

2, 6, heave! Sail training's influence on the development of self-concept and social networks and their impact on engagement with learning and education. A pilot study

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Abstract

It is difficult to provide disengaged youth, who are at risk of not fulfilling their potential, with the social support necessary to remain active contributors to society. They are more likely to fail and drop from education greatly reducing the prospect of becoming constructive, productive community members. Consequently strategies to promote engagement with learning and education need to be investigated. This study explores the impact on an individual's self-concept and social networking skills through participation in an experiential learning program at sea conducted in Australia's national sail training ship *STS Young Endeavour* and how this may influence student engagement with learning and education. Using qualitative interviews, engagement with learning and education of five participants from different educational backgrounds was examined pre and post voyage. The results suggest participation in the *Young Endeavour* program had a positive effect on development of social relationships, general self-concept, motivation to study, and sense of purpose for learning. Key contributing factors appear to be experiential learning activities specifically designed to support the development of greater self-concept and social skills such as climbing aloft, working together as a 'watch' and taking control of the vessel.

Keywords: Sail Training, , Self-Concept, Learning, Engagement, Education, Social Networks, Experiential Learning.

Introduction

Youth disengaged with learning are at risk of not fulfilling their potential and often become very difficult to be provided with the social support necessary to remain active contributors to society. Similarly, disengaged youth who do return to study are more likely to fail and drop out greatly reducing the prospect of creating constructive productive community members (Henry, Knight & Thornberry, 2012; Kirjansson, 2007). Consequently there is a need to identify strategies to promote engagement with learning and education. One such strategy is the use of experiential education.

Successful experiential learning is described by Priest (1993) as an approach to training and development utilising activities involving some form of perceived physical or emotional risk to bring about positive changes in individuals. Here learning is based in real world situations with both a social element and immediate consequences that in turn allows for future learning to occur (Wojcikiewicz & Zachary, 2010)

Among many experiential learning proposals that might be useful to reengage students with education – such as sports, project-driven programs, outdoor education - this paper analyses sail training as one potential avenue to provide disengaged youth students with tools to pursue further learning.

An experiential learning voyage aboard Australia's national sail training ship *STS Young Endeavour* requires youth aged 16 to 23 to live at sea

in close confines with up to 36 other people they have previously never met, aboard a 33 meter tall ship for 11 days. During this time they engage in a number of experiential activities including; climbing a 30 meter mast, participating in teamwork activities such as sail-handling, conducting regular ship duties, steering the vessel and taking control of daily operations. *2,6, Heave!* is a common call requiring all members of a sailing team to heave together to complete a task one person cannot accomplish alone. This becomes synonymous with the ethos of a sail training voyage which is - working together achieves more than working alone. Participants are also involved in a number of targeted debriefing scenarios which provide opportunities for both reflections on behaviours, feelings and attitudes, as well as how these informed thoughts can be related to life beyond the voyage. This paper shows how, by increasing opportunities to '2'6' heave together, sail training is likely to transform young people's lives in ways they could not imagine at first. We use the term experiential education rather than outdoor education in this paper as the ship and the marine environment appear to provide a context for the experiential elements of the program participants identified as being influential in their learning.

Burns, Collin, Blanchard, De-Freitas and Lloyd (2008) argue engaging and connecting young people in the broader social life is one of the key issues for Australian contemporary society. The authors believe that engaged young people are better prepared to become healthy adults with a greater potential to contribute to the society. They affirm that "young people, who are provided with opportunities

to participate, experience a better quality of life and contribute to creating and building better communities" (p. 4).

In this paper we offer insights about a sail training experience from five young Australians who participated in a voyage with *Young Endeavour* and how this impacted their engagement with learning and education upon their return. We engaged in qualitative conversations both pre and post voyage, in order to have the participants reflecting on how their sail training voyage might impact their further involvement with education.

By looking at behavioural, affective and cognitive aspects of the participants' engagement, we aim to provide a better understanding of aspects where sail training seems to be a potentially good strategy to reengage youth in education. Kristjansson (2007) suggests it is the teacher's role to "promote healthy self-esteem" and self-concept and attempt to engage students with low self-esteem (p. 249). Our particular focus in this paper, therefore, is the role sail training has in improving young people's social self-concept, and in doing so, determine if they would be more motivated to pursue further education.

Exploration of the available literature into the effects of sail training on individuals revealed minimal research into the links between sail training and education resulting from self-concept and social relationships. None were found in an Australian context. This paper aims to fill this gap. A central question, therefore, driving this investigation is: "will participants returning home from a sail training voyage be more committed to formal learning and be better able to engage with others and develop social relationships?" A second question asked is "what key activities conducted as part of the sail training program can be attributed to enhancing commitments to future learning and social relationships?".

