



The Australian Journal of **INDIGENOUS EDUCATION**

This article was originally published in printed form. The journal began in 1973 and was titled *The Aboriginal Child at School*. In 1996 the journal was transformed to an internationally peer-reviewed publication and renamed *The Australian Journal of Indigenous Education*.

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HOLYOAKE'S DRUMBEAT PROGRAM: MUSIC *as a* TOOL *for* SOCIAL LEARNING *and* IMPROVED EDUCATIONAL OUTCOMES

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■ Abstract

This article discusses the development, implementation and impact of a social development program developed by the Holyoake Institute in Western Australia for use in schools. The program DRUMBEAT uses hand drumming to engage young people in social learning that assists them in integrating more fully into mainstream school and community life. DRUMBEAT was developed in response to a range of issues that disadvantaged Indigenous youth experienced within the educational system and acted to reinforce entrenched social exclusion. Operational for five years, DRUMBEAT is currently being delivered in over 350 schools across Australia. Since its inception the program has undergone several evaluations. The most recent of these, and the subject of this report, was conducted by researchers at The University of Western Australia and relates to participants in the program during the 2008 school year. This study demonstrated that participants in the program improved their level of self-confidence, reduced their level of behavioural incidents and reduced their level of school absenteeism.

■ Introduction

Education is widely seen as a pathway to improved life quality and a "protective factor" that positively impacts on a range of health and social outcomes (Caldwell, 1993; Frankish et al., 1996). It is clear however, that for Australia's Indigenous population there are significant qualifications required before that connotation can be reasonably drawn. For several decades now Aboriginal and Torres Strait Islander people and their children have been side-stepping increased efforts to improve school attendance by state and federal authorities (ABS, 2006). The reluctance of Indigenous people to fully engage in the educational opportunities absorbed by non-Indigenous Australians is the result of a range of social and cultural factors (Marlin, 2003), and is a key challenge to educators seeking to maximise opportunity within an inclusive educational system.

Accompanying the challenge of low school attendance is increasing behavioural issues that are disruptive to the learning program. In New South Wales for example, school suspensions for Aboriginal students are up to eight times more frequent than for non-Aboriginal students in the same age group (Aboriginal Educational Review, 2006). In Western Australia over one fifth of Indigenous students were assessed with clinically significant hyperactivity associated with restlessness, fidgeting and distractedness (ABS, 2006). Similarly across Australia anti-social behaviour in the classroom is a growing concern and is closely associated with reduced participation in mainstream education (Aboriginal Educational Review, 2006). Student behaviour in the class room is often linked to social dislocation in the home or community and feelings of inadequacy and shame when faced with academic tasks (Aboriginal Educational Review, 2006).

Academic achievement in schools with a high proportion of Aboriginal and Torres Strait Islander children is again in the political spotlight due to consistent levels of under-achievement when compared to Australian educational benchmarks (ABS, 2006). The reasons behind this situation are complex and related closely to cultural and social factors that continue to discriminate against equal and opportune access to educational opportunity (Trudgen, 2000).

In literacy and numeracy and in overall academic performance the most striking deficiencies are evident in remote communities where language barriers and limited services add additional challenges to learning (Trudgen, 2000). There is a strong but complex inter-relationship between school attendance, behavioural difficulties and overall academic ability and this is particularly pronounced among Aboriginal and Torres Strait Islander children. This was reflected in the West Australian Aboriginal Child Health Survey (WAACHS, 2006), which noted both school attendance and behavioural difficulties as key factors in determining success at school.

Another key that defines the experiences of many young Aboriginal and Torres Strait Islander students is that of low self-esteem and self efficacy. Motivation is critical to how well children perform at school and is closely linked to a child's self belief in their ability to succeed (Hallam, 2005). For many young Indigenous children school quickly becomes a place associated with frustration, confusion, self doubt and punishment as they struggle with the difficulties of adapting their primary cultural understanding to the dictums of western educational pedagogy (Groome & Hamilton, 1995; Trudgen, 2000). In the educational environment, levels of self confidence are continuously challenged and both truancy and defiant behaviours can, in part, be linked to the need to protect the ego and reduce this assault on their self-image.

Education is closely linked to social inclusion, a person's ability to integrate fully into the social and economic life of the community and maintain control of their own life (Caldwell, 1993). Education allows people to make informed choices, to find employment, to develop healthy social and behavioural relationships that support communities (WAACHS, 2006). In this context the limitations currently being experienced by Aboriginal youth in education present a considerable barrier to the rights and resources of community life and lifestyle that most Australians take for granted. Not least of these is the right to quality health care and longevity of life. The results of the continued educational disadvantage suffered by Aboriginal youth present themselves in a range of statistical over-representations in problematic health and criminal outcomes (Vinson, 2009).

