The Transformational Learning Theory in the beginning developed by Jack Mezirow is described as being “constructivist, an orientation which holds that the way learners interpret and reinterpret their sense experience is, central to making meaning and hence learning” (Mezirow, 1991, p. 222). The hypothesis has two basic varieties of learning: instrumental and communicative learning. Instrumental learning focuses on learning through job-oriented problem solving and determination of grounds and effect relationships. Communicative learning involves how individuals communicate their opinions, needs and desires.

ABSTRACT

This conceptual paper focuses on the relationship between man and nature, allowing the students to develop critical thinking and transformative learning through art. Art develops imagination and aesthetic experience offers the possibility to process many symbols and makes the expression of multiple meanings possible. The paper shows how the authors encouraged their trainees at the Second Chance School, Greece, to consider ways in which nature and the environment benefit humans in everyday life. Then the students were divided into groups of four and prompted to write down their thoughts, which were immediately shared in class generating a discussion, which revolved around two critical questions: a) Can contact with nature make you a better person? b) Does the love of nature imply love for life? Subsequently, some teaching media were used to help the trainees process and correlate the questions to be raised. The trainees described the feelings experienced by interacting with each project separately and discussed the role of nature in improving the aesthetics and the psyche of a person. According to them, they experienced the intensity, balance and harmony that were emitted by the texts and the painting and enjoyed the descriptive images and the beauty of the landscape. This was followed by the reflection on the deeper meaning of each supervisory instrument separately and the role of the environment in shaping individual emotions. The experience of this course has led the authors to believe that nature can nourish students; vision and creativity; however, empirical research is required to further explore this important subject.

Keywords: Adult education, transformative learning, environmental literacy, critical thinking
Second Chance Schools (SCSs) are directed at people who have achieved the age of 18 and have not completed the nine-year compulsory education. The purpose of SCSs is to be capable to provide training to people who, for diverse causes, left education so they can gain confidence. The SCS belonging to a European project that points to combat social exclusion. The adult learners that attend SCSs are educated to be literate in different subjects one of which is to be Environmental Literacy. This Literacy present knowledge and understanding of the environment and the circumstances and conditions affecting it as well as an understanding of society’s impact on the natural universe, such as population increase, population growth, resource consumption rate, and so on. As well as investigate and analyze environmental issues, and make accurate conclusions about effective solutions. The subject of teaching is the relationship between man and nature and its benefits regarding life. Contact with nature is beneficial for the physical, spiritual and mental health of a person. Our approach is aiming at adult trainees in a SCS in Greece attending the Environmental Literacy class. The trainees are adult learners in year 1 and 2 of secondary school, with different ages and from different countries of origin.

The Concept

Our instructional objectives are the development of creative and critical thinking of our learners and the redefinition of the natural environment’s role in the improvement of human life. We use works of art to reach our targets and give the impetus to our adult learners through critical awareness as was developed by Freire (1976, 1978) who was the first thinker of adult education. Perkins (1994) points out that learners, with the process of methodical observation of a work of art, come into contact with it and have the opportunity not only to enrich their aesthetic experience, but also to cultivate a critical-reflective attitude towards the events inside and outside of the educational framework (Dewey, 1980). We can try that through the six stages listed below:

Stage 1. Determination of the need for critical investigation of a topic
Stage 2. Learners record their opinions on a matter in the form of a short exercise
Stage 3. Determination of the critical questions
Stage 4. a. Selection of artworks
   b. Correlation between art and the critical questions
Stage 5. a. Processing the works of art
   b. Correlating between processing and the critical questions
Stage 6. Critical reflection

Each of these stages will now be described in detail.

**Determination of the need for critical investigation of a topic (Stage 1)**

It is believed that human contact with nature only contributes to improved physical health through sport and exercise. In class discussions we agree that sometimes we lose sight of the fact that nature has a beneficial effect on our mental and spiritual status, helping us to improve our aesthetic culture, nourishing our imagination and creativity, revitalizing our senses and causing beautiful feelings. One can be driven to self-knowledge and self-determination, learn to love life and appreciate every moment of it. Our aim is to make the contribution of the natural environment on the mental and spiritual evolution of human-being and to demonstrate how this change can be achieved.

**Learners record their opinions on a matter in the form of a short exercise (Stage 2)**

The adult trainees are divided into small groups of 3 to 4 people and then they are invited to answer our questions in writing. The next stage is the disclosure of each teams’ thoughts to the whole group of trainees. An indicative question that probably will rise is: “How does the contact of person with nature can contribute in improving his life?”. Most replies probably will suggest ways to improve physical health, daily eating habits, exercise and combating stress.

**Determination of the critical questions (Stage 3)**

After the formulation of the student’s responses a discussion is following during which the instructor tries to broaden their thinking and help them to distinguish...
Teaching the relationship between man and nature in Environmental Literacy with the help of Transformative...

further the benefits in human life from contact with nature. So we may identify two main subtopics:

(a) Nature, in addition to physical health, variously promotes the mental and spiritual life of a person and

(b) Contact with nature is a direct connection and contact with life itself.

