

# Teaching activity, research and extension evaluation in surveillance of child development: the perspective of occupational therapy undergraduate students\*

## Avaliação de atividade de ensino, pesquisa e extensão em vigilância do desenvolvimento infantil: a perspectiva de graduandos em terapia ocupacional

Patrícia Carla de Souza Della Barba<sup>3,4</sup>, Aline Gonçalves<sup>1</sup>, Bárbara Aniceto<sup>1</sup>, Iara Cristina Rizzo<sup>1</sup>, Joyce Nunes Crippa<sup>1</sup>, Mariane Cristina Lourenço<sup>1</sup>, Nathalia Abreu dos Santos<sup>1</sup>, Thais Tiemi Nishiyama<sup>1</sup>, Andressa Fernanda Jóia<sup>2</sup>, Raquel Cristina Pinheiro<sup>2</sup>, Bruna Pereira Ricci Marini<sup>2</sup>, Claudia Maria Simões Martinez<sup>3</sup>, Regina Helena Vitale Torkomian Joaquim<sup>3</sup>

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**ABSTRACT:** The Curricular Activity of Integration between Education, Research and Extension (ACIEPE) “Child development from birth to six years and the work of Occupational Therapy”, offered by the faculty of Occupational Therapy of Federal University of São Carlos between March and September 2013, aimed to create a dialogue between educators of the municipal network of early childhood education and undergraduate students on issues involving the promotion of child development in family and school routines. This is an experience report describing the students’ evaluation of the content covered in this ACIEPE, discussing the implications of this activity in education. It is a

descriptive investigative study of qualitative approach with the application of a questionnaire to nineteen students who participated in the ACIEPE. We highlight gains in the interdisciplinary experience, in communication with teachers, in the production of interventions and in increasing knowledge about Occupational Therapy practices. Students also identify the experience as challenging and claim to have obtained greater deepening of the possibilities of Occupational Therapy practice in the context of early childhood education, improving their knowledge about the learning process with both children and teachers.

**KEYWORDS:** Surveillance; Child development; Occupational therapy; Childhood education; Education, higher; Health occupations/education; Students.

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1. Undergraduate students of the Occupational Therapy course at the Federal University of São Carlos, participants of the ACIEPE team. E-mails: alinegoncalves603@gmail.com, ba\_aniceto@live.com, iara\_rizzo@hotmail.com, joycecrippa@hotmail.com, marianec.lourenco@gmail.com, nathalia.yoona@gmail.com, thatanishiyama@gmail.com.

2. Occupational therapists graduated from the Federal University of São Carlos, contributors of the ACIEPE. E-mails: dessa\_joia@hotmail.com, raquelpinheiro.to@gmail.com, brunamarini\_to@yahoo.com.br.

3. PhD professors, joint professors of the Occupational Therapy course at the Federal University of São Carlos. E-mails: claudia@ufscar.br, regin@ufscar.br.

4. Coordinator of the ACIEPE (Integrated Curricular Activity in Teaching, Research and Extension). E-mail: patriciadellabarba@yahoo.com.br.

**Correspondence address:** PhD Prof. Patricia CS Della Barba. Departamento de Terapia Ocupacional da UFSCar. Rodovia Washington Luís, km 235 - SP-310. São Carlos, São Paulo, Brasil. CEP: 13565-905. E-mail: patriciadellabarba@yahoo.com.br.