The Holyoake DRUMBEAT program was developed to specifically target several of the factors that contribute to the level of exclusion and accompanying health risks faced by younger members of the Aboriginal and Torres Strait Islander communities. The school environment was the perfect place to reach out to young people and engage them; and the program was designed to improve the quality of a young person's school experience. As well as aiming to enhance the educational experience of students, there were also seen to be potential "flow on" benefits for the school more broadly. The focus was on developing attributes

that would be transferable to other mainstream school learning situations and assist in integrating the student into the school community.

■ Music and its impact in health and education

Music generally has a strong association with therapeutic healing and more recently with academic achievement (Hallam, 2009). The Holyoake DRUMBEAT program combines these twin benefits. From a therapeutic perspective DRUMBEAT provides a safe vehicle for the release of emotion as well as providing a sense of belonging, connection to community and a reduction in social isolation. Participation in DRUMBEAT has also been linked to reductions in stress and anxiety and improvements in mood (Featherstone, 2008). Multiple studies have demonstrated that participation in music programs are closely identified with improvements in literacy, numeracy, intellectual development and general attainment (Hallam, 2009).

Recent developments in neuroscience have reinforced these benefits; for instance young people who have suffered severe trauma at an early age have been shown to suffer brain impairment and rhythm exercises have been found to be beneficial by acting in support of the regulation of homeostatic states (Perry, 2007). Extensive engagement with music induces cortical re-organisation producing changes that assist the brain in processing and storing information (Schlaug et al., 1995). Music and speech share some processing systems which can lead to enhanced comprehension and improved auditory systems that impact directly on the take up of a second language and reading skills (Sleve & Miyake, 2006, Anvari et al., 2002). Drummers, of all musicians, generate more complex memory traces and musical training that focused on rhythm was associated with increased reading comprehension for young people experiencing reading difficulties (Long, 2007). Rhythmic training is also associated with higher temporal cognition, mathematical ability and improved spelling (Rausher, 2009; Overy, 2003).

The use of the drum is instrumental to the programs success. Drumming is common to all cultures including Aboriginal and Torres Strait Islander traditions, although the type of drum alters widely between communities, from rolled up kangaroo skins to hollow log drums. The Holyoake DRUMBEAT program avoids any cultural classification and does not teach traditional rhythms from any particular cultural or ethnic background. The rhythms taught in the program are derivatives from across the world and as much as possible students are encouraged to make up their own rhythms. This allows for the program to be taught across different communities by a wide range of people without the need for specific cultural knowledge.

A visit to any Aboriginal or Torres Strait Islander community will quickly identify the strong connection Indigenous people have for music in general and drumming in particular. Visiting schools in remote communities it is commonplace to see children drumming on homemade objects or to hear stories from teachers about the constant drumming students do with their hands on their desks. The drum is the perfect tool to facilitate engagement and the relative simplicity and cathartic nature of its practice make it an ideal instrument for those young people who have limited levels of persistence and require opportunities for physical expression. No other instrument attracts in the same way as the drum, is as grounding, or has the potential to engage such a wide range of participants, so immediately. The immediate success that young people have with the drum is another important contributing factor to the high retention rates of the program.

For disaffected pupils particularly, music can lead to greater social adjustment, improved self-reliance and more positive attitudes (Spychiger et al., 1993). Participation increases a sense of belonging, social networks are expanded, social skills refined and confidence and self-discipline improve (Hallam & Prince, 2000). Music provides young people with a strong source of emotional support when they feel troubled or lonely and contributes strongly to their sense of identity and connection to the world around them (Zillman & Gan, 1997).

■ Holyoake's DRUMBEAT program: Theory and origins

The Holyoake DRUMBEAT program was developed in 2003, in the Wheatbelt region of Western Australia. The Wheatbelt is an area of 280,000 square kilometers east of Perth, about the size of Tasmania, with a strong Aboriginal presence of Noongar and Yamatje people. The Holyoake DRUMBEAT program was developed in immediate response to the difficulty of engaging young Aboriginal people in talk based therapies and arose from an idea generated by an Aboriginal Education Officer who was successfully using drumming to reduce tensions between young members of warring families in the town of Northam.

