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From surfboard wax to salient health inequity: School programs to develop globally aware and active citizens

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Abstract

During the past century, significant improvements in the prevention, detection and treatment of infectious disease have positively impacted upon quality and quantity of life for many people worldwide. Despite this progress, there are large numbers of people currently living in developing regions of the world where infectious disease continues unabated. SurfAid International is a humanitarian organisation that has brought significant health improvements to the people living on the Mentawai and Nias islands of Indonesia. The SurfAid International Schools Program aims to develop global citizenship and social responsibility by providing a bridge between school settings and the critical work of SurfAid International. This paper provides a rationale for the development of contextualised school based programs and identifies potential impact upon the thoughts and actions of young people in schools.

Introduction

SurfAid International (SAI) is a humanitarian organisation delivering a diverse range of community based health promotion programs. These programs collectively represent effective initiatives to address observed inequity for people living on the Mentawai and Nias islands, off the coast of Sumatra, Indonesia. The following quote, from the Jakarta Declaration on Leading Health Promotion into the 21st Century, emphasises key strategic directions for health promotion emphasised by the World Health Organization (1997, p. 2).

“Health promotion, through investment and action, has a marked impact on the determinants of health so as to create the greatest health gain for people, to contribute significantly to the reduction of inequities in health, to further human rights, and to build social capital. The ultimate goal is to increase health expectancy, and to narrow the gap in health expectancy between countries and groups.”

This paper will demonstrate the motivations behind establishing and sustaining SurfAid International, indicate how the SurfAid International Schools Program can provide a link between global and local settings, and provide a rationale for an integrated SAI focus within the school context.

Addressing health inequity in the Asia-Pacific region

The rise of SurfAid International: A humanitarian organisation

In 1999, physician and surfer Dr Dave Jenkins went on a surf charter to the Mentawai islands with one goal in mind: to find perfect waves. The surf proved to be everything he had hoped for. What he also found though were the Mentawai people, mostly women and children, suffering and dying from the ravages of malaria and other preventable diseases. Dave questioned what he was doing with his own life by pursuing personal career goals, and he found that he was unable to just walk away. It was a defining life moment. He sought support from like-minded individuals and went on to establish SurfAid International, a non-profit organisation dedicated to the alleviation of human suffering through community based health programs. In the aftermath of the 2004 Asian Tsunami and 2005 Nias Earthquake, SurfAid expanded its operations to Nias. With the support of the New Zealand and Australian Governments, the global surfing and wider community, and most importantly the Mentawai and Nias people of the affected areas themselves, SurfAid has come to exemplify the healing power of cross-cultural partnerships.

SurfAid International health programs and initiatives

The mission of SAI is to develop and synthesize a series of proven, high impact and cost effective approaches that create lasting improvements in the health and wellbeing of individuals and communities at increasing scale. SurfAid International anticipates entrusting full control to the communities in the further development of their own health and wellbeing, supported by an environment conducive to reaching their full potential. The following list identifies current SAI programs that are demonstrating successful outcomes. These programs utilise a community based approach and empower the Mentawai and Nias people to facilitate change within their own communities. Further information about these programs can be found via the SAI website; <http://www.surfaidinternational.org>.

Current SAI programs include:

- Mentawai and Nias Malaria Free Programs,
- Mentawai and Nias Community Based Health Programs,
- Katiet Community Health Training Centre,
- Emergency Preparedness (E-Prep) Program,
- Nias Water and Sanitation (Watsan) Program.

Bridging the gap between global and local contexts

In addition to the health and emergency programs listed previously, SAI operates a sixth program, the Schools Program which is supported by its own dedicated website; <http://schools.surfaidinternational.org>. The mission of the SAI Schools Program as outlined through the website (SurfAid International Schools Program, 2009), is to:

“develop global citizens using the humanitarian challenges and achievements of SurfAid International as an educational example for action. The program provides an exciting learning opportunity and educates students about the people of the Mentawai Island region. It encourages the development of global citizenship and a sense of social responsibility along with an understanding of how we as individuals can make a difference in our world.”

A brief history of the SurfAid International Schools Program

The SAI Schools Program was developed from the initiatives of Vivienne Hill in New Zealand and Milton Brown in Australia. They independently saw the value of SurfAid as a vehicle for values-based education and wrote materials for their own schools. The current SAI Schools Program came into being after the engagement and support of two New South Wales Department of Education Curriculum Officers, Karen Yager and Christine Painter. Their involvement provided the impetus for SAI to approach Billabong with a funding request. This approach was successful and a direct response was the development of more detailed teaching and learning materials. The program was officially launched in August 2007 and was attended by representatives from SAI, Billabong, the NSW DET, the Indonesian Consulate and many other community representatives.