We start by briefly reviewing literature on engagement with education and how self-concept plays a key role. We investigate how a sense of belonging is a central component of engaging youth in education, and how experiential learning programs can be a positive way to improve these outcomes. Then, after discussing specific aspects of social connection and self-concept in sail training programs and briefly explaining our research design and methodology, we move to our data. By giving voice to the participants of this research, we intend to make an argument that sail training offers an excellent opportunity to reengage youth with not only education, but also their broader social life. The study concludes with some insights about how a sail training voyage may influence an individual's ability to form new social connections as

well as develop various aspects of their self-concept and how this may impact engagement with learning and education. Through the participants' voice, it is possible to see how they all agree the social bonds developed during their voyage are a strong asset for them to rethink their life and involvement in learning.

Engagement with Learning and Education

Lipps, Norris and Pignal (2003) define school engagement as the "involvement in, and emotional identification with, the social and academic realms of school" (p. 2). Engaged students are often described as those who feel a sense of belonging with their peers and the school environment and have a greater self-concept including how valued they feel as an individual (Harris, 2011; Wang, Willett & Eccles, 2011; Appleton, Christenson, Kim & Reschly, 2006). Furthermore Green et al. (2012) have described engaged students as those who experience academic success, feel good about themselves and contribute to the class environment.

Engagement with education has been defined as energy in action and the "time and energy students devote to educationally sound activities inside and outside of the classroom" (Wawrzynski, Heck & Remley, 2012 p.106). It is recognised as having three distinct components; cognitive, behavioural and affective (Fredricks, Blumenfeld & Paris, 2004; Christenson, Reschly & Wylie, 2012; Wang et al., 2011). Specifically in Wang et al.'s (2011) model of engagement, the cognitive engagement component relates to the metacognitive strategies employed by an individual in a learning task. This entails planning, monitoring and evaluating their cognition and is inferred in the model through self-regulation, strategy selection and usage. Accordingly, behavioural engagement in the model encompasses attention and compliance. The emphasis for behavioural engagement is on individuals' conduct and practices such that they apply themselves to pay attention, participate and complete tasks and avoid disruptive behaviours. The affective component relates to feelings associated with social belonging and connectedness and the value placed on the individual and their efforts. Figure 1 displays a visual representation of Wang et al.'s (2011) model of engagement and the three distinct components and their related subcomponents.

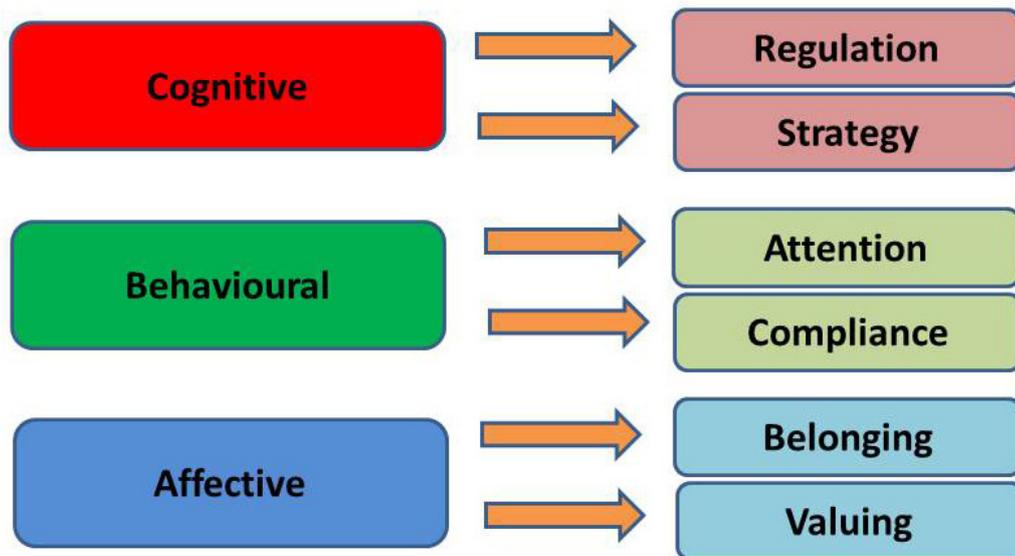


Figure 1: Six Factors of Engagement Model adapted from Wang et al. (2011)

The above model is noteworthy because it acknowledges the multi-dimensional nature of engagement. It demonstrates for optimal engagement in a learning task to occur, individuals need to be invested cognitively, emotionally and behaviourally. This model is well established and has been validated in schooling contexts but this study will be one of the first to examine the model in an experiential sail training context (Wang & Eccles, 2012). The model provides a framework to examine engagement in sail training across three distinct yet interrelated components and importantly contributes to our understanding of what elements are most influential to promoting young people’s engagement. This will provide teachers and instructors the information to help reduce disengagement, especially from education and learning.