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**RESUMO:** A Atividade Curricular de Integração entre Ensino, Pesquisa e Extensão (ACIEPE) “Desenvolvimento infantil de zero a seis anos e a atuação da Terapia Ocupacional”, oferecida por docentes do curso de Terapia Ocupacional da Universidade Federal de São Carlos entre março e setembro de 2013, teve por objetivo criar um diálogo entre educadores da rede municipal de educação infantil e graduandos sobre temas que envolvem a promoção do desenvolvimento infantil no cotidiano familiar e escolar. Trata-se de um relato de experiência que descreve a avaliação dos estudantes acerca dos conteúdos abordados nesta ACIEPE, discutindo as implicações desta atividade na formação. É

um estudo investigativo descritivo, de abordagem qualitativa, com aplicação de questionário para dezenove alunos que participaram da ACIEPE. Destacam-se ganhos na vivência interdisciplinar, no contato com os educadores, na produção de intervenções e no aprofundamento sobre as práticas de Terapia Ocupacional. Estudantes também identificam a experiência como desafiadora e afirmam ter obtido maior aprofundamento sobre as possibilidades da prática de Terapia Ocupacional no contexto da educação infantil, aprimorando seus conhecimentos acerca do processo de vinculação tanto com as crianças quanto com os educadores.

**DESCRITORES:** Vigilância; Desenvolvimento infantil; Terapia Ocupacional/educação; Educação infantil; Educação superior; Ocupações em saúde/educação; Estudantes.

## INTRODUCTION

Teaching, Research and Extension Curricular Integration Activity (ACIEPE) is an educational, cultural and scientific experience that involves teachers, technicians and students, aiming at stimulating the relationship of different segments of society through the articulation of Teaching, Research, and Extension<sup>1</sup>.

The “Child Development from zero to six years of age and the participation of Occupational Therapy” ACIEPE, offered by professors of the Occupational Therapy course of UFSCar, had proposed to create a dialogue between educators from nursery schools, belonging to the municipal network of childhood education, and undergraduate students of the course about topics that lead to the promotion of child development in the daily life of the family and the school.

The ACIEPE, after the approval of the extension dean, was disclosed both to the internal community of the University and to outside communities. After the disclosure, the register of the educators by spontaneous demand were made. The students registered in disciplines of the University through the enrollment system. Forty-nine educators of public nursery schools of the city of São Carlos and region attended the activity, and also 20 students of the initial periods of the degree in Occupational Therapy. Seven theoretical and practical classes that addressed the following themes were taught: development surveillance; emotional development and attachment; psychomotor, visual and cognitive development; the importance of playing for children’s development and the risk and protection factors for the mental health of the child.

The classes schedule was disclosed to the participants, who should send materials (photos, videos

and testimonials) concerning the daily life of the Municipal Childhood Education Centers (CEMEIs). Weekly meetings were held, at night time, with duration of three hours, divided into two stages. At the first stage, dialogue classes were taught, with content previously elaborated by coordinator professors of ACIEPE, as well as invited speakers considered experts on the approached topics. The content of the lessons included the material sent by the participants, who were dynamically incorporated and interposed to the theoretical content. In the second stage, the participants planned and developed an intervention project in the CEMEIs in which they were inserted, seeking to respond the demands identified by them in the centers. The participant educators and students were divided in subgroups, and at extra-curricular moments, these groups met in the CEMEIs to accomplish the proposed interventions together.

The projects were developed by one to three intervention sessions, at day time, following the work schedule of the educators, and ranged between interventions targeted to children, to the training of educators and parents and to environmental interventions.

The activity allowed the participants the opportunity to exchange knowledge, aiming at the discovery and experimentation of solution alternatives and voicing of problems, with a view to the production of knowledge in the area. As teaching, the activity aimed at the opportunity of students to experience the knowledge of child development, in the context of education itself and through the exchange of experiences with educators outside the University environment. In this sense, the activity was developed in accordance with which is advocated in the UFSCar Occupational Therapy course, in which there is encouragement to students, since the first year, to actively participate in their learning process. The

curriculum is based on active learning methods in which the contact with the patients and with the real or simulated situations of the professional practice is fundamental to educate professionals capable to plan and manage services and build new care models<sup>2</sup>.