DRUMBEAT is an acronym for "Discovering Relationships Using Music – Beliefs, Emotions, Attitudes and Thoughts". The theoretical underpinnings for the program derive from both social learning theory and family systems theories. Within both of these frameworks there is a common acceptance of the importance of the social context in determining behaviour and facilitating behaviour change. The people around us are a primary influence upon our behaviour. Each of us is born into a social context without choice and this lucky dip starts a pattern of behaviour that may or may not be functional and healthy. Across our lifespan each of us will have

opportunity to develop new relationships and these will substantially determine the quality of our lives (Bandura, 1977).

Raising awareness of the fundamental skills and values that support healthy interaction between people in relationships is the central tenant of the Holyoake DRUMBEAT program (See Figure 1). Social relationships are critical in a wide range of areas that allow for healthy personal development including providing the necessary support for times of emotional stress or general hardship. Relationships are vital for our need to maintain a sense of community and belonging, for improving or maintaining self-esteem and for our sense of identity. Relationships also provide us with a context in which we develop moral judgments and social values and promote interpersonal competence (Smith-Christopher et al., 1993). This emphasis on relationships extends directly to an individual's quality of life and the success or otherwise of any community, large or small.

In keeping with traditional modes of learning in Aboriginal communities the major emphasis in the Holyoake DRUMBEAT program is through the experiential process – observing, trialing and experimenting (Trudgen, 2000). In DRUMBEAT the music created by the group serves as a direct reflection of the participant's teamwork and social skills. The program deliberately avoids any opportunity for competition and instead focuses strongly on teamwork and the benefits of working with others to achieve things unobtainable as an individual. This then transfers into skills and consciousness that support that same young person in a range of other group situations, including mainstream education.

■ DRUMBEAT: Structure and implementation

The Holyoake DRUMBEAT program is designed for small groups of up to 12 participants. The small group size allows for optimum development of inter-personal relationships between group members and between group members and their facilitators. In smaller groups a sense of trust develops more quickly and communication between group members is improved as each member has more opportunity to be heard. In small groups there is also less need for an autocratic discipline structure and group members can take more responsibility for their own group management (Tyson, 1989).

The Holyoake DRUMBEAT program was initially designed to run across 10 weeks of a school term with one lesson per week of approximately one hour. Most schools and other youth services run DRUMBEAT in this timeframe. The program is also available in an extended version comprising 60 hours of study, which is recognised by the West Australian Curriculum Council as a subject of study in social development under the West Australian Certificate of Education.

This form of the program also meets the needs of other state curriculum boards including the South Australian Certificate of Education and the Victorian Certificate of Applied Learning. In certain situations, particularly for adult groups, the length of the individual sessions has been extended to up to two hours, allowing for more dialogue around the subject areas.

The first six sessions of the program are themed around specific relationship issues. These include Boundaries, Values, Peer Pressure, Rumour and Innuendo, Communication, Bullying, Identity, Social Responsibility, Harmony and Teamwork. Many of these subjects are approached through analogies that use the drum or activities in the group itself to create links with what is happening in the program to situations in the participants own lives. The remaining three lessons are focused primarily on performance rehearsal with a public performance being the final goal of the group. These performances are a highlight of the program and are often incorporated into community events. Participants gain valuable recognition for their skills and effort through the performance, as well as increased acceptance and self esteem. The performance also provides a window through which teachers and parents can see the young people involved in a new light; counter to the stereotypes by which they are often defined.

Within the program structure there are three learning elements, which are rotated at the facilitator's discretion to maintain a flexible and engaging lesson structure. The first element is the learning of rhythm songs – interlocking parts on the drum that require a degree of concentration and persistence. Sub-groups within each DRUMBEAT group play different parts that fit together in a wide range of arrangements. By the middle of the program the participants are composing their own rhythm songs.

The second element is playing a range of fun rhythm games, which support engagement and provide instantaneous gratification. If the facilitator is losing the attention of his or her participants then the games provide a quick way back to fun and focus. These games are also often linked to relationship issues such as communication and teamwork and will often lead into discussions, (third element), that expand on the learning area. The third element "discussion" is an important but flexible part of the program, and allows for self reflection and deeper insight into the relevance of the subject material. In some classes the discussions may take up 50 percent of the program content, while in others as little as 10 percent. The program manual contains key questions in each session that require participants to explore the theme in a personal context.

The use of analogies is an important part of the program and helps transfer the learning in the DRUMBEAT group to the everyday world. An example of this is topic of "peer pressure". When participants first start to play different, but complimentary rhythms

together (Session 2), there can often be challenges in holding onto one's own part and not getting drawn into the part of the other members of the group. As soon as that occurs the facilitator draws attention to it and a game is started where the challenge is made for each person, one at a time, to hold their rhythm while the rest of the group try to distract them with another beat. Then discussions follow that look at what supports a person to hold onto his own rhythm and not get drawn into another's. Other questions look at when peer pressure is a positive thing and when it is not, and whether adults are subject to it just as much as young people.