The SAI Schools Program provides free resources to registered users, developed for the age range 10 – 17 years. These resources include complete teaching programs, single lessons and individual worksheets. The SAI Schools Program website has a free photo library, music downloads, blogs, forums, news and many other features. These additional resources can be used by schools to develop context specific learning and teaching materials.

Supporting school programs connected to global contexts

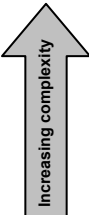
The SAI Schools Program supports the development of school based initiatives and learning opportunities that promote global awareness and active citizenship. The following section will provide a rationale for an integrated SAI focus in a school setting in order to facilitate relevant, meaningful, engaging and effective learning opportunities for students.

School programs to develop globally aware and active citizens

A focus on learning opportunities

Bloom’s taxonomy of educational objectives will be used as a framework for identifying and discussing learning outcomes. Bloom’s taxonomy outlines three learning domains: cognitive, affective and psychomotor (Bloom 1956, cited in Bolin, Khramtsova & Saarnio, 2005). This section will focus on an integrated approach to learning and teaching using the actions and work of SAI as stimulus for developing authentic learning opportunities. Table 1 below provides a simplified demonstration of the cognitive and affective learning domains, represented as a hierarchy to establish a common understanding and basis for interpreting the information to follow.

Table 1. Bloom’s taxonomy of educational objectives – A simplified representation of the cognitive and affective domains (Developed using information adapted from: Anderson et al., 2001; Krathwohl, Bloom & Masia, 1964).

	Cognitive	Affective
	Synthesis and Evaluation <i>Critiquing, judging, appraising, planning, designing, creating, generating & producing.</i>	Internalising Values <i>Integrating values, advocacy, enabling, influencing & philosophical positioning.</i>
	Application and Analysis <i>Comparing, contrasting, executing, implementing, differentiating, organising & attributing.</i>	Valuing and Organisation <i>Prioritising, initiating, endorsing, proposing, appreciating, assuming responsibility & behavioural adaptation.</i>
	Knowledge and Understanding <i>Recognising, recalling, interpreting, classifying, summarising, inferring, comparing & explaining.</i>	Receiving Phenomena and Responding to Phenomena <i>Observing, acknowledging, attending, responding, cooperating, considering, participating, exploring, engaging & contributing.</i>

For the purpose of this discussion, authentic learning opportunities include experiences that allow students to apply knowledge as they explore and investigate the world beyond their immediate learning environment (Callison & Lamb, 2004; Bolin, Khramtsova & Saarnio, 2005). It is through their investigations, that students are provided with opportunities to actively engage in the learning process and ascend both the affective and cognitive learning domain hierarchy.

In recent times, the field of neuroscience has provided a greater understanding of the human brain and cognitive processes. Much of this ongoing research has direct applications to educational contexts, through a greater understanding of cognition, learning outcomes and affective associations. Neuroscientist Susan Greenfield (2000, p. 13) describes the mind as a “*seething morass of cell circuitry that has been configured by personal experiences and is constantly being updated as we live out each moment*”. When students are exposed to authentic learning experiences and challenged to investigate and respond to issues in society, there is a clear amalgamation of both cognitive and affective learning. An understanding of learning processes, from both biological and sociological perspectives is necessary to deliver effective learning opportunities. The following discussion will consolidate biological and sociological perspectives of learning and indicate potential educational outcomes from integrated SAI foci in the school setting.

Educational applications of neuroscience research primarily revolve around inputs to, and outputs from, the limbic system which occupies a central position in the brain. The limbic system, sometimes referred to as the emotional centre of the brain, contains the amygdala which screens sensory input to the brain. The amygdala appears to support an affective association with experience (Zull, 2002). This emphasises the need to capture student interest, attention and curiosity as a starting point for ongoing engagement through intrinsically motivating experiences. The inclusion of SAI foci may help to capture student attention, either through an inquisitive interest in other cultures and the experiences of other populations or associations with popular culture.

Outputs from the limbic system are sent to higher regions of the brain for further processing. From here, the process of neuroplasticity determines what learning takes place, as well as the complexity and strength of learning. Neuroplasticity allows learning to occur through the generation of new nerve cells connected to different regions of the brain or through expansion and retraction of existing neural networks (Azmitia, 2007; Will, Dalrymple-Alford, Wolff & Cassel, 2008). Brain imaging studies have demonstrated that active learning processes can engage many areas of the brain including the emotional centre (limbic system) and can result in extensive activation of the frontal lobe of the cortex, the region responsible for higher order functioning including reasoning, planning and problem solving (Poldrack, 2001, cited in Zull, 2002). Through an inquiry based approach, a SAI focus could act as the vehicle for developing more extensive neural networks developed to support higher order cognitive and affective processes. Engaging students in meaningful investigation of real world issues helps to promote student interest, enhance motivation and provides a platform for influencing future thoughts and actions. In essence, this represents a process that maximises learning and supports the development of lifeskills for a future beyond the school gates.

