[GRAPHICS] --> B[GRAPHIC BARS]
    B --> C[GROUPED]
    C --> D[OTHER STATISC: MEAN]
  
```





LESSON 6. RESEARCH INSTRUMENTS AND DATA ANALYSIS IN PHYSICAL EDUCATION

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1.1. SPSS – CUANTITATIVE DATA ANALYSIS

PHYSICAL ACTIVITY LEVELS AND ACADEMIC PERFORMANCE IN PRIMARY EDUCATION CHILDREN

NORMALITY ANALYSIS

KOLMOGOROV-SMIRNOV
MORE THAN 50
PARTICIPANTS

SHAPIRO WILK.
LESS THAN 50
PARTICIPANTS

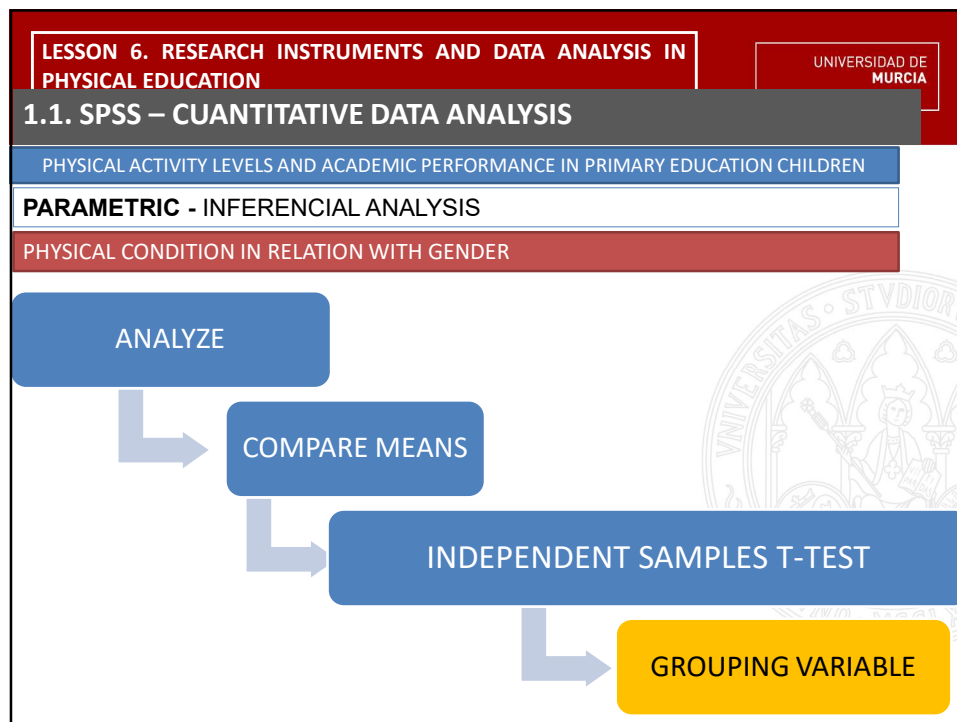
Pruebas de normalidad

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Estadístico	gl	Sig.	Estadístico	gl	Sig.
Mean Physical Condition	,076	110	,148	,992	110	,739
Mean Academic Results	,103	110	,006	,952	110	,001

a. Corrección de significación de Lilliefors

$P > 0,05$
 NORMAL DISTRIBUTION
 PARAMETRIC ANALYSIS

$P > 0,05$
 NORMAL DISTRIBUTION
 PARAMETRIC ANALYSIS



LESSON 6. RESEARCH INSTRUMENTS AND DATA ANALYSIS IN PHYSICAL EDUCATION

UNIVERSIDAD DE MURCIA

1.1. SPSS – CUANTITATIVE DATA ANALYSIS

PHYSICAL ACTIVITY LEVELS AND ACADEMIC PERFORMANCE IN PRIMARY EDUCATION CHILDREN

PARAMETRIC - INFERENCIAL ANALYSIS

PHYSICAL CONDITION IN RELATION WITH GENDER

Estadísticas de grupo

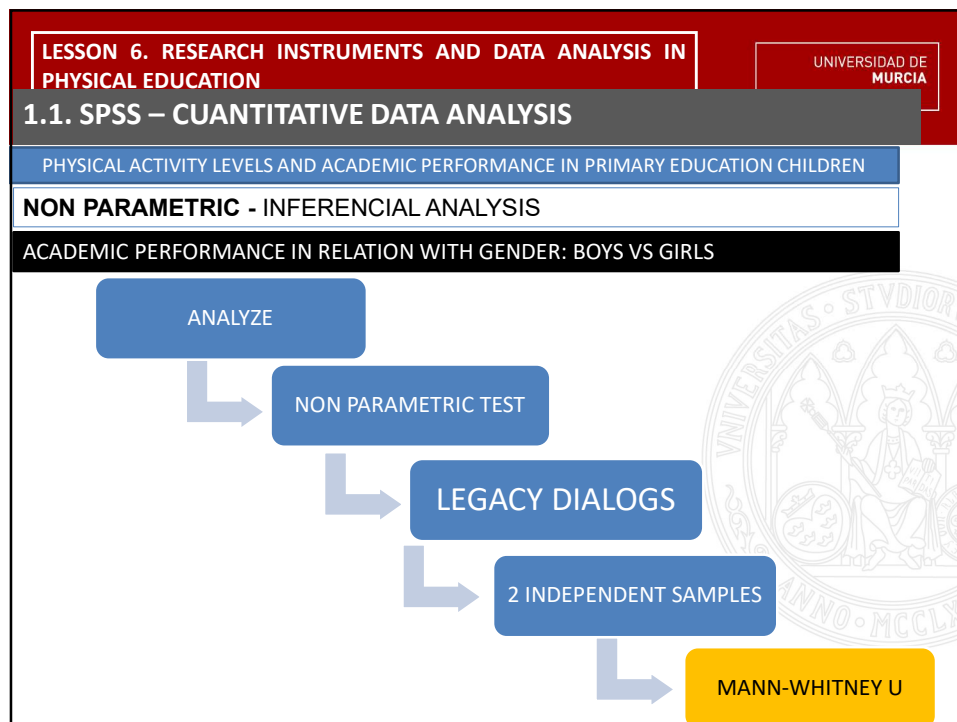
	GENDER	N	Media	Desviación estándar	Media de error estándar
Mean Physical Condition	Boys	62	8,9832	,30653	,03893
	Girls	48	9,1454	,28744	,04149

Prueba de muestras independientes

		F	Sig.	t	gl	Sig. (bilateral)	Diferencia de medias	Diferencia de error estándar	95% de intervalo de confianza de la diferencia	
		Prueba de Levene de igualdad de varianzas		Prueba t para la igualdad de medias						
									Inferior	Superior
Mean Physical Condition	Se asumen varianzas iguales	1,243	,267	-2,827	108	,006	-,16219	,05736	-,27590	-,04849
	No se asumen varianzas iguales			-2,851	104,049	,005	-,16219	,05689	-,27501	-,04937

**SIG 2(TAILED) ≤ 0,05
SIGNIFICANT DIFFERENCE**

*"There are **significant** differences between boys and girls according to physical condition results"*



LESSON 6. RESEARCH INSTRUMENTS AND DATA ANALYSIS IN PHYSICAL EDUCATION UNIVERSIDAD DE MURCIA

1.1. SPSS – CUANTITATIVE DATA ANALYSIS

PHYSICAL ACTIVITY LEVELS AND ACADEMIC PERFORMANCE IN PRIMARY EDUCATION CHILDREN

NON PARAMETRIC - INFERENCIAL ANALYSIS

ACADEMIC PERFORMANCE IN RELATION WITH GENDER: BOYS VS GIRLS