■ Breadth of implementation and sustainability

The Holyoake DRUMBEAT program is now being delivered across Australia in over 350 schools, many of which are in regional and remote areas. To facilitate the introduction of the program into areas outside the reach of Holyoake's own staff a facilitator training program was developed. Holyoake is a registered training organisation and the DRUMBEAT facilitator training was accredited as a certificate four unit in group skills.

This three day training not only provides instruction on delivering the DRUMBEAT program but also has a strong focus on the importance of the therapeutic relationship between teacher or facilitator and child. It looks closely at appropriate facilitation skills that encourage self responsibility and empowerment as well as looking at constructive ways of dealing with difficult behaviours. It is recognised that the strength of the DRUMBEAT program is only as good as the skills and commitment of the facilitator who delivers it. At the time of writing, there were over one thousand accredited facilitators across Australia.

The DRUMBEAT facilitator training emphasises the importance of finding avenues for young people to build on the success of their participation in the program and provides a number of options for how school may do so. Many schools have implemented post DRUMBEAT performance classes and the competence of the students on the drum can be readily incorporated into a schools regular music program if it exists. Other initiatives have seen graduating students mentoring newer members into the program and community initiatives where the drums are taken into community centres and parents and children engage in recreational drumming as a form of community building.

■ DRUMBEAT: The evidence

Since its inception in 2003, Holyoake has been keen to document the impact of the program on participants and a range of measures are included as part of the program.

Feedback from the early formative studies was used to strengthen the program and various changes have been made to the program content and structure in line with the conclusions of these studies. More recently there have been several studies done that focused specifically on the DRUMBEAT programs impact on mental health issues, many of which, including anxiety and depression, are relevant to young Indigenous people. Overall eight studies have been completed, five of which focused on the impact of the program in school settings. Over 350 young people have been assessed in these studies.

■ Study by The University of Western Australia

The most recent study into the Holyoake DRUMBEAT program was conducted by researchers at The University of Western Australia (UWA) (Ivery et al., 2009). This study followed 190 students from 19 schools across the state, all with major risk factors. Of the 19 schools involved in the study, 10 were Primary schools, five were Secondary schools and four were Intensive English centres catering for newly arrived immigrant youth. The average age of participants was 12 years. Approximately 40 percent of participants were of Indigenous descent.

■ Methodology

Both quantitative and qualitative measures were used in this study. Students were chosen for inclusion in this study if they satisfied a minimum of 5 criteria detailed on the Holyoake "risk assessment" questionnaire (Appendix 1). Students also completed feedback sheets at the half way mark and end of the program. An established instrument measuring self esteem (Rosenberg, 1965) was given out pre and post and behavioural incident and attendance records prior to and during their participation in the DRUMBEAT program were provided for each student by their relative school.

A social development measurement scale was given to a third party not directly involved with the delivery of the program, (teacher, principal or student services manager), who had ongoing interaction with the participants (Appendix 2). Teaching staff also completed an evaluation sheet at the completion of the program that sought details of the issues faced by

participants chosen for inclusion and the change and impact the program has had on participants, as well as any unforeseen negative consequences. Research staff from UWA completed qualitative interviews with seven facilitators which was summarised into key themes and quotes.

■ Analysis

All survey data was entered into excel and then extracted into SPSS a statistical analysis program. All data was then analysed using SPSS version 17 and primarily involved computation of descriptive statistics and frequencies. T-tests were conducted to compare means. All interviews were recorded and transcribed to assist the reporting process.

■ Results

Pre-post change in self-esteem

Participants completed the Rosenberg self-esteem scale, prior to the commencement of the 10 week program, to provide a baseline measure their level of self-esteem prior to its completion. The minimum score attainable was zero and the maximum score attainable was 30, with the latter representing the highest level of self-esteem. The average self-esteem score for all participants (n=179) prior to the programs completion was 20.61 (SD 5.19), with the minimum score recorded six and the maximum 30.

Participants completed the Rosenberg self-esteem scale for a second time in the final week of their participation in the program, to gauge a measure of their self-esteem after the program had been completed. At this stage the average score recorded for participants (n=150) was 23.92 (SD 4.19), showing an increase in the average level of self-esteem from the pre-program stage to the post-program stage. The minimum score recorded increased from a score of 4 pre-survey to 14 at the post survey. The maximum score in the post-survey was the same as in pre-survey i.e. 30. When comparing the pre and post program measure of self-esteem, there was a 10 percent increase in self-esteem scores observed among participants following completion of the program. This increase was highly significant (p=0.00).