The main theme approached in the project was the promotion of Child Development between the ages of 0 and 6 years. Considering that the process of child development is associated with the genetic load, health conditions and family, environmental, cultural and social influences<sup>3</sup>, the following assumptions guided the definition of the proposed subthemes and methodological strategies employed:

- The school has the potential to influence in the children development, but it is necessary to invest in its quality. In pre-school, it is necessary to develop activities that stimulate children and enable the promotion of their healthy development and of a development which is compatible with what is expected in each age group<sup>4,5</sup>;
- The monitoring of the child development must be held in its natural context, and it includes activities and opportunities that aim to encourage learning and development<sup>6</sup>.
- Occupational Therapy can contribute to the training of childhood educators in order to encourage the children development in the contexts of daily life, particularly those of nursery schools<sup>7,8,9,10</sup>;
- The integral and shared vision of the child by education and health professionals can contribute to the early detection of risk factors and to the promotion of the quality of the interactions and of the environment in which they are inserted. This detection consists of a primordial action in the context of the development surveillance by the possibilities of minimizing effects of the risk to the child in an opportune time and of preventing possible deficits to be settled<sup>8</sup>;
- The activities of daily life and the games consist of child development opportunities. The occupation is the focus of the practice of the occupational therapist, and this professional must analyze daily activities that the individual expects to take part; therefore, to encourage the participation in activities typical of childhood should be the major focus of occupational therapists who work with this population<sup>11</sup>.

It is expected that the graduate student in Occupational Therapy: becomes competent to analyze and monitor the child development and typical childhood activities; develops him/herself as a professional able to activate protective mechanisms; acts on development surveillance, aiming to minimize possible risks; promotes

interventions in the school environment and guidance to educators and relatives<sup>12,13</sup>.

From the dialogue established between educators of the municipal network of childhood education and undergraduate students of UFSCar Occupational Therapy course, the purpose of this article is to evaluate the extension activity of ACIEPE from the students' perspective, as well as mention its contribution to training in Occupational Therapy.

## METHODOLOGY

The descriptive study with a qualitative approach has developed the following procedures: application of a questionnaire for students who participated in ACIEPE, containing eight open-ended questions and two close-ended questions which addressed the opinion of participants about the content and importance of the theme taught, perceptions regarding work in conjunction with educators, suggestions and difficulties encountered during classes.

The questionnaires were sent to the participants. Data analysis occurred through content analysis, gathering the themes of the participants' answers<sup>14</sup>.

## RESULTS

Of the 20 questionnaires sent, 19 were answered and analyzed, resulting in four categories of analysis: ACIEPE strategy, contact of the student with the educator, relevance of knowledge, and knowledge and practice of Occupational Therapy in nursery schools, which will be presented next.

### ACIEPE strategy

Students analyzed aspects related to: structuring of the classes, themes and participation of speakers and the importance of ACIEPE in the process of professional training. The results show a predominance of positive evaluations. The students highlighted: good planning; the importance of the themes approached for the understanding of the process of child development; the property of the speakers regarding the themes, and relevance of the activity to professional training:

*"I positively evaluate it, for I could reflect a lot about a topic that interests me, besides absorbing and learning very relevant contents with all themes. The structure of the classes, which allowed conversations, reflections and*

*questions, could contribute to my knowledge, in addition to offer much learning. The speakers were available and exposed the themes in a very understanding manner.” (S9)*