Based on these subtopics we can formulate two critical questions on which the critical thinking of our learners is developed:

(a) Do you believe that contact with nature has a positive effect on the psyche of a person? Can this contact make this person better?

(b) Do you think that love for nature implies love for life?

Selection of artworks

Correlation between art and the critical questions (Stage 4)

Since we formulated the critical questions, learners are invited to reflect on them. The trainer presents four pieces of art that could serve as stimuli, which trigger and lead to the desired learning results, by the in-depth interaction with their content:

1. Free Besieged by Dionysios Solomos (B Sketch extract 2),
2. Starry Night, the painting by Vincent Van Gogh,
3. If all children of the earth by Yiannis Ritsos, and
4. The Dead Brother an excerpt from a folk song.

The 1st Work of Art

The first work of art is the Free Besieged by Dionysios Solomos:

Free Besieged

Eros and April linked hand in hand began to dance with joy,
And Nature found her greatest and her sweetest hour:
Out of swirling shadows enfolding dew and scent came
A most exquisite melody, languorous, soft, and faint.
Water clear and sweet, full of charm and of magic
Flows and pours itself into a fragrant abyss,
Taking the perfume with it, leaving coolness behind,

Showing to the sun all the wealth of its sources.
It runs here and there and sings like a nightingale.
But over the water of the lake, that is still and white
Still wherever you look at it, all-white to the bottom,
With a little, unknown shadow a butterfly plays,
That amid fragrance had slept inside a wild lily.
My seer, light-of-shadow, tell us what you saw tonight:
“A. night full of miracles, a most enchanted night!
There was no breeze stirring on earth, nor on sky or ocean,
Not even as much as makes a bee brushing a tiny blossom.
Around something motionless that glows in the lake
The round face of the moon merges in close embrace,
And a fair maiden comes forth dressed in its silver light.

The text was associated with both critical questions. The trainees visualize the information from the passage, turn them into images and realize the way in which the description of nature stimulates their imagination and their senses. It is a beautiful moment, which extols the beauty of nature and its splendor, forming a hymn not only about nature but also about life itself.

The 2nd Work of Art

The second work of art is a painting by Vincent Van Gogh, called Starry Night. This painting is associated with both critical questions. Initially the students are captured by this enchanting painting, may comment on its bright colors, intensity and balance which characterizes this piece of art. Some even may speak of contradictory emotions that the viewing of the painting caused in them.
The 3rd Work of Art

The third work is a poem called *If all the children of Earth* by Yannis Ritsos:

- If all the children of Earth
- “If all the children of Earth
- Held their hands tightly
- Boys and girls in a row
- And started to dance
- So big would become their circle,
- That would hug the whole Earth, I reckon.

- If all the children of Earth
- Called the adults
- And they left their offices
- To join the dance
- The circle would be even bigger
- And twice our Earth would hug, I reckon.

- The birds would have come then
- The flowers would have come
- Spring herself would have come
- To join the dance
- And the circle would have become even bigger
- And thrice our Earth would have hugged, I reckon!”

The poem was associated with both critical questions. The trainees link the purity of a child’s soul with the beauty of nature in this joyous dancing and unity of souls. They may comment on the innocence and enthusiasm of children and collate it with the adult world, who eventually also got swept away by the joy of life, in which nature participated and also spring itself.

The 4th Work of Art

The final work is a folk song, called *The Dead Brother’s Song*:

- “Arete sets off and goes home by herself.
- She sees her gardens leafless, the trees sickly
- She sees the mint dried, the carnation turned black
- She sees in front of her door grass having grown.
- She finds the door locked and the keys having been taken

- and the windows of the house been tightly bolted.
- She knocks the door mightily, the windows are crunching,
- “If you are a friend, come in, and if you are an enemy, go away
- and if you are bitter Charon, I don’t have more sons
- and my poor little Arete is far away in the foreign lands.
- -Stand up my mother, open the door, stand up my sweet mother.
- -Who is the one who knocks my door and calls me “mother”?
- -Open the door, my mother, open it and it is me, your Arete.
- -She came down, they hugged and they both fell dead.”

This excerpt from the folk song is associated with the second critical question we set in stage 3. Trainees first may notice the negative image created by the description of the landscape from the withered gardens and trees, the dry grass, the lack of any beauty and grace, the emptiness of the house and death. They may also report the negative emotions that it caused them. Furthermore, they may not immediately understand the relationship between the extract and the second critical question, a task in which they ultimately succeed in stage 5.

The following table shows the correlation between the works of art and the critical questions formulated.

<table>
<thead>
<tr>
<th>Works of Art</th>
<th>Critical Questions</th>
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<tbody>
<tr>
<td>1. Free Besieged</td>
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<td>2. Starry Night</td>
<td>Ö</td>
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<tr>
<td>3. <em>If all children of the Earth</em></td>
<td>Ö</td>
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<tr>
<td>4. <em>The Dead Brother’s Song</em></td>
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Processing the works of art (Stage 5.a)

It may not be possible to process all of the proposed issues due to lack of time and for this reason the students can choose some of them. However, at this stage we present the technique that we would use to process and analyze each one of these works of art.

