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## **An exploratory study of arts participation and wellbeing in regional Western Australia: A quantitative study of Denmark in the Great Southern Region**

Julia Anwar  
*Edith Cowan University*

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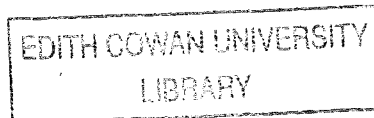
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# AN EXPLORATORY STUDY OF ARTS PARTICIPATION AND WELLBEING IN REGIONAL WESTERN AUSTRALIA

A Quantitative Study Of Denmark In The Great Southern Region



Julia Anwar

Bachelor of Arts (Arts Management) Honours

December 2005

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Western Australian Academy of Performing Arts  
School of Communications and Creative Industries

## Executive Summary

This thesis explores the belief that engaging in the arts has a positive influence on wellbeing, not just for individuals considered disadvantaged or “at-risk”, but also for the wellbeing of society and communities. An attempt was also made to determine how the benefits of participation in the arts compares to the possible benefits derived from other forms of community participation. An examination into the current literature on arts participation and its links with wellbeing, as well as social impact research was combined with a quantitative survey derived and adapted from wellbeing indicators. The survey was conducted via telephone interviews with 76 participants residing in the Shire of Denmark, Western Australia. The sample was made up of the combination of a pre-test sample, drawn from all sectors of the community, and 61 participants randomly selected from the local telephone directory. Significant relationships were found with both arts and community participation in relation to positive and negative affect, personal attitudes and traits, and trust and solidarity within the community. These relationships were evident for both the amount of time spent participating, as well as with the particular status as a participant or non-participant. Arts participation was more strongly associated with the direct cognitive measure ‘satisfaction with quality of life’ than community participation. The only item that revealed a relationship with both community participation and total participation, but not arts participation, was one that represented empowerment and political action as an aspect of social capital. The sample size was smaller than anticipated, and the presence of confounding variables and a large overlap between arts and community participants hindered the analysis of the data. Despite these limitations, this research has developed a workable methodology from which future research can be based, as well as demonstrated the ease with which standardised satisfaction, wellbeing and social capital measures can be adapted and administered to explore the relationship between arts participation and community wellbeing. It is recommended that future research continue this focus on the place of the arts in a healthy society and how involvement in the arts can contribute to overall wellbeing, sustainability and health, rather than the evaluation of short term or one-off arts projects as an interventionist approach.

## Acknowledgements

I dedicate this thesis to my husband, Mark McHenry. I am eternally indebted to you for your love, support and encouragement.

I would like to thank the crew at Healthway for the initial inspiration for this thesis (whether they know it or not!) and to everyone at Community Arts Network Western Australia for the information and resources, as well as the example they set for supporting and strengthening communities through the arts and culture.

Thank you also to my family, especially my parents Johan and Cheryl Anwar for providing me with everything I could have ever needed and more.

I certify that this thesis does not, to the best of my knowledge and belief.

- i. Incorporate without acknowledgement any material previously submitted for a degree or diploma in any institution of higher education
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21-07-06

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Julia Anwar McHenry

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## 1.0 Introduction

### 1.1 Background

“by encouraging habits which kept the working man from the public-house, libraries lessened the incentives to a dissolute life and, consequently, to idleness and crime; which cost the country much more than all the libraries they could build under this bill”

– Baldry, 1981:7 Early arguments for the public subsidy of public libraries, galleries and museums.

Arts organisations, particularly voluntary or community organisations, constantly have to justify their existence to funding authorities as they compete for resources against more seemingly deserving industries such as health, education, housing, welfare and security. There has long been an understanding among community artists, artswokers and volunteers of the social impacts and benefits of engaging in the arts for not only individuals considered disadvantaged or “at-risk”, but also for the overall health and wellbeing of societies and communities, particularly as they struggle to deal with economic, social and environmental crisis. Thus, while once considered a mandatory public good, it has been necessary for the arts to attempt to quantify their value, firstly in terms of economic contribution, and more recently to the overall wellbeing of society. The interest in arts impact research is, however, not new and far from limited to the arts and cultural sector. The arts have long been applied in the clinical and therapeutic setting and there is increasing interest in the fields of health and health promotion of how the arts may be utilised in a broader sense to address issues concerning population health. The arts are also increasingly of interest to governments and policy makers through their ability to strengthen communities, enhance social capital, and contribute to town planning and overall sustainable development. The evidence of this impact, particularly of social impacts outside of a clinical and therapeutic setting, is limited in terms of quantitative data, which is often hindered by the lack of resources, knowledge and capacity of often community-run and volunteer-based arts organisations to carry out reliable, quality research to support their cause. However, there is an abundance of qualitative research, anecdotal evidence and first-hand testimony demonstrating the impact of participating in art and cultural activities to enhance physical, social and psychological wellbeing.

### 1.2 Research Aims

The aim of this research is to examine the relationship between arts participation and wellbeing for a regional Western Australian community, namely the Shire of Denmark in the Great Southern region. More specifically, the aims of this research are: to develop and

test a survey that allows quantitative analysis of the relationship between arts participation and community wellbeing; to statistically determine the significance and relationship of variables claimed to be associated with participation in the arts, and; to test for discrepancies between participation in the arts, as compared to other forms of community participation, such as sport, on community wellbeing.

### **1.3 Research Methods**

In order to achieve these aims and objectives, the difficulties and barriers to conducting arts impact research has been explored and an attempt made to develop a workable methodology for future research. The method for conducting this research was therefore in two parts. Firstly, an examination of the literature into arts benefits and social impact research and an analysis of the arts impact research to date was conducted, including the methodologies utilised, terms and definitions, results and findings, and the limitations and criticisms. This formed the first half of the thesis. The second part consisted of a quantitative telephone survey derived and adapted from wellbeing indicators and administered to a regional community, that is the Shire of Denmark in the Great Southern Region of Western Australia. The results were analysed using both descriptive and inferential statistics, namely Pearson's product moment correlation, independent samples t-test and principal components analysis to determine which items of the wellbeing measure were specifically associated with arts participation, and more broadly community participation, as well as to observe any patterns emerging from the data.

### **1.4 Thesis Structure**

Part one traces the benefits of arts participation from the well documented area of art therapy and the use of the arts in the clinical setting to the use of the arts to address broader definitions of health that contribute towards individual and community wellbeing. During the 1980s, there was an increase in the economic argument for the arts and a range of economic impact research sought to justify funding the arts in terms of its contribution to the broader economy. With the rise in popularity of the concept of sustainable development, combined with the recognition of the failure of economic measures to give a complete picture of arts benefits, interest has arisen in the use of social indicators. In particular, subjective measures of wellbeing, which more accurately represent what the arts can contribute to society. Finally, part one examines the difficulties in the application of social indicators to the field of arts impact research and illuminates the limitations of previous research into the area, as well as an attempt to find a place for the arts in the overall wellbeing of a community.

Part two consists of a detailed description of the methodology including the research framework and method of data collection and analysis. The results section presents the key findings through highlighting statistically significant differences observed in the data. The discussion section relates these findings back to the original aims of the research, provides an explanation of the findings within the theoretical framework established in the literature review, and finally, the implications and recommendations for future research.

## PART ONE: REVIEW OF THE LITERATURE

### ARTS PARTICIPATION AND COMMUNITY WELLBEING

#### 2.0 The Arts and Health

The use of the arts in the health and clinical setting has long been acknowledged for its benefits to patients, carers and staff. The area of art therapy is probably the most well known and researched area of the effects of arts participation for people with disabilities and illness. As well as providing a means for self-expression, engaging with the arts facilitates the development of social and interpersonal skills and enhances self-esteem. Engagement in the arts assists in alleviating the stress and anxiety experienced when a person is coming to terms with illness, as well as assisting in the management of pain and side effects of treatment (Staricoff, 2004). Research has also been conducted into the use of the arts in the design of health care facilities in the creation of the “healing environment”, which has been shown to play a critical role in the speed of recovery (Eames, 2003; Hamilton, Hinks & Petticrew, 2003). In terms of training and professional development, the use of the arts has been utilised to improve communication and understanding between patients and health professionals across both social and ethnic groups (Staricoff, 2004).

Wellbeing is starting to receive more attention as a factor in health. The World Health Organisation (WHO, 2005) defines health as “a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity”. The Victorian Health Promotion Foundation, VicHealth, suggests a similar definition for what they term “mental health” as an embodiment of social, emotional and spiritual wellbeing. “Mental health” provides individuals with the vigour necessary for active living, to achieve goals and to interact with one another in ways that are respectful and just (VicHealth, 1999). Consequently, the measurement of health outcomes, particularly in terms of population health, is beginning to expand from what was once gauged through mortality and infant death rates (Mathers & Douglas, 1998), through to new indicators that measure wellbeing of both individuals and communities, which is discussed in more detail later in this review. However, before wellbeing can be measured, it must first be defined. Eckersley (1998:3) suggests wellbeing “refers to a state or condition of being well, contented and satisfied with life”. Wellbeing encompasses the physical, mental, social and spiritual and is often used interchangeably with ‘quality of life’. The term is used in a collective sense

to describe how well a society satisfies people's wants and needs (Eckersley, 1998), but also encompasses the availability of resources and the ability for individuals and communities to effectively utilise these resources for their own satisfaction (Wearing & Headey, 1998).

Most people would more readily associate health with physical wellbeing as it includes functional capacity, physical activity and issues relating to the physical environment. Mental wellbeing, also termed emotional or psychological wellbeing, includes factors such as self-esteem, sense of purpose, being loved and capable of loving, looking forward with hope and pleasure, enjoying and appreciating beauty, being capable of feeling and sharing sorrow, and feeling affirmed and appreciated by others (Mathers & Douglas, 1998). While the aforementioned definitions are more likely to be the focus in the clinical or therapeutic setting, the area of arts impact research, has focused more recently on the wellbeing of communities, often from a policy or development perspective. Mills and Brown (2004) argue that investment in creative and collaborative activities, such as the arts, contributes to community wellbeing which they define as encompassing how we relate to others and to our environment, how inclusive our societies are, and how we address and respect cultural diversity.

The health of society considered as a whole is not only essential for determining the impact of the arts, but also as a factor in understanding why conditions of life change and how they can be improved (ABS, 2001). It has further been acknowledged that in determining what constitutes a healthy individual from a social wellbeing perspective, it is necessary to examine the community or broader society in which that individual resides and how conducive this social environment is in fostering social wellbeing generally (VicHealth, 1999). The wellbeing of a society can be gauged through indicators such as levels of employment, social support, homelessness, violence, divorce, crime, institutionalisation, social interaction, drug use, and the availability and use of leisure time (Mathers & Douglas, 1998). The community is important at another level because according to Macdonald, Croll and Newman (2000), community is where one learns their culture and practices interacting in a social environment. Community extends beyond kinship, yet is more specific than society, in that it refers to aspects of commonality that exist between people such as the sharing of common beliefs, origin and experiences, as well as location.

Many authors have commented on an understanding of social wellbeing or the health of society in terms of social support, social cohesion, social connectedness and belonging, social inclusion, cultural development, community or capacity building, community strengthening, and social capital (for example see McQueen-Thomson & Ziguras, 2002; Macdonald, et al., 2000; Jermyn, 2001; Mills & Brown, 2004). While slightly different in their focus, the terms mentioned above essentially emphasise “building individual, family and community strengths to build capable communities” (Sonn, Drew & Kasat, 2002:6). Research has shown that well-connected communities with strong social networks are more likely to experience lower crime rates, better health, higher educational attainment and economic growth (VicHealth, 2005). Specifically in terms of arts impact research it has been suggested that the arts are a valuable means of establishing networks, norms and trust, facilitating coordination, and increasing levels of cooperation for mutual benefit.

It has been noted by McQueen-Thomson and Ziguras (2002) that many authors group these elements under the term ‘social capital’. The term social capital can trace its origins to two sources. Firstly the sociologists Ronald Burt, Nan Lin and Alejandro Portes refer to it as the resources such as information, ideas and support, that individuals are able to produce by virtue of their relationships with other people. Thus these resources are only accessible in and through these relationships (Grootaert, Narayan, Jones & Woolcock, 2004). Secondly the political scientist Robert Putnam defines social capital as referring to the nature and extent of one’s own involvement in various informal networks and formal civic engagements. In this sense it is a conceptual term that characterises the many and varied ways in which a given community’s members interact (Grootaert, et al., 2004). The Australian Bureau of Statistics suggests that social capital “refers to the layer of commonly held social values, beliefs and attitudes that lies beneath individual behaviour and encourages transactions that result in greater wellbeing for society” (ABS, 2001:20). This definition encompasses social networks and support structures, empowerment and community participation, civic and political involvement, trust in people and social institutions, tolerance and diversity, and altruism and philanthropy (ABS, 2000). Therefore the term ‘social capital’ is multidimensional and most frequently defined in terms of groups, networks, norms and trust available to people for productive purposes (Grootaert, et al., 2004).

There is growing evidence to suggest that community participation is a key element in individual wellbeing and the health of the community (VicHealth, 2005). From a

population health perspective, connective and supportive communities that value diversity, are open and inclusive, and provides opportunities for everyone to participate in community life for good mental and physical health outcomes (VicHealth, 2005). Traditionally, health promotion consists of social marketing techniques, including the sponsorship of events using health messages. However, in light of this research VicHealth developed a Mental Health Promotion framework in 1999 to support and foster activity that encouraged social inclusion, promoted economic participation and valued diversity to improve community mental health and wellbeing (VicHealth, 2004). Out of this framework the Arts for Health Program was launched in 2000, which contributes to mental health promotion through funding schemes that create opportunities for participation and access in the arts, to increase ways for communities to engage with each other through the arts and to promote healthy environments in which arts activity takes place.

### **3.0 Culture, Community and the Arts**

“In a healthy society, maintenance of a particular level of culture is to the benefit, not merely of the class that maintains it, but of the society as a whole... it is something which ought to be shared equally by all other classes.”

- TS Eliot, 1948 (as cited in Baldry, 1980:111)

It is almost impossible to consider the social impacts of the arts without first understanding the role of art in culture. Culture is said to represent the intangible aspects of our lives (Hawkes, 2001) and is concerned with shared meaning and values that constitute our ‘way of life’ (Hawkes, 2001; ABS, 2001). In distinguishing between arts and culture, the Department of Culture and the Arts (2003) suggest that culture refers to a shared sense of meaning that defines how people relate to their physical environment and through which attitudes and beliefs of society are expressed. The arts are more simply defined as any activity involving creative expression through sound, movement, colour, symbols, texture and words. Throsby (2002) more specifically defines the arts as “a set of artforms covering literature (including creative writing of nonfiction); the visual arts and crafts; the performing arts (comprising theatre, music, dance, opera and music theatre); film and video (including both drama and documentary); and multimedia arts”.