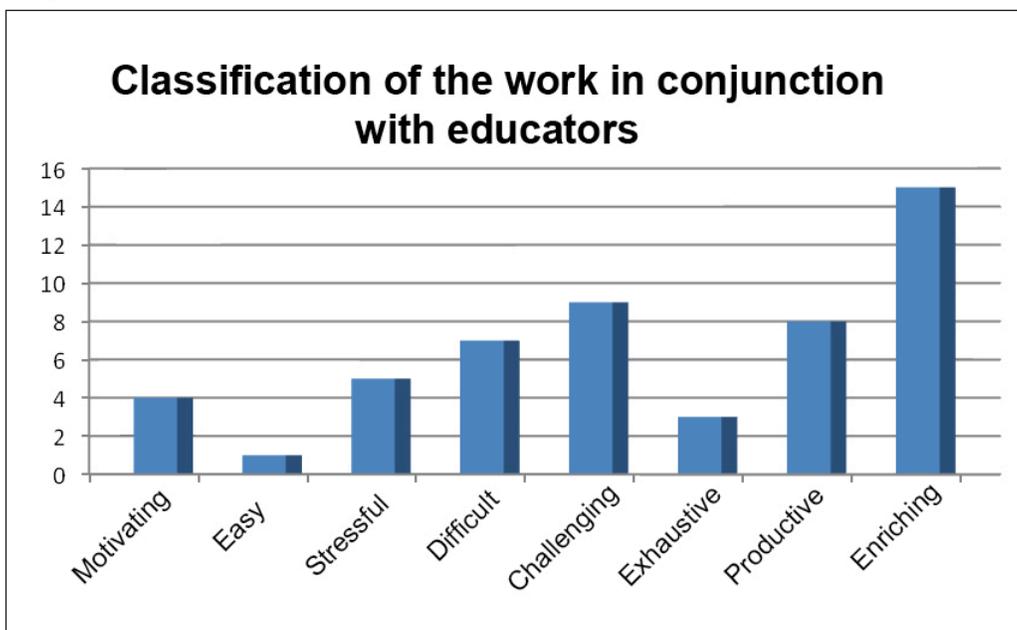
### Contact of the student with the educator

Students also evaluated their contact with the educator in the process of classes, groups and interventions

in the CEMEIs. Results were observed concerning the importance of interdisciplinary work and its relevance to the exchange of knowledge and experiences.

In the questionnaire answered by them there was the open question about how they qualified the relationship established during the activity. The students’ responses were analyzed regarding their content, and categories were established, according to Bardin<sup>14</sup>. The classification of this interaction is presented in Graph 1.

**Graph 1** – Classification of the work in conjunction with educators



The experience in this activity was classified by most students (N = 15 or 79%) as “enriching” regarding the contact with the educator, for the students believe that the educators have contributed with their work experiences at CEMEI during the activities developed:

*“The work in conjunction with the educators was very productive because they reported various experiences and difficulties they have at CEMEI, which was very rich to our training.” (S7)*

*“[...] it was very enriching because I managed to learn a lot and became more aware from real situations told by educators and even experienced in the visits.” (S15)*

Nine students (47%) considered the experience challenging, since due to the undergraduate course be

a full-time course, they had limited time to devote to ACIEPE tasks. The time of the classes was at night time, and the planning and execution of the intervention projects were carried out in extra-curricular period:

*“It’s challenging and exhausting due to hours of research and the time of the classes.” (S2)*

*“I thought it was very challenging because in the division made, our group was with educators who were of São Carlos and also from different nursery schools, so it required a larger work [...]” (S15)*

Eight students (42%) evaluated the activity as “productive”, reporting that even having met a few times with the educators, they were able to produce interesting intervention projects at the CEMEIs.

Four students (21%) considered the experience “motivating” by the joint action with the educators, their knowledge and their dedication in improving:

*“During many meetings the joint work was motivating and inspiring, for they are people who already experience and work with children and see in practice what’s been worked in the classroom.” (S10)*

Five students (26%) classified the activity as “stressful”, explaining the division of the tasks of the group:

*“[...] to elaborate the work was very stressful, for the students ended up having to do most of the things, repeatedly redoing such things to suit them to the standards and references.” (S9)*

Seven students (37%) classified the activity as “difficult”, justifying that despite the learning provided by the student-teacher interaction, the group times could be better exploited.