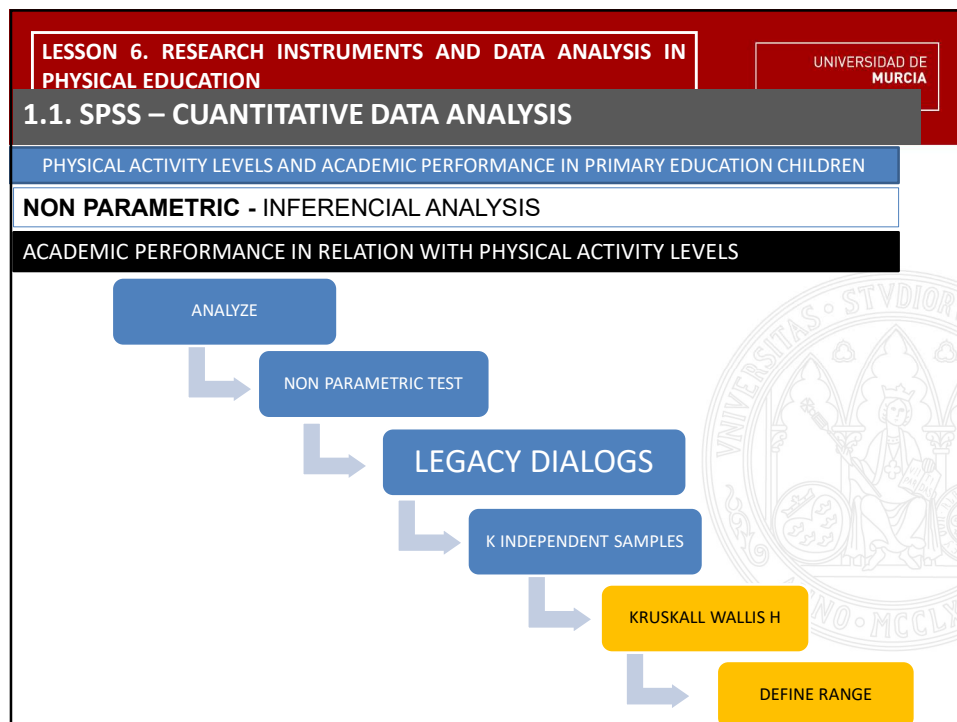
Estadísticos de prueba^a

	Mean Academic Results
U de Mann-Whitney	1349,500
W de Wilcoxon	2525,500
Z	-.836
Sig. asintótica (bilateral)	.403

a. Variable de agrupación: GENDER

SIG > 0,05
NO SIGNIFICANT DIFFERENCE

*"There is **no significant differences** between boys and girls according to Academic performance ($p>0,05$)"*



LESSON 6. RESEARCH INSTRUMENTS AND DATA ANALYSIS IN PHYSICAL EDUCATION

UNIVERSIDAD DE MURCIA

1.1. SPSS – CUANTITATIVE DATA ANALYSIS

PHYSICAL ACTIVITY LEVELS AND ACADEMIC PERFORMANCE IN PRIMARY EDUCATION CHILDREN

NON PARAMETRIC - INFERENCIAL ANALYSIS

ACADEMIC PERFORMANCE IN RELATION WITH GENDER: BOYS VS GIRLS

Physical Activity Levels	N	Rango promedio
Sedentary	21	43,33
Moderate	46	57,15
Very Active	43	59,67
Total	110	

	Mean Academic Results
Chi-cuadrado	3,929
gl	2
Sig. asintótica	,140

**SIG > 0,05
NO SIGNIFICANT DIFFERENCE**

a. Prueba de Kruskal Wallis
b. Variable de agrupación: Physical Activity Levels

*"There is **no significant differences** in Academic Results according with physical activity levels: sedentary, moderate or very active ($p > 0,05$)"*

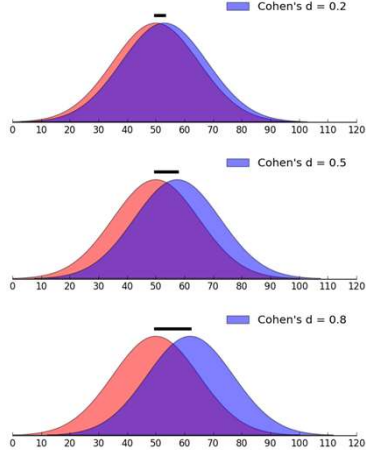
LESSON 6. RESEARCH INSTRUMENTS AND DATA ANALYSIS IN PHYSICAL EDUCATION

UNIVERSIDAD DE MURCIA

1.1. SPSS – CUANTITATIVE DATA ANALYSIS

PHYSICAL ACTIVITY LEVELS AND ACADEMIC PERFORMANCE IN PRIMARY EDUCATION CHILDREN

EFFECT SIZE – COHEN'S D



Cohen's d = 0.2

$< 0,2 \rightarrow$ SMALL EFFECT

Cohen's d = 0.5

$0,2 - 0,5 \rightarrow$ MEDIUM EFFECT

Cohen's d = 0.8

$> 0,8 \rightarrow$ HIGH EFFECT

LESSON 6. RESEARCH INSTRUMENTS AND DATA ANALYSIS IN PHYSICAL EDUCATION

UNIVERSIDAD DE MURCIA

1.1. SPSS – CUANTITATIVE DATA ANALYSIS

PHYSICAL ACTIVITY LEVELS AND ACADEMIC PERFORMANCE IN PRIMARY EDUCATION CHILDREN

EFFECT SIZE – COHEN'S D

WHICH IS THE EFFECT OF GENDER ON PHYSICAL CONDITION RESULTS?


Remember!

- PHYSICAL CONDITION – NORMAL DISTRIBUTION
- GENDER: BOYS OR GIRLS
- WE TAKE DATA FROM **STUDENTS T TEST**

Estadísticas de grupo

GENDER		N	Media	Desviación estándar	Media de error estándar
Mean Physical Condition	Boys	62	8,9832	,30653	,03893
	Girls	48	9,1454	,28744	,04149

<https://www.socscistatistics.com/effectsize/default3.aspx>



LESSON 6. RESEARCH INSTRUMENTS AND DATA ANALYSIS IN PHYSICAL EDUCATION

UNIVERSIDAD DE MURCIA

1.1. SPSS – CUANTITATIVE DATA ANALYSIS