Research shows that people and context are influential in affecting levels of engagement (Appleton, Christenson & Furlong, 2008). Hosie (2007) highlights engagement with learning and education can be reflected in the “experience of education” such as the enjoyment of being there and the social interactions (p. 336). Therefore poor affective engagement can often lead to decreases in behavioural engagement, poor social interactions, an overall decrease in their participation and an ability to attend and employ effort (Ma & Kishore, 1997). Van Ryzin (2011) suggests students with a greater sense of affective belonging have a higher level of social interaction and engagement.

Sense of Belonging

Li (2011) describes the sense of belonging through social connectedness and an individual’s ability to create social bonds as an important factor in affective engagement. The confidence, skills and techniques for creating positive social interactions can help individuals generate opportunities for increased engagement with education and the formation of social bonds when individuals have opportunities to positively interact with “other members of the social group” (p.141). The greater the sense of belonging and connectedness, the greater the engagement. “Having friends who value education can enhance the benefits of student engagement on school completion” (Ream & Rumberger, 2008, p. 123).

Komaraju, Musulkin and Bhattacharya (2010) suggest that social connections extend to the staff and students of the educational environment and when positive interactions occur it results in individuals increasing their academic self-concept and engagement with learning. Conversely when these interactions are not present, disengagement can occur. Hence, by developing the ability to form social networks, it is more likely that a person will also improve their self-concept, enhancing the likelihood to engage in education (Garst, Scheider & Baker, 2001).

Engagement and Self-concept

Parker and Martin (2008) indicate a way to increase engagement with learning is through interventions designed to enhance students’ self-

concept through the building of their self-perceptions and their capabilities (Simons, Capio, Adriaenssens, Delbroek & Vandebussche, 2012). Skinner, Connell, and Wellborn (1990) demonstrated in their path model that engagement in learning was influenced by increases to self-concept as a result of perceived social support. Experiential learning often entails developing strong social supports to accomplish novel learning tasks. In sail training, social supports are encouraged through team building activities on board the ship. It is predicted that building social support and involvement in on board activities, will increase an individual's self-concept which will lead to greater engagement in a given task (Grocott & Hunter, 2009).

Marsh and Shalveson (1985) have proposed a hierarchal model of self-concept which has been empirically tested and confirmed in recent studies (Tang, 2011; Moller, Retelsdorf, Koller & Marsh, 2011). At the apex of the hierarchy is general self-concept and this is dichotomised into academic and non-academic self-concept. These two domains are further devolved into distinct facets. Specifically, academic self-concept is devolved into verbal/academic and maths/academic self-concepts whereas non-academic self-concept is devolved into social, physical, and emotional self-concepts. Social self-concept refers to how people interact with peers and significant others; physical self-concept is their perceived physical ability and how they see themselves physically; and emotional self-concept is related to their particular emotional state.

The following sections look at how experiential learning, specifically sail training, can enhance the self-concept and sense of belonging and therefore affective component of engagement with education of the participants.

Experiential Learning and Effects on Self-concept

As indicated experiential learning uses challenging activities with a perceived element of risk to provide an avenue for participants to expand their personal limits, increase their self-concept and widen their personal comfort zone (Priest 1993). The lessons and skills learnt from these experiences can then be translated to other environment and aspects of participants lives (Wojcikiewicz & Zachary, 2010).

Hattie, Marsh, Neill and Richards (1997) established a baseline of the impact upon individuals through a meta-analysis of a number of experiential learning programs. They identified a relationship between improved academic achievement and program participation. Bloom, Loughead and Newin (2008) suggested participation in team-building programs boosts both non-academic and academic self-concept highlighting participation in both elite and recreational team-building activities

with "intellectual, physical and emotional problem solving tasks and challenges" resulting in a significant increase in an individual's self-concept in a number of areas including "scholastic competence" (p. 45). It is suggested intellectual activities impact a person's academic self-concept while the physical activities impact non-academic self-concept and emotional challenges impact upon both (Larson, 2007; Goldenberg, McAvoy & Klenosky, 2005; Garst et al., 2001).

Sail Training, Social Connectedness and Self-concept

In order to increase the likelihood of students engaging with school it is important they feel good about themselves, their capabilities as a learner and their ability to form social connections. The literature reveals a number of studies linking participation in land-based experiential programs to increased self-concept (Garst et al., 2001) and increases in social connectedness (Hazelworth & Wilson, 1990). To date few studies have investigated the effects upon self-concept and social connectedness from participation in sail training as a water-based experiential program. In addition, few studies exploring the links between increases in non-academic self-concept, the generation of social networks and increases to engagement with learning and education, have been found.

