

## ARTICLE BY S. CAZZOLI & S. CECCHIN - FOUR LANGUAGES ABSTRACTS

### PHYSICAL EDUCATION: INITIAL AND CONTINUOUS UNIVERSITY TEACHERS' TRAINING AS LONG LIFE LEARNING

PE teaching is compulsory at primary (3-11 year olds) and secondary schools (11-19 year olds) in Italy.

Secondary school PE teachers are specialists and have degrees in physical education together with the SIS (School Interateneo for Secondary School teacher specialisation) teaching diploma of specialisation.

During the SIS training preservice teachers have 300 hours of tutoring by inservice teachers in PE classes.

Two teachers working together (pre/inservice) helps transmit new knowledge from preservice to inservice and so it permits transmit from university studies on PE science to best practice in bi-univocal way.

Inservice teachers give preservice teachers knowledge concerning didactics.

The survey aims at defining this information/training exchange among inservice/preservice teachers.

The method is based on questionnaires, given to inservice PE teachers taking part in SIS Training Program (STP).

The questionnaires were made up of closed answers and multiple choice, concerning: inservice/preservice PE teachers relationship; preservice teachers participation in inservice activities; value of inservice training through a training program by PE inservice teachers; satisfaction rate of inservice PE teachers within SIS tutoring program activities;

comparison between PE and Italian-Maths teachers training and the PE considered equal to academic subjects.

A comparison between PE and Italian maths teachers training considered PE equal to the academic subject.

The questionnaires were given to 116 inservice teachers from secondary schools (11-19 year olds) taking part in STP.

Each inservice teacher coached a preservice teacher for 500 hours, aggregate amount 50,000 hours of STP.

The survey lasted two years (2004 – 2006) at the SIS-University of Turin (Italy)

The final data was 4000.

The data indicates the positive trend of perception in the relationship between initial university training and continuous inservice training through cooperation between university and secondary schools taking part in STP.

The comparison (Italian maths/PE) highlighted the uniformity among the different subjects giving them equal dignity and educational value thanks to shared training in indirect topics and shared aspects within the training program.  
Key words: secondary school, pre-service, in-service, physical education teachers' training.

### ÉDUCATION PHYSIQUE, ENTRAÎNEMENT INITIAL ET CONTINU DE PROFESSEURS D'ÉDUCATION PHYSIQUE DANS L'UNIVERSITÉ COMME APPRENTISSAGE CONTINU

En Italie, l'enseignement d'Education Physique est obligatoire à l'Ecole primaire (de 3 à 11 ans) et secondaire (de 11 à 19 ans).

Les professeurs d'Éducation Physique à l'école secondaire sont spécialistes et possèdent des diplômes en Éducation Physique, spécialité d'enseignement du SIS (spécialisation pour professeurs d'enseignement secondaire de l'École Interateneo).

Pendant le cycle pré-professionnel (pré-service) du SIS, les professeurs ont 300 heures de classe faites par des professeurs en activité (in-service) dans les classes d'Éducation Physique.

Deux professeurs qui travaillent ensemble (en activités pré-professionnelles et en activités professionnelles) peuvent transmettre de nouvelles connaissances des périodes pré-professionnelle et professionnelle, de telle manière qu'il soit possible de transformer les études académiques sur la science de l'Éducation Physique dans les meilleures pratiques et vice-versa.

Les professeurs en activités professionnelles transmettent aux professeurs en phase pré-professionnelle la connaissance de la didactique.

La recherche essaye de définir cet échange d'informations / entraînement parmi les professeurs dans les deux champs d'actuation.

La méthode basée sur les questionnaires distribués aux professeurs d'Éducation Physique du champ pré-professionnel du Programme d'Entraînement du SIS (STP). Les questionnaires ont été faits avec des questions fermées et de choix multiple à propos des relations entre professeurs d'Éducation Physique des stages pré-professionnel et professionnel, participation des professeurs du pré-professionnel dans les activités professionnelles, valeur de l'entraînement professionnel à travers un programme d'entraînement mené à fin par les professeurs du champ professionnel ; degré de satisfaction des professeurs du champ professionnel dans les activités du programme d'enseignement SIS, comparaison entre l'entraînement des professeurs d'Éducation Physique et d'italien et mathématiques et l'Éducation Physique considérée au même niveau des matières académiques.

Les questionnaires ont été distribués entre 116 professeurs dans le champ professionnel des écoles secondaires (de 11 à 19 ans d'âge) qui avaient participé du STP.

