


Reframing the learning process of construction management

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ABSTRACT

This article emphasizes the realization of a practical activity of Waldorf Pedagogy in a creative writing workshop held in 2023. Two creative writings were produced: one by students of the discipline of Construction Management and Production in the Civil Engineering course, and another by a student of the Agricultural and Environmental Engineering course of a Public University in the northeast region of Brazil. The first of them was inspired by readings of texts on the management and production of constructions. The second was based on a lecture that was given by a construction manager engineer in the pandemic on the construction processes of a building for the construction management and production class and which had its synthesis written in verse form by a student of that discipline. The technical and artistic productions of the students of the Civil Engineering and Agricultural and Environmental Engineering courses of the studied University show that sensitivity can be activated.

Keywords: Management, Waldorf Pedagogy, Art.

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INTRODUCTION

It was the philosophical ideas present in Anthroposophy that gave rise to Waldorf Pedagogy. The principles of this philosophy founded other areas of human activity and, in education, it was expressed through this pedagogy through the artistic approach, aiming to develop the use of imagination and creativity of its students. (GORAYEB; MATTOS, 2021).

Waldorf Pedagogy, created by Rudolf Steiner, is the application of Anthroposophy and its principles in the education of children and young people. According to anthroposophical teachings, to be an anthroposophist is to act from knowledge. (ROMANELLI, 2008).

This is not a confessional school, in which Anthroposophy is taught. What happens, in fact, is the teaching action based on the observation of the human being and the image that Anthroposophy makes of him. It is an application of artistic procedures so that cognitive development occurs in a dimension of balance between reason and sensibility, in an update of the Aesthetic Education of Man, proposed by the poet Friedrich Schiller. (ROMANELLI, 2008)

Martins (2022) considers that the objective of Waldorf Pedagogy is the development of subjects balanced in their physical, psychic and social aspects who can confidently give meaning and direction to their lives, through the search for understanding the facts, phenomena and ideas that characterize the human being, using the integration between science, art and spirituality.

Waldorf Pedagogy stands on the path of improving the artistic, sensitive, creative and imaginative side of the human being, providing its students with an experience closer to nature, believing that these conditions are essential for preparing for life in the real world. In this way, its methodology is organized in such a way as to promote in a balanced way the alternation between the more intellectualized activity and the practical or artistic activities. (GORAYEB; MATTOS, 2021).

The definition of Art in Waldorf teaching consists of the harmony and organization between the human being and nature, internal and external, in order to bring healthy development to the human being as a whole. It is about allowing the feeling of healthy inner organization through the artistic sense, in the same way that the body has a healthy sensation when it consumes healthy foods. "The knowledge of the human being leads us to understand that consciousness is an artist who works artistically on human bodily matter" (STEINER, 2008, p. 26).

Schiller (1990) explains that in the face of the experience of art and beauty, the refined taste of man can reach the disposition of the ludic impulse, which is an aesthetic willpower acting in harmony with the exercise of morality, capable of purifying human feelings and building character, enabling the balance between sensible and rational forces in the development of ethics in the human being.

At the beginning of the twentieth century, Rudolf Steiner, the creator of Waldorf Pedagogy, already drew attention to the path taken by modern education by expropriating the subjective and



inner reality of the student in favor of the cultivation of an objective rationality dissociated from the totality and complexity of the human experience. Anchored in Anthroposophy, Steiner (2003) inaugurates an education model that aims to meet the formation of children and adolescents from an integral conception of the human being effectively mirrored in a pedagogical praxis that acts in the sense of seeking a harmonious unity in the bio-psycho-emotional and spiritual development of the student.

Furthermore, in line with the sentimental and aesthetic disposition latent in the students who go through this phase, the Waldorf curriculum elects art as the primordial pillar of all education. According to Kügelgen (1989), in Waldorf Pedagogy there is no learning domain that is not enriched by artistic activity, through which the experience is deepened. However, a specific time is not reserved for these activities, they do not occur on the margins of other studies, as usually happens in the vast majority of conventional schools that reserve some space in the curriculum for art; on the contrary, they are "the bond of union between the various matters". In fact, the place attributed to art is very well configured in Steiner's thought (2003, p. 125): "pedagogy cannot be a science – it must be an art. And where is there an art that can be learned without constantly living in feelings?"