PHYSICAL ACTIVITY LEVELS AND ACADEMIC PERFORMANCE IN PRIMARY EDUCATION CHILDREN

EFFECT SIZE – COHEN'S D

WHICH IS THE EFFECT OF GENDER ON PHYSICAL CONDITION RESULTS?

Enter Your Values

Please enter the sample mean (M), sample standard deviation (s) and sample size (n) for each group. Two things to note: (1) if you intend to report Glass's delta, then you need to enter your control group values as Group 1; and (2) if you don't provide values for n , the calculator will still calculate Cohen's d and Glass's delta, but it won't generate a value for Hedges' g .

Group 1		Group 2	
Mean (M):	8.9832	Mean (M):	9.1454
Standard deviation (s):	0.30653	Standard deviation (s):	0.28744
Sample size (n):	62	Sample size (n):	48

Calculate Reset

Success!

Cohen's $d = (91454 - 89832) / 29713.834699 = 0.054587$.

Glass's delta = $(91454 - 89832) / 30653 = 0.052915$.

Hedges' $g = (91454 - 89832) / 29837.246041 = 0.054362$.

<https://www.socscistatistics.com/effectsize/default3.aspx>

LESSON 6. RESEARCH INSTRUMENTS AND DATA ANALYSIS IN PHYSICAL EDUCATION

UNIVERSIDAD DE MURCIA

1.1. SPSS – CUANTITATIVE DATA ANALYSIS

PHYSICAL ACTIVITY LEVELS AND ACADEMIC PERFORMANCE IN PRIMARY EDUCATION CHILDREN

EFFECT SIZE – COHEN'S D

WHICH IS THE EFFECT OF PA LEVELS ON PHYSICAL CONDITION RESULTS?

Remember!

- PHYSICAL CONDITION – NORMAL DISTRIBUTION
- PA LEVELS: SEDENTARY – MODERATE – VERY ACTIVE
- WE TAKE DATA FROM **ONE FACTOR ANOVA**

https://www.psychometrica.de/effect_size.html

Descriptives

	N	Media	Desviación estándar	Error estándar	95% del intervalo de confianza para la media		Mínimo	Máximo
					Límite inferior	Límite superior		
Sedentary	21	9.0048	.32611	.07116	8.8563	9.1532	8.42	9.69
Moderate	46	9.0607	.31094	.04585	8.9683	9.1530	8.23	9.75
Very Active	43	9.0709	.30014	.04577	8.9786	9.1633	8.29	9.66
Total	110	9.0540	.30780	.02935	8.9958	9.1122	8.23	9.75

ANOVA

	Suma de cuadrados	gl	Media cuadrática	F	Sig.
Entre grupos	.065	2	.033	.340	.712
Dentro de grupos	10.261	107	.096		
Total	10.326	109			

LESSON 6. RESEARCH INSTRUMENTS AND DATA ANALYSIS IN PHYSICAL EDUCATION
UNIVERSIDAD DE MURCIA

1.1. SPSS – CUANTITATIVE DATA ANALYSIS

PHYSICAL ACTIVITY LEVELS AND ACADEMIC PERFORMANCE IN PRIMARY EDUCATION CHILDREN

EFFECT SIZE – COHEN'S D


WHICH IS THE EFFECT OF PA LEVELS ON PHYSICAL CONDITION RESULTS?