It is also necessary to distinguish between “community art” and “high art”. High art is usually associated with professional arts practice, especially, but not limited to, the visual

arts, and is the epitome of artistic expression. Community arts, on the other hand, is defined by the Ontario Arts Council (2002 as cited in McQueen-Thomson, James & Ziguras, 2004:11) as “an art process that involves professional artists and community members in a collaborative creative process resulting in collective experience and public expression”. Krempl (2002) in her book *The Five Dimensions of Community* provides the following distinctions between community arts and culture, and high arts practice shown in Figure 1 below.

Figure 1 : Distinction between Community Arts & Culture and High Arts

Community Arts & Culture	High Arts
No distinction between audience and performer	Distinction between audience and performer
Learning through real situations	Study through practice
Part of everyday life situations	Separate from day to day living
Expression of shared interpretation of community	Artists singular interpretation
Foundation of arts and culture	Pinnacle of arts and culture
Oral tradition and horizontal learning systems	Formal vertical teaching systems

(Krempel, 2002:39)

The distinction is necessary due to the nature and intention of arts practice. From the table above, there is a difference between the collective and more easily accessible community arts compared to the structure, discipline and individualistic nature of high arts. The development and growth of community arts in the UK, for example, developed out of a rebellion against a belief commonly held by the Arts Council, and purported through the public funding of buildings and infrastructure, that people who were interested in the arts would come to a building. As a result, the dominant attitude for audience development and growth was arts education. The rise of community arts in the 1960s came with the assumption that:

“Buildings are unimportant. It is people that matter. Make contact with the people, enable them to realize what they can do for themselves, give them the opportunity and the resources; then, and only then, you will have mass involvement in the arts.” (Baldry, 1980:141).

Community arts became a general term for forms of expression for which all community could participate (Baldry, 1980). Community art, and the community artists themselves, worked across art forms, blurring the distinction between amateur and professional practice and even engaging in activities that were questioned as to whether it was art at all.



In an attempt to define community arts, the UK produced a report in 1974 as the result of a working party, which settled for a description of the 'community artist' as distinguishable, "not by the techniques they use...but by their attitude towards the place of their activities in the life of society. Their primary concern is their impact on a community and their relationship with it" (Baldry, 1980:144). In this sense a community artist was seen as a means of change within the community brought about by increasing awareness and creativity through involvement, as well as providing the facilities the community needed in order to make use of their own abilities, and thus enrich their own existence (Baldry, 1980). Community arts practice has, therefore, been said to involve an orientation towards amateur and voluntary arts practice in addition to professional arts organisations and is located within a specific local environment engaging an interlinked, stable grouping of locally situated people (McQueen-Thomson & Ziguras, 2002). Williams (1997) goes so far as to suggest that community arts are the link between high arts and culture as she defines community arts as "the production of art as the expression of community culture". While a rather narrowing definition, in this sense community arts by its very nature contributes to community wellbeing because it emphasises the importance of expressing community values, creating a sense of place, gaining new insights, and learning new ways of doing things. Thus, while having its roots in the rebellion against the attitudes surrounding professional or high arts practice, the distinction between what is considered community art and professional arts practice has been increasingly blurred, which brings us back to the earlier question of 'what is art?' and when are the products of cultural expression to be considered art?

### 3.1 Community Cultural Development

But the Devil whoops, as he whooped of old: 'It's clever, but is it Art?'

[ 'The Conundrum of the Workshops' ] – Rudyard Kipling (1865-1939)

Hawkes (2001) suggests that actively involving communities in the arts "is the essential starting point to the exercise of generating community-owned expressions of what matters to them". The rise in popularity of considering culture, and particularly the use of the arts, in policy and development, has been spurred by the concept of community cultural development (CCD). This is based on the premise that cultural meaning influences the expression and experience of emotion, shaping how we perceive, understand and react to our social environment (Lazarus, 1991 cited in Eckersley, 2001). Thus community arts, under the guise of CCD and cultural planning, have been utilised

as a means of exploring, identifying and addressing policy and developmental issues such as poverty, urban regeneration and social exclusion (for specific examples see Boon & Plastow, 2004; Mills & Brown, 2004; Adams & Goldbard, 2002).

The use of the arts in this manner coincides with a shift in planning and public policy away from a solely economic developmental focus to one that encompasses economic, social and environmental development, also known as sustainable development. Within this policy framework the arts are more easily justifiable for social and environmental development in terms of raising awareness of issues, the dissemination of information, and as a means of engaging communities to work towards creative solutions. It has been suggested by some authors, such as Hawkes (2001), that cultural development should be considered separate from social development, and thus the arts have an even more crucial role to play in overall sustainability of a community, region, or nation. The benefits of the arts have thus extended beyond a simple learning experience to contributing to the sustainable development of a community (Newman, Curtis & Stephens, 2003). This has the advantage of allowing the targeting of specific communities or groups identified as disadvantaged or "at-risk" through the use of the arts to re-integrate or function more effectively within society. For example, to re-integrate successfully into society, people in the prison system, or people with psychiatric or intellectual disabilities have to be able to develop meaningful and sustainable relationships (Eames, 2003), which has been achieved in many instances through involvement in arts projects, particularly theatre, creative writing and visual arts.

The use of the arts in this context is not limited to individuals who have been institutionalised or who are living with disability. It is suggested that Australian rural communities are in crisis (Sonn, et al., 2002). This is due to a number of factors including rural economic downturn, decline of the family farm with young people moving away, government streamlining of services and depopulation leading to loss of economic infrastructure and services such as health, education, banks and housing (Tonts & Jones, 1997 as cited in Sonn, et al., 2002). Rural people tend to be disadvantaged which in turn affects voluntary groups and organisations, and social networks (Sonn, et al., 2002). CCD has been utilised by organisations such as Community Arts Network WA to achieve community-building outcomes through fostering local community participation. This is achieved through promoting community capacity and sense of community through culture and the arts.

Research commissioned by the CCD Board of the Australia Council in 2004 entitled *Art and Wellbeing* examined a collection of case studies demonstrating the connection between CCD and health, sustainable development, public housing and place, rural revitalisation, community strengthening, active citizenship, social inclusion and cultural diversity (Mills & Brown, 2004). Specifically, these case studies explore: How CCD initiatives can be integral parts of far-reaching government strategies; the potential for CCD processes to enrich the policies and actions taken on some of Australia's most complex social, environmental and economic challenges; the way business, government and community organisations can become involved in CCD as a means of building trust, knowledge and social capital as preconditions for joint decision-making about complex issues, and; the potential for CCD to influence the conduct and meaning of cross-sectoral, whole-of-government approaches (Mills & Brown, 2004:5). Thus, CCD has far-reaching potential to impact on all aspects of community in positive and progressive ways.

## **4.0 Measuring Impact**

### **4.1 Economic and social impact research**

The arts and cultural sector in Australia continually competes for government funding against other social, educational and economic areas. Thus, despite their aesthetic value and the argument towards the enrichment of community life through artistic and cultural experience, there is constant pressure to justify funding through measurable economic benefits (Sterngold, 2004). Similarly in the UK, very little research was conducted in the area of arts impact, which relied on aesthetic rationales and an emphasis on the intrinsic and civilising values of the arts (Reeves, 2002). A key study on the economic impact of the arts within the UK was conducted in 1988 by The Policy Institute entitled *The economic importance of the arts in Britain* (cited in Reeves, 2002). This study established the arts as a significant, growing and value-added sector with a turnover of £10 billion and employing 500,000 people. Other economic studies also showed that spending in the arts sector lead to spending in other sectors of the economy (for example see Myerscough, 1988 cited in Reeves, 2002). Thus, economic impact studies have been used to demonstrate tangible financial benefits in order to establish the arts as a critical element in the economic growth of the state or community (Sterngold, 2004).

The shortcomings of economic impact research to build a case for arts are also well documented. In particular, Sterngold (2004) suggests that conventional economic impact studies have a narrow focus, specifically in terms of externally induced forms of short-term economic growth. Economic impact measures are not designed to assess how culture and the arts enhance a community's social amenities and quality of life, nor how these social benefits contribute to an area's long-term economic growth and vitality (Sterngold, 2004), let alone the contribution of the arts to health, education and social inclusion (Reeves, 2002). Furthermore, gross measures of impact fail to provide evidence that government support of the arts and cultural sector promotes economic growth, produces positive returns on taxpayers investments, or increases an area's overall level of employment, income, or tax revenues (Sterngold, 2004). According to Sterngold, this is because there is a trivial net impact and little evidence to suggest that rather than increase demand, consumers spend on the arts instead of other leisure or recreational activity, thus government support is unlikely to spur economic growth.

Another argument against the use of economic measures is the lack of evidence between economic growth and the wellbeing, quality of life or sustainability of society. Hawkes (2001) suggests that in the field of wellbeing research, it has been demonstrated that while society is more materially prosperous, many members feel excluded, powerless and unhappy. Thus what is good for the economy is not necessarily good for society. Particularly, organisations such as Redefining Progress (2005) and others assert that economic growth, as measured by Gross Domestic Product (GDP), is a poor indicator of national wellbeing, even though it is often utilised to gauge a nations progress, because it does not reflect the sustainability of economic and ecological activity (Hamilton, 1998). The Genuine Progress Indicator (GPI) was constructed in an attempt to create a better numerical measure of changes in sustainable social wellbeing (Hamilton, 1998). The GPI is based on the same consumption data as GDP. However it makes crucial distinctions in its adjustment for certain factors, such as income distribution, the addition of the value of housework and volunteers, and subtracting the costs associated with crime and pollution (Redefining Progress, 2005).

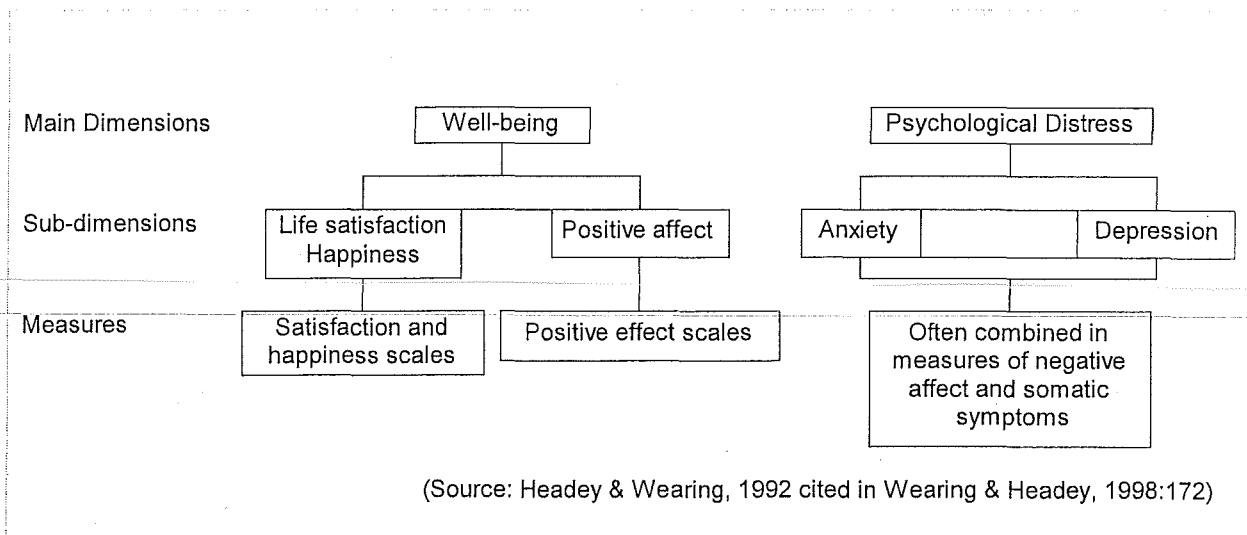
The GPI and other similar social indicators have been developed mainly out of the frameworks of sustainability and health and have been heralded as good objective measures of progress, wellbeing and the quality of life expressed by a society (Redefining Progress, 2005; Hawkes, 2001). However, this objectivity is also their strongest criticism

as their summative and objective nature restricts these indicators to the monitoring of wellbeing at a broad level, such as, morbidity, crime rates, divorce, unemployment, and so on. This creates difficulties when governments attempt to use them at a micro level in terms of social planning, policy making and evaluation (ABS, 2001). It also overlooks the importance of subjective wellbeing in terms of how individuals and society at large perceive, understand and interact with their situation and the environment.

#### 4.2 Subjective wellbeing

The approach utilised to understand and conceptualise the term “wellbeing”, especially when concerned with subjective wellbeing, will effect how it is to be measured (Wearing & Headey, 1998). The ‘positive’ verses ‘negative’ approach to understanding wellbeing examines the relationship between wellbeing and ill-being or psychological distress, as shown in Figure 2 below. Wellbeing can be determined through measures of life satisfaction or happiness, and positive affect, whereas, psychological distress is determined through anxiety and depression. A measure of subjective wellbeing therefore consists of the interrelated components of life satisfaction, pleasant affect and unpleasant affect.

Figure 2: Main dimensions, subdimensions and measures of well-being and psychological distress



The wellbeing of an individual interacts and is affected by the overall wellbeing of society. Therefore, the ABS identifies transactions, social exchanges and social contracts as the basis for units of measurement that denote community wellbeing. In particular this incorporates a focus on people’s underlying beliefs about obligation, reciprocity and

philanthropy, the prevalence of community attitudes such as trust, and the extent to which both individuals and groups participate in the community (ABS, 2001).

The Australian Unity Wellbeing Index claims to be the only subjective measure of wellbeing, which provides a deeper analysis and understanding than other objective measures (Cummins, Eckersley, Lo, Okerstrom, & Davern, 2002). The index is based on a personal wellbeing index and a national wellbeing index with the scores of each averaged and shown as a percentage of the highest score possible. The questions are based around a series of variables that ask the respondent to rate their satisfaction on an 11-point scale. The key findings of the 2002 report suggest that volunteers have the highest levels of satisfaction over other workers and the results are being used to track fluctuations in the wellbeing of Australians over time (Cummins, et al., 2002).

Other subjective measures include the World Health Organisation Quality of Life (WHOQOL) instrument, utilised from a health perspective by WHO (WHO, 1999) and the SC-IQ, an integrated questionnaire designed to measure social capital in the third world (Grootaert, et al., 2004). The WHO's definition of quality of life is that of a multi-dimensional concept contingent on subjective evaluation and embedded in a cultural, social and environmental context. The development of this measure arose out of a need for an international measure, in order to compare across nations, and the commitment to a holistic approach to health promotion and health care. The WHOQOL is divided into six broad domains, which are physical, psychological, level of independence, social relationships, environment and spiritual. The WHOQOL project is part of the WHO's larger goal towards the "Health for All" program, and the promotion of physical, psychological and social well-being (WHO, 1999). Grootaert and colleagues (2004) created a survey tool designed to measure social capital known as SC-IQ. It is designed to capture the types of groups and networks available and the nature and extent of an individual's contribution to other members of the group and/or network, as well as the subjective perceptions of trustworthiness and norms of cooperation and reciprocity. The SC-IQ consists of six dimensions which are: groups and networks; trust and solidarity; collective action and cooperation; information and communication; social cohesion and inclusion, and; empowerment and political action.