Classes in Waldorf schools are organized in such a way as to promote the alternation between the more intellectualized activity and the practical or artistic activities: theoretical teaching is always accompanied, on the one hand, by the practical focus (emphasis on bodily and craft activities) and, on the other hand, by artistic activities which, as indicated, in the Waldorf curriculum are a didactic vehicle for all subjects. Thus, drawing, watercolor painting, music, singing, theater, clay modeling, the art of speech, eurythmy, on the one hand, and handicrafts (knitting, crochet), shape drawing, carpentry, physical education, gardening, on the other, are worked on in the school daily life in a way that is very articulated with the formal contents of each time and with the psycho-emotional demands of the student. according to each phase of their development, so that learning is experienced in a meaningful way.

PLAYFULNESS AND WALDORF PEDAGOGY

Although contemporary education points to an urgent revision in the principles and procedures of pedagogical practice, a careful look at the classrooms makes it possible to see that the day-to-day life of the schools of the official education system has not been in line with the scientific paradigm of today, still reflecting the abstract and mechanical conception of the learning process and reflecting the enormous gap between thinking, feeling and doing; between body and mind; between intelligence, sensitivity and affectivity. (*ANDRADE and SILVA, 2015*).

For Andrade and Silva (2015) the teaching-learning process is very far from a truly playful focus, so that what is commonly observed when one intends to teach playfully is, on the one hand,



the realization of decontextualized playful activities in the classroom, without being clear about the proper correspondence between the objectives of such activities and those that are intended to be ensured, or, on the other hand, the promotion of equally isolated actions that are valued not for the intrinsic value of their educational function, but rather for the utilitarian function they assume, since, in these cases, they always serve as a means to transmit theoretical contents.

For Luckesi (2005), playfulness is an internal state of the subject who fully experiences an experience, it is synonymous with the plenitude of experience – considering here "plenitude of experience" as the maximum possible expression of the non-division between thinking/feeling/doing. According to him, playfulness is related to the internal attitude of the individual who experiences an experience of integration between his feeling, his thinking and his doing.

By considering playfulness as "an internal state of the subject who acts and/or experiences a playful activity", Luckesi (2005) presents a significant contribution to the understanding of this phenomenon, adding to the current approaches, generally dedicated to the external manifestations of the subject who experiences a game or a game, a look now focused on the internal dimension of the human being.

These reflections bring a great contribution to the binomial education and playfulness, enabling a more comprehensive understanding of what a playful education is: one that, transcending the strictly rationalist bias that has characterized education and orienting itself towards the cognitive, emotional, ethical, and physical creative development of the learner as a multidimensional human being, is committed to the promotion of meaningful learning that can involve the student as a whole, thus providing the harmonious integration of their thinking/feeling/doing.

From this perspective, therefore, the mere use of games or games in the classroom, or the choice of unconventional methodological strategies that use play activities as accessories to facilitate the acquisition of formal contents, as occasionally happens in the conventional educational environment, is very far from corresponding to the ideals of a ludic education, since the instrumental character of teaching still persists, prioritizing, even if covertly, the rationality of the student.

Contrary to the trend commonly observed in formal educational environments, which mistakenly conceives the relationship between education and playfulness from the simple use of playful methodologies in the educational context, disregarding the need to overcome the instrumental conception of teaching and, therefore, reorient the pedagogical practice towards the global development of the students and the multidimensionality of the educational process, Waldorf Pedagogy stands out.

From what Luckesi taught us, we can say that a playful education can be understood as one that provides the fullness of the formative experience, requiring a deep involvement of those involved in claiming not only their rationality, but their entire presence in the classroom: thinking,

feeling and doing integrated and, in unison, favoring and stimulating truly meaningful learning. As we have seen, therefore, the great contribution of Waldorf Pedagogy is to demonstrate, in its curricular and methodological organization, a path effectively underway towards the integration between thinking, feeling and doing in the context of formal education, in order to truly meet the essential assumptions of ludic education.