Table 1. Pre-post self-esteem scores.

Self-Esteem Scores	Mean	Standard Deviation	Range
Prior to completing the DRUMBEAT Program (n=179)	20.61	5.19	6-30
Post completion of the DRUMBEAT program (n=150)	23.92	4.19	14-30

Participant feedback

Mid-way through the program and at the end, participants were given a survey to establish how they were progressing with the program, getting along with the group and to gauge if overall they were enjoying the program. There was an overall positive view of the program, with the majority of participants selecting strongly agree/agree for each measure. The most positive measure related to enjoyment of the program, with 95 percent of participants strongly agreeing/agreeing that they had enjoyed being part of the program, this was followed closely by learning new skills (93 percent) and being part of a group for which 92 percent agreed/strongly agreed.

Behavioural incidents and absences

Behavioural incidents are an ongoing and problematic issue for each of the schools involved in this study (Ivery et al., 2009). Indigenous children are over-represented in statistics of school behavioural incidents and suspensions with Indigenous boys four times as likely to be suspended as non-Indigenous boys and Indigenous girls three times as likely (Aboriginal Education Review, 2006). Behavioural incidents in this report are those of a serious nature resulting in suspensions.

Comparison of the number of behavioural incidences prior to and during participation in the

program showed that there were less behavioural incidents whilst participant's were partaking in the program then prior to partaking (Mean 1.24, SD 3.43 and Mean 2.38, SD 6.70 respectively). This difference was significant ($p=0.00$). Out of a total of 162 students who completed this part of the evaluation, 29 percent of students had a decrease in behavioural incidents, 61 percent had no change in behaviour incidents 10 percent had an increase in behavioural incidents.

A similar pattern was also seen in relation to half day absences with the number of half days absences decreasing whilst participants were taking part in the program as opposed to prior to the program (Mean 3.74, SD 6.32 and Mean 4.49, SD 7.52 respectively). Out of a total of 162 students who completed this part of the evaluation 39 percent had no change in the number of half-day unexplained absenteeisms, 28 percent had an increase and 33 percent had a decrease in half-day unexplained absenteeisms.

Independent Social Development Evaluation

Teachers were asked to fill out a Social Development Program Evaluation, whereby for each participant they identified how they had changed over the past term across a variety of measures such as their relationships with peers and self-esteem. Teachers responded through use of a scale whereby 1 indicated a detrimental change, 5 no change and 10 the most positive change. The average of all measures indicated

Table 2. Behavioural incidences prior and during DRUMBEAT program.

Behavioural Incidents	Mean	Standard Deviation
Term prior to partaking in DRUMBEAT	2.38	6.70
During participation in the DRUMBEAT program	1.24	3.43

Table 3. Absences prior and during DRUMBEAT program.

Absences	Mean	Standard Deviation
Term prior to partaking in DRUMBEAT	4.49	7.52
During participation in the DRUMBEAT program	3.74	6.32

Table 4. Social Development Program Evaluation.

Measure	n	Minimum score recorded	Maximum score recorded	Mean	Standard Deviation
Self-esteem	169	4	10	6.87	1.53
General Mood	169	4	10	6.86	1.45
Group participation	169	4	10	6.79	1.64
Relationships with peers	169	3	10	6.66	1.44
Relationships with adults/ teachers	169	3	10	6.58	1.41
Focus and concentration	169	4	10	6.50	1.45
Emotional control	169	4	10	6.31	1.41

Note: Missing responses were excluded.

a positive change in participants, with self-esteem being the most positive (Mean 6.87, SD 1.53). The results are shown in table 3 below.

In addition as part of the Holyoake DRUMBEAT evaluation, teachers at the respective schools were asked to provide some written feedback in relation to general issues that the participants face on a day to day basis, along with how the program had influenced participants and changes that had occurred with participants as a result of the program. Teachers were also invited to comment on the overall impact the program has had on the school and any unforeseen negative consequences from the program. The responses are discussed below.

Change or influence the Holyoake DRUMBEAT program has made

Overall comments showed that teachers felt that the program had an extremely positive influence on participants and that it affected their behaviour for the better. Feedback provided indicated that participants became more comfortable in working with others in a group environment. Moreover, they changed in being more responsible, responsive and actively involved in working as a team with others. In addition, participants became more open about discussing problems and began to understand how their behaviour affected others:

Learnt that her behaviour is what made others act negatively towards her.

One student came up to me after performance at high school, he said he couldn't believe that he had taught the high school kids a rhythm and the high schools kids had listened to him.