Chaque professeur dans le champ professionnel préparait un professeur du champ pré-professionnel pendant 500 heures, joignant 500.000 heures au STP.

La recherche a duré deux ans (2004 – 2006) dans le SIS – Université de Turin (Italie). Les dernières données sont arrivées à 4.000.

Les données indiquent la tendance positive de la perception de la relation entre l'entraînement professionnel continu à travers la coopération entre l'Université et les écoles secondaires qui font partie du STP.

La comparaison (Italien, Mathématiques, Éducation Physique) met l'accent sur l'uniformité entre les diverses disciplines, en les attribuant la même dignité et la même valeur éducative, grâce à l'entraînement partagé entre les thèmes indirects et les aspects partagés dans le programme d'entraînement.

Mots-clés: école secondaires, pré-service, in-service, entraînement des professeurs d'éducation physique.

**EDUCACIÓN FÍSICA: ENTRENAMIENTO INICIAL Y CONTINUO DE PROFESORES DE EDUCACIÓN FÍSICA EN LA UNIVERSIDAD COMO APRENDIZAJE CONTINUA**

En Italia, la enseñanza de Educación Física es obligatoria en escuela fundamental (de los 3 a los 11 años) y secundaria (de los 11 a los 19 años).

Los profesores de Educación Física en la escuela secundaria son especialistas y diplomados en Educación Física, especialidad de maestro del SIS (especialización para profesores de enseñanza secundaria de la Escuela Interateneo).

Durante el ciclo pré-profesional (pre-service) del SIS, los profesores tienen 300 horas de clase hechas por profesores en actividad profesional (in-service) en las clases de Educación Física.

Dos profesores que enseñan en conjunto (en actividades pré-profesionales y en actividades profesionales) ayudan en la transmisión de conocimientos nuevos de las fases pré-profesional, de manera a posibilitar la transformación de estudios académicos de ciencia de Educación Física en las mejores prácticas y vice-versa.

Los profesores en actividades profesionales transmiten a los profesores en fase pré-profesional los conocimientos de la didáctica.

La investigación busca a definir este cambio de informaciones / entrenamiento entre los profesores en los dos terrenos de actuación.

El método se basa en cuestionarios distribuidos entre profesores de Educación Física en el terreno pré-profesional en el Programa de Entrenamiento del SIS (STP). Los cuestionarios fueron hechos con preguntas cerradas objetivas, incidiendo sobre: relacionamiento entre profesores de Educación Física de los niveles pré-profesional y profesional; participación de profesores del pre-profesional en las actividades profesionales, valor del entrenamiento profesional a través de un programa de entrenamiento llevado a cabo por los profesores del terreno profesional; grado de satisfacción de los profesores del terreno profesional en las actividades del programa de enseñanza SIS; comparación entre el entrenamiento de profesores de Educación Física y de italiano y matemática y la Educación Física en igualdad con materias académicas.

Los cuestionarios fueron distribuidos entre 116 profesores profesionales de escuelas secundarias (alumnos de 11 a 19 años) que participaron del STP.

Cada profesor del terreno profesional se encargaba de preparar un profesor en el terreno pre-profesional durante 500 horas, agregando 50.000 horas al STP.

La investigación tuvo la duración de dos años (2004 – 2006) en el SIS-Universidad de Turín (Italia).

Los datos finales llegaron a 4000.

Los datos muestran la tendencia positiva de la percepción de la relación entre el entrenamiento universitario inicial y el entrenamiento profesional continuo a través de la cooperación entre la universidad y las escuelas secundarias que componen el STP.

La comparación (italiano, matemática / Educación Física) acentúa la uniformidad entre las diferentes disciplinas, les atribuyendo la misma dignidad y el mismo valor educativo gracias al entrenamiento compartido en los asuntos indirectos, y aspectos compartidos en el programa de entrenamiento.

Palabras-clave: escuela secundaria, pre-service, in-service, entrenamiento de profesores de educación física.

**EDUCAÇÃO FÍSICA: TREINAMENTO INICIAL E CONTÍNUO DE PROFESSORES DE EDUCAÇÃO FÍSICA NA UNIVERSIDADE COMO APRENDIZADO CONTÍNUO**

Na Itália, o ensino de Educação Física é obrigatório na escola primária (faixa etária de 3 a 11 anos) e secundária (faixa etária de 11 a 19 anos).

Os professores de Educação Física na escola secundária são especialistas e têm diplomas em educação física, especialidade de magistério do SIS (especialização para professores de ensino secundário da Escola Interateneo).