7. Calculation of effect sizes from ANOVAs with multiple groups, based on group means

In case, the groups means are known from ANOVAs with multiple groups, it is possible to compute the effect sizes f and d (Cohen, 1988, S. 273 ff.) and to take the dispersion of the group means into account. Prior to computing the effect size, you have to determine the minimum and maximum mean and to calculate pooled standard deviation σ_{pooled} of the different groups. Additionally, you have to decide, which scenario fits the data best:

1. Please choose 'minimum variability', if there is a minimum and maximum group and the other group means at midpoint.
2. Please choose 'intermediate variability', if the means are evenly distributed.
3. Please choose 'maximum variability', if the means are distributed mainly towards the extremes and not in the center of the range of means.

https://www.psychometrica.de/effect_size.html



Highest Mean (m_{max})	9,0709
Lowest Mean (m_{min})	9,0048
Common standard deviation (opool of all groups)	0,712
Number of Groups	3
Distribution of Means	intermediate variability ▼
Effect Size f	0.038
Effect Size d	0.093

LESSON 6. RESEARCH INSTRUMENTS AND DATA ANALYSIS IN PHYSICAL EDUCATION
UNIVERSIDAD DE MURCIA

1.1. SPSS – CUANTITATIVE DATA ANALYSIS

PHYSICAL ACTIVITY LEVELS AND ACADEMIC PERFORMANCE IN PRIMARY EDUCATION CHILDREN


EFFECT SIZE – COHEN'S D

WHICH IS THE GENDER EFFECT ON ACADEMIC RESULTS?

Remember!

- ACADEMIC RESULTS– NO NORMAL DISTRIBUTION
- GENDER: BOYS AND GIRLS
- WE TAKE DATA FROM **MANN WITHNEY U**

https://www.psychometrica.de/effect_size.html



Estadísticos de prueba^a

	Mean Academic Results
U de Mann-Whitney	1349,500
W de Wilcoxon	2525,500
Z	-,836
Sig. asintótica (bilateral)	,403

a. Variable de agrupación: GENDER

LESSON 6. RESEARCH INSTRUMENTS AND DATA ANALYSIS IN PHYSICAL EDUCATION
UNIVERSIDAD DE MURCIA

1.1. SPSS – CUANTITATIVE DATA ANALYSIS

PHYSICAL ACTIVITY LEVELS AND ACADEMIC PERFORMANCE IN PRIMARY EDUCATION CHILDREN

EFFECT SIZE – D COHENS

WHICH IS THE GENDER EFFECT ON ACADEMIC RESULTS?

Effect size calculator for non-parametric tests: Mann-Whitney-U, Wilcoxon-W and Kruskal-Wallis-H

Most statistical procedures like the computation of Cohen's d or η^2 at least interval scale and distribution assumptions are necessary. In case of categorical or ordinal data, often non-parametric approaches are used - in the case of statistical tests for example Wilcoxon or Mann-Whitney-U. The distributions of the their test statistics are approximated by normal distributions and finally, the result is used to assess significance. Accordingly, the test statistics can be transformed in effect sizes (comp. Itz, Morris & Richler, 2012, p. 12; Cohen, 2008). Here you can find an effect size calculator for the test statistics of the Wilcoxon signed-rank test, Mann-Whitney-U or Kruskal-Wallis-H in order to calculate η^2 . Alternatively you can directly use the resulting z value as well:

https://www.psychometrica.de/effect_size.html

Test	Mann-Whitney-U
Mann-Whitney-U	1349,500
n_1	62
n_2	48
Eta squared (η^2)	0.006
d_{Cohen}	0.16

LESSON 6. RESEARCH INSTRUMENTS AND DATA ANALYSIS IN PHYSICAL EDUCATION
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1.1. SPSS – CUANTITATIVE DATA ANALYSIS

PHYSICAL ACTIVITY LEVELS AND ACADEMIC PERFORMANCE IN PRIMARY EDUCATION CHILDREN

EFFECT SIZE – COHEN'S D

WHICH IS THE PA LEVELS EFFECT ON ACADEMIC RESULTS?

https://www.psychometrica.de/effect_size.html

- ACADEMIC RESULTS– NO NORMAL DISTRIBUTION
- PA LEVELS: SEDENTARY – MODERATE – VERY ACTIVE
- WE TAKE DATA FROM **KRUSKAL WALLIS TEST**

Estadísticos de prueba^a

	Mean Academic Results
Chi-cuadrado	3,929
gl	2
Sig. asintótica	,140

a. Prueba de Kruskal Wallis
 b. Variable de agrupación: Physical Activity Levels

LESSON 6. RESEARCH INSTRUMENTS AND DATA ANALYSIS IN PHYSICAL EDUCATION

UNIVERSIDAD DE MURCIA

1.1. SPSS – CUANTITATIVE DATA ANALYSIS

PHYSICAL ACTIVITY LEVELS AND ACADEMIC PERFORMANCE IN PRIMARY EDUCATION CHILDREN

EFFECT SIZE – COHEN'S D

WHICH IS THE PA LEVELS EFFECT ON ACADEMIC RESULTS?