On an individual level, teachers felt that participant's confidence grew, as did feelings of self worth, which was reflected in participants having positive aspirations for the future. In addition, there was a sense of pride for the individual accomplishments, the ability to reach out and relate to other participants. It was also noted that participants were building better relationships with teachers. Teachers also identified that participants looked forward to the DRUMBEAT classes, learnt to cooperate with others and became accustomed to participating regularly:

He was able to lead a group in drumming, organising them to practice at a time outside of DRUMBEAT. Normally he finds it hard to work in a group and is not usually a leader.

One student who suffered from low self-esteem came through at the end of the performance with a glow of pride and achievement:

He will now voice his opinions and does not appear to be intimidated by others.

■ Unforeseen negative outcomes

The evaluation also provided teachers with an opportunity to identify any unforeseen negative outcomes associated with the program. Overall, very few unforeseen negative outcomes were observed by teachers. Negatives that were mentioned reflected three main themes: fear of failure; negativity from other staff members who were not actively involved in the program; and time away from regular classes.

■ Benefits for participants of the program

When asked about the benefits of the program those interviewed mentioned that the DRUMBEAT participation came with the immediate satisfaction and reward of playing the drums, which worked hand in hand with increasing self-esteem and self-confidence: "The immediate satisfaction of being able to drum together. I think initially it's their self-esteem". Beyond this immediate drive in self-confidence and satisfaction associated with drum playing, those interviewed acknowledged the broader scope and longer term impact of the program. As articulated by those spoken to, the program encourages participants and assists them in thinking about broader life concepts, such as respecting others, working as a team and getting them to understand that they can do this and that they have a sense of worth. As the program operates outside of the normal class room environment, it allows the students who do not usually excel and receive awards and affirmation to actively participate and be encouraged to participate in a program that allows them to learn interpersonal skills and life skills in a fun and supportive environment. It enables them to consider the broader concept of life skills and how they function not only with themselves but also when it comes to other people, so there is an immediate sensory pleasure which comes from playing the drums but there is a long term pay off for them as well.

■ Benefits for teachers in the normal classroom setting

The interviews also explored whether there are flow on benefits for teachers not involved in the program itself. Both facilitators and teachers involved in the program described the resultant improvement in the behaviour in general class room settings by those students who had taken part in the program. The program made them more settled in class and also played a role in increasing class retention, by increasing participation. "Those students that are quite shy are starting to speak up".

The program also provides a window through which teachers can see and perceive students in a different light, and therefore may help to counter the stereotypes given to some students, such as a “bully” or the “one that always disrupts the class”:

I had quite a few teachers come up to me afterwards and said that it was amazing we never thought those boys had it in them, so it might give them a different outlook.

I think for the classroom teachers these kids have never been good at anything the new confidence that they bring with them after having achieved something in the DRUMBEAT program has flown on the benefit the rest of their work.

For teachers involved in the program it was also viewed as a great learning experience for them in their role as a teacher, as they were being taught and becoming involved in a new group process. Some teachers also mentioned using content and what had been taught outside of the DRUMBEAT class. For example, teachers are able to refer to and use some of the techniques, such as reminding students of how they are listening to each other and encouraging ideas.

■ Other impacts of the Holyoake DRUMBEAT program

All interviewees were asked if they had a particular story in relation to the Holyoake DRUMBEAT program or an account of how it had changed a particular participant. All had a different story to tell. Some spoke generally about how student's behaviour had changed for the better:

Extremes of behaviour either very quiet or very loud it seems to allow them to see their behaviour.

Others spoke on a more personal level, for one school they implemented the program to help one particular boy and the teacher openly admitted that they dreaded having him in their class; however involvement in the Holyoake DRUMBEAT program made him a different person:

He was a bully before ... but then there were many occasions where you would see him help other students in the playground rather than hitting them.

In class he had himself under control very well, putting in 100 percent and became one of the kids I could really count on to become really focused in the music room.

In addition, some teachers reflected on how the Holyoake DRUMBEAT program had had a significant

impact on a participant's life both in and outside the school environment. One teacher recounted how had a participant had approached and confided that they were being abused and as a result the child was removed from that abusive environment. The teacher believed strongly that this would not have occurred had it not been for their participation in the Holyoake DRUMBEAT program and the supportive environment that it provided.

Others talked about students' enthusiasm for the drums, for example how one ex-participant had gone on to teach others the drums as a result of being involved in the program. All agreed that there were many positive impacts and changes that had been seen as a result of the program. In addition they themselves get great enjoyment from being involved and seeing these changes: “It's an enjoyable way of engaging with young people ... you can have fun and a few laughs”.