More broadly within social impact research, Andrews and McKennell (1980) utilised a structural modelling approach to assess 23 different assessments of life as a whole

through a national survey in both the US and the UK under the premise that measures of perceived wellbeing are attitudes, which include affective and cognitive components. The results suggest that measures which have many scale points, that is more than seven, and direct assessments, such as ‘how satisfied are you with...?’, are more valid indicators of an individual's evaluation of life as a whole than measures which are based on three-point scales or explicit comparison with other times or groups. In the same journal, a longitudinal study by Atkinson (1982) produced strong evidence for the stability and validity of subjective quality of life indicators over time.

### 4.3 Arts impact research

A Western Australian State inquiry into the impact of the arts in regional Western Australia concluded that there is a tendency for government to underestimate the importance of the arts. This is both reflected in and exacerbated by a lack of empirical data in the fields of arts and culture at a regional level (Community Development and Justice Standing Committee, 2004). This is not surprising considering previous research in the field is largely qualitative and based on anecdotal evidence.

Matarasso (1997), in his seminal work based in the UK, *Use or Ornament? The social impact of participation in the arts*, claims the impetus for his research was borne out of the limitations of the economic argument for the arts, the lack of existing research and a widespread belief that the arts cannot be evaluated. Through the evaluation of individual case studies, a review of existing research, participants' questionnaire, and a series of working papers, Matarasso (1997) claims to be conducting the groundwork for future research by providing focus and direction. The study concludes that: participation in arts activities brings social benefits; that these benefits are integral to the act of participation; the social impacts are complex, but understandable, and; social impacts can be assessed and planned for (Matarasso, 1997).

In Australia the focus has again been largely on qualitative research including one of the more recent publications *Art and Wellbeing* commissioned by the CCD Board of the Australia Council in 2004 (Mills & Brown, 2004). *Art and Wellbeing* focused on a series of case studies from across Australia to demonstrate the scope and versatility of the arts to address a wide range of issues in an even wider range of settings. Perhaps the most publicised quantitative research in Australia was conducted by Williams (1995) entitled *Creating Social Capital: A study of the long-term benefits from community based arts*

*funding*, again commissioned by the Australia Council in conjunction with the Community Arts Network of South Australia. Williams combined case studies, in-depth interviews and survey questionnaires and later reworked her research into a working paper to inform Matarasso's research. The study claims to demonstrate how community-based arts practice is developing social capital and obtained strong results in favour of the positive impact of these projects on the defined outcomes (Williams, 1995).

While the results of research conducted thus far show strong support for the positive influences of the arts, the research is not without criticism. Many authors have identified several key areas of contention, in particular a lack of robust data and evidence, difficulty in the quantification of impacts, including identifying outcomes and developing indicators, and difficulty in using economic impact measurement (Reeves, 2001; McQueen-Thompson, et al., 2004; Jermyn, 2001). Furthermore, Newman and colleagues suggest that measurement and evaluation is also a question of values, that is the extent to which creative processes can, or should, be managed and controlled (Newman, et al., 2003). Other factors subject to scrutiny are the methods of data collection, including the choice of the sample and the purpose, intention and bias of the researchers themselves.

According to McQueen-Thompson and colleagues (2004:10) "prior research into the impact of the arts... has depended upon unreliable or under-developed research methodologies". That is, few attempts have been made to standardise procedures, let alone the terms used and their definition, and rarely do these researchers make use of established social indicators for measuring outcomes. Jermyn (2004) suggests that the major difficulties in the standardisation of indicators lies in the diversity of various arts projects, and subsequently the ambiguity and interpretation of the results. Other possible barriers are the large number of stakeholders, levels of complexity, and the extreme dissonance that often exists between demands for numerical accuracy and artistic temperaments (Newman, et al., 2003). Thus, it has been suggested that success should be measured against the objectives of the project, rather than standardised indicators (Jermyn, 2004). Regardless of the difficulties in the evaluation and measurement of arts impacts, however, if arts projects claim to have sufficient social impacts, then these claims need to be subject to testing and evaluation (Newman, et al., 2003).

In terms of assessing the legitimacy of current research and the subsequent integrity of the research itself, it is necessary to examine the purpose, intentions and possible bias,



even though it may be unintentional, of the researchers. The limited number of literature reviews and research in this area were largely conducted for informing government policy, or as an evaluation of state and/or federally funded projects. As such many reviews were based on anecdotal evidence given by those with a vested interest and bias towards the project (McQueen-Thomas, et al., 2004). It is therefore necessary to examine the sample selected for inclusion in the research, which tends to be those with an interest in the success of the arts to influence positive social change, including organisers, artists, funding bodies and the participants themselves. For example, Williams' (1995) sample was drawn from 95 community-based arts projects funded by the CCD Board of the Australia Council. Guided interviews were conducted with key people from nine of these case study projects selected on the basis of pre-determined criteria and these key people were asked to brainstorm a list of 25 people from the community who had observed the project for a survey. These "key people" consisted of artists and organisers closely involved in the projects and while the benefits and legitimacy of the outcomes should not be undermined, it is interesting to speculate whether the findings would be different had the research been conducted by an independent researcher, rather than the funding body themselves, and the "key people" and their organisations anonymity were maintained.

## 5.0 A place for the arts in wellbeing

The excellence of every art is its intensity, capable of making all disagreeables evaporate, from their being in close relationship with beauty and truth.

[letter to George and Tom Keats, 1817 – John Keats (1795-1821).

As mentioned previously, the term wellbeing is often used interchangeably with life satisfaction and quality of life (Hawkes, 2001). According to Hawkes (2001) sense of meaning and purpose has been shown as the single attitude most strongly associated with life satisfaction. Furthermore, the terms used to describe a community's capacity to foster wellbeing, such as social capital, have been examined by Bullen and Onyx (1998 as cited in Hawkes, 2001) in five New South Wales communities focusing on the themes of local community participation, social proaction, trust and safety, neighbourhood, family and friend connections, tolerance of diversity, value of life, and work connections.

Social issues are multidimensional, therefore it is important to develop links between different areas of concern (ABS, 2001). The ABS (2001) places art under "culture and leisure" as one of the eight areas fundamental to wellbeing as shown in Figure 3 below.

However, these eight areas are not exclusive categories, they are all interrelated with areas of concern influencing each other and, as a collective, influence both individual and community wellbeing. The arts have been utilised in many different ways and through different forms in each of these areas in order to encourage participants to understand and reflect, and in many cases improve on their situation (for examples of specific cases see Boon & Plastow, 2004; Mills & Brown, 2004; Regional Arts Australia, 2004; Adams & Goldbard, 2002; VicHealth, 1999).

Figure 3: Aspects of life that contribute to wellbeing and their area of concern

Aspects of life contributing to wellbeing	Area of concern
Support and nurture through family and community	Family and community
Freedom from disability and illness	Health
Realisation of personal potential through education	Education and Training
Satisfying and rewarding work both economic and non-economic	Work
Command over economic resources, enabling consumption	Economic resources
Shelter, security and privacy, through housing	Housing
Personal safety and protection from crime	Crime and justice
Time for and access to cultural and leisure activities	Culture and leisure

(Source: ABS, 2001:7)

The benefits of culture and recreation with respect to physical health are well documented in terms of improving self-concept, self-esteem, and decreasing depressive symptoms, stress and anxiety (Torjman, 2004). In particular, participation in sport and recreation provides opportunities for socialising, building friendship networks, reducing social isolation and enhancing community wellbeing (VicHealth, 2005) thereby increasing social capital by developing relationships, networks and norms that support collective action (Torjman, 2004). The WHO Health for All 2000 strategy, launched in 1978, regards participation as central to health and places an emphasis on strengthening community action to achieve health promotion changes in the physical and social environment (Bush & Baum, 2001).

Through participating in groups, communities are strengthened by increasing trust and social networks. As suggested by Bush and Baum (2001:201), “a vibrant community is one in which there are many opportunities to engage in connectedness in both simple ways and in terms of encouraging control over local affairs”. Bush and Baum (2001) conducted a survey on the types of participation identifying two categories: social and civic. Social can be further subdivided into ‘informal’ such as visiting family or a neighbour, ‘activities in public places’, such as going to the theatre, and ‘group activities’, including sport, hobby groups or support groups. Civic participation was sub-

divided into 'individual' and 'group activities', which included more political and community action type activities, and 'group participation' which was a mix of social and civic, including charity groups, committees, clubs and attending church. The findings demonstrate that social participation predicts health status, whereas civic participation is more likely to predict sense of community control (Bush & Baum, 2001).

Engaging in the arts can be considered both a social and civic activity. It is social, because the arts can be undertaken as a hobby, for fun or recreation, informally, in public space, and as a group activity. The arts can and has been utilised as a means of engagement in civic activities. For example, to make a political statement or protest, to raise awareness or draw attention to an issue, and as a means of engaging the community to work towards creative and collaborative solutions (Boon & Plastow, 2004; Mills & Brown, 2004; Regional Arts Australia, 2004; Adams & Goldbard, 2002; VicHealth, 1999). As a comparison to sport, the arts are less competitive, and it is further suggested that they provide an inclusive base from which communities can develop tolerance and understanding, in turn helping to foster and strengthen the identity of a town or region (Community Development and Justice Standing Committee, 2004). This view is supported by the Western Australian State Sustainability Strategy which asserts that the "arts and culture are central to the identity of a healthy and vibrant society", they allow the exploration of issues whilst also developing understanding to "provide the creative edge needed to face [sic] new and potentially difficult problems" (Government of Western Australia, 2003:250-1). Matarasso (1997) suggests that the arts are unique in this aspect because of their concern with meaning and values and stand out from other forms of participation in terms of who they engage and the quality of that engagement.

## 5.1 Summary of the Literature Review

It is often suggested that the difficulties of determining quantifiable measures of arts impact may be resolved by tailoring outcome measures to the specific outcomes as defined by the individual projects themselves. This is interesting because it suggests that participation in the arts will only achieve measurable social outcomes if these outcomes formed the objectives for a particular project (Jermyn, 2004). This perspective does not allude to possible social outcomes through the nature and quality of art participation where the aims of a project are simply for the art itself. Nor does it allow the examination of the benefits of engaging in the arts on an ongoing basis, for example membership of an arts and crafts group, or ongoing involvement in a local repertory club. It is also

important to acknowledge that this field of research is still in its infancy. As many authors have pointed out (McQueen-Thompson, et al., 2004; Jermyn, 2001) there is still some confusion over the terminology, both in the appropriateness of their use and their definitions. As such, the arts can greatly benefit from the contributions currently being made in both the areas of health and sustainable development. However, to ensure the quality, standards and integrity of the arts, and the arts experience for participants, is not compromised, it is time for the arts sector to make significant contributions to this growing area of research.

## PART TWO: THE STUDY

### 6.0 Research Framework

#### 6.1 A definition of arts participation

The definition of what is art has been both contested and highly pliant throughout history. As shown in section 3.0 'Culture, Community and the Arts' the distinction between culture and art is provisional, let alone attempting to define the boundaries between amateur, professional, community art and high art practice. It was the original intention for this research to examine the impact of participation in community art on wellbeing. However, given the amount of variation in the perception and understanding of community arts among the general populace, and the nature and variation in the definition of the term itself as defined in the literature, the use of the term was considered problematic and thus would hinder the process and influence the validity of the findings. Thus, the definition for participation in the arts was given as direct involvement either creatively or by helping to organise or promote any arts activity at a voluntary, amateur or local level.

#### 6.2 The concept of wellbeing

As mentioned in Part One in section 4.2 'Subjective Wellbeing', the theoretical approach to understanding the generation and structure of wellbeing may affect how it is measured (Wearing & Headey, 1998). The 'positive' versus 'negative' approach examines the relationship between wellbeing and psychological distress or ill-being, suggesting that wellbeing consists of three interrelated components, that is life satisfaction, pleasant affect and unpleasant affect. Other approaches addressed by Wearing and Headey (1998) include the 'top-down' versus 'bottom-up' and 'telic' versus 'autotelic' approaches. In short, the 'top-down' versus 'bottom-up' approach assumes that wellbeing depends on both the stable characteristics of a person, such as personality, and significant life events or experiences, such as friends, health, leisure, family and work. The 'telic' approach assumes that the achievement of a goal contributes to subjective wellbeing, whereas the 'autotelic' approach attributes the process of moving towards that goal as the basis of subjective wellbeing. This final approach suggests that people will go so far as to reconstruct their environment to maximise their wellbeing, rather than just simply utilising resources. Thus the creation of subjective wellbeing involves selecting activities that provide maximum pleasure, or selecting and weighing those aspects of the environment to maximise satisfaction.

To be able to achieve high levels of wellbeing there must be both the availability of resources and the capacity of individuals to be able to convert these resources into wellbeing. Personal characteristics, such as locus of control and adaptability, have been assumed to be important in the capacity to achieve wellbeing as well as education, a term used more broadly here as a proxy for skills and abilities (Wearing & Headey, 1998). Wearing and Headey have identified the significant characteristics and abilities that are positively correlated to wellbeing as shown in figure 4 below.

Figure 4: Significant characteristics and abilities positively correlated to wellbeing

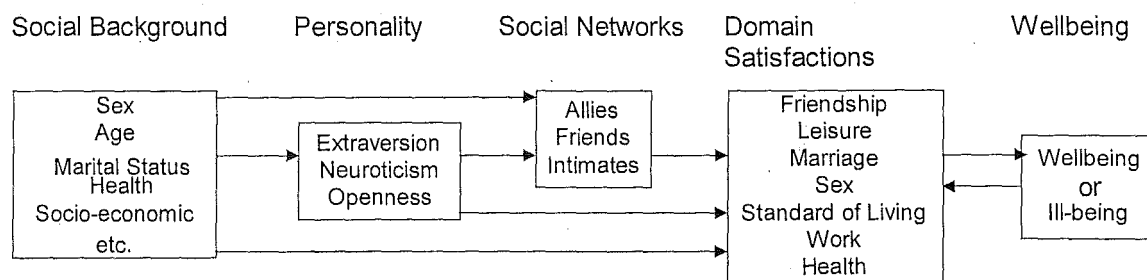
Personality Characteristics	<ul style="list-style-type: none"><li>- self-esteem</li><li>- sense of personal control or agency</li><li>- extraversion</li><li>- optimism</li></ul>
Abilities	<ul style="list-style-type: none"><li>- Adaptation, the ability to respond effectively to changes in our environment</li><li>- Ability to understand and interpret the world</li><li>- Ability to define goals and progress towards them</li><li>- Religious belief, or sense of spiritual commitment, or sense of intrinsic religion</li></ul>

Source: Wearing & Headey, 1998

Across the literature, arts impact research has laid claim to the ability of arts participation to influence and enhance all of these characteristics and abilities. This includes ‘sense of spiritual commitment or intrinsic religion’, which is undoubtedly inter-linked with the preceding three abilities as an individual’s beliefs would form the basis for their ability to respond to change, understanding and interpreting the world, and defining goals. By removing the first three stated abilities from what can be implied by having a sense of intrinsic religion, in the author’s view, would justify its replacement with the ability to empathise.