11. Effect size calculator for non-parametric tests: Mann-Whitney-U, Wilcoxon-W and Kruskal-Wallis-H

Most statistical procedures like the computation of *Cohen's d* or η^2 at least interval scale and distribution assumptions are necessary. In case of categorical or ordinal data, often non-parametric approaches are used - in the case of statistical tests for example Wilcoxon or Mann-Whitney-U. The distributions of the their test statistics are approximated by normal distributions and finally, the result is used to assess significance. Accordingly, the test statistics can be transformed in effect sizes (comp. Fritz, Morris & Richler, 2012, p. 12; Cohen, 2008). Here you can find an effect size calculator for the test statistics of the Wilcoxon signed-rank test, Mann-Whitney-U or Kruskal-Wallis-H in order to calculate η^2 . You alternatively can directly use the resulting z value as well:

https://www.psychometrica.de/effect_size.html

Test	Kruskal-Wallis-H
Kruskal-Wallis-H	0,140
N	110
Anzahl an Gruppen (k)	3
Eta squared (η^2)	0.017
d_{Cohen}	0.266

LESSON 6. RESEARCH INSTRUMENTS AND DATA ANALYSIS IN PHYSICAL EDUCATION

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1.1. SPSS – CUANTITATIVE DATA ANALYSIS

PHYSICAL ACTIVITY LEVELS AND ACADEMIC PERFORMANCE IN PRIMARY EDUCATION CHILDREN

ORGANIZING GROUPS IN SPSS

HOW TO KNOW RESULTS FOR DIFFERENT COURSES?

HOW TO COMPARE RESULTS, ORGANIZING BY GENDER AND COURSE?


HOW TO ANALYZE RESULTS ONLY FROM BOYS? AND ONLY FROM SEDENTARY GIRLS?

LESSON 6. RESEARCH INSTRUMENTS AND DATA ANALYSIS IN PHYSICAL EDUCATION

UNIVERSIDAD DE MURCIA

1.1. SPSS – CUANTITATIVE DATA ANALYSIS


PHYSICAL ACTIVITY LEVELS AND ACADEMIC PERFORMANCE IN PRIMARY EDUCATION CHILDREN



LESSON 6. RESEARCH INSTRUMENTS AND DATA ANALYSIS IN PHYSICAL EDUCATION

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1.2. ATLAS TI – CUALITATIVE DATA ANALYSIS



LESSON 6. RESEARCH INSTRUMENTS AND DATA ANALYSIS IN PHYSICAL EDUCATION

UNIVERSIDAD DE MURCIA


1.2. ATLAS TI – CUALITATIVE DATA ANALYSIS

The screenshot displays the ATLAS TI software interface. It features a network diagram with a central red node and several surrounding purple nodes, representing qualitative data analysis. The interface includes a sidebar on the left with various icons and a main workspace area.

LESSON 6. RESEARCH INSTRUMENTS AND DATA ANALYSIS IN PHYSICAL EDUCATION


UNIVERSIDAD DE MURCIA

1.2. ATLAS TI – CUALITATIVE DATA ANALYSIS

The screenshot displays the ATLAS TI software interface. It shows a list of data entries, likely representing qualitative data, with a yellow highlight on one of the entries. The interface includes a sidebar on the left with various icons and a main workspace area.

LET'S MOVE! PHYSICAL ACTIVITY DURING RECESS

García-Jiménez, J.V., Saryono Sar.
Department of Physical Education and Sport, Yogyakarta State University



Introduction

Objectives

Data Analysis

Graphic Elements

Methods

Graphic Elements

Graphic Elements

Graphic Elements

Graphic Elements

Acknowledgements


References

YOGYAKARTA STATE UNIVERSITY – FACULTY OF SPORT SCIENCES - 2021

PLANNING		
UNIVERSIDAD DE MURCIA		
No	Date	Session
1.	Friday, 24 September 2021	Research Topics in Physical Education
2.	Friday, 1 Oktober 2021	Selection of Research Problems in Physical Education
3.	Friday, 8 Oktober 2021	Literature Review in Physical Education
4.	Friday, 15 Oktober 2021	Types of Research in Physical Education
5.	Friday, 22 Oktober 2021	Research Methodology in Physical Education
6.	Friday, 29 Oktober 2021	Research Instruments and Data Analysis in Physical Education
7.	Friday, 5 November 2021	Results, Discussion and Conclusions in Research Paper and Thesis.
8.	Friday, 12 November 2021	Virtual Congress – Posters Presentation

PE RESEARCH TRENDS –
PE THESIS PROPOSAL MAKING

Terima kasih atas perhatiannya

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PE RESEARCH TRENDS – PE THESIS PROPOSAL MAKING

Yogyakarta State University



José V. García-Jiménez (PhD)
University of Murcia, Spain

PLANNING

UNIVERSIDAD DE
MURCIA




No	Date	Session
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7.	Friday, 5 November 2021	Results, Discussion and Conclusions in Research Paper and Thesis.
8.	Friday, 12 November 2021	Virtual Congress – Posters Presentation

LESSON 3. LITERATURE REVIEW

LAST WEEK

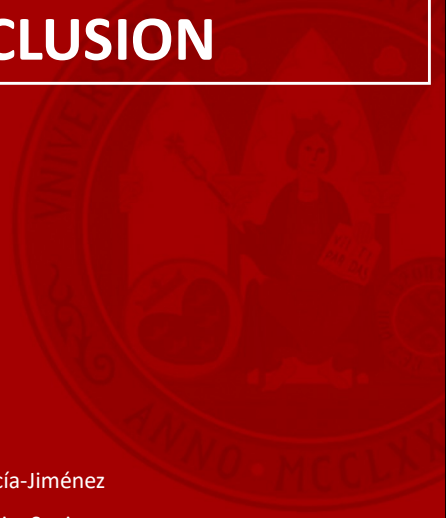
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1. RESEARCH INSTRUMENTS AND DATA ANALYSIS IN PE



LESSON 7. RESULTS, DISCUSSION AND CONCLUSION

Dr. José Vicente García-Jiménez
University of Murcia, Spain



LESSON 7. RESULTS, DISCUSSION AND CONCLUSION

UNIVERSIDAD DE
MURCIA

1. WRITING RESULTS



KOTZ & CALS WRITING TIP#




LESSON 7. RESULTS, DISCUSSION AND CONCLUSION

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MURCIA

1. WRITING RESULTS

YOU SHOULD...