An integrated SAI focus within the school setting provides an opportunity to enhance both cognitive and affective learning, through authentic learning experiences and tasks that reflect the principles of global education and values education. Global education “*involves learning to understand and appreciate our neighbours who have different cultural backgrounds from ours; to see the world through the eyes and minds of others*” (Tye, 1991; cited in Tye, 1999, p. 17). An effective values based approach to education on global issues has the capacity to influence attitudes and develop informed citizens who are capable of, and feel compelled, to take action (Halstead & Pike, 2006). Within the individual, there is an observable shift from global awareness to global consciousness and finally active citizenship. This can be achieved through learning opportunities that move beyond a focus on values clarification to dispositions to act (Aspin, 2002; Halstead & Pike, 2006). When students start to gravitate towards a more altruistic focus, they go beyond simply understanding and appreciating diversity, to a point where they can demonstrate active citizenship. It is through this process that students can develop higher order functioning through both the cognitive and affective learning domains, as evident through table 1. Staley (cited in Tye, 1999, p. 58), recognised the most widespread approach for developing global education programs occurs via “*the infusion of global perspectives, ideas and activities into existing curricula*”. If you take the time to glance through the range of syllabus documents evident in the Australian context, a common feature of many is an emphasis on the development of lifelong skills and provision of opportunities for students to become autonomous and critically reflective citizens. Table 2 indicates the general alignment of potential educational outputs and productive pedagogies (Education Queensland, 2002) with the cognitive and affective learning domains.

Table 2. General alignment of educational outcomes and productive pedagogies with learning domains.

Cognitive →		← Affective
<ul style="list-style-type: none"> • Inquiry process (investigation) • Deep knowledge and understanding • Higher order thinking 	<ul style="list-style-type: none"> • Social responsibility • Active citizenship (empowerment & motivation) • Health issues – inequity & complex relationships • Global consciousness • Egocentric → Altruistic 	<ul style="list-style-type: none"> • Cultural knowledge • Narrative • Global awareness and connectedness • Values clarification

Alignment with curricular and co-curricular foci in a school setting

When considering new curricular and co-curricular offerings, a careful examination of the school context is necessary. All schools exhibit their own unique characteristics. School variations range from subtle nuances to significantly different ethos and ideologies. Table 3 identifies a range of potential SAI applications in a school setting. This table should not be

viewed as an exhaustive list, but rather a sample of possible applications, viewed as stimulus for generating additional ideas. Please note that this information can be interpreted and applied in different ways, according to the school context. Examples for the curricular category include:

- Development of rich tasks based upon real issues in society applied across the curriculum – *Integrated knowledge, skills and processes*;
- Applied tasks and learning experiences within traditional subject domains.

Table 3. Potential applications within a school context.

Curricular	Health and Physical Education
	<ul style="list-style-type: none"> • Health of specific populations • Health status, inequity and social justice • Investigating health issues and health promotion – Examples: Infectious disease (water-borne & vector-borne), nutrition & community programs • Physical activity and recreation studies – Surfing, surf awareness & lifesaving
	Studies of Society and Environment
	<ul style="list-style-type: none"> • Geography • Culture • Resources and sustainability • Social responsibility
	Science and Mathematics
Co-curricular	<ul style="list-style-type: none"> • Ecology • Climate and weather • Natural disasters • Understanding & presenting data
	English
	<ul style="list-style-type: none"> • Interpreting, analysing and composing texts • Narrative communication
	Design, Technology and The Arts
	<ul style="list-style-type: none"> • Communication methods and tools • Solutions for managing health issues
	Social action
	<ul style="list-style-type: none"> • Student groups
	Sport and Recreation
	<ul style="list-style-type: none"> • Surfing - recreational activity or competitive sport

A challenge for you

Recognising opportunities in the school setting

Take some time now to consider how you could develop an integrated SAI focus within a school setting. What new experiences and opportunities could be offered to the students within this context? Figure 1 below outlines a framework for conceptualising an integrated SAI focus within a school setting.