Durante o ciclo pré-profissional (pre-service) do SIS, os professores têm 300 horas de aulas ministradas por professores em atividade profissional (in-service) nas aulas de Educação Física.

Dois professores que trabalham em conjunto (em atividades pré-profissionais e em atividades profissionais) ajudam a transmitir conhecimentos novos das fases pré-profissional e profissional, de forma que é possível transformar estudos acadêmicos sobre ciência da Educação Física nas melhores práticas e vice-versa.

Os professores em atividades profissionais dão aos professores em fase pré-profissional o conhecimento relativo à didáctica.

A pesquisa procura definir esta troca de informações/treinamento entre os professores nas duas áreas de atuação.

O método é baseado em questionários distribuídos entre professores de Educação Física na área pré-profissional no Programa de Treinamento do SIS (STP). Os questionários foram feitos com perguntas fechadas e de múltipla escolha voltadas para: relacionamento entre professores de Educação Física dos estágios pré-profissional e profissional; participação dos professores do pré-profissional nas atividades profissionais, valor do treinamento profissional através de um programa de treinamento levado a cabo pelos professores da área profissional; grau de satisfação dos professores da área profissional dentro das atividades do programa de ensino SIS; comparação entre o treinamento de professores de Educação Física e de italiano e matemática e a Educação Física considerada em pé de igualdade a matérias acadêmicas.

Os questionários foram distribuídos entre 116 professores na área profissional de escolas secundárias (faixa etária de 11 a 19 anos) que participavam do STP.

Cada professor na área profissional preparava um professor da área pré-profissional durante 500 horas, agregando 50.000 horas ao STP.

A pesquisa durou dois anos (2004 – 2006) no SIS–Universidade de Turin (Itália)

Os dados finais chegaram a 4000.

Os dados indicam a tendência positiva da percepção do relacionamento entre o treinamento universitário inicial e o treinamento profissional contínuo através da cooperação entre a universidade e as escolas secundárias que integram o STP.

A comparação (italiano, matemática/Educação Física) acentua a uniformidade entre as diferentes disciplinas, atribuindo-lhes a mesma dignidade e valor educacional graças ao treinamento compartilhado nos tópicos indiretos, e aspectos compartilhados dentro do programa de treinamento

Palavras-chave: escola secundária, pre-service, in-service, treinamento de professores de educação física.

## PHYSICAL EDUCATION: INITIAL AND CONTINUOUS UNIVERSITY TEACHERS' TRAINING AS LONG LIFE LEARNING (E)

STEFANIA CAZZOLI \* & SERGIO CECCHIN

*SIS (School Interateneo of Specialization for Secondary school teacher) of University of Torino-Polytechnic of Torino-University A. Avogadro – Italy*

\*stefania.cazzoli@libero.it

### INTRODUCTION

PE teaching is compulsory from primary to secondary schools (students 3-19 year olds) in Italy.

a) *The evolution of PE in Italy, laws, programmes and teachers' training.*

PE became a compulsory subject in Italian schools in 1860.

The formation of PE teachers started in 1861, with the first "Corso Magistrale Statale di Ginnastica educativa" in Turin.

Initially PE courses followed a military model to then be integrated by medical and natural methods.

During Fascism, the regime dedicated a lot of attention and resources to PE, no longer under the Ministry of Education.

PE teachers were formed in academies connected to universities. The school programmes were based on the achievement of a "strong and healthy body" and nationalistic principles and ideologies.

At the end of World War II, PE was included again under the competences of the Ministry of Education (MPI).

PE is a compulsory subject from primary school to high school.

At elementary school PE is taught by a generic teacher, while from junior school, PE is taught by specialists developed – until 1999 - by the Physical Education Institute (ISEF).

The PE programmes in the fifties and sixties consisted of physical activity which, would form also the personality, teaching moral and ethical principles. (Ulmann, 1973, Bernabeo 1983) (3) (1)

At the end of the sixties, the agreement between MPI and the Italian Olympic Committee (CONI) introduced sports in school, organizing the Giochi della Gioventù (youth games, open to all students of the Italian school). (Vico, 1991) (2)

In the seventies and eighties the PE programmes are based on a balanced development of the student with set objectives (body language development, motor capacity, perception of one's own body, coordination in time and space) introduction to sports (Botturi, Mantovani 1992) (3)

PE specialists are developed by ISEF and, after the diploma they acquire their teaching certificate through State selections held by MPI.