1. **INTRODUCTORY CONTEXT** FOR UNDERSTANDING THE RESULTS BY RESTATING THE RESEARCH PROBLEM UNDERPINNING YOUR STUDY
2. INCLUSION OF **NON-TEXTUAL ELEMENTS**, SUCH AS, FIGURES, CHARTS, PHOTOS, MAPS, TABLES, ETC. TO FURTHER ILLUSTRATE KEY FINDINGS, IF APPROPRIATE.
3. A **SYSTEMATIC DESCRIPTION OF YOUR RESULTS**, HIGHLIGHTING FOR THE READER OBSERVATIONS THAT ARE MOST RELEVANT TO THE TOPIC UNDER INVESTIGATION.
4. A **SHORT PARAGRAPH** THAT CONCLUDES THE RESULTS SECTION BY SYNTHESIZING THE KEY FINDINGS OF THE STUDY




LESSON 7. RESULTS, DISCUSSION AND CONCLUSION

UNIVERSIDAD DE MURCIA

1. WRITING RESULTS

YOU SHOULDN'T...

1. **DISCUSSING** OR INTERPRETING YOUR RESULTS.
2. REPORTING BACKGROUND INFORMATION OR ATTEMPTING TO EXPLAIN YOUR FINDINGS.
3. IGNORING **NEGATIVE** RESULTS
4. BE AS **FACTUAL AND CONCISE** AS POSSIBLE IN REPORTING YOUR FINDINGS
5. PRESENTING THE SAME DATA OR **REPEATING** THE SAME INFORMATION MORE THAN ONCE.
6. CONFUSING FIGURES WITH TABLES



LESSON 7. RESULTS, DISCUSSION AND CONCLUSION

UNIVERSIDAD DE MURCIA

1. WRITING RESULTS

RESULTS

The total body mass and the $\dot{V}O_{2\max}$ remained unchanged ($p > 0.05$) during the period of the study, whereas there was a significant decrease in %G ($p > 0.01$) (Table 1).

Figure 2 shows the intensity of each match assessed, expressed in %HRmax. The average intensity of all the matches was 86.4 ± 3.8 %HRmax, which corresponded to $79.2 \pm 9.0\%$ $\dot{V}O_{2\max}$.

The Figure 3 shows the average intensity of effort expressed as caloric expenditure per minute for each of the 13 matches under study. The average caloric cost of all matches taken at the same time was 18.0 ± 2.2 kcal·min⁻¹. The total caloric expenditure considering the actual time played by each athlete averaged 313 ± 9.3 kcal.

The mean HRmax reached during the matches was 199 ± 8.5 b·min⁻¹. Table 2 shows the mean HRmax reached during the matches and reached during the $\dot{V}O_{2\max}$ tests.

The matches' average duration (playing time + intervals) was 72.8 ± 5.7 minutes, and the average playing time of the athletes was 34.2 ± 18.1 minutes (Figure 4). It should be pointed out that the clock is stopped several times during a Futsal match.

The laboratory environmental conditions during the $\dot{V}O_{2\max}$ tests and in the gymnasium during the matches are shown on Table 3.

The mean of the percentage of the athletes' dehydration after the matches was $1.0 \pm 0.7\%$.

DISCUSSION

The intensity of effort of Futsal matches in this study was $86.4 \pm 3.8\%$ %HRmax, $79.2 \pm 9.0\%$ $\dot{V}O_{2\max}$, and 18.0 ± 2.2 kcal·min⁻¹. This intensity is classified as difficult or hard

LESSON 7. RESULTS, DISCUSSION AND CONCLUSION

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1. WRITING RESULTS

Table 2. Heart rate values in relation to student gender

Variable	Boys (n=97)				Girls (n=85)				All (n=182)			
	Mean	SD	Confidence Interval (95%)		Mean	SD	Confidence Interval (95%)		Mean	SD	Confidence Interval (95%)	
			Lower limit	Upper limit			Lower limit	Upper limit			Lower limit	Upper limit
HR (puls./min)	130.02	16.85	126.59	133.45	134.76	19.28	130.58	138.95	132.25 ^{ab}	18.13	129.57	134.92
PE Time spent in MVPA (min)	8.26	5.83	7.08	9.45	9.70	5.97	8.40	11.00	8.94 ^{ab}	5.92	8.06	9.81
PE Time spent in MVPA (%)	19.99	14.10	17.12	22.87	23.47	14.45	20.33	26.60	21.62 ^{ab}	14.33	19.51	23.74

HR (Heart rate); PE (Physical Education); MVPA (Moderate to Vigorous Physical Activity)

^{ab}No significant difference by students gender

* p<0.05 Significant difference by students gender

Once normality was checked for mean heart rate variable ($p=0.200$ for both boys and girls), time spent ($p=0.189$ boys; $p=0.200$ girls) and percent of time spent in MVPA values ($p=0.189$ boys; $p=0.200$ girls) through Kolmogorov-Smirnov statistic, independent sample t-test results showed non significant differences just for time spent in MVPA ($p=0.106$) in relation to student gender. Also there was no difference related to mean heart rate ($p=0.120$) and percent of PE time in MVPA ($p=0.106$).