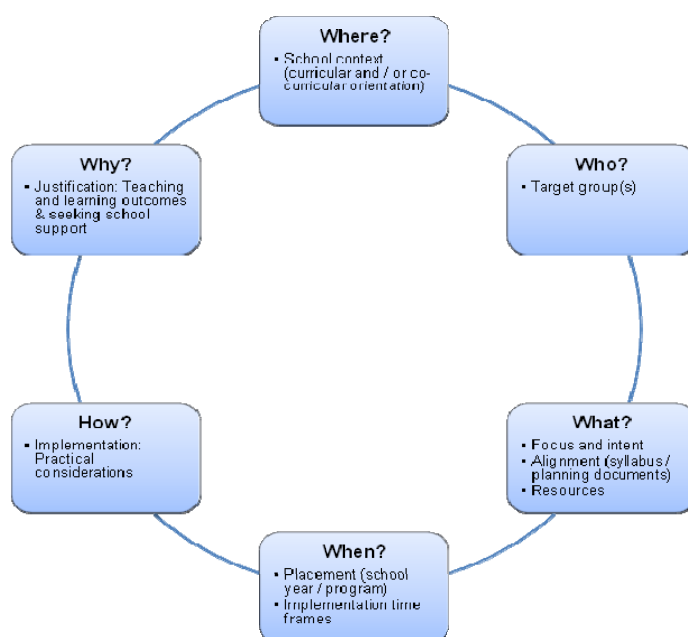


Figure 1. A framework for conceptualising an integrated SAI focus within a school setting.

Committing to the challenge and building a support network

If you can identify a place for an integrated SAI focus within a school context, we challenge you to develop your thoughts and ideas, conceptualise a plan and be prepared to share it. Identify individuals and groups within and beyond the school setting who may help facilitate change. As you conceptualise the plan, carefully articulate the reasons behind your proposal. An ability to justify your thoughts and actions will be necessary when you reach a discussion stage.

Conclusion

The future of the world rests in our ability to move from a focus on globalisation with its economic prominence towards a shared global consciousness which recognises the importance of intercultural understanding. A real and ongoing connection exists between the surfing community and the people of the Mentawai Islands. It is this connection that has highlighted opportunities to address inequity, improve health status and strengthen social capital. Schools have the capacity to empower students and enable the next generation to change their world for the better. This might sound like an idealistic notion, however the astute provision of engaging and meaningful learning opportunities can have a positive influence on thoughts, attitudes, values and actions. Infusion of SurfAid International foci within the school context could provide a way to achieve these educational outcomes through authentic learning experiences structured around real issues in society.

References

- Anderson, L., Krathwohl, D., Airasian, P., Cruikshank, K., Mayer, R. Pintrich, P., Raths., J. & Wittrock, M. (2001). *A Taxonomy for Learning, Teaching and Assessing*. Sydney: Longman.
- Aspin, D. (2002). An Ontology of Values and the Humanisation of Education. In S. Pascoe (Ed.), *Values in Education* (pp. 12 – 24). Canberra: The Australian College of Educators.
- Azmitia, E. (2007). Cajal and brain plasticity: Insights relevant to emerging concepts of mind. *Brain Research Reviews*, 55 (2), 395–405.
- Bolin, A., Khramtsova, I. & Saarnio, D. (2005). Using Student Journals to Stimulate Authentic Learning: Balancing Bloom's Cognitive and Affective Domains. *Teaching of Psychology*, 32 (3), 154 – 159.
- Denman, S., Moon, A., Parsons, C. & Stears, D. (2002). *The Health Promoting School: Policy, Research and Practice*. London: RoutledgeFalmer.
- Education Queensland. (2002). *A guide to Productive Pedagogies: Classroom reflection manual*. Retrieved 30 January, 2007, from http://education.qld.gov.au/public_media/reports/curriculum-framework/productive-pedagogies/.
- Greenfield, S. (2000). *The private life of the brain: Emotions, consciousness, and the secret of the self*. New York: Wiley & Sons.
- Halstead, J. & Pike, M. (2006). *Citizenship and Moral Education: Values in action*. London: Routledge.
- Krathwohl, D., Bloom, B., & Masia, B. (1964). *Taxonomy of educational objectives: The classification of educational goals. Handbook II: Affective domain*. New York: David McKay.
- SurfAid International Schools Program. (2009). *Mission statement*. Retrieved March 30, 2009, from <http://schools.surfaidinternational.org>.
- Tye, K. (1999). *Global Education: A Worldwide Movement*. Orange, California: Interdependence Press.
- Will, B., Dalrymple-Alford, J., Wolff, M. & Cassel, J. (2008). The concept of brain plasticity – Paillard's systemic analysis and emphasis on structure and function. *Behavioural Brain Research*, 192 (1), 2-7.
- World Health Organization. (1997). *Jakarta Declaration on Leading Health Promotion into the 21st Century*. Fourth International Conference on Health Promotion, July 21 – 25. Geneva: World Health Organization.
- Zull, J. (2002). *The art of changing the brain: Enriching the practice of teaching by exploring the biology of learning*. Stirling: Stylus.

Author's notes

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