Sail training comprises structured challenges in a unique environment which aims to increase an individual's physical and general self-concept. Previous research shows that gains to general self-concept can filter through and have a positive influence on academic and non-academic self-concepts (see for example Huang, 2011; Tang, 2011; Byrne & Shavelson, 1986). Therefore, utilising the hierarchal structure of self-concept mentioned above (Marsh and Shalveson, 1985), it is possible to hypothesise sail training may lead to improvements in an individual's general self-concept which may translate to improvements in academic self-concept and thus have a positive impact for the re-engagement of these participants with learning and education (Bloom et al. 2008; Larson, 2007; Goldenberg et al., 2005). The uniqueness of a sail training environment, the at-sea factor, is often an environment both new and unsettling to many participants. It also limits personal space and often combines the requirement to deal with motion sickness and unpredictable environmental conditions thereby increasing the level of difficulty and subsequent feelings of achievement. Anecdotally participants express a feeling of increased self-concept after facing these challenges and appear to put future challenges into a new perspective based on what they have accomplished during their time at sea.

An international study into the psychological effects of sail training found programs such as the one conducted in *Young Endeavour* contribute to participants developing improved social self-concept through an increase in their perceived ability to interact socially with their peers by working in and developing effective teams and peer groups (McCulloch, Allison, McLaughlin, Edwards & Tett, 2010). This study did not however investigate links between this and an engagement with learning or education.

Finkelstein and Goodwin (2005) found participation in *Young Endeavour's* sail training program had improved "civic identity formation" and an ability to work with others. This was achieved by facilitating participants in developing a positive physical self-concept which could be "transferred to other areas of the participants' lives" (p. 18). This study also did not explore the subsequent impact on engagement with learning nor articulate how this transfer occurred. A review of the literature to date does not reveal any further studies into the effects participation in sail training has on other domains of self-concept or on the cognitive, affective or behavioural engagement with learning.

Method

Research Design

The design of this study aimed to create a richness of detail to provide an understanding of each of the five participants' overall engagement with education after undertaking a sail training voyage. Wang et al.'s (2011) model of engagement provided a theoretical underpinning for exploring the participant's engagement in a water-based program and the subsequent effects on each individual through the qualitative recording and analysis of the participant's thoughts and feelings to semi-structured interviews. Creswell (2009) described this approach as social constructivist since the views of "participants can construct the meaning of the situation" and where the researcher must "interpret the meanings others have about the world" (p. 8).

Qualitative interviews for research into experiential learning is supported by Martin and Leberman (2005) who argue although a significant amount of past research into the effects of these programs has been quantitative, it is qualitative data that better highlights the cognitive affects participants experience following participation in the program. Qualitative data can provide an insight into an individual's learning experiences highlighting the perceived value of experiential learning. "Research must move towards trying to encapsulate the meaning of these experiences to individuals by valuing the words they attribute to their learning" (p. 57).

It was necessary to identify a sail training vessel and program with an appropriate range of participants. In this case *Young Endeavour* conducted voyages with 24 youth aged between 16 and 23 years old who had been randomly

allocated from a ballot of applications received earlier in the year. This age group represented students engaged in education in high school, the Technical and Further Education Commission (TAFE), university and other vocational training environments. Anecdotally this diverse range of participants in a sail training voyage includes a portion of individuals who are in the process of disengaging with learning and education or who have already disengaged.

All 24 youth assigned to the selected voyage were invited to participate in the study. Of the respondents, five were selected to cover as wide a range of educational backgrounds and experience as possible. This approach allowed an exploration into the impact of sail training on engagement with learning and education across a wider demographic.

Participants

Participant 1: Female aged 20. Described her educational experience as poor. Interactions with particular social groups resulted in disillusionment with the education system and a poor attitude to learning and education overall. After leaving school Participant 1 did not return to a formal learning environment.

Participant 2: Female aged 18. Also described her educational experience as poor during the last 18 to 24 months. External pressures and poor social interactions resulted in lack of motivation ultimately leading to a withdrawal from high school.

Participant 3: Male aged 16. Described his educational experience as being driven to do well. Participant 3 indicated a strong engagement to succeed in learning and described a social competitiveness with his fellow students as a primary driving force.

Participant 4: Male aged 18. Described his educational experience as being home-schooled. In this regard social pressures found in a traditional educational environment were not present however, social interactions with other home-school individuals was regular. Participant 4 had followed up home school with a series of TAFE courses but expressed a lack of direction as to where to go next.

Participant 5: Female aged 20. Described her education experience as uninspiring with particular note to social interactions with fellow students resulting in disillusionment with educational settings and reduced drive to do more than the minimum requirement.

Table 1 provides details for each of the participants including their previous educational experiences and reason for enrolling in Sail Training.

| Participant | Gender | Age (yrs.) | Educational Experience | Reason for Sailing |
|-------------|--------|------------|-----------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| 1 | Female | 20 | High School / Currently not enrolled in formal education* | To have more confidence in myself and around others. Also to improve my teamwork and leadership skills |
| 2 | Female | 18 | High-school, Not completed / Currently not enrolled* | I wanted to prove to myself that I could do it. |
| 3 | Male | 16 | High school - Current | Just a chance to do something new – a bit of variety |
| 4 | Male | 18 | Home- schooled / TAFE / currently not enrolled.* | Adventure. An opportunity for a life experience I wouldn't normally get and the chance to meet new people. |
| 5 | Female | 20 | High school / current university undergraduate | To challenge myself and increase my confidence. |

*Note: * Those participants not enrolled were in various stages of considering undertaking further study but had made no commitment to doing so.*

Noting the study's aims of investigating causes for any impacts upon engagement, it was determined qualitative interviews conducted before and after the voyage would enable a comprehensive exploration of each individual's perceptions not possible with quantitative methodologies. The focus of the analysis was to identify changes in attitudes towards engagement and how the participant perceived or attributed sail training as the cause immediately upon return.