Regardless of the approach utilised to conceptualise the generation of wellbeing, wellbeing itself is viewed as a final outcome measure. Wearing and Headey (1998) demonstrate this through the casual model of wellbeing shown in figure 5 below.

Figure 5: Casual model of wellbeing and psychological distress (Ill-being)



(Source: Headey & Wearing, 1992 cited in Wearing & Headey, 1998:180)

Through the use of this model, steps to actively increase individual wellbeing could include creating friends, thereby increasing social support and resource networks. The use of a model such as this is useful in determining, not just that arts participation positively influences wellbeing, but also which of the casual factors are specifically influenced through that participation and how this may be different from other non-creative means of community participation.

### 6.3 Wellbeing Indicators

Examples of both objective and subjective indicators in the field of wellbeing research were provided in the literature review under section 4.0 'Measuring Impact', and therefore will not be repeated here. However, the use of indicators in the area of arts impact research has been criticised due to several reasons. Matarasso (1997) warns of a danger of organisers, artswokers or community artists themselves, adjusting the outcomes of a project to match the indicators, and the inability of social indicators to adapt to diverse settings and projects due to their inflexible nature, have also been criticised. Newman and colleagues (2003) further suggest that the reduction of outcomes to quantitative measurements of satisfaction does not sufficiently cover the impact of an artistic experience on individuals or the community. There is, however, a degree of commonality in the literature on the social impact and benefits of community arts participation (a summary list is provided in appendix A). It is possible that some researchers, and the respondents in research to date, have been so close to and biased towards their own arts projects that they were unable, or unwilling, to recognise and compare common social impacts and benefits. This is also a reflection on the nature of research to date, which has focused on individual projects and case studies through the use of self-evaluation or in-depth interviews with individuals closely involved with the project. While reluctant to attempt a demonstration of a direct casual link between

specific arts projects and defined social outcomes, this research has taken a broader perspective to determine the relationship of arts participation overall to wellbeing through the use of standardised quantitative social indicators.

## 7.0 Methodology

### 7.1 Survey Design

A random telephone survey design was chosen as the method for collecting the data. Dillman (1978) suggests that telephone surveys typically produce higher response rates than mail surveys due to the direct interaction with another person. Another reason for utilising the telephone survey over face-to-face interviews or survey mailouts, was issues concerning time and cost (Bradburn & Sudman, 1988). The initial telephone interviews were conducted within Denmark itself with further calls being made from Perth. Thus results were obtained immediately rather than having to wait for survey forms to be returned. Telephone surveys also made it possible to reach a larger number of people within a shorter time frame. This was necessary as the Denmark Shire has a substantial rural community whom, whilst may be actively involved in their community, often make only infrequent trips into the town itself, have less frequent access to the postal service when compared to the telephone, and furthermore are less likely to be surveyed at random for face-to-face interviews as they both work and live outside the town centre.

The major disadvantage with telephone interviews was the possibility of sample bias and the limitations on the types of questions that can be asked (Bradburn & Sudman, 1988). Other limitations included a general increase in the number of “cold call” telemarketing, which resulted in an increased number of suspicious and sometimes hostile immediate responses to non-personal calls. Therefore, trust was established and awareness of the impending telephone survey was built through local publicity in the Denmark Bulletin, which was released the Thursday before interviews commenced on Monday. Again, however, many households within the community do not collect their mail and papers every day and thus may not have read the article in time.

The structure of the survey questionnaire itself consisted of three sections (see Appendix B). Section A was concerned with community participation and specifically arts participation. The questions asked respondents if they participated in different types of specific arts and community groups or activities then asked them to estimate the number



of hours a week they would spend participating in either arts or community groups and activities during the busiest times. Section B was concerned with measuring levels of life satisfaction and various aspects of subject wellbeing, including variables identified in the literature as influenced or enhanced by arts participation (as listed in Appendix A). The specific questions of section B were derived and adapted largely from a variety of wellbeing indicators, including the Australian Unity Wellbeing index (Cummins, et al., 2002), social indicators research (Atkinson, 1982; Andrews & McKennell, 1980) and survey design theory (de Vaus, 1995; Bradburn & Sudman, 1988), as well as the SC-IQ (Grootaert, et al., 2004), and the World Health Organisation's Quality of Life questionnaire (WHO, 1999). The first five questions represented direct cognitive measures of both overall wellbeing and specific aspects of wellbeing, such as standard of living, quality of life, feeling a part of your community, and health. As wellbeing had been identified in the literature as a special case of attitude, the five satisfaction questions were followed by 20 statements for which respondents were asked to what extent they agreed or disagreed with. These statements reflected factors on an individual and community level that contribute towards wellbeing. Statements reflecting individual factors included personal attitudes and traits, and positive and negative affect. On the other hand, statements reflecting community factors included groups and networks, trust and solidarity, information and communication, social cohesion and inclusion, and empowerment and political action. A specific breakdown of the questions in section B into the above categories is provided in Appendix C. The final section, section C consisted of questions to establish demographic data, which was derived from standardised questions utilised by the Australian Bureau of Statistics (ABS, 1999). Included in this survey were questions concerning age, gender, education, employment status and household income.

## 7.2 Sampling Frame

The Denmark Shire has a population of approximately 5,000 people and from this a total sample of 76 responses (approximately 1.5 percent of the population) was obtained, which includes 15 respondents from a pre-test conducted in June 2005 and 61 collected from a random telephone survey conducted in July and August 2005. The pre-test survey was conducted with 15 participants from all sectors of the community both face-to-face and over the telephone. Participants for the random telephone survey were selected from the Denmark and Districts Business and Community Directory 2004, with the interviews conducted over a total of seven days, the first four from a landline in Denmark itself, and

the remaining three from Perth. This particular timeframe was chosen as this area is less popular with tourists during the winter season. Hence, it is more likely that randomly selected respondents are permanent residents rather than tourists, visitors or seasonal residents. In total, 344 numbers were selected at random from the telephone directory, of these 43 numbers were disconnected and 172 calls either went through to an answering service or rang out. Of the 129 calls that were answered, 61 said yes to participation in the survey and 66 did not want to participate. This produced a response rate of 47.3%.

### 7.3 Analysis of the results

The data was analysed using SPSS version 11.5 and Microsoft Excel 2000. All negatively worded items were recoded. The questionnaire itself was designed with no particular statistical test in mind, and in fact was designed to be simple and flexible so as not to limit the analysis of data, and thus limiting the flexibility and scope of the findings. The nature of this study was exploratory, thus it was unsure what patterns would emerge in the data, the number of responses that could realistically be obtained, and the reliability and internal validity of the questionnaire itself. Frequency and descriptive data was analysed and examined in order to determine the nature of responses and the patterns in the data. This was also to ensure the sample was representative of the Denmark population and consistent with the Census data for the area.

Demographic differences between participants and non-participants was examined using a series of non-parametric tests, that is, Mann-Whitney U-test and a cross-tabs analysis using Chi-Square ( $\chi^2$ ) and nominal symmetric measures, namely Phi ( $\phi$ ), Cramer's V and the contingency coefficient. Non-parametric inference tests are generally similar to distribution-free tests, that is, they do not involve hypotheses relating to a population parameter (Haslam & McGarty, 1998). Specifically, they do not require the assumptions of normality and homogeneity of variance and furthermore they can be used for ordinal and nominal data sets (Hinkle, Wiersma & Jurs, 1979). The Mann-Whitney U-test is a non-parametric two sample test of significance for ordinal data. It is sensitive to both the central tendency and the distribution of the scores and its use is recommended when the assumption underlying the t-test cannot be met (Hinkle, et al., 1979). Both Chi-Square and Phi utilise the Chi-distribution, which is most frequently used to analyse nominal data. Typically, statistics utilising the Chi-distribution compare observed frequencies with theoretical frequencies, such as the expected versus the observed frequency of heads or tails when flipping a coin. Thus, if the calculated value of  $\chi^2$  is greater than the critical

value it can be concluded that the difference between the observed and expected frequencies is too great to be attributed to chance alone (Hinkle, et al., 1979). Chi-square itself is an alternative to the 'F ratio' for categorical data, which measures the extent to which observed differences on the dependent variable are greater than would be anticipated from individual differences alone (Spicer, 2005). While the Chi square statistic does increase with the strength of the relationship, it is not a direct measure of relationship strength. To calculate the strength of the relationship Chi square can be transformed into the correlation coefficient Pearson's Phi by dividing Chi square by the total frequency and then taking the square root (Spicer, 2005). Phi is a special version of Pearson's  $r$  used to quantify the relationship between two dichotomous variables, that is, each having two categories (Spicer, 2005). Phi is thus limited to two-by-two tables. When there is a greater number of levels to each variable, then other nominal symmetric measures such as Cramer's  $V$  and the contingency coefficient may be utilised. Nominal symmetric measures indicate both the strength and the significance of the relationship between the row and column variables when both the variables are nominal data (Coakes & Steed, 1999).

As previously mentioned all 25 questions in section B of the questionnaire were measured using an 11-point Likert scale from 0 (Very Dissatisfied/Strongly Disagree), to 10 (Very Satisfied/Strongly Agree) with 5 as neutral. Pearson's product moment correlation coefficient (Pearson's  $r$ ) was calculated to examine the relationship between hours of arts participation and each item on the measure, hours of community participation against each item, the total hours of participation against each item, and finally each item against all the other items. The high number of significant correlations amongst the items that make up the measure promoted the execution of a factor analysis to further examine the nature of the relationship of the items to each other, discussed in detail later in this section. Correlation is typical of survey research and is used to determine whether the distribution of one set of scores is related to the distribution of another set of scores (Pagano, 1998). It does this by expressing quantitatively both the magnitude and direction of the relationship through calculating a correlation coefficient, which can be interpreted as the variability of  $Y$  accounted for by  $X$  (Pagano, 1998). Thus correlation can be used, with some degree of uncertainty, in making predictions, (Haslam & McGarty, 1998). Correlation can also be used to assess the reliability of the measure

itself by correlating individual items against each other, this is known as a reliability analysis, which is discussed in more detail later in this section.

The estimated hours of participation data was further transformed from the number of hours on an interval scale to a nominal data set, where all respondents who answered zero hours were relabelled “non-participants” and all respondents answering one hour or more relabelled “participants”. This information was then used to compare the mean score on each item of the wellbeing measure for participants to non-participants using a series of independent samples t-tests. A t-test is used when the population parameters are unknown and generally involves random sampling and random assignment of subjects to each condition (Pagano, 1998). An independent samples t-test, also known as a between subjects t-test, allows the comparison of the means obtained from different groups of participants (Haslam & McGarty, 1998), where each participant is only tested once (Pagano, 1998). Changing the level of the independent variable is assumed to affect the mean, but not the standard deviation or variance, thus the test assumes a significant result would consist of a difference in the mean score of two groups with equal variance (Pagano, 1998), though the test itself examines the difference between the means relative to both the variance and the number of responses on which the means are obtained (Haslam & McGarty, 1998). The t-test assumes both normal distribution and homogeneity of variance, however it is very robust and therefore relatively insensitive to violations of these underlying assumptions (Pagano, 1998).

The reliability of the items in Section B of the questionnaire concerning satisfaction and wellbeing was established through the use of the reliability statistic, Cronbach’s alpha ( $\alpha$ ). The reliability and validity of the results can be undermined if the data has been gathered with a poor quality instrument. The validity of a measure is concerned with minimising systematic errors or bias that make the results inaccurate (Spicer, 2005). This has been addressed through the use and adaptation of specific questions from a range of established and well-tested satisfaction, wellbeing and social capital survey instruments, as well as drawing on theory from social indicators’ research. A measure’s reliability is concerned with its consistency, that is, the minimisation of contamination through random errors (Spicer, 2005). Reliability can be measured using a test-retest design to determine the consistency of results over time, however the method chosen for this research was to establish how well elements of the measure operate together, that is, the internal consistency. This was because the measure itself was derived and adapted from

several different measures, thus it was desirable to establish how well they work together. The most commonly used measure of internal consistency is the reliability coefficient, Cronbach's alpha calculated through correlating the item scores for the sample of respondents (Spicer, 2005). It provides information on the relationships between individual items on the scale, as well as providing a quantitative measure of internal consistency based on the average inter-item correlation (Coakes & Steed, 1999).

To explore the dimensionality of the scale item it is necessary to go one step further from a reliability analysis and conduct what is known as a factor analysis. A factor analysis is related to reliability analysis, however it goes further to investigate whether there is more than one construct, or factor that can account for the pattern of correlations. The specific goals of a factor analysis according to Tabachnick and Fidell (1996:635) are as follows: to summarise patterns of correlations among observed variables; to reduce large numbers of variables into a small number of factors; to provide an operational definition for the underlying process by using the observed variables, and; to test a theory about the nature of an underlying set of variables. Principal components analysis is a special case of factor analysis designed primarily for data reduction, whereas other types of factor analysis techniques are utilised for structure detection. In making this distinction, factor analysis is more specifically a theoretical approach utilised when the researcher has a hypothesis about, or wants to understand the underlying structure. Thus a factor analysis examines the underlying, or latent, relationships between the variables to produce a smaller number of factors by only analysing the shared variance between variables (Tabachnick & Fidell, 1996). Principal component analysis, on the other hand, is a data reduction technique that removes highly correlated variables and replaces them with uncorrelated components (Coakes & Steed, 1999). It is an empirical approach which determines how the variables may be grouped together to develop a smaller set of components using the correlations among the variables, in this technique all variance in the observed variables is analysed (Tabachnick & Fidell, 1996).

#### **7.4 Limitations**

The major methodological limitations were largely due to resource constraints. In particular the limited time frame restricted the depth, reliability and representativeness of the study. Furthermore, due to an under estimation of the time, effort and resources required to obtain the desired sample size, the data set is smaller than had been anticipated. The survey instrument itself, while derived and adapted from established

measures, was yet untested in its own right, therefore the reliability and validity can be called into question. Reliability is defined as the extent to which a given finding will be consistently reproduced, and validity refers to the extent a given finding shows what it is believed to show, that is, it has been logically and correctly interpreted (Haslam & McGarty, 1998). Issues of reliability and validity have been addressed and the attempts to minimise errors have been outlined above. Furthermore, in order for results to be generalised, it must be ensured that the sample has been randomly drawn from the population and that the sample itself is representative of that broader population on the characteristics that the researcher wants to make generalisations about (Haslam & McGarty, 1998). This particular sample was drawn solely from the Denmark community and, coupled with the small sample size, it was difficult to generalise the results, not only outside of the community, but also within the community itself.