According to students' gender, time in minutes spent in MVPA value has a normal distribution in each of the different PE lessons (Team Sports: $p=0.200$ both boys and girls; Individual Sports: $p=0.103$ boys and $p=0.065$ girls; Traditional Games: $p=0.200$ both boys and girls; Dancing: $p=0.51$ boys and $p=0.75$ girls). As shown in Figure 1, girls always obtain higher results than boys for time spent in MVPA values. However, only during Traditional Games lessons we can find significant differences ($p=0.049$; IC=95%; Lower = -4.65 and Upper = -0.16).

For time spent in MVPA the ANOVA indicated no main effect ($p=0.081$) for lesson type, so this variable cannot influence over time spent in MVPA intensity values.

LESSON 7. RESULTS, DISCUSSION AND CONCLUSION

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2. WRITING DISCUSSION




LESSON 7. RESULTS, DISCUSSION AND CONCLUSION

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2. WRITING DISCUSSION

DISCUSSION CONTENTS

1. **EXPLANATION OF RESULTS:** comment on whether or not the results were expected and present explanations for the results; go into greater depth when explaining findings that were unexpected or especially profound
2. REFERENCES TO **PREVIOUS RESEARCH:** compare your results with the findings from other studies, or use the studies to support a claim
3. **DEDUCTION.** a claim for how the results can be applied more generally. For example, describing lessons learned, proposing recommendations that can help improve a situation, or recommending best practice
4. **HYPOTHESIS.** a more general claim or possible conclusion arising from the results [which may be proved or disproved in subsequent research]




LESSON 7. RESULTS, DISCUSSION AND CONCLUSION

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2. WRITING DISCUSSION

HOW TO ORGANIZE DISCUSSION

1. THINK OF YOUR DISCUSSION AS AN **INVERTED PYRAMID**. ORGANIZE THE DISCUSSION FROM THE GENERAL TO THE SPECIFIC, LINKING YOUR FINDINGS TO THE LITERATURE, THEN TO THEORY, THEN TO PRACTICE [IF APPROPRIATE]
2. BEGIN BY BRIEFLY RE-STATING THE RESEARCH PROBLEM YOU WERE INVESTIGATING AND ANSWER ALL OF THE RESEARCH QUESTIONS UNDERPINNING THE PROBLEM THAT **YOU POSED IN THE INTRODUCTION**.
3. DESCRIBE THE PATTERNS, PRINCIPLES, AND **RELATIONSHIPS** SHOWN BY EACH MAJOR FINDINGS AND PLACE THEM IN PROPER PERSPECTIVE. THE SEQUENCING OF PROVIDING THIS INFORMATION IS IMPORTANT; FIRST STATE THE ANSWER, THEN THE RELEVANT RESULTS, THEN CITE THE WORK OF OTHERS.




LESSON 7. RESULTS, DISCUSSION AND CONCLUSION

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2. WRITING DISCUSSION

HOW TO ORGANIZE DISCUSSION

4. A GOOD DISCUSSION SECTION INCLUDES ANALYSIS OF ANY **UNEXPECTED FINDINGS**. THIS PARAGRAPH SHOULD BEGIN WITH A DESCRIPTION OF THE UNEXPECTED FINDING, FOLLOWED BY A BRIEF INTERPRETATION AS TO WHY YOU BELIEVE IT APPEARED AND, IF NECESSARY, ITS POSSIBLE SIGNIFICANCE IN RELATION TO THE OVERALL STUDY.
5. BEFORE CONCLUDING THE DISCUSSION, IDENTIFY **POTENTIAL LIMITATIONS** AND WEAKNESSES
6. THE DISCUSSION SECTION SHOULD END WITH A CONCISE SUMMARY OF THE PRINCIPAL IMPLICATIONS OF THE FINDINGS **REGARDLESS OF STATISTICAL SIGNIFICANCE**.




LESSON 7. RESULTS, DISCUSSION AND CONCLUSION

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2. WRITING DISCUSSION

YOU SHOULDN'T...

1. **DO NOT WASTE ENTIRE SENTENCES RESTATING YOUR RESULTS**. Should you need to remind the reader of the finding to be discussed, use "bridge sentences" that relate the result to the interpretation. An example would be: "The lack of physical activities out of the school in rural areas of Indonesia suggests that...[then move to the interpretation of this finding]."
2. RECOMMENDATIONS FOR FURTHER RESEARCH CAN BE INCLUDED IN EITHER THE DISCUSSION OR CONCLUSION OF YOUR PAPER BUT **DO NOT REPEAT YOUR RECOMMENDATIONS** IN THE BOTH SECTIONS.
3. DO NOT INTRODUCE **NEW RESULTS** IN THE DISCUSSION



LESSON 7. RESULTS, DISCUSSION AND CONCLUSION

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2. WRITING DISCUSSION

4. DISCUSSION

The purpose of our work has been to assess heart rate during PE lessons in adolescents, using the time spent in MVPA values (moderate-to-vigorous physical activity), as well as the percent of lesson time spent in those values.

On initial analysis, mean heart rate observed during lessons (132.25 ± 18.13 bpm) is similar from those who analyzed the same population. Thus, Marques et al. (2011) obtained a mean of heart rate of 134 ± 19 bpm with portuguese adolescents. Sarradel et al. (2011) assessed a mean of 131.7 ± 19.5 bpm during a research with Spanish students.

On the other hand, the analysis of the intensity in our PE lessons shows that mean time spent in MVPA (8.94 ± 5.92 min.) is equal to $21.62 \pm 14.33\%$ of lesson time. This value is under 50%, recommended in order to improve the weight control and to fight against metabolic diseases in adolescents (Sallis and Patrick, 1994; Aznar and Webster, 2006; WHO, 2007; ACSM, 2011).