Interviews

The semi-structured interview questions were influenced by the work of Wang et al. (2011), McCulloch et al. (2010), Berman, Finkelstein and Powell (2006) and Martin and Leberman (2005) and were conducted pre and post voyage. They were designed to illicit deep responses with critical reflection on the activities that occurred during the sail training voyage (Creswell, 2009; DiCicco-Bloom & Crabtree, 2006). The questions focussed on drawing out the significant features that contributed to engagement with learning including the development of social networks and individual self-concept.

The pre voyage interview was designed to measure the engagement with education of the individuals and establish a base line immediately before the voyage. They took the form of a forty five minute face-to-face discussion and were arranged with each of the participants on the day of their departure. The post voyage interviews were arranged one

week following the voyage completion to highlight any impacts on engagement with learning and education resulting from the sail training program intervention. Grocott and Hunter (2009) highlight the need to guard against post group euphoria where an individual's response to questions can be influenced by the positive feelings generated by the feelings of success in completing a challenging program. It should be noted the individuals were interviewed in isolation from their peers and in all cases had not had the opportunity to re-engage with their peers since returning from the voyage. This reduced the potential social desirability factor in their responses in relation to their peers however, there may still have existed social desirability with regards to the interviewer - interviewee relationship.

Reflections generated within the interview process were forward reaching asking for critical evaluation of changes in their ability to develop social networks, the development of their self-concept and what activities within the voyage may have contributed to any impacts displayed or reported in the discussion. It is important to note the "bulk of the discussions were shaped by following-up on participants' comments or questions" during the interview (Wilson, 2009, p. 7).

Analysis and themes

Good qualitative data is as unbiased as possible” (LeCompte, 2000, p. 146). In this study data was drawn directly from individual experiences unique to each participant (Dibley, 2011). Data from the pre and post voyage interviews were coded against key factors that were identified based on the frequency of their appearance in the responses (LeCompte, 2000).

Participants’ responses were grouped into common themes related to the outcomes achieved during the program along with the particular activities the participants identified themselves as being responsible for the effects recorded. These were then matched against Wang et al.,’s (2011) model of engagement. The use of a narrative approach for each of the five participants allowed an analysis of the data from the perspective of the individual themselves by exploring how the responses related to the theories inherent in the research (Creswell, 2009) including the nature of self-concept, its hierarchical structure and the interactions between its different domains (Marsh, 1990; Byrne & Shavelson, 1986). This style of analysis helped explore and record data meaningful and relevant to the individual in relation to their engagement with education and the voyage itself.

This amalgamation of trends, common themes and categories of engagement has been used by several studies utilising semi-structured and in-depth interviews with a few informants in order to compare and contrast thoughts and experiences (Knijnik & Tavares, 2012; Hall, 2011; Burke & Hallinan, 2006).

Results and Discussion

Drivers of engagement with learning through Sail Training

Based on the responses reviewed, participation in sail training appears to have a positive impact on an individual’s perceptions of, and attitudes pertaining to, engagement with learning and education. Interestingly, but expectedly, the impact appears to be different for each individual and seems to be influenced by personal circumstances, academic and non-academic backgrounds and individual desires.

Following Wilson’s (2009) recommendation of “breaking down the responses into categories” (p.9), four common themes were consistently raised as being influential to engagement with learning. These four themes comprised: Friendships and social networks; motivation to learn; a strong sense of purpose behind learning; and the individual’s self-concept. This article will focus on the social networks and self-concept components of the findings.