*Free Besieged by Dionysios Solomos*

Using the Perkins technique (1994), the trainees initially read the text at least twice. In the next phase, as the trainer I ask questions like ‘What images come to life
before your eyes? Trainees may wonder why the beauty of nature was being extolled in such a difficult time; therefore they can be encouraged to look for deeper meanings and symbolisms inside the poem. In the third phase, we sought a further analysis of the hidden meanings and symbolisms of the poem such as the annotation of the title itself, how was it possible that the Besieged could simultaneously be Free. We place our text within the broader historical context and thus we are able to grasp the deeper meaning and the ultimate symbolism. During the last phase, the students can look back at all the views previously expressed and then they can present their conclusions and holistic view of the text.

**Starry Night by Vincent Van Gogh**

We once more use the Perkins technique of (1994). Initially the trainees observe the painting for some time and mention what impressed them. In the second phase they attempt to observe the features of the painting, its colors, the harmony and the symbolism that may exist. In the third phase, associating the content of the painting with the times and circumstances in which it was created, we help the trainees to deepen the meaning and describe the positive or negative emotions caused by their observation and the in depth analysis of the project. In the end, they conduct a holistic review of the project and point out the conclusions they reached.

**If all children of the earth by Yannis Ritsos**

The poem is analyzed using the method of Visible Thinking. Students individually read the text and then describe the images of the poem, the emotions felt while reading and how nature and life contribute to the mental communion of man. Trainees may be puzzled and they discuss about the beauty of nature, the parallelism between a child's innocence and the zest for life, the connection between the love of nature and the love for life. Ideas and associations emerge at the end, as well as secure conclusions about the deeper meaning of the poem and the consolidation of it.

**The Dead Brother's Song**

Here, the processing of the text is made using the Visible Thinking technique. The images of the poem unfold before our eyes and we become spectators of a dramatic scene, flank by a desert and melancholic landscape. The trainees express their feelings and try to describe how the stress and tragedy of the poem's two heroines climaxes. They comment on the way that mental anguish is reflected in our surroundings and how the death of the soul is coincided with the death of nature.

**Correlation between processing and the critical questions (Stage 5.b)**

During this phase the trainees redefined the ideas that were already formulated and correlated them with the critical questions. On the first question (Do you believe that contact with nature has a positive effect on the psyche of a person? Can it make this person better?) Most students may respond positively and rethought all our findings up to that time. They may have already reached the general assumption, that a person, through contact with nature, is promoted mentally and spiritually, becomes better, noble feelings are created in his soul, learns to appreciate and enjoy the joys of life and finally feels self-sufficient and happy with what he has. At the same time, enriches persons' inner world with beautiful images that fill him with joy and peace and he tends to become more optimistic. Moreover, it stimulates his imagination and senses, he relives his fond memories, it cultivates his creativity. His innocence and spontaneity are revived.

Regarding the second question (Do you think that love for nature implies love for life?) trainees are able to see the whole subject through a different perspective. In the extracts of the Free Besieged they can realize that the title of the poem symbolizes the contradiction between freedom and slavery, life and death. Even at the last moment of annihilation, the soul of the besieged managed to admire the beauty of nature and praise life. It was not by chance that nature and spring were chosen to represent life, which was projected to be more desirable than ever. The same goes for the poem of Yannis Ritsos where the bloom of nature was paralleled to the zest for life and they altogether participated in the euphoria of the soul and the dancing of the bodies. At Van Gogh's painting, nature itself cause our admiration and make us think of the bright side of life, as the excellence and grandeur of the starry sky over the dark night was
projected and life and joy were preferred over death and melancholy. Finally, on the folk song that is hosted, the negative image of nature equals to the silence and death and remind us that the lack of life will always be reflected in the lack of natural beauty and vice versa.

**Critical reflection (Stage 6)**

At this stage of the process “Transformative learning through Art” (Grain, 2010) students review the conclusions they reached in stage 2 finding out that there have been changes in their thinking and viewing of the data. They answer the question that was previously put before them once more “How can the contact of a person with nature contribute to improving this person’s life?” Their responses may eventually include other extensions beyond physical health. After discussions and their intense reflection, they approach the matter from another angle and may now conclude that nature contributes significantly to the mental cultivation of a person, while spurring the love for life.

**Conclusion**

Teaching through art can be used for the teaching of difficult concepts as well as to widen a concept’s field of view (Kokkos, 2010), as it allows students to develop critical thinking and make the necessary conditions and prerequisites eligible for the operation of transformative learning (Mezirow and Associates, 1990, Gardner, 1973).

There are many different views, but they may all converge in the conclusion that nature nourishes a man’s imagination and creativity, enriches his inner world, cultivating his sensibilities and spiritual pursuits, and contributes to his physical and mental health. It also sensitizes the individual, making him more optimistic, responsible and positive towards life, which is learning to respect and appreciate everything it has to offer. Therefore, nature and contact with it can contribute in many ways to the improvement of human life.

**References**