For what concerns generic teachers of elementary schools, they are developed by Scuole Magistrali (high school) and become teachers after passing MPI State selections.

Between 2003 and 2006 PE programmes are conceived to teach students knowledge, skills and competences on motor activities, sports, health education and safety. (Cazzoli, 2006) (8)

b) *University formation for PE teachers*

In Italy, since 2000 PE teachers are developed by universities. ISEF have become university courses in "sports and motor science" and the teaching certificate is acquired attending the courses of SIS, which is part of the university.

In this research we will present how SIS develops preservice PE teachers.

All secondary school (students 11-19 year olds) teachers attend university at the SIS (School for Secondary School teacher specialisation) for two years, to obtain the teaching diploma. (Bonetta, Luzzato, Nichelini, Pieri 2002) (5)

The SIS Training Program (STP) from 1999 comprises three topics:

- indirect (pedagogy, didactics...)
- subject (epistemology, planning-evaluation in specific subjects)
- training (Jori, Migliore 2001) (7)

Indirect and training topics are common for all teaching subjects; the second is specific.

During training, preservice teachers have 500 hours of tutoring by inservice teachers in specific subject classes. It helps conveying new knowledge, from university to school, and inservice teachers give preservice teachers knowledge on didactics. (Cazzoli, 2006) (8)

There is an exchange between the science of physical education and the subject taught in schools.

The secondary school teacher is an expert on the subject, and his/her expertise drives the development of the subject. (Tessaro, 2002) (6)

In secondary school, the university approach (aimed at investigating theories and finding models capable of describing, explaining and anticipating events) must be translated into practical teaching (Schwab, 1971) (9)

Furthermore, to develop the subject, universities cannot rely just on theoretical research but also on everyday practical experience of secondary school teachers (Damiano, 1994) (10) thus generating a feedback loop. (Cazzoli, 2006) (13)

The teaching-learning process cannot be recreated artificially in a laboratory and, to be studied, all its elements must involve teachers and students, the school programme and the ways of implementing it, the human relations.

Role-playing must not be a fictitious recreation of what happens between teacher and students, with adults pretending to be 14 year old students.

Through role-playing preservice teachers can focus on all the steps of the teaching process, becoming aware of all the problems that may arise and all the variables of the practical activity.

Inservice teachers help preservice teachers find all viable options and choose the best solution. (Cazzoli, 2006) (13)

Preservice teachers are not told what to do but are asked to decide - after considering all the pros and cons - what is the best course of action for a specific situation in a school context. (Laneve, 1998) (11)

This teaching approach is based on the reflection of the individual's choices and actions and on awareness and experience, rather than on following procedures and instruction.

Thanks to this mentality the teacher will constantly develop and improve his/her skills, adapting to a fast-moving society. (Fischer, 2001) (12)

Initially preservice teachers are disoriented by this new approach, due to the fact that, until then, they always followed an epistemic approach entirely focussed on the objective to be achieved and on procedures and instructions to be followed.

Much time was spent to isolate each element of the PE teaching/learning process. (Cazzoli, 2006) (11)

In particular, motor skills, individual and team sports, body language and non-verbal communication, sport and fitness training, anti-doping, prevention of injuries and, recently, the road code.

The preservice teachers training (observation and active teaching) carried out in school is then discussed and analysed with inservice teachers.

There are two kinds of inservice teachers:

a) the Tutors (T), who assist preservice teachers during their training in schools;

b) the Supervisors (SVT), who make preservice teachers reflect on their experience. SVTs work at universities.

SVTs are the link between university research and practical teaching.

Also the Tutors in school benefit from this system as they can learn new practices and innovation from the preservice teachers they are assisting. When tutoring, inservice teachers follow guidelines, and have to fill in questionnaires.

The 500 hours of the training programme are subdivided in 50 hour modules. A report must be presented at the end of each module.

These reports are not just to check the work done but also to create a bank of information which, may be used for future reference and in other schools or contexts, to assist the teachers in the decision-making process. This is a rather innovative approach in Italy.

Practical training at SIS is not just for motor science but it is required for all subjects taught in school.

The training is common for all the subjects (aims and purpose, objectives, process and procedure), and the contents specific for any subjects.

The training is articulated in:

a) frontal lesson on teaching & learning (T&L) system with supervisor teachers in university;

- b) simulation and laboratory working with supervisor teachers in the university;
- c) preservice teachers working with inservice teachers (tutor and supervisor) in the secondary school.