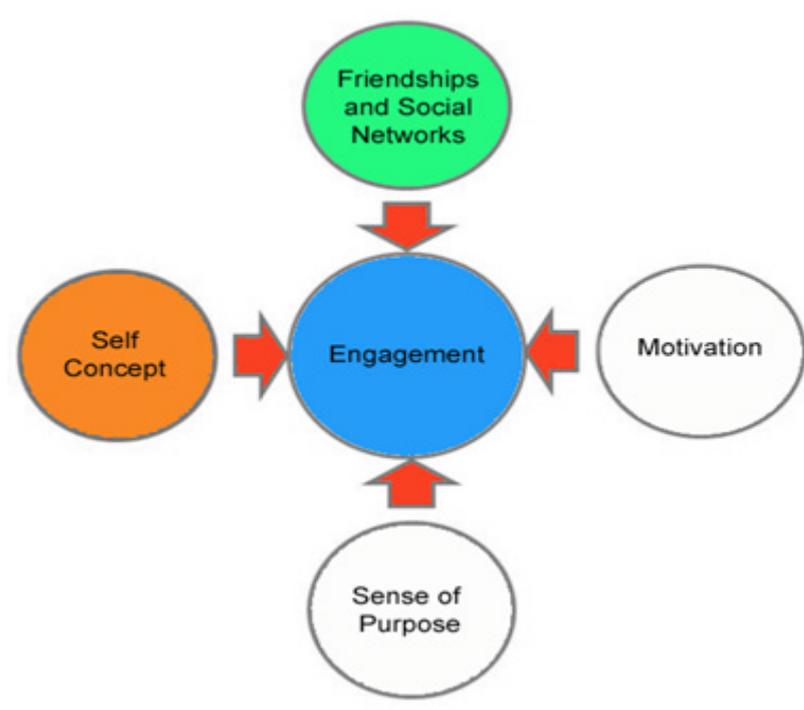


Figure 2: Factors affecting Engagement with Learning

Social Networks

Common responses demonstrated the greater ease with which participants could now form new social networks which in turn seemed to positively impact the affective-belonging factor of engagement. Following the voyage Participant 1 indicated the onboard activities provided her with an opportunity to develop an ability to be assertive, open up to others and establish wider social networks

Before the voyage I was very passive and wondered “should I say this” but during the voyage I was able to just say what was on my mind.... Just being more assertive in the way I talk to others whilst thinking of other people and how they’ll feel when I say those things.

Participant 2 indicated she felt

...a little bit more part of the community now...

while Participant 3 suggested participation in the sail training program

...makes me more comfortable with people I’m not best friends with....

Participant 4 suggested the newly developed social networking ability positively influenced their engagement with the academic learning tasks

When you’ve made friends with people there, you can talk about class assignments and stuff and help each other out.

This is further supported by Participant 3’s response

...enjoying classes keeps me motivated. Sometimes you enjoy really doing an assignment and I guess probably half of it comes from my group of friends.

Participant 3 acknowledges the importance peer networks have on driving their personal motivation for learning and the contribution to their sense of self belief.

Social networks established during the experience help build social self-concept (Marsh & Shalveson, 1985; McCulloch et al. 2010) and positive social interactions appear to have a positive effect on engagement within the educational setting through the forming of social networks and being more at ease with others. This allows a greater sense of belonging to develop which in turn promotes engagement with learning and education (Harris, 2011; Wang et al., 2011).

I definitely feel a little bit more a part of the community now. (Participant 2).

Participant 1 suggested the voyage

...made me feel more at ease to know I’m in a comfortable environment and when you talk to the teachers and fellow students you feel safe knowing that they are there for the same reason you are....

Li (2011) suggests social connectedness and the individual’s ability to create social bonds is a factor in the affective belonging and valuing components of engagement with education. These bonds are formed when individuals have opportunities to positively interact with “other members of the social group” (p. 141).

When you’ve made friends with people there you can talk about class assignments and stuff and help each other out. But when you don’t click with anyone you don’t get that ... I think I’ll enjoy the course better because I’ll enjoy talking to the people about it more. It’s the people that make things fun. (Participant 4).

Li (2011) argues the greater the feeling of belonging the greater the engagement. The sentiments expressed by Participant 4 directly relate to the concepts of both affective and evaluative self-concept (Irwing, 1996). The statement:

I’ll enjoy talking to people about it more.

suggests participation in the sail training program has a positive impact on increasing affective self-concept and the statement

When you’ve made friends with people there you can talk about class assignments and stuff and help each other out.

relates to the evaluative component of self-concept where the participants have seen the value in developing social networks and feel confident in making use of them in the educational environment. This, in turn, creates the opportunities for increased engagement with education. As indicated by participant 4;

You realise that it’s good to team up with people and work together. (...) Its people that make things fun!

This quote indicates the bonds created in the voyage are a positive way to make individuals interact with each other and form a sense of belonging.

Social networks affecting social self-concept

During the structured debriefing sessions throughout the program the participants were asked to reflect how the skills and experiences gained through the sail training program can be transferred into their lives. An example was a debriefing exercise where participants share one positive attribute they have noticed about their peers and one aspect which could be improved. Participant 1 indicated this activity provided her with an opportunity to develop her ability to be assertive, open up to others and establish wider social networks

This really taught me to be more comfortable with who I was as a person ... Just expressing myself in that way to other people.

This in turn seemed to provide the participants with the social self-concept required to become more comfortable in class. Following the voyage Participant 3 indicated

I'm not as reluctant to stick my hand up in the class

Several studies directly involving sail training vessels support the notion of participants developing social skills as well as social self-concept. McCulloch et al. (2010) found participants of sail training programs increased their general self-confidence as well as their social confidence. Finkelstein and Goodwin (2005) demonstrated sail training increases a participant's ability to form new social connections and social networks. Similarly Grocott and Hunter (2009) demonstrate participation in sail training programs generate positive changes in both global and domain specific self-esteem. Marsh and Shalveson (1985) combine the above social constructs into social self-concept.