Results about percentage of time spent in MVPA values ($21.62 \pm 14.33\%$) obtained in our research are lower than previously reported from other countries. Stratton (1996) found an average of 32.7% of lesson time spent in MVPA value after having assessed 177 British adolescents during their PE lessons. On the other hand in a similar research, Wang et al. (2004) concluded that only 30% of lesson time was related to MVPA values. Along this line, Fairclough and Stratton (2005) obtained a mean of $34.3 \pm 21.8\%$ of lesson time in MVPA values after studying heart rate in 102 adolescents. Lastly, in a research about the influence of the type of content on intensity of PE lessons,



LESSON 7. RESULTS, DISCUSSION AND CONCLUSION

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3. WRITING CONCLUSION




LESSON 7. RESULTS, DISCUSSION AND CONCLUSION

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3. WRITING CONCLUSION

WHY IS IT SO IMPORTANT?

1. PRESENTING THE **LAST WORD** ON THE ISSUES YOU RAISED IN YOUR PAPER
2. SUMMARIZING YOUR THOUGHTS AND CONVEYING THE LARGER IMPLICATIONS OF YOUR STUDY. THE CONCLUSION IS AN OPPORTUNITY TO SUCCINCTLY ANSWER THE **"SO WHAT?"**
3. DEMONSTRATING **THE IMPORTANCE OF YOUR IDEAS**. DON'T BE SHY. THE CONCLUSION OFFERS YOU A CHANCE TO ELABORATE ON THE SIGNIFICANCE OF YOUR FINDINGS.
4. INTRODUCING POSSIBLE NEW OR EXPANDED WAYS OF THINKING ABOUT THE **RESEARCH PROBLEM**.




LESSON 7. RESULTS, DISCUSSION AND CONCLUSION

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3. WRITING CONCLUSION

GENERAL RULES

1. STATE YOUR CONCLUSIONS IN CLEAR, **SIMPLE LANGUAGE**
2. DO NOT SIMPLY REITERATE **YOUR RESULTS** OR THE DISCUSSION.
3. INDICATE OPPORTUNITIES FOR **FUTURE RESEARCH**, AS LONG AS YOU HAVEN'T ALREADY DONE SO IN THE DISCUSSION SECTION OF YOUR PAPER..
4. THE FUNCTION OF YOUR PAPER'S CONCLUSION IS **TO RESTATE THE MAIN ARGUMENT**



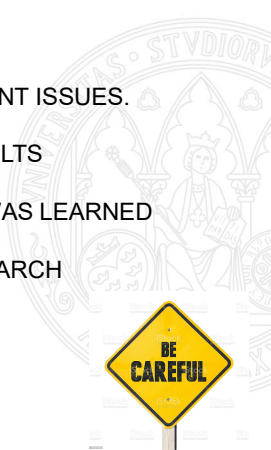
LESSON 7. RESULTS, DISCUSSION AND CONCLUSION

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3. WRITING CONCLUSION

YOU SHOULDN'T...

1. FAILURE TO BE CONCISE
2. FAILURE TO COMMENT ON LARGER, MORE SIGNIFICANT ISSUES.
3. FAILURE TO REVEAL PROBLEMS AND NEGATIVE RESULTS
4. FAILURE TO PROVIDE A CLEAR SUMMARY OF WHAT WAS LEARNED
5. FAILURE TO MATCH THE OBJECTIVES OF YOUR RESEARCH
6. RESIST THE URGE TO APOLOGIZE



LESSON 7. RESULTS, DISCUSSION AND CONCLUSION

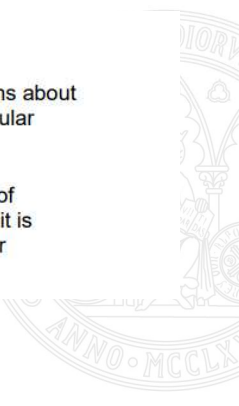
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3. WRITING CONCLUSION

5. CONCLUSIONS

Intensity of PE classes analyzed do not comply with recommendations about intensity, frequency and duration to become an adequate cardiovascular exercise and to improve the students corporal composition.

According to the results obtained, and taking into account the target of developing PE lessons which comply with official recommendations, it is recommended to analyze and to select activities which imply a higher physiologic exercise for students.




Next Friday



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Next Friday



FRIDAY 12TH NOVEMBER 19:30H:

- GROUP EXPOSITION – **8 MINUTES PER GROUP:**
 - 4 MINUTES MAXIMUM FOR POSTER DEFENSE
 - 4 MINUTES MAXIMUM FOR QUESTIONS (TEACHER AND AUDIENCE)

POSTER EVALUATION	1	2	3	4
PRESENTATION				
CREATIVITY				
CONTENTS				
DEFENSE				
Introduction and objectives are well designed				
Methodology is right and include all sections				
Research Project is feasible to carry out				

PLANNING

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No	Date	Session
1.	Friday, 24 September 2021	Research Topics in Physical Education
2.	Friday, 1 Oktober 2021	Selection of Research Problems in Physical Education
3.	Friday, 8 Oktober 2021	Literature Review in Physical Education
4.	Friday, 15 Oktober 2021	Types of Research in Physical Education
5.	Friday, 22 Oktober 2021	Research Methodology in Physical Education
6.	Friday, 29 Oktober 2021	Research Instruments and Data Analysis in Physical Education
7.	Friday, 5 November 2021	Results, Discussion and Conclusions in Research Paper and Thesis.
8.	Friday, 12 November 2021	Virtual Congress – Posters Presentation

PE RESEARCH TRENDS – PE THESIS PROPOSAL MAKING

Terima kasih atas perhatiannya

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