For Andrade and Silva (2015), Waldorf Pedagogy presents itself as an effective model of playful education and, therefore, consonant with the educational paradigm of contemporaneity.

PARODIES ON CONSTRUCTION MANAGEMENT AND PRODUCTION

Two creative writings were produced: one by students of the discipline of Construction Management and Production in the Civil Engineering course, and another by a student of the Agricultural and Environmental Engineering course of a Public University in the northeast region of Brazil. Both are summarized in image 1 below.

Image 1 – Parody - Build, build, my people

Music - Build, build, my people – 2023.1

Ednardo Fernandes de Medeiros
Marcos Antonio dos Santos Filho
Sandra Maria de Almeida Fernandes

Build, build, my people
That the works cannot stop
But apply Lean Construction, which you can only gain

On-time delivery, less waste and double work
There is continuous improvement, cost savings and a healthy environment
Greater predictability, reduction of conflicts, time and rework
But the best thing about it all is the happy customer with a smile on his lips

Build, build, my people
That the works cannot stop
But apply Lean Construction, which you can only gain

That's exactly what you heard, Lean Construction takes you to the top
High productivity, profit, quality and all within the time frame
It has been around for a long time to be able to add to the entire market
You just can't apply even if you want to stay in 94

Build, build, my people
That the works cannot stop
But apply Lean Construction, which you can only gain



Image 2 – Parody - Construction of the painting

0 Construction to paint

Parody (I'm like this without you)

Rebeca Barros de Paula

2023.1

Construction has steps
Let's learn What you need to do

The first step
Is the terrain Look, how is it? If there is gravel and debris You need to clean It is the first step
For construction
Come and see, what needs to change...

The step now
It is the earthworks
Then see the foundations
Which should be very deep Then the installations

Why, that has to be so? Because you can't falter Attention is important! To make a construction To not cause destruction

Electrical and Hydrosanitary Installations
In good condition Attention is important
Why? Why?

To not cause problems or damage to the construction And then we can see, the waterproofing
Just be careful
Not to forget
What's next
It is the coating
Come see, what you need to do

Right after that, we go to the painting,
And finally the decoration
And now to finish...
You can already contemplate

The construction you made
That everyone will look for you
Wondering
How do you get to know
Youee Youee

The creative writing produced by the students of the Civil Engineering course was inspired by readings of texts on construction management and production.

The written parody of Agricultural and Environmental Engineering was based on a lecture that was given by a construction manager engineer in the pandemic for a construction management and production class and which had its synthesis written in verse form by a student of that discipline.



Image 3 – Creative writing - Building from scratch to coverage

CONSTRUCTION FROM ZERO TO COVER – 2020.1

LUAN ALVES

*Let's learn
From beginning to end
A construction to make
First step
For a good construction
If there's something before
A good demolition
It's not cool yet
Before you begin
Let's clean up
And the flowerbed organizes
With everything clean
It became a good landscape
And now yes
The next process, earthmoving
So let's go
Don't get confused
Part of the foundations
They are direct and profound
After the foundations
Coming to armor
Everyone knows what I'm talking about
The part of the structures has arrived
Now everything is flowing
Each in their role
Construction goes up
With the sealing stage
With everything in place
Electrical and plumbing installations begin
Always in good condition
But that's not all
To have a good construction
Many things are needed
Including waterproofing
To make everything beautiful
With good workmanship
We need the installation
Give a good coating
After all this already said
It is with great joy
That are placed
Beautiful frames
To finish
Our beautiful construction
How about we do Painting and decoration*

The student of the Agricultural and Environmental Engineering course liked the text and adapted it to parody.

FINAL CONSIDERATIONS

The parody prepared by the students of the civil engineering course and the one produced by the student of the Agricultural and Environmental Engineering course promoted an integration of knowledge in a light and relaxed way.



As an observer of the artistic activity carried out by the students, the professor agrees with Steiner when he states that this type of practice provides meaning to understand also with the intellect and to permeate also as the sense of duty what the individual has learned to see in art as the beautiful and the purely free human.

The technical and artistic productions of the students of the Civil Engineering and Agricultural and Environmental Engineering courses of the studied University show that sensitivity can be activated.



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