In this way the knowledge can be created at the university, conveyed to secondary school, and subsequent experience be shared with the university.

During training, preservice teachers have 500 hours of tutoring by inservice teachers in specific subject classes.

The inservice teachers give preservice teachers knowledge on best practices. (Cazzoli, 2006) (11)

#### METHODS

This research was carried out at SIS – University of Torino in the north-west region.

This work aims at defining the training exchange among:

- a) inservice/preservice feedback loop during the whole teachers' career;
- b) Universities and Secondary schools improve and develop practical teaching. Practical teaching drives research;
- c) PE is given the same importance as Italian with a and maths common training of preservice teachers at SIS.

The research was carried out for 2 years (2004/2006).

The data were collected by distributing 116 questionnaires given to PE inservice teachers (n=116) who had taken part in the SIS teacher-training programme.

They were made up of 29 closed answers and multiple choices questions.

Only the questionnaires containing answers to all questions and which were properly filled in were considered.

The statistic analysis is descriptive and only percentages were used.

The questions this work investigated were on:

- a) inservice/preservice teacher relationship;
- b) preservice teachers participation in inservice activities;
- c) value of inservice-preservice collaboration;
- d) satisfaction rate of inservice teachers with SIS Tutoring Programme activities;
- e) comparison between PE and academic subjects (Italian, maths).

#### RESULTS

From the data collected from the questionnaires it emerged that:

- a) Inservice/preservice teacher relationship (*Question 1*)

Answers (n=116)	Percentage
Difficult	0%
Formal	0%
Collaborative	25.71%
Mutual growth	68.71%
No answer	5.71%

- b) Preservice teachers participation in inservice activities (*Question 2*)

Answers (n=116)	Percentage
Inadequate	0%
Passive	0%
Active	34.28%
Contributing	60%
No answer	5.71%

c) Value of inservice-preservice collaboration (*Question 3*)

Answers (n=116)	Percentage
Negative	0%
Poor	0%
Sufficient	31.42%
Very good	60%
No answer	5.71%

d) Satisfaction rate of inservice teachers with SIS Tutoring Programme activities (*Question 4*)

Answers (n=116)	Percentage
Positive	94.29%
Negative	0%
No answer	5.71%

## DISCUSSION

From the answers given by inservice teachers we can see a positive situation:

- a) inservice/preservice teachers' relationship (94.28%)
- b) preservice teachers' participation in inservice activities (94.20%)
- c) value of inservice-preservice collaboration (91.42%)
- d) satisfaction rate of inservice teachers with SIS Tutoring Programme activities (92.49%)

e) Inservice/preservice teachers' relationship:

PE teachers' data compared with the data from Italian and maths teachers:

- a) The inservice/preservice teachers' relationship has a similar trend in PE-IT-MA in more than 50% of the sample
- b) The preservice teachers participation was positive for PE-IT-MA in more than 60% of the sample

c) The value of inservice-preservice collaboration was positive for more than 50% of the sampleThe satisfaction rate of STP inservice teachers was positive for more than 90% of the sample

These positive results confirm the hypothesis of the "Feedback loop" and of the "Knowledge/best practice loop" which will accompany teachers throughout their whole career.

The SIS programme started eight years ago. In the medium/long term inservice teachers tend to lose motivation (usually after 3-4 years); they consider the experience positive but they are not paid nor there are no career advancements.

The SIS formation, in common with all secondary schools teachers, is a great opportunity for PE teachers to improve the perceived value of PE and create positive conditions for collaborative and peer-to-peer interdisciplinary teaching.

## CONCLUSION

The data show a positive perception of the feedback loop which allows a mutual exchange of knowledge between preservice and inservice teachers: practical teaching experience is used by universities to develop new PE teachers, who will bring the new concepts in school, during their training. By cooperating, inservice teachers can get in contact with the newest developments, deciding whether to accept them or not; a more effective way than by attending updating courses.

The public administration should motivate inservice teachers with salary or career incentives.

It has to be said that teachers being developed today might take permanent service in six or seven years. Therefore the results will be fully visible only then.

Italian, maths and PE preservice teachers training together, following the same type of course and receiving the same "tools" is giving PE the same importance of the other subjects.

## FOR FUTURE

"... we are working for the future with the knowledge and the experience of the past and the present..." and "University knowledge and best practice experience are multisystem and multiapproach long life PE teachers training" and "PE best practices are the best chooses and decisions between scientific knowledge and empirical experience".

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