As previously mentioned, the survey itself was designed to be flexible in terms of data analysis. The conclusions that can be drawn from this research were therefore limited due to the lack of a theoretical model, and without specific research hypotheses against which to test and compare the results. While a limitation for this study, it has assisted in providing the first step in the development of more comprehensive and informed theory from which a sound research design can be developed to evaluate that theory. This research design was non-experimental, for example correlation or survey designs, therefore the independent variable was not manipulated and there was no control over the assignment of subjects to the level of the independent variable. This means that it was impossible to attribute causality to an independent variable, such that, while a survey design can establish that two or more sets of variables are related, the cause of the relationship is unclear (Tabachnick & Fidell, 1996). This said, survey design is still a valid form of research as suggested by Haslam and McGarty (1998), experimentation is not a substitute for careful observation and description of behaviour.

Specifically in terms of the use of factor analysis, it has been suggested by some authors that a major criticism is its use as an attempt to 'save' poorly conceived research, to the extent that, "if no other statistical procedure is applicable, at least data can usually be factor analysed" (Tabachnick & Fidell, 1996:637). This was observed through the power of factor analysis to "create apparent order from chaos" (*ibid*). The criticism in the use of this technique is not just limited to planning and application, but also interpretation. The interpretation and naming of the resulting factors or components depend largely on the

assumed meaning of the combination of observed variables that correlate highly with each factor. Furthermore, there is no criterion value against which to evaluate or test the solution against, other than what the researcher imposes on his/herself (Tabachnick & Fidell, 1996). Therefore, the interpretation and assigned meaning to the results is highly subjective and has the potential to appear rather arbitrary, particularly if the concept or area of study is new or under-researched. In general, the most common application of factor analysis techniques is exploratory in nature, thus both the theoretical and practical limitations are often relaxed in favour of a frank exploration of the data. It is important to note however, the practical limitations of factor analysis are that it is sensitive to both the size of correlations, outliers and missing data. Some authors suggest a sample size of at least 300, though if the items are strongly correlated, that is greater than 0.8, then 150 is sufficient (Tabachnick & Fidell, 1996).

### **7.5 Methodological Rationale**

The reason for the choice of simple correlation and independent sample t-tests over more complex statistical procedures such as multiple regression or MANOVA was that the area currently under research is still in its infancy. While there is a large body of qualitative evidence linking arts participation and wellbeing, there is few, if any, comprehensive and methodologically sound quantitative analysis in the area. Any models or theories presented in the literature pertaining to wellbeing do not explicitly analyse the influence of arts participation, but merely explain the impact of arts participation in the broader context of culture, recreation and even social and civic participation. It was therefore considered necessary, in the researcher's opinion, to examine the relationship between arts participation and individual aspects of wellbeing, and not necessarily the interplay between various aspects of wellbeing, though this was briefly examined through the use of principal components analysis. This was in order to gain a simple and clear insight into this relationship, if any, and to begin to establish a foundation, grounded in quantitative research, for which future exploration into this phenomenon can occur.

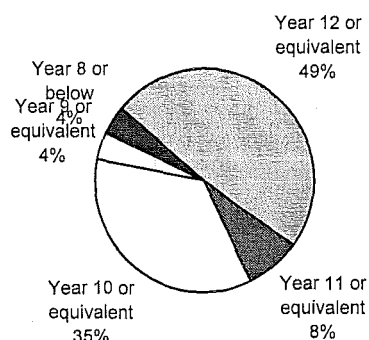
## 8.0 Results

### 8.1 Profile of the sample

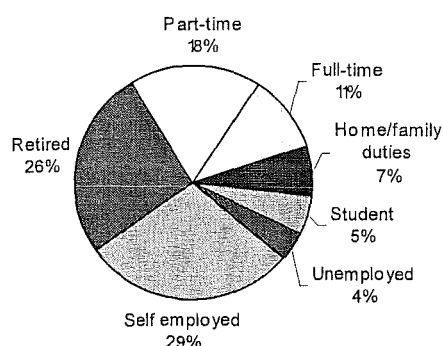
The Shire of Denmark, according to the Australian Bureau of Statistics (2005) had a population of 5,045 in 2003 (ABS, 2005). The population consisted of 21.5% aged 14 and younger, 35.9% aged 15 to 44, 27.5% aged 45 to 64 and 15.1% aged 65 and over. In 2001 there were 2,173 (49.9%) males and 2,185 (50.1%) females with a median age of 39 years (ABS, 2002). For this study, the sample of 76 respondents was made up of 45 females (59.2%) and 31 males (40.8%) with a mean and median age of 53 from a range of 19 to 85 years of age. A summary of the demographic data collected in the telephone survey is shown below in figure 6 as a series of pie charts showing the level of secondary school completed, further education and training completed, employment status and annual household income.

Figure 6: Pie charts of demographic data collected from participants

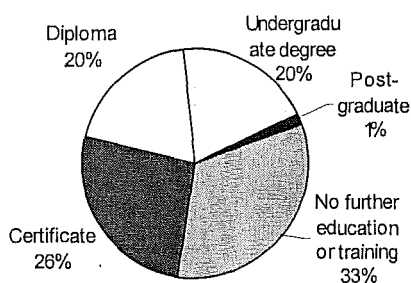
(a) Level of secondary school completed  
(n=74)



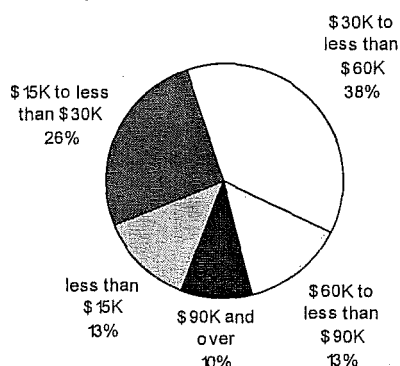
(c) Current employment status (n=76)



(b) Further education or training completed  
(n=76)



(d) Annual gross household income (n=61)



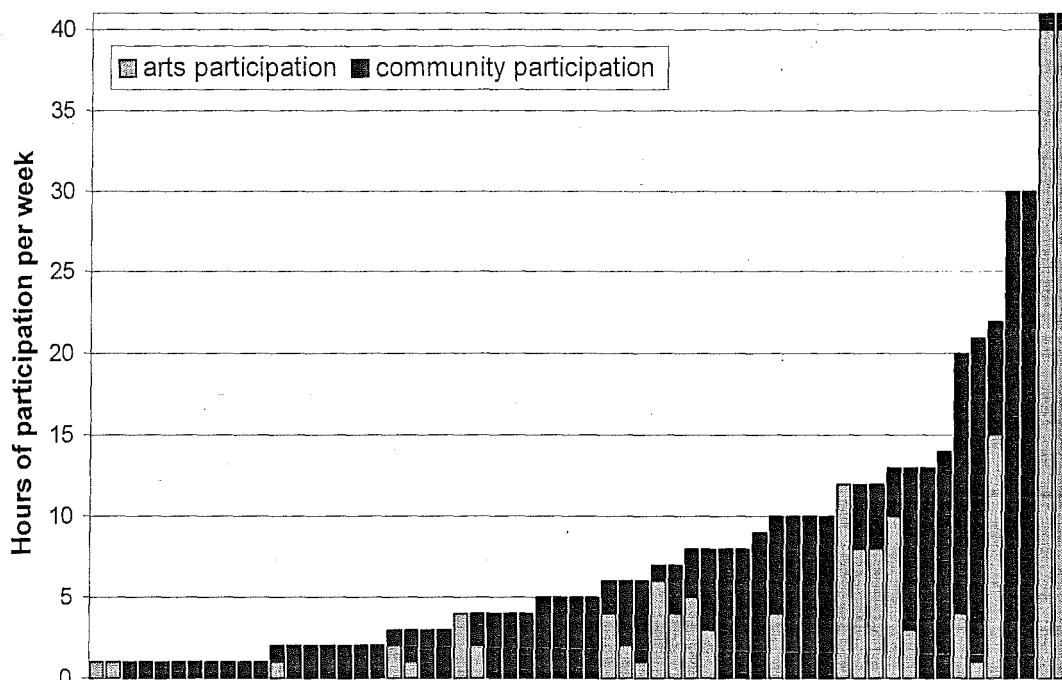


In total 36 of the 76 (47%) respondents had completed year 12 or equivalent and 26 had completed Year 10, or equivalent. Only one person surveyed (1%) had completed a post-graduate qualification, 15 (20%) had completed an undergraduate degree, 35 (46%) had completed a diploma, certificate or equivalent and 25 (33%) had not completed any further education or training. According to the Australian Bureau of Statistics (2002), of all persons aged over 15 in 2001, 114 (3.5%) held a postgraduate qualification, 288 (8.7%) held a bachelor degree, 882 (26.7%) held a advanced diploma, diploma or certificate, and 2,017 (61.1%) did not have a qualification, did not state a qualification, or stated a qualification outside of the scope of standard qualifications. In 2001, of all persons aged over 15 in Denmark there were 1,667 (90% of labour force) employed and of these 830 (49.8%) were full-time, 801 (48.1%) were part-time and 186 people (10% of labour force) were unemployed (ABS, 2002). This is compared to the figure above in which 44 (58%) respondents were employed, made up of 8 (11%) full-time employees, 14 (18%) part-time employees and 22 (29%) self-employed. Only 3 (4%) respondents were unemployed. A total of 20 (26%) respondents were retired and 9 (12%) were not looking for work due to study or household and family commitments. The median weekly household income for Denmark in 2001 was \$400-\$499, which is \$20,800-\$25,948 median annual household income (ABS, 2002).

## **8.2 Participation patterns**

Of those surveyed 59 (77.6%) were involved in some form of community and/or arts participation at a local or voluntary level, which leaves 17 non participants (22.4%). A total of 25 (32.9%) respondents were engaged in some form of arts participation within the last six months and 55 (72.4%) respondents had participated in other types of community groups or activities. Among the participants there was considerable overlap as only 4 respondents engaged solely in the arts within the last six months, leaving 21 of arts participants also involved in other community groups or activities. The pattern and overlap between types of participants is shown in figure 7 below.

Figure 7: Estimated number of hours of participation per week during the busiest times.



The total number of estimated hours of participation a week for the sample was 484 hours with 182 hours spent participating in the arts and 302 hours spent in other types of community participation. As can be seen from the figure above the hours of participation is strongly skewed, thereby producing a mean number of estimated hours of participation a week of 8.2 hours and a median of 5 hours within a range of 1 hour to 41 hours. Against the entire sample, that is including non-participants, the mean decreases to 6.4 hours. Among arts participants the mean estimated hours is 7.3 hours a week and a median of 4 hours within a range of 1 hour to 40 hours. Against the total sample the mean is reduced to 2.4 hours, and among community participants the mean is 5.5 hours a week with a median of 3.5 hours within a range of 1 to 30 hours. This gives a mean of 4 hours against the total sample.

The types of groups and activities that respondents participated in are presented in the frequency tables shown in figure 8 below. Visual art and craft was the most popular form of arts participation with over half of arts participants (56%) engaging in this type of group or activity. This was followed by community arts festival (32%), music (20%) and theatre (16%). In terms of other types of community groups and activities,

the most frequent type cited by respondents is sport (34.5%), followed closely by special interest or support groups (32.7%) and charity organisations (30.9%).

Figure 8: Frequency tables of participation by type of group and/or activity

(a) Participation by art form

Type of art participation	# responses	% of responses	% of arts cases	% of sample
Visual art and craft	14	38.9	56	18.4
Community Arts Festival	8	22.2	32	10.5
Music	5	13.9	20	6.7
Community/amateur theatre	4	11.1	16	5.3
Other	3	8.3	12	3.9
Dance	2	5.6	8	2.6
TOTAL	36	100	144	32.9

\*51 missing cases; 25 valid cases

(b) Participation by type of community activity or group

Type of community activity or group	# responses	% of responses	% of cases	% of sample
Sport	19	18.4	34.5	25
Special interest or support	18	17.5	32.7	23.7
Charity	17	16.5	30.9	22.4
Community Action Group	14	13.6	25.5	18.4
Other	14	13.6	25.5	18.4
Religion or church	8	7.8	14.5	10.5
TOTAL	103	100	187.3	72.4

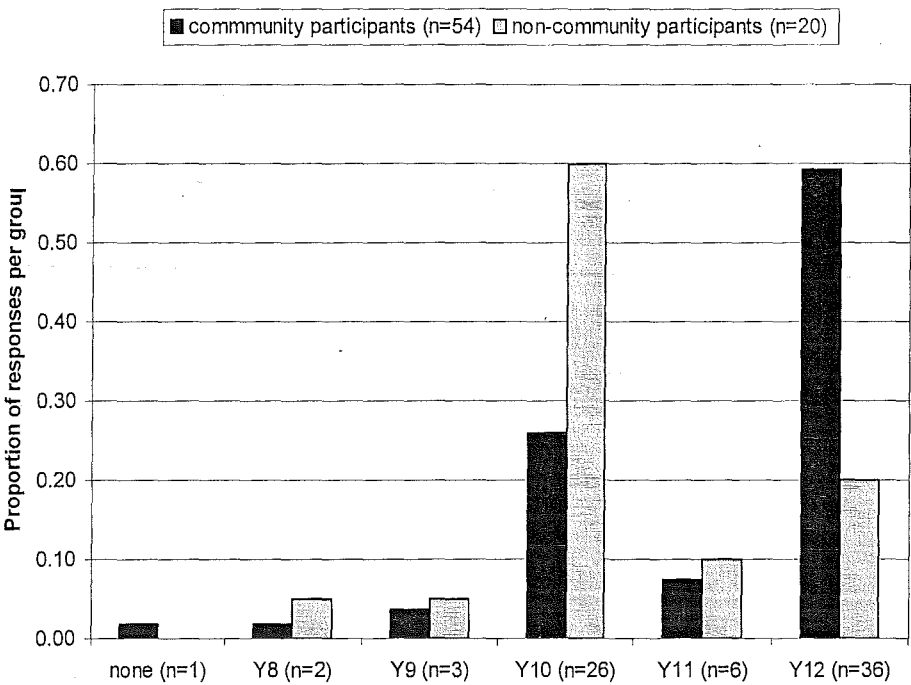
\*21 missing cases; 55 valid cases

The spread between the types of community participation is fairly even in contrast to arts participants, who have most frequently cited visual arts and craft as the type of arts participation. It is also apparent through these frequency tables that many respondents in either group participated in more than one type of group or activity. For example, the average arts participant was involved in an average of 1.4 different types of arts groups or activities and the average community participant was involved in an average of 1.9 different types of community groups and activities.