■ Longitudinal studies

An in-house study by Holyoake with students from four schools (n=36) who had completed the DRUMBEAT program in 2006, and were revisited 12 months later, indicated that the benefits of participating in Holyoake's DRUMBEAT program have been maintained (Faulkner, 2005). In the follow up of participants, students maintained higher than average levels of self-esteem and reduced levels of behavioural problems and had no involvement in criminal activity (Faulkner, 2006). The lasting impact of the program however is dependent on the measures the school is willing to implement to build on the successes of the original intervention. Further longitudinal studies are required in order to validate these findings.

■ Conclusion

At a time where music is fast disappearing as an option for many young people in schools across Australia, with less than a quarter of Australian students having regular access to music programs (Australian Music Association, 2005), Holyoake's DRUMBEAT program represents a timely option for those wishing to offer music as part of their curriculum whilst at the same time supporting students alienated from the school community and struggling with an academic curriculum. Music has always been central to Aboriginal culture and music based learning programs provide Indigenous students with a natural avenue to engagement and participation.

Maintaining student motivation is a constant battle for many teachers trying to marry a Western education system with Indigenous community life and traditional modes of learning. Holyoake's DRUMBEAT program addresses the issue of motivation through the attraction of the drum as a fun tool for social learning incorporated into a

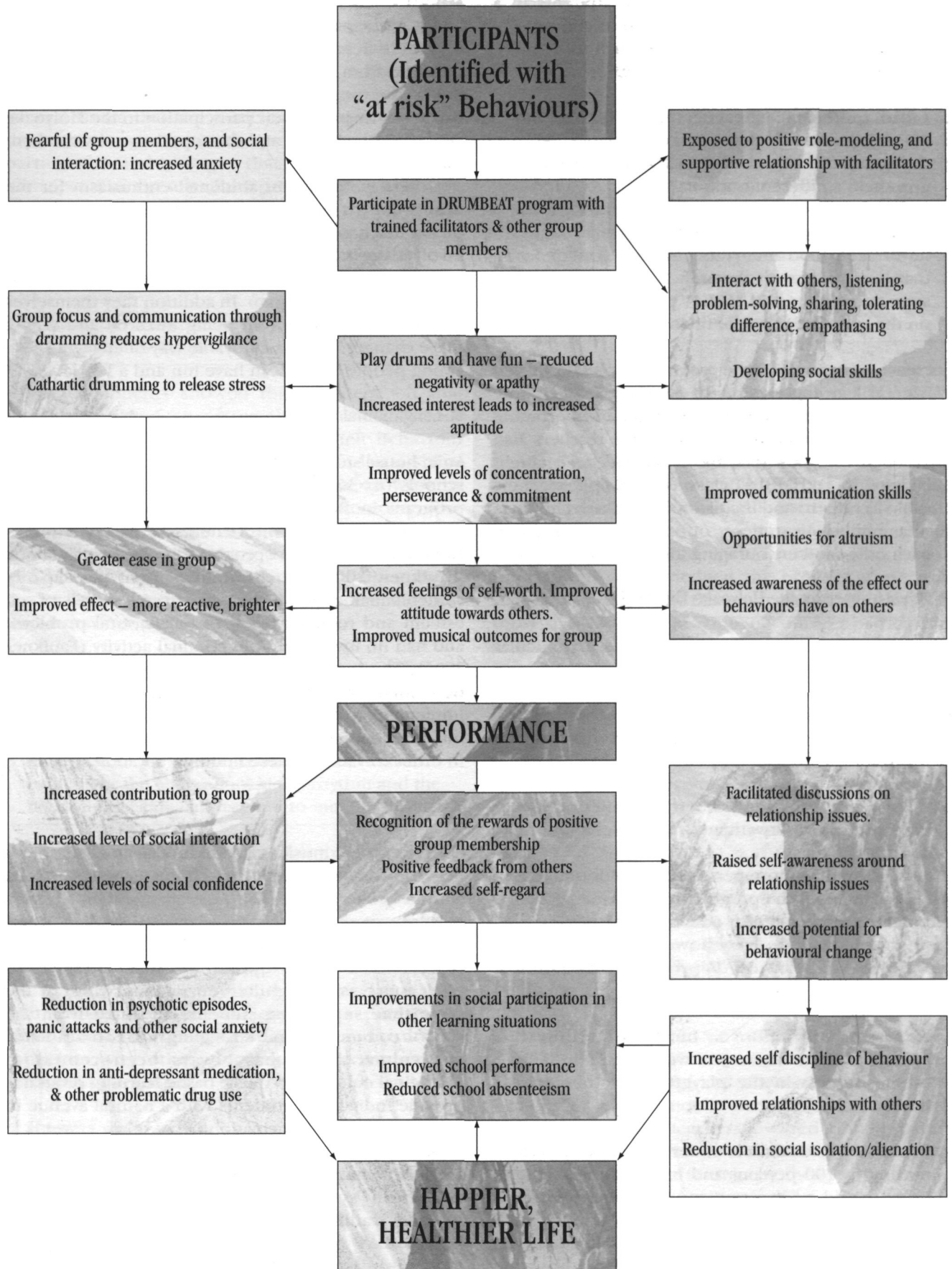


Figure 1. Central tenets of the Holyoake DRUMBEAT program.

rewarding program. Students line up to participate in the program and leave with renewed enthusiasm for the school system, increased regard for their own potential, new levels of cooperation, and a general sense of belonging (Ivery et al., 2009). Issues with school attendance are brought clearly to light in examining participation and attendance rates for DRUMBEAT classes:

These girls are only turning up to school for DRUMBEAT ... Everyone wants to do DRUMBEAT (cited in Ivery et al., 2009)

Bringing music into the classroom is beneficial to a wide range of academic skills as well as those connected to personal development. In the renewed focus on literacy and numeracy levels of Indigenous students, evidence clearly points to the advantage held in both these areas by students who are involved in music (Hallam, 2009). In particular for children from Indigenous backgrounds, for whom English is not the first language, music lessons can assist the neural pathways to better identify tonal variations and thus help in the acquisition of a second language (Slevc & Miyake, 2006). Listening skills and memory are also both enhanced by music and rhythm practice through activities such as drumming have been found to be most beneficial of all (Attebury, 1985; Long, 2007; Overy, 2003). Music is also an excellent recreational pastime and has the potential for some people to serve as a source of employment.