I didn't realize how easy it was to make friends. I think it makes me more confident with people I'm not best friends with. (Participant 3).

This in turn allows participants to feel more confident in generating these social connections in their educational environment.

Translating social self-concept to academic self-concept

Evidence suggests development of self-concept in one domain, such as the non-academic social self-concept domain contained within experiential learning programs can be translated through the hierarchal

structure of self-concept into other domains such as the academic self-concept (Marsh, 1990). Participant 1 returned from the sail training program with an increased sense of general self-concept and expressed an increase in her motivation to engage in learning

...learning about anything will have a huge impact on your life now and in the future. I'm just willing to learn so much more and pass that on to other people.

Similarly Participant 2 suggests participation in the sail training program increased her motivation to engage academically;

Before the voyage it was a lot harder to start to do work or try to do work whereas now I can try anything and even though I might not succeed I can try to get there.

Once the social connections are made these help increase academic self-concept and motivation to study and thereby increase engagement with learning. Participant 1 felt more attached to her educational environment because she could now talk to staff and students;

Because it makes me feel more at ease to know I'm in a comfortable environment and when you talk to the teachers and fellow students you feel safe knowing that they are there for the same reason you are.

In contrast before the voyage Participant 2 felt a disengagement from her environment due to a lack of interaction with her teachers and fellow students.

They distract the teachers as well and I thought 'what's the point of even being here'. I didn't feel like I was doing what I needed to be doing.

Komaraju et al. (2010) suggest disengagement with learning and education results when positive social interactions between peers and teachers are absent in the immediate learning environment. It should be noted that at the time of the post voyage interview, Participant 2 had not returned to an educational setting. As such no comparison in the interactions with peers and teachers could be identified making it difficult for the participant to effectively analyse and report on any changes as to educational based social interactions.

Undertaking a sail training voyage can help participants develop the skills required to establish a rapport with their fellow students and teachers and

in the process develop social networks and social self-concept. This can enable more positive interaction to occur between staff, students and peers in the educational environment which in turn appears to increase their academic self-concept and engagement with learning (Komarraju et al., 2010).

Finkelstein and Goodwin (2005) describe the developing social interactions in the sail training program as increasing social networks and social capital. Ream and Rumberger (2008) describe how these social networks and formation of social capital allows for the development of greater engagement with learning. Social networks allow individuals to develop friendships and find others with which to share discourse relating to the educational environment (Li, 2011) whilst social capital allows individuals to utilise those networks to the academic advantage (Ream & Rumberger 2008).

When examining how these changes influence their actual engagement with school Participant 1 suggested if she had participated in the program whilst she was at school it may have changed her school experience substantially.

I wouldn't have had gotten mixed up in the wrong crowd so easily. I would have associated with people who want to make the most out of life and not the other way around.

Participant 2 expressed she

...had learnt the ability to let others lead I could sit back and be part of the team and not (always be) the leader of the team.

and could

...put myself out there and to prove that there's nothing to hold me back anymore.

Participant 5 felt she could

...now identify there might be more in common with people that studying the same thing and that's somewhere to start. I'll be more open to seeing if we can find something in common so we can work better together.

These results are supported by Finkelstein and Goodwin (2005) who show participation in a sail training voyage increases participants' desires to contribute to the community.

This is an important social insight as it provides individuals with the motivation to participate fully in the circumstances of their later social life beyond the voyage experience. It is in this role of fostering the creation of networks and alliances that can occur across difference, as well as reinforcing norms of reciprocity and social participation. (p 8).

It is important to acknowledge participants' comments about establishing and maintaining social networks occurred soon after their arrival home from the voyage consequently, the views expressed were based on their intentions for the future. It would be beneficial to follow up with each of these participants to determine whether their intentions came to fruition.

Engagement with learning can be affected by the self-concept and the studies reviewed provide strong evidence to suggest participation in experiential learning can increase an individual's self-concept. Jonson-Reid, Davies, Saunders, Williams and Williams (2005) suggest academic self-concept impacts whether or not students will attempt or persist with learning which has important implications for their "educational adjustment and academic achievement" (Uwah, McMahon & Furlow, 2008, p. 303). In addition Meinhold and Malkus (2005), Ma & Kishore (1997) and Cervone (2000) all found attitudes towards school are influenced by a student's self-concept and their perceived ability to succeed in a particular task. Students with a high academic self-concept may perceive themselves to have a greater ability to accomplish a task, will be more motivated to learn and subsequently more engaged (Logan & Skamp, 2008).