A summary of the demographic data as a comparison of participants to non-participants using a cross-tab analysis revealed differences in the demographic profile between the two groups (for full tables of results see appendix D). While a comparison of arts participants to non-arts participants did not yield any significant results, there were differences apparent in patterns of secondary school completed, further education and training, and income for total participants versus non-participants and community participants versus non-community participants. A Mann-

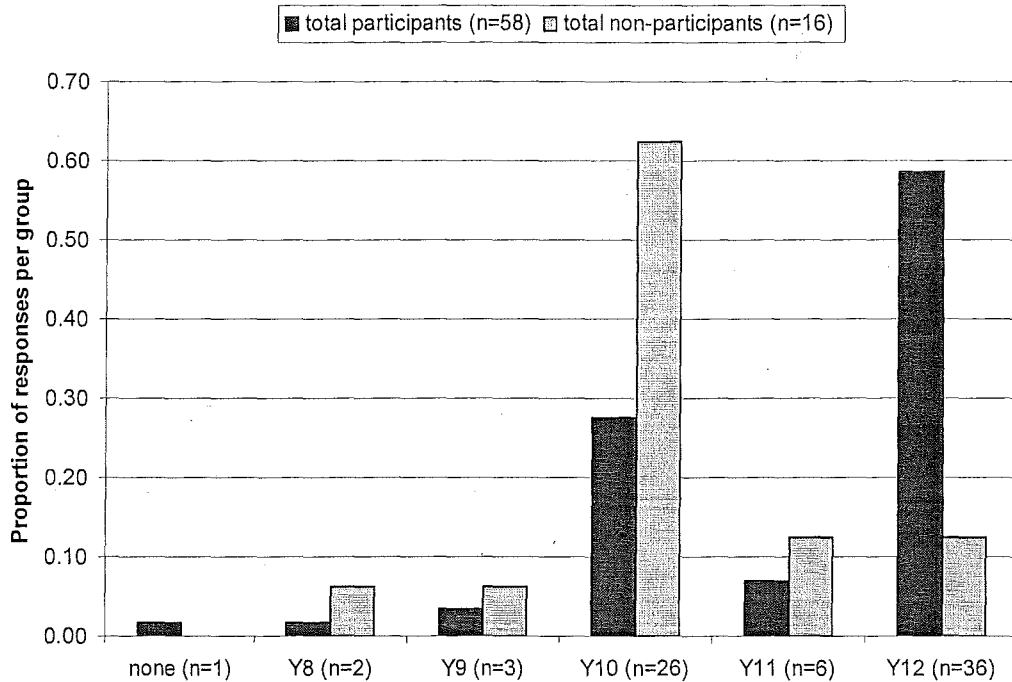
Whitney U test produced significant results for the difference in the patterns of secondary school completed for community participants against non-participants (U=328.5,  $p<0.01$ ) as shown in figure 9 below.

Figure 9: The level of secondary education completed compared as a proportion of community participants to non-community participants



From the figure above 59% of community participants had completed year 12 or equivalent as compared to 20% of non-community participants, which was almost a mirror image with 60% of non-community participants having completed year 10 or equivalent compared to 26% of community participants. The pattern became slightly more exaggerated when the arts participants were included and compared to total non-participants as shown in figure 10 below.

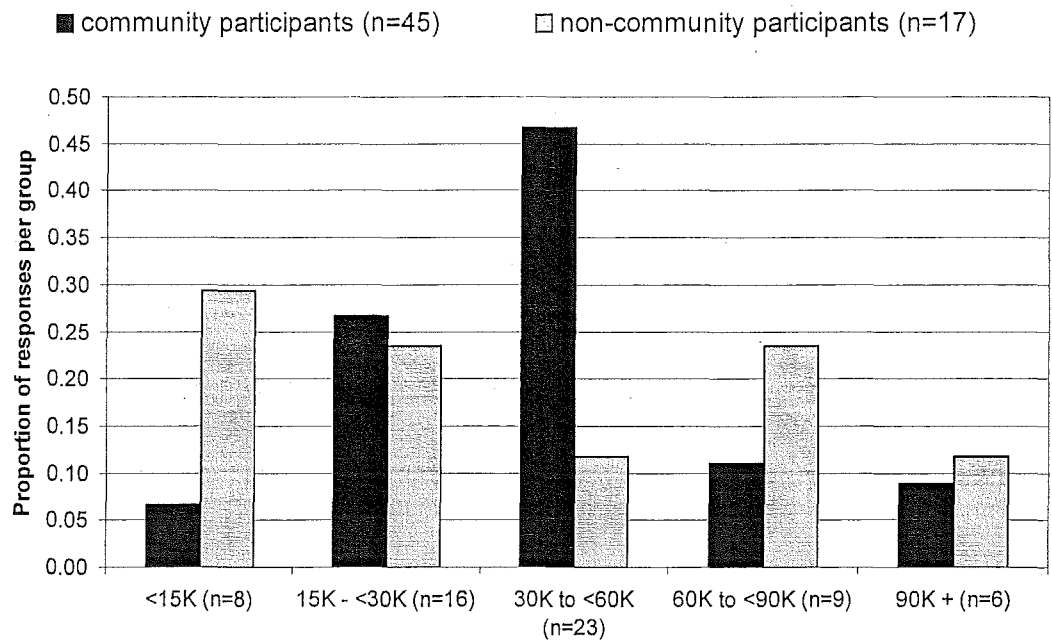
Figure 10: The level of secondary education completed compared as a proportion of total participants to non-participants



Again the figure shows 59% of both community and art participants have completed year 12 or equivalent and the removal of the 4 arts participants from the non-participant group brings the proportion of respondents who had completed year 12 or equivalent down to 13%. The difference in the spread of the two groups was shown to be significant ( $\chi^2=11.789$ ,  $p<0.05$ ;  $U=250.5$ ,  $p<0.01$ ). Furthermore, Cramer's V showed a significant correlation between the variables suggesting that the degree of association between participation or non-participation and level of secondary education obtained is significant ( $V=0.399$ ,  $p<0.05$ ).

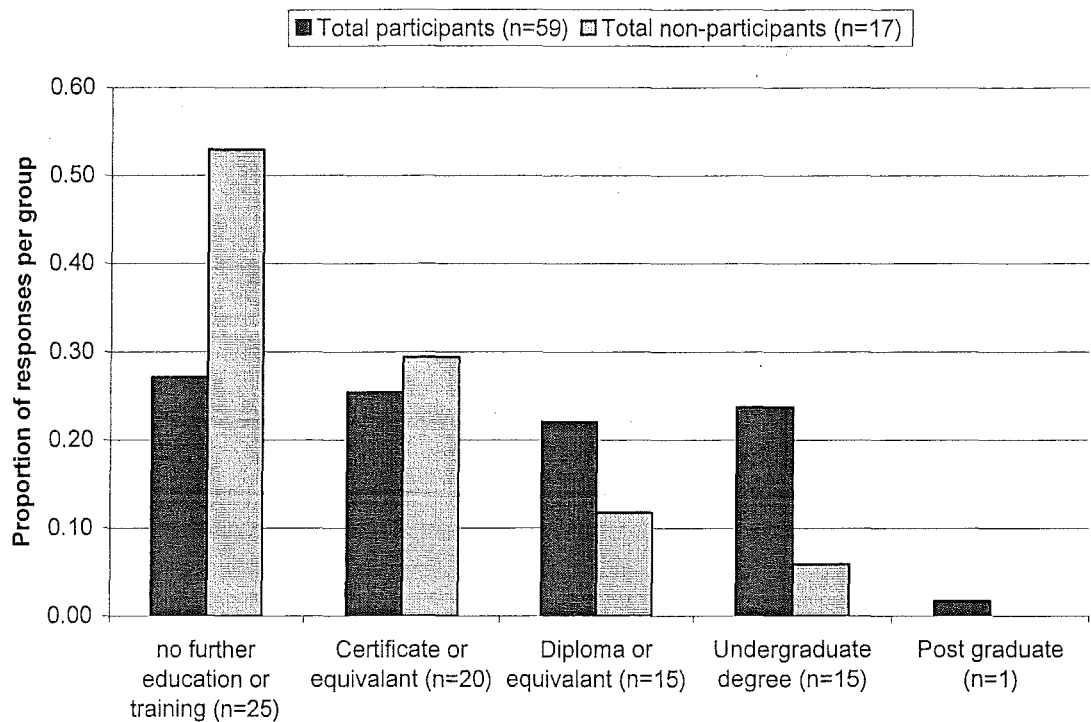
Other significant patterns in the data were revealed for the comparison of community participants and non-participants on self-reported household annual income and for total participants and total non-participants for further education and training. These are shown in figures 11 and figure 12 respectively below.

Figure 11: Gross annual household income as a proportion of community participants to non-community participants



The above figure shows the significantly different patterns of annual household income for the two groups ( $\chi^2=10.462$ ,  $p<0.05$ ). The largest discrepancy in the proportion of responses for the two groups is in the \$30,000 to less than \$60,000 annual household income bracket where the proportion of community participants in this group peaks, yet this is the category of the lowest proportion of non-participants.

Figure 12: Further education and training completed compared as a proportion of total participants to non-participants



The difference in the pattern of responses of participants and non-participants to level of further education and training was found to be significant ( $U=315.5$ ,  $p<0.05$ ). With the exception of post-graduate education, there was a fairly even spread of the proportion of total participants across all levels of higher education and training, as shown in figure 12 above, with approximately one-quarter of this group represented in each category, including no further education. There was a different pattern in the spread of responses for non-participants with 53 percent having no further education or training and this proportion getting progressively lower the higher the level of education or training.

8.3 How participation relates to wellbeing

The significant correlations between hours of arts participation, community participation and total hours of participation with each item on the wellbeing measure is shown in figure 13 below (for the full table of results see appendix D).

Figure 13: Table of significant correlation coefficients for hours of arts participation, community participation and total hours of participation

	Arts participation	Community participation	Total participation
Satisfaction with life as a whole	$r=0.234$ ( $p<0.05$ )	$r=0.265$ ( $p<0.05$ )	$r=0.364$ ( $p<0.01$ )
Satisfaction with standard of living	-	$r=0.255$ ( $p<0.05$ )	$r=0.325$ ( $p<0.01$ )
Satisfaction with quality of life	$r=0.249$ ( $p<0.05$ )	$r=0.252$ ( $p<0.05$ )	$r=0.367$ ( $p<0.01$ )
Satisfaction with health	-	-	$r=0.238$ ( $p<0.05$ )
IMPACT (I feel I can make an impact in making my community a better place to live)	-	$r=0.239$ ( $p<0.05$ )	-
ISSUE (I have a strong understanding of the issues affecting my community)	-	$r=0.311$ ( $p<0.01$ )	-
EXCITE (I have felt particularly excited or interested in something)	-	$r=0.279$ ( $p<0.05$ )	$r=0.356$ ( $p<0.01$ )
PROUD (I have felt proud because someone complimented me on something I had done)	$r=0.276$ ( $p<0.05$ )	-	$r=0.276$ ( $p<0.05$ )
CONNECT (I feel connected with my community)	-	-	$r=0.309$ ( $p<0.01$ )
CONTROL (I have control over my life situation)	-	-	$r=0.268$ ( $p<0.01$ )
ACCOMPLISH (I have pleased about having accomplished something)	-	-	$r=0.249$ ( $p<0.05$ )
TOP (I feel on top of the world)	$r=0.310$ ( $p<0.01$ )	-	$r=0.359$ ( $p<0.01$ )
DEPRESS (I have felt depressed or very unhappy)	-	-	$r=0.271$ ( $p<0.05$ )
BORED (I often feel bored)	-	-	$r=0.251$ ( $p<0.05$ )
MYWAY (Things have really gone my way)	-	-	$r=0.231$ ( $p<0.05$ )

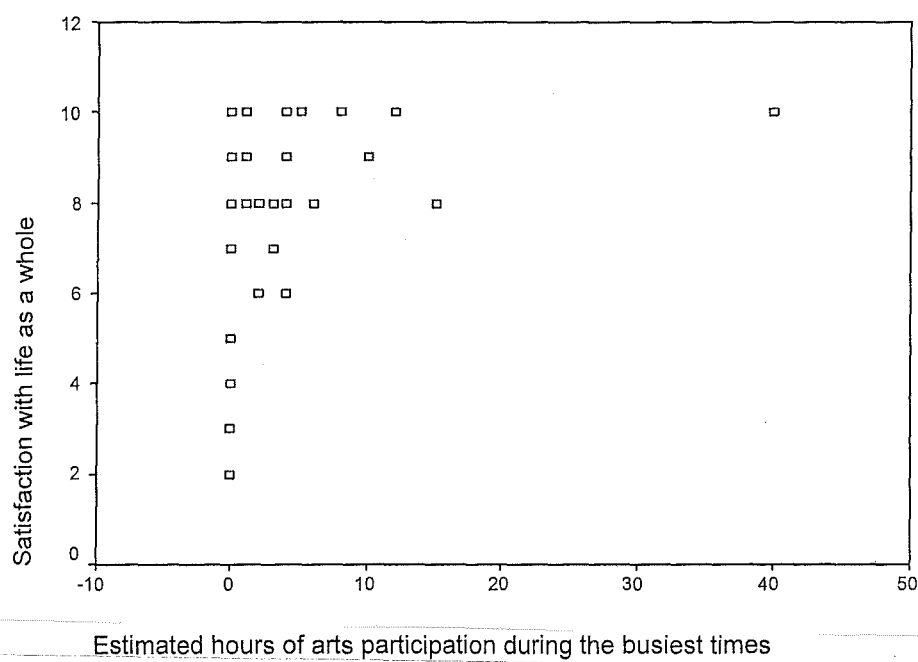
Hours of arts participation was shown to be significantly correlated with the items PROUD and TOP, both measures of positive affect, which did not produce a significant correlation when compared with hours of community participation. Similarly, hours of community participation produced significant correlations with the following items not found to be significant with hours of arts participation: 'satisfaction with standard of living', a direct cognitive measure; IMPACT and ISSUE, which represent aspects of social capital within the community, and; EXCITE, a positive affect measure. A consideration of the total hours of participation served to increase the strength of most of the relationships shown to be significant for either arts participation or community participation while also decreasing the strength of others, such as the hours of community participation and the item IMPACT, or revealing significant relationships that did not occur when either arts or community

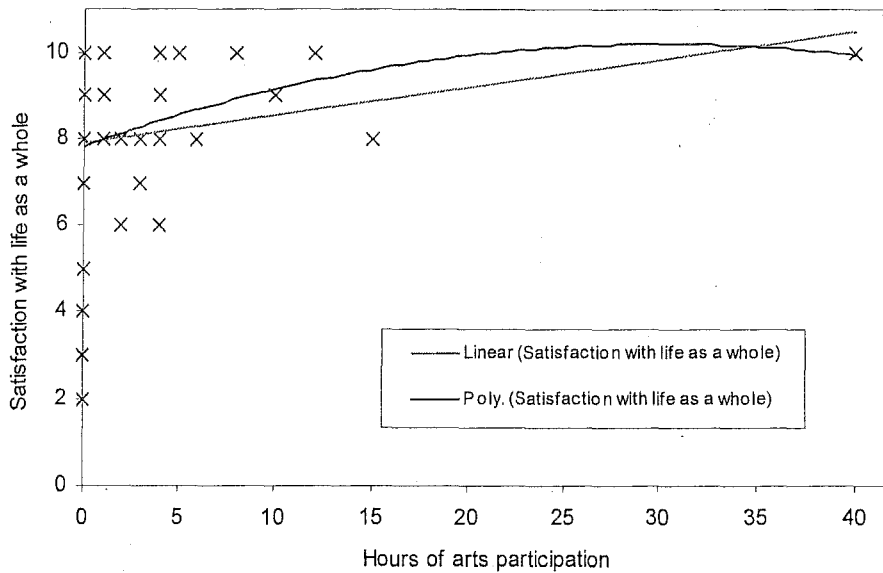


participation was examined alone, such as total hours of participation and ‘satisfaction with health’.