**Relevance of knowledge**

The students pointed out the importance of ACIEPE to develop knowledge concerning the development surveillance and childhood education. They highlighted the learning of new concepts such as the participation of the occupational therapist in this area:

*“ACIEPE greatly aided in the knowledge about the Development Surveillance and Child Development, mainly because I was in the first year. It gave me a lot of basis to deepen my studies about this theme.”(S2)*

It was proposed in the questionnaire that students evaluate the content presented in the classes according to their relevance: Very High, High, Reasonable and/or Little.

As shown in Table 1, the themes Development Surveillance, Cognitive Development, Visual Development, Psychosocial Development/Attachment Theory and the Importance of Playing were rated as of very large relevance by students.

**Table 1** – Classification of the relevance of the themes presented during the meetings

Classification of the relevance of the themes presented during the meetings					
	Very Large	Large	Reasonable	Little	Did not respond
Surveillance Development	57.89%	36.84%	5.26%	0%	0%
Cognitive Development	52.63%	47.37%	0%	0%	0%
Visual Development	52.63%	36.84%	5.26%	0%	5.26%
Psychosocial Development/Attachment Theory	36.84%	63.16%	0%	0%	0%
Mental Health	42.1%	36.84%	21.05%	0%	0%
Importance of Playing	63.16%	31.58%	0%	0%	5.26%

**Knowledge and practice of Occupational Therapy in the nursery school**

It was noted that ACIEPE significantly collaborated to the knowledge about the participation of Occupational Therapy in the field of child development, providing students involvement with the theme and encouraging them to pursue studies in this area:

*“It provides the students with the knowledge of a very important field of practice of Occupational Therapy.” (S14).*

*“I didn’t have much contact with child development, and I felt encouraged to continue studying about it.” (S8).*

When asked about the practice of occupational therapy in school context, it can be observed that most students had knowledge of this possibility, except a student that reports knowing very little and other who says having no knowledge about it. Two reported having knowledge only in cases related to special needs, in institutions such as APAE (*Associação de Pais e Amigos dos Excepcionais* – Parents and Friends of the People with Special Needs Association), for example, or in private schools:

*“I knew we could work in institutions such as APAE, but in regular schools I did not know.” (S17)*

Ten students reported that they superficially knew about the participation of occupational therapy in school context, having had access to information by reports, college materials, graduate teachers and article in CREFITO-SP (*Conselho Regional de Fisioterapia e Terapia Ocupacional de São Paulo* - Regional Council of Physical Therapy and Occupational Therapy of São Paulo) journal.

Most of them reported that ACIEPE contributed to the further deepening of the possibilities for the practice of occupational therapy in this context:

*"I knew it, but in a superficial way. That's why ACIEPE contributed for me to know this possibility a little better, which, by the way, I really liked it and thought it is very important, and also that the presence of an Occupational Therapist at school is necessary."* (S5)

The importance of the occupational therapist to be attentive to aspects related to child development to be able to contribute both with the families and the educators was also highlighted by the students.

## FINAL CONSIDERATIONS

From the dialogue established between educators of the municipal network of childhood education and undergraduate students of UFSCar Occupational Therapy course, composed with the experience of ACIEPE, this

article aimed to evaluate the extension activity in the training of students from their perspective. The importance of this activity for the training of the Occupational Therapy student in development surveillance and participation in early childhood education was noted.

The report highlighted gains identified by students, especially in the aspects of activity planning, approached content and opportunity for the acquisition of new concepts. In addition, the interdisciplinary work and the knowledge about the reality of childhood education were highlighted, and the relevance of the interaction of knowledge was confirmed from the field of health and early childhood education, which can bring gains for the early detection of risk factors for child development problems.

The occupational therapist has been acting in the field of early intervention, seeking to promote child development and to prevent developmental changes in childhood. Thus, professionals are able to extend their assistance to the environment of early childhood education by analyzing the resources and the context to carry out modifications or adaptations that give rise to practical solutions to the current problems<sup>8,10</sup>.

With this activity, there is the possibility to prepare future professionals to the labor market and to acquire skills to participate in various teams and new territories for Occupational Therapy, as well as to construct new care models.

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