Let No Child Be Left Inside - Propping Up Students Alertness to the World Around

Paper

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> *"There is ecology of bad ideas, just as there is ecology of weeds" (Gregory Bateson); let our children know weeds and seeds equally; let our teachers weed out practices that prevents our younger generation from doing this.*

The field of critical pedagogy has arguably been the leading source of revolutionary pedagogical ideas and practices to date. Critical-constructivist pedagogy that is being followed in our schools is wedded to multiple perspectives and abilities of human beings in relation to knowledge construction. By design, multiple intelligences are part of any constructivist classroom. The recent entry into the categories of multiple intelligences is the naturalistic intelligence. Naturalist intelligence in a child is exhibited in many ways, such as his/her fascination with, and predisposition to, explore the world of nature, and the propensity to identify, classify and interact with the flora and fauna given one's in-built pattern-recognising talents. A person with naturalistic intelligence, it is said, to like to be outside and do activities like gardening and nature walks; enjoy television shows, videos, or books about nature; enjoy collections of objects from nature; recognize patterns, similarities, differences, or anomalies in nature; possess keen sensory skills - sight, sound, smell, taste, and touch - and notice things that others often miss; easily learn characteristics, names, categorizations, and data about objects or species, among other things (Armstrong, 1994). Further, to think ecologically is to think about the relationships between things (Bateson, 1972).

How far has our system of education empowered our students with knowledge of their native flora? How far has the "dialogue" in our classrooms transferred the cultural tools, concepts that can be utilized for transforming the lives? How "critically" have students analyzed experiences with their immediate environments? This paper probes into the loss of cultural languages that encode local knowledge of biodiversity.

Objective

To examine the extent to which students who have completed primary education by following the Kerala state school curriculum which has adopted the principles of critical constructivist pedagogy are able to recognize the local plants, their parts, human (agricultural) activity in relation to them and related pests

Sample

79 standard VIII students from two classes in a school in Calicut district of Kerala in June 2012 were conveniently sampled.

Tool

A picture based group test, comprising of forty clear and visibly large photographs related to coconut (parts, products, pests, and device), paddy (stages of growth, stages of agriculture activity, pests), medicinal plants, vegetable plants, and spice plants comprised the test.

Data was collected by presenting the pictures as PowerPoint presentation via LCD projector in the school Smart Classroom. A brief comment on each photograph, on the aspect to be attended to, was given. Students were to write the name of the plant, its part, or the activity depicted in the image. Scoring was done irrespective of Writing errors, local names.

Results

Table 1

Area of awareness of local flora and fauna in the order of mean percentage score

Area of awareness	Mean Percentage Score
Vegetable plants	56.42
Coconut related	47.78
Spice plants	43.35
Paddy related	18.04
Medicinal plants	15.05

Table 2

Frequency distribution of scores on recognition of nine common medicinal plants

Score	Frequency	Percent	Cumulative Percent
.00	20	25.3	25.3
1.00	27	34.2	59.5
2.00	19	24.1	83.5
3.00	10	12.7	96.2
4.00	3	3.8	100.0

Table 3
Frequency distribution of scores on awareness about paddy cultivation (eight items)

Score	Frequency	Percent	Cumulative Percent
.00	15	19.0	19.0
1.00	28	35.4	54.4
2.00	23	29.1	83.5
3.00	12	15.2	98.7
4.00	1	1.3	100.0

Table 4

Frequency distribution of scores on recognition four common spice plants

Score	Frequency	Percent	Cumulative Percent
.00	5	6.3	6.3
1.00	23	29.1	35.4
2.00	41	51.9	87.3
3.00	8	10.1	97.5
4.00	2	2.5	100.0

Table 5
Frequency distribution of scores on recognition seven common vegetable plants

Score	Frequency	Percent	Cumulative Percent
.00	3	3.8	3.8
1.00	4	5.1	8.9
2.00	10	12.7	21.5
3.00	14	17.7	39.2
4.00	18	22.8	62.0
5.00	10	12.7	74.7
6.00	16	20.3	94.9
7.00	4	5.1	100.0

Table 6

Frequency distribution of scores on awareness about coconut cultivation (twelve items)

Score	Frequency	Percent	Cumulative Percent
2.00	2	2.5	2.5
3.00	1	1.3	3.8
4.00	10	12.7	16.5
5.00	22	27.8	44.3
6.00	20	25.3	69.6
7.00	16	20.3	89.9
8.00	8	10.1	100.0

Table 7

Percentage of students identifying local Flora, related fauna and human activities

High category		Moderate category		Low category		Negligible category		Nil category	
Copra	95	Haystack	58	Paddy	34	Keezarnelli	13	Sankflower	0
Tendercoco	95	Ladyfinger	57	Pea	32	Redweevil	11	Leptocorisa	0
Coconut husk	94	Thumba	51	Mukkutti	29	Ginger	10	Mandari	0
Pepper	91	Cucumber	47	Paddy seedling	29	Paddy germination	10		
Mushroom	86	Nutmug	46	Turmeric	27	Nandyar	9		
Machinga	86	Bitter gourd	46	Sarpasilla	25	Threshing	6		
Moriga	84	Coco. seedling	46	Thalapp (Noose)	23	*Mandaram*	6		
Pongu (sprout)	75	Yam	44			*Katta*	4		
		Cocoflower	43			*Larva*	4		
						Chembaka	3		
						Winnowing	3		
						Rhinobeetle	3		

The above findings points to the loss of cultural languages that encode local knowledge of biodiversity among the young population who have completed primary schooling.

Conclusion and Suggestions

It is a lamentable contradiction for an education system to engage in progressive, revolutionary discourse and have a practice which negates knowledge about the life in the

immediate surroundings. To speak of education – as has the U.N.– as a key process by which we might fend off the worst aspects of today's globalization, and realize more of the utopia in which non-human animals, oppressed human peoples, and the planet are not wholly exterminated . we may be misreading what present educational practices can in fact accomplish. Environmental literacy in our schools is becoming a greenwash.

As experiential forms of "outdoor education" there needs to be a policy of let "No Child Left Inside", but as the philosopher of education Ilan Gur-Ze'ev has noted, "Until today, Critical Pedagogy almost completely disregarded not just the cosmopolite aspects of ecological ethics in terms of threats to present and future life conditions of all humanity. It disregarded the fundamental philosophical and existential challenges of subject-object relations, in which "nature" is not conceived as a standing reserve either for mere human consumption or as a potential source of dangers, threats, and risks" (Ilan Gur-Ze'ev, 2005).

What is required is therefore a dialectical blending of critical pedagogy and environmental education that will allow each to overcome their previous theoretical limitations towards the realization of a more inclusive, critical and transformative ecopedagogy – a goal that appears to have represented Freire's own final position on the matter, it should be noted. In the classroom, emphasize of Critical reflection other approaches to knowledge production and intergenerational renewal are to be ignored, as intergenerational knowledge is the source of self-reliance and as a defense against being subjugated by the forces of modernization. Tomorrow's sustainable society – one that sustains all life, and not just its most powerful elements – if reliant upon education, will require a pedagogical revolution.

References

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