Despite significant results, closer examination of the scatterplots for these items reveals violations in the underlying assumptions of this particular statistic. For example, figure 14 below shows the scatterplot for hours of arts participation against “satisfaction with life as a whole”, as well as the distribution of scores with both a linear and quadratic curve for comparison of the pattern of the relationship of the two variables.

Figure 14: Scatterplot and distribution of scores for hours of arts participation and satisfaction with life as a whole with both linear and quadratic estimation curves





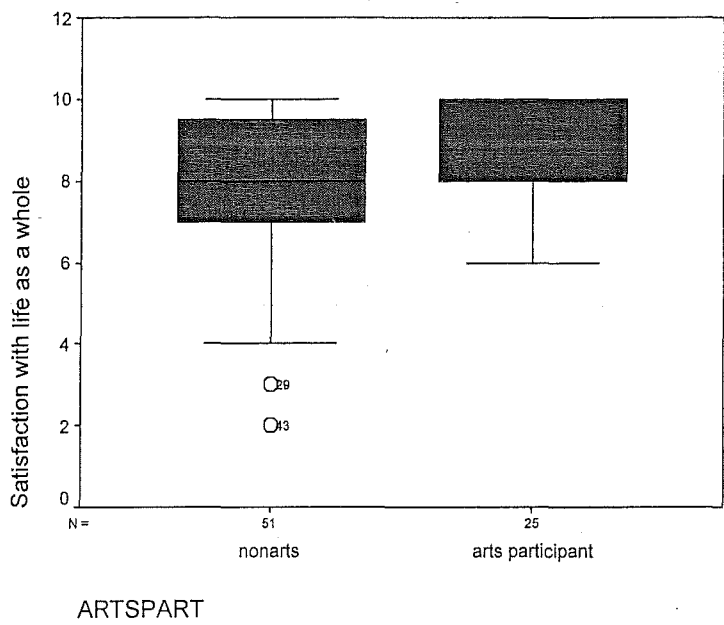
The scatterplot revealed that the nature of the relationship was not linear and that there were other confounding variables affecting the response to this item other than hours of participation alone. The linear and quadratic estimation curves further support the assumption that the spread of scores did not easily lend itself to simple linear correlation. The scatterplots of all other items on the scale with hours of art participation and hours of community participation showed similar patterns to the one demonstrated above and are included in Appendix D.

#### 8.4 The wellbeing of participants versus non-participants

The hours of participation variables were transformed from interval data (that is, the number of hours ranging from zero to 40) to nominal data (that is, “participants” equals all responses equalling one hour or more, and “non-participants” equals all responses equalling zero hours). This allowed a comparison between the difference in the mean satisfaction and wellbeing scores between the two groups using independent samples t-test. There was an evident visual difference in the spread of scores between the two groups, despite whether the sample was split between arts participants and non-arts participants, community and non-community, or both arts and community participants (ie, total participants) and non-participants. A full table of the results and the corresponding boxplots can be found in appendix D, however the discussion here is limited only to those comparisons that yielded significant results.

The difference between arts participants and non-arts participants for their response to the question concerning “satisfaction with life as a whole” can be visually demonstrated through a box plot shown in figure 15 below.

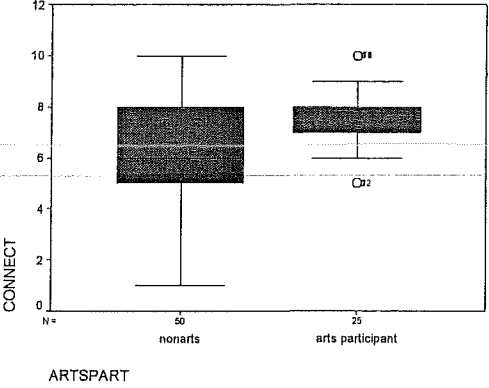
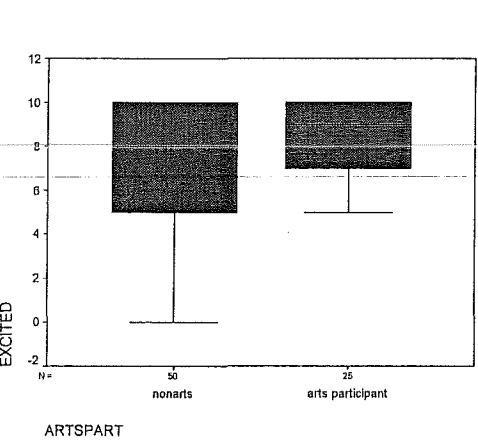
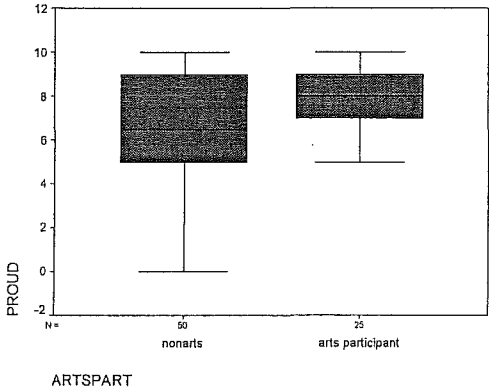
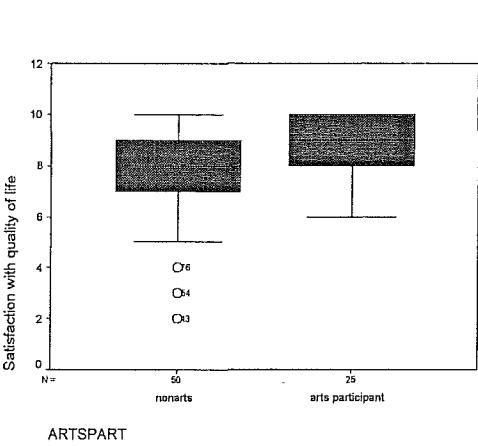
Figure 15: Boxplot graph of the spread of scores for arts participants versus non-arts participants on satisfaction with life as a whole

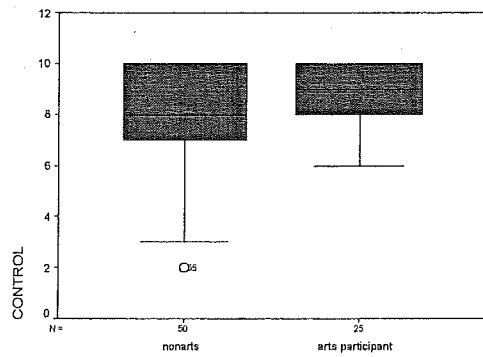


This boxplot was typical of the pattern common to most items on the measure when comparing either arts participants and non-arts participants or total participants to non-participants. The spread of the scores was also different between the two groups, and many of the t-tests were found to have violated the assumption of equal variance. Where this was the case, smaller degrees of freedom were employed. Independent samples t-test comparing arts participants to non-arts participants, as well as the total participants to non-participants, showed significant results on the specific items expressed in figure 16 and figure 17 respectively below, with their corresponding boxplots.

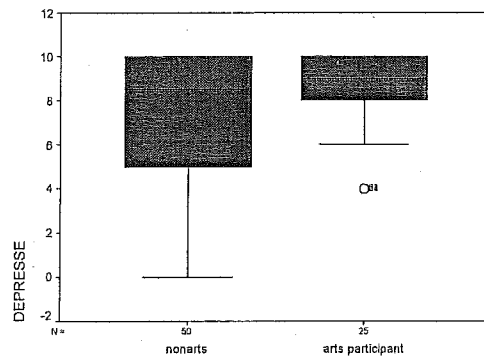
Figure 16: Independent-samples t-test and boxplots for those items shown to be significant for arts participants versus non-arts participants

Item	Mean Score		t value (df)	Sig.
	Arts participants	Non-arts participants		
Satisfaction with quality of life	8.80	7.78	-2.41 (74)	0.05
EXCITE (I have felt particularly excited or interested in something)	8.48	7.06	-2.88 (73)	0.01
PROUD (I have felt proud because someone complimented me on something I had done)	8.00	6.43	-3.07 (71)	0.01
CONNECT (I feel connected with my community)	7.64	6.16	-3.35 (73)	0.05
CONTROL (I have control over my life situation)	8.72	7.78	-2.18 (73)	0.05
TOP (I feel on top of the world)	7.92	6.90	-2.34 (64)	0.05
DEPRESSED (I have felt depressed or very unhappy)	8.44	7.18	-2.25 (72)	0.05

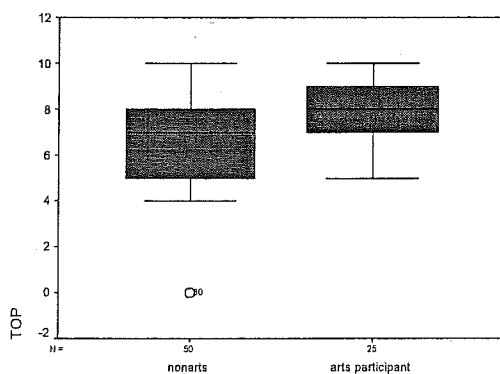




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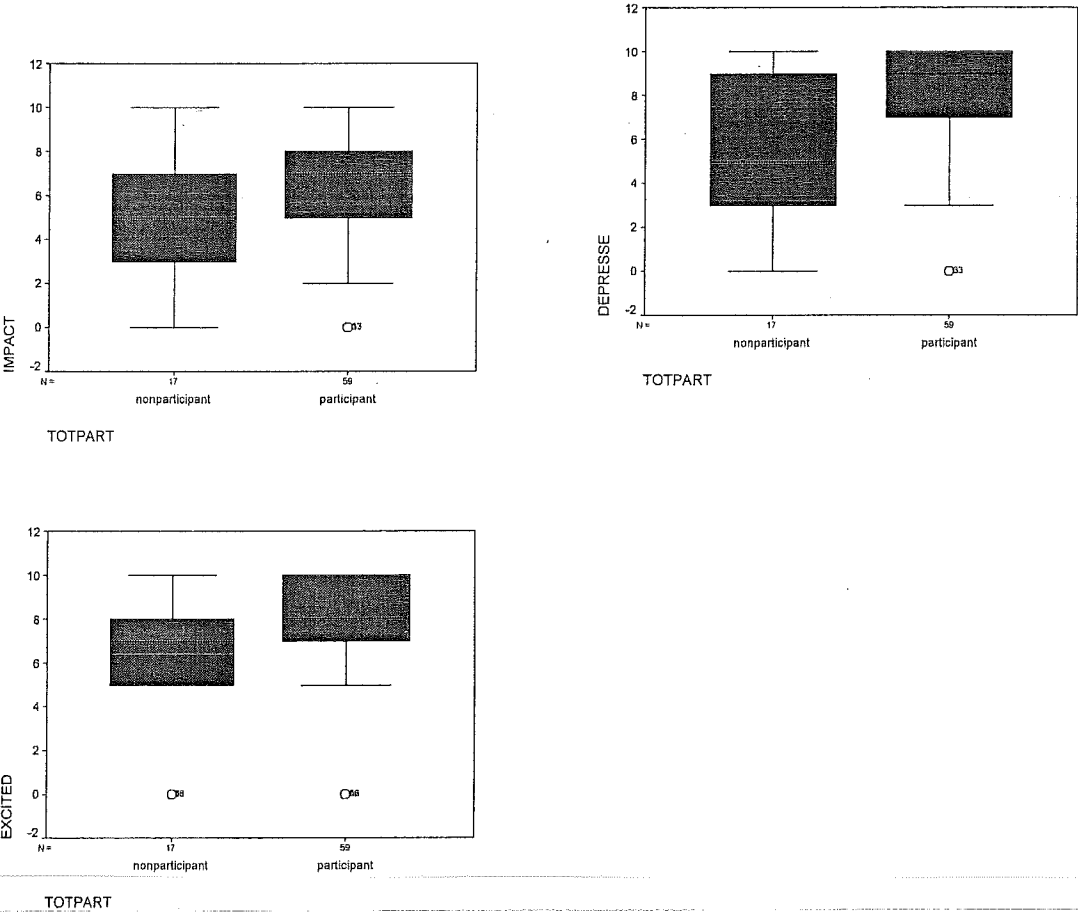


ARTSPART

While the above results indicate significant differences in the mean scores of the two groups for the listed items, both arts participants and non-arts participants had average scores on the positive end of the scale, that is above five, which is neutral. The biggest difference in the mean scores between the two groups was for the items EXCITE and PROUD, which are both measures of positive affect. Three items that produced significant t-test results, namely 'satisfaction with quality of life', PROUD and TOP, were also significantly correlated with the hours of arts participation. This suggests that there was both an association with the amount of time spent participating, as well as with status as a participant. However, an examination of arts participation status alone, as opposed to hours of participation, had produced an additional three significant differences between the two groups for the items CONNECT, a measure of social capital, CONTROL, a personal attitude or trait and DEPRESSED, a measure of negative affect.

Figure 17: Independent-samples t-test and boxplots for those items shown to be significant for arts participants versus non-arts participants

Item	Mean Score		t value (df)	Sig.
	Total participants	Non-participants		
IMPACT (I feel I can make an impact in making my community a better place to live)	6.44	4.88	-2.11 (74)	0.05
EXCITE (I have felt particularly excited or interested in something)	7.88	6.29	-2.37 (74)	0.05
DEPRESSED (I have felt depressed or very unhappy)	8.08	5.88	-2.40 (20)	0.05



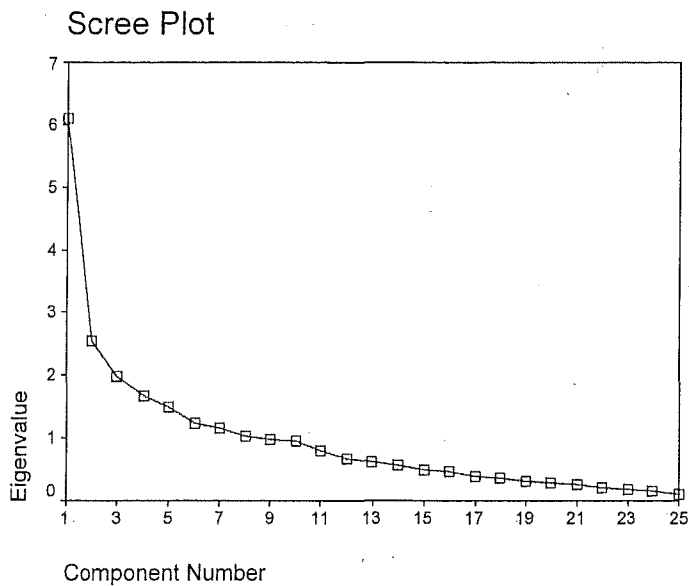
The results for community participants and total participants revealed the same significant items, therefore only a comparison of total participants to non-participants has been shown here. Only three items were shown to be significantly different for the two groups of total participants versus non-participants. The first is IMPACT, an item representing community wellbeing, specifically, empowerment and political action as a measure of social capital. This item was also significantly correlated with hours of community participation, but did not reveal any significant relationships with either arts participation status or hours of arts participation. The mean score for non-participants on this item is the only one shown here which is under five, and thus the

only item that averaged on the negative end of the scale. The other two items shown to be significantly different for total participation status were EXCITE and DEPRESSED, both of which represent positive and negative affect, respectively, which was also shown to be significantly different for arts and non-arts participants.