Holyoake's DRUMBEAT program addresses a number of social issues most relevant in our relationships with other people. Despite academic generalisations of "collective societies" versus "individualistic societies" every human being relies explicitly on their relationships with others for the quality and the meaning in their lives. To recognise the factors that contribute to healthy and supportive relationships with others and to develop those attributes, to the point where the rewards from practicing them reinforce their use, can be life changing. These are the changes that we predict participants in Holyoake's DRUMBEAT program take with them into the varying social contexts they engage in and allow them to develop the types of supportive relationships that all of us need to maintain healthy, happy and rewarding lives.

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Appendix 1. Holyoake DRUMBEAT “at risk questionnaire”.

“At Risk Questionnaire”

- Fails to follow reasonable requests
- Resents rules, regulations & reasonable boundaries
- Uses violence or threats of violence
- Can isolate self from group situations
- Bullies or intimidates others
- Chooses not to or cannot cooperate with given instruction
- Has experimented with drugs or alcohol
- Displays anti-social behaviour towards others
- Has few friends
- Withdrawn behaviour
- Self harming
- Cruelty towards animals
- Interest in adult themes
- Unpredictable mood swings
- Regularly distracted in class
- Intolerance of others opinions
- Disinterest in “normal” activities for age group
- Poor school attendance
- Invades others privacy and personal space
- Disrespectful towards adults
- Easily frustrated with self or own ability
- Negative self image
- Low self opinion/self esteem
- Can be dishonest unnecessarily
- Has a diagnosed behavioural disorder
- Has no role model
- Finds it difficult to express feelings
- Has no concern for consequences for self or others
- Is disruptive in class
- Depends upon “rewards” to complete tasks
- Is ostracised by groups
- Displays no altruistic or helping behaviour

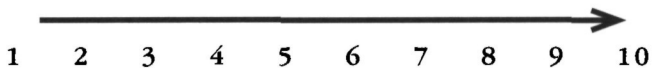
These questions come from a variety of sources and are designed to identify young people “at risk” of negative social and health outcomes.

Appendix 2. DRUMBEAT third party feedback.

3rd party feedback

Please help us in evaluating the DRUMBEAT program by filling out the following:

On a scale of 1-10, with one representing detrimental change, 5 no change and 10 the most positive,



Please comment on your perceptions of the following participant’s behaviour over the past term.

Participant Name	Relationship with Peers	Relationship with Adults/ Teachers	Emotional Control	Group Participation	Self Esteem	Self - confidence	Level of Focus and Concentration	General Mood

*Responses to these questions will be de-identified after collation, and will be used for evaluation purposes only. The evaluation will not identify information provided by any individual.