Key activities and causes of impacts to engagement

The participants of this study identified key activities within the sail training program which may have contribute to causing some of the turning points in their engagement with study. Common responses identified the activities of climbing aloft, watch interactions, group debriefs, Command Day, and a community sail as having the most impact. Participant 1 described a debrief exercise where each youth crew is required to say one or more good things about each of their fellow watch members and one thing they can work on as very helpful in developing better relations with others.

... it really taught me to be more comfortable with who I was as a person. Just expressing myself in that way to other people.

Participant 2 attributed the Command Day activity at the conclusion of the voyage where the entire youth crew are handed control of the vessel for 24 hours to be the cause behind the behavioural belonging aspect of feeling more a part of a community.

I definitely feel a little bit more a part of the community now. Definitely with being on board and actually being involved and what not all the time and the fact that I was voted in the galley on Command Day.

Participant 4 highlighted the sail handling aspect of the watch activities as being key to developing his teamwork skills.

I suppose the sailing part where you have to work together to haul on the lines collectively, gather knowledge from the group. Everyone knew a bit but not everyone knew the entire thing but. Just working together to work out exactly how to do something.

These activities appear to develop greater social self-concept through interactions with new people and developing the skills in making new social connections (Finkelstein & Goodwin, 2005). McCulloch et al. (2010) in their study of a number of different vessels with different voyage programs and program implementation, identified programs with a structured approach generated the best results in terms of personal outcomes. In addition Byrne and Shalveson (1986) suggest it is the non-contrived and 'real' activities that seem to improve both "academic and non-academic self-concept domains" (p. 486).

The sense of community and increase in social connectedness generated by experiential learning programs is recognised in a number of studies including Smith, Steel and Gidlow (2010). What is interesting to note here is these previous studies have focussed on land-based outdoor programs and this study indicates similar outcomes can be achieved with sea-based sail training programs. It can therefore be speculated, for further research, other outcomes linking land-based experiential learning with educational changes may also be true with sail training and vice versa.

The identification of these activities in particular help define which components of the sail training program are more responsible for generating the effects on engagement observed.

Re-engaging through Sail Training

The sail training program examined in this study appears to replicate existing research results showing links between developing supportive social networks, increases to self-concept and engagement (Garst et al., 2001). Specifically, the results of this study suggest that participation in a experiential sail training program can enhance engagement with learning due to the development of the individual's physical, social and emotional self-concept. This may be due to the experiential situations and activities such as climbing aloft, sail handling, being real world situations with both a social element and immediate consequences, and when combined with facilitated group debriefs allows for future learning to occur (Wojcikiewicz & Zachary, 2010).

These increases in creating social networks and self-concept appear to translate through general self-concept into an increased academic self-concept and an increased motivation to study both of which have been identified as being factors positively influencing engagement with learning and education. The study also suggests the effects may be applicable across school, university, TAFE and throughout other forms of learning.

Given Appleton et al. (2008) suggest disengagement occurs over time, the results indicate greater benefit to the individual could be achieved if students at risk were identified and provided with an opportunity to participate in experiential sail training earlier to prevent disengagement and promote re-engagement. It is also suggested student participation with experiential learning, such as sail training, conducted after disengagement from an education may still increase the likelihood of re-engagement with a different type of education environment.

The study examined the effects within one week following the sail training program. As such responses may have been affected by participants not having the chance to return to their educational environment and experience the results of their altered feelings of engagement. In addition they may also be affected by post group euphoria and any residual positive feelings about their recent experience. Studies such as the McCulloch et al. (2010) and the Finkelstein and Goodwin (2005) report looked at time scales following the voyage of up to six months in order to determine long lasting effects. Noting the variable nature of attitudes and changing external pressures on the lives of students, future studies should include a six month and a twelve month follow-up interview to identify any long term changes with engagement with learning.

Isiksal (2010) highlights self-concept changes with age, rising and falling as individuals' progress through their lives. Whilst the study showed a positive effect on the participants, further study should explore a much wider age range of participants including primary school, high school, university and adult education. This would help determine any universality of effects and any associated influences such as age or developmental stage of the individual.

In addition studies on sail training identified in the review of the literature were nation specific with the exception of the McCulloch et al. (2010) study which looked at seventeen different programs around the world. Noting the similar ethnic background of the participants in this study, future study should explore cross cultural effects both nationally and internationally in order to determine any universality of findings.

Noting the results generated from the five participants in this pilot study, there is value in investigating further the effects sail training has on self-concept and engagement with learning and education as well as how particular components of the sail training programs cause these impacts. In addition a wider reaching investigation into the similarities and differences between experiential learning on land and at sea may uncover the key ingredients behind the activities causing the benefits listed in this study and those before. This deeper investigation into the mechanisms of how affects are caused, including how impacts in one domain of self-concept generated through the development of social networks within and adventurous learning programs transfers through the hierarchical structure and impacts other self-concept domains can help further identify other possible avenues to generate programs and activities for both educational and extra-curricular environments which in turn may help students become more connected with their community and more engaged with learning and education.

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