### **8.5 Reliability and use of the wellbeing measure**

An initial correlation matrix showed a strong association between many of the items on the measure. A reliability analysis using Cronbach's alpha revealed a high reliability coefficient ( $\alpha=0.8394$ , # cases = 75, # items = 25) suggesting a high degree of association among all variables on the measure. The factor analysis, utilising principal components analysis, on all 25 items of the measure revealed eight underlying components accounting for 69 percent of the variance in the data. Bartlett's Test of Sphericity was significant ( $\chi^2=769.243$ ,  $p<0.001$ ), so it can be assumed that the variables were related and suitable for structure detection. The Kaiser-Meyer-Olkin measure of sampling adequacy was 0.683, indicating the proportion of variance in the variables that might be caused by underlying factors, which is just above the acceptable level. The measure of sampling adequacy on the anti-image correlation matrix reveals most variables were above the acceptable level of 0.5 with the exception of VALUES (0.450) and EXCITE (0.497). The extraction communalities table, which is an estimate of the variance in each variable that is accounted for by the components in the solution, reveals three variables with small values, that is less than 0.6, these are IDEA (0.517), SUCCESS (0.504), and VALUES (0.547). The screeplot and rotated components matrix using the Varimax with Kaiser Normalisation method is shown below in figures 18 and 19 respectively. The full output of the factor analysis is in appendix D.

Figure 18: Scree plot using Principal Components Analysis for all 25 items



The scree plot above reveals one dominant component with an eigenvalue of six, thus this first component accounted for the largest proportion of variance. While the statistical program used to conduct the analysis, SPSS, includes all components with an eigenvalue over one, from this scree plot it appears that the slope begins to flatten out around the fifth and sixth components. On closer examination components six, seven and eight only account for approximately 13.6 percent of the variance, that is from 4.1 to 4.9 percent each, with the first five components accounting for 55 percent of the total variance. The pattern evident in the scree plot was also reflected in the rotated component matrix in figure 19 below.



Figure 19: Rotated Components Matrix

	Rotated Component Matrix <sup>a</sup>							
	Component							
	1	2	3	4	5	6	7	8
Satisfaction with quality of life	.888							
Satisfaction with life as a whole	.770							
EXCITED	.626			-.311				-.334
Satisfaction with health	.550					.529		
Satisfaction with standard of living	.484		.307		.318		.344	
FRIENDS		.753						
CONTROL		.720						
MYWAY		.663	.309					
CONNECT			.788					
Satisfaction with feeling a part of community			.754					
IMPACT			.663			.437		
ISSUE			.600		-.389			.416
IDEA				.652				
DEPRESSE	.568			.624				
RESTLESS				.599			.398	
LONELY				.592	.322			
SUCCESS				.548				
VALUES					.682			
SAFE		.381			.655			
TOP		.412			.450	.387		
PROUD						.773		
ACCOMPLI		.446				.523		
BORED							.729	
HELP							-.503	.380
TROUBLE								.778

Extraction Method: Principal Component Analysis.  
Rotation Method: Varimax with Kaiser Normalization.  
a. Rotation converged in 10 iterations.

As can be seen from the figure above there appeared to be a pattern emerging in the association of individual variables to each component. The initial four components showed a very strong association of at least three variables with each component. From the fifth component on, however, the strength of the association declined and there was not as many strongly correlated variables present. Component one appears most strongly correlated with three of the five direct cognitive measures of wellbeing, as well as one measure of positive affect. Component two was strongly correlated with two measures of personal attitudes and traits, and a measure of social capital, which indicates social groups and networks. The third component appears to represent identity and connection with the community as it was strongly correlated with items that represent a direct cognitive measure specifically focused on satisfaction with feeling a part of the community, and three measures of social capital representing information and communication, trust and solidarity, and empowerment and political action. Interestingly, despite recoding of the negatively worded items, five of the six negatively worded items were correlated with component four. Two of these items

represent negative affect and one represented a personal attitude or trait. The remaining two are measures of social capital reflecting information and communication, and social cohesion and inclusion. Component five was most strongly correlated with two items that indicate trust and solidarity, and conflict and violence as measures of social capital.

While the principal component analysis does produce some interesting associations with the identified components, it is believed that any conclusions drawn at this point would be premature and based on speculation alone. The sample size was barely adequate to support any definite conclusions being drawn from this kind of analysis and while strong correlations are present there was also a large number of components. This in itself does not warrant the reduction of the variables without further refining and testing of the measure with larger samples, and which are drawn from differing populations.

## 9.0 Discussion

### 9.1 Arts participation and wellbeing

There were no significant differences found between the demographic profiles of arts participants compared to non-arts participants. Although, both the correlations and the t-test results showed significant relationships between the hours of arts participation and significant differences in the average scores for arts participants compared to non-arts participants for specific items on the wellbeing measure. This included items that represent positive and negative affect or mood states, personal attitudes and traits, and trust and solidarity within the community. Arts participants also scored significantly higher than non-arts participants on the direct cognitive measure 'satisfaction with quality of life', and hours of arts participation was associated with both this item and 'satisfaction with life as a whole'.

### 9.2 The arts versus other forms of community participation

The fact that such a large number of participants overlap made it impossible to draw any conclusions in terms of a comparison between the two different types of participants. However, an examination of the different types of participation both separately and together allows a comparison between where the greater association lies. It was also interesting to observe how the two work together and differ from each other when each one was considered on its own. For example, the total hours of participation correlated with 13 of the 25 items on the wellbeing measure, whereas hours of community participation correlated significantly with six items and hours of arts participation was significantly correlated with only four items. Total hours of participation was found to be associated mostly with items concerning positive and negative affect, but also with the items 'satisfaction with health' and CONNECT, both of which did not produce significant results when examined with either arts or community participation alone.

The differences observed in the demographic profile of participants to non-participants, such as the higher proportion of non-participants in the lower income group, may be a reflection of the lower education and training levels for this group. It was also observed in the results section that the portion of participants peaked in the

middle income bracket, whereas this same category had the lowest proportion of non-participants who were more likely to fall into the under \$30,000 and over \$60,000 categories of gross annual household income. This pattern may have been a reflection of time constraints for higher income earners, and households in the lower income brackets could be attributable to resource constraints. Though again, this is just speculation and further investigation may be warranted in order to explore this phenomenon further.

The relationship between hours of community participation and the items IMPACT and ISSUE was rather interesting, as neither of these items produced a significant result when comparing hours of arts participation, nor hours of total participation. These items both represent social capital, the first of which was a measurement of empowerment and political action, and the latter of information and communication. The item EXCITE was another measure that showed a strong relationship with both hours of community participation and community participation status on its own. While EXCITE is a measure of positive affect, the wording of the question, and its association with the other items could imply excitement or interest in a specific topic or issue. This is highly appropriate when considering the types of groups or activities included in community participation such as special interest and support groups, community action groups, charity organisations, and political groups and activities. Even sport, in particular competitive sport, would be more inclined to lend itself towards this item than others that representing positive affect.

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When comparing the results of the t-tests to the correlations similar items have come up as significant, suggesting that there is both a relationship between the amount of participation and a difference in the average wellbeing scores for these items between participants, regardless of the amount of time spent participating, and non-participants. While many of the items overlap in terms of their relationship with either type of participation across both types of tests, the only item that revealed a relationship with both community participation and total participation, but not arts participation was IMPACT. Despite this, more items were shown to have differences in the response of arts participants to non-arts participants than when these items were compared across either community participants or total participants. This includes the

items QUALITY, PROUD, CONNECT, CONTROL and TOP, whereas all comparisons of types of participation were strong for the items EXCITE and DEPRESSED.

Within the context of the literature review, Torjman (2004) suggested that culture and recreation is associated with physical health as expressed through self esteem, self concept, and decreasing depressive symptoms such as stress and anxiety. This was supported by this research, as mentioned previously, participants were more likely to score positively on the item DEPRESSED than non-participants. The item PROUD also showed a strong relationship with both arts participation and total participation, which could be said to reflect self esteem and self concept as an aspect of positive affect. Participation is considered essential to health through its ability to increase trust and networks and thereby fostering community action which results in changes in the physical and social environment (Bush & Baum, 2001). This was evident in the strong relationship shown between community participation and the items IMPACT and ISSUE. These items together suggest a sense of empowerment, interest and understanding of what is required to bring about change in the community. As previously mentioned in the literature review, Bush and Baum (2001) distinguish between the types of engagement suggesting that social participation predicts health status and civic participation is more likely to predict sense of community control. It would be interesting to investigate what types of community groups and activities are associated with these items, which thereby had the effect of increasing the strength of the relationship with engagement in these activities and those items on the measure, as opposed to engaging in the arts.

In terms of distinguishing arts participation from other types of community participation, it was discussed in the literature review that the arts differ in the meaning and value they portray, the types of participants they engage, and the quality of that engagement. The arts have also been said to differ from, for example, engaging in sport, because it is less competitive. According to the WA State inquiry into the impact of the arts in regional WA (Community Development and Justice Standing Committee, 2004), the arts are inclusive and foster tolerance, understanding and connectedness through its ability to support creative and lateral thinking. While this

research was not conclusive enough to support the distinctions made in the literature between participating in the arts and other forms of participation, there were a few strong relationships between the positive affect measures PROUD and TOP, both of which did not produce a significant relationship when compared with community participation alone. Arts participants were also generally more satisfied with their quality of life and scored higher than non-participants on feeling connected with their community, a measure of social capital, and having a sense of control over their personal situation.

### **9.3 Measuring wellbeing and evaluating arts impact**

The survey instrument was simple and easy to use, administer and understand and was designed in such a way as to be able to be used either over the phone, in person or as a self-completed questionnaire. A high reliability coefficient using Cronbach's alpha is reassuring, suggesting that the wellbeing measure was internally consistent. In the researcher's opinion, the finding and adaptation of established measures of satisfaction, wellbeing, social capital and other social indicators was not difficult. Thus, it is hoped this research provides the starting point and impetus to ease the transition into the common use of these types of tools, not only in the evaluation of arts programs, but to further the field of arts and wellbeing, both directly and indirectly, which effectively encourages increased access, participation and involvement in arts and cultural activities.

It was noted in the literature review that a concern voiced by Matarasso (1997) was the danger of organisers, artswomen or community artists, adjusting the outcomes of a project to match the indicators. It is hoped that what was demonstrated by this research paper is the impossibility of adjusting the outcomes of the project if the measure itself is independent of the project. The major difficulties with this line of thought lies in the types of questions that are asked, and the perception that a survey or a project evaluation can 'prove' something that is both subjective and intangible. An evaluation of a project in the form of a survey cannot prove causal relationships, it can only claim that participation is associated with particular outcome measures, unless of course, the experimental method is employed, that is the use of a control group and an experimental group, such as participants and non-participants.

Alternatively a pre-test/post-test design can be employed to determine the change in wellbeing scores, if any, before and after participation, and the effects of participation over time.

Newman and colleagues (2003) suggest that the reduction of outcomes to quantitative measurements of satisfaction does not sufficiently cover the impact of an artistic experience on either an individual or the community at large. While this may be true of particular aspects of the impact of participation, it is important to get a balance of both quantitative and qualitative approaches when assessing arts impact in order to acquire a complete picture. The choice of which approach to utilise should be determined by the aim of the research. An important aspect of the approach with this research was a focus on the outcomes of participation with no interference or influence on the process. One of the arguments against using quantitative research methods in arts impact research is an ethical decision as to what extent creative processes can, or should, be managed and controlled (Newman, et al., 2003). Newman and colleagues (2003) have also highlighted the difficulties of arts impact evaluation in the challenges created through the large number of stakeholders and the multiplicity of possible outcomes. As mentioned in the literature review, the level of complexity and a dissonance between research requirements and artistic temperaments make experimental models of research impractical (Newman, et al., 2003). However, these problems did not arise whilst conducting this research, which is easily adaptable to an experimental model involving a control and experimental group, as well as pre-test and post-test data and/or a longitudinal design. This would allow the comparison of participants to non-participants and the effects of participating over time. Evaluation of the impacts of participation should not involve any interference in the process of art production and can be both easy and simple to administer and use.

#### **9.4 Implications of findings**

The sample for this study does not adequately represent the population of Denmark as per the demographic information available from the Australian Bureau of Statistics. For example, this study has a larger number of females and is on average older than the population of Denmark, although only those over 18 years of age were surveyed.

The underrepresentiveness of the sample to the population is attributed to the small sample size, which in turn was directly related to resource and time limitations. While the results can not be generalised to the population, it at least provides a workable methodology for future research. This said, larger samples may identify differences in demographics of art to non-art participants, as to who they engage and the quality of that engagement, however, there wasn't conclusive evidence from this research to draw any comprehensive conclusions due to both the sample size and considerable overlap between types of participants. The evidence from this research suggests these differences are apparent in the demographic data collected between participants generally and non-participants, however a casual relationship is not clear.

The type of groups and activities that people participate in was also limited to what was available within the community. For example, the small number of respondents who participated in dance admitted that it was a touring activity and a part of the annual Perth International Arts Festival. Such that, had this activity not toured to the area then no respondents would have cited dance. It is important to take account of seasonal activities and yearly events such as certain types of sport, community festivals and the Christmas pantomime. Likewise, special one-off events, political issues, activities and debates have the power to involve more participants than it would otherwise had there been no special event or occasion for people to get involved in.

Confounding variables, as demonstrated by the scatterplots shown in the results section, hindered the analysis of the data. In particular, the scatterplot of arts participation to 'satisfaction with life as a whole' appears almost triangular in shape such that while it is highly likely that arts participants will report highly on this item, there is no way of accurately predicting the score on this item for those with lower or no hours of participation. It does, however, demonstrate an interesting pattern as it appears that wellbeing cannot be solely determined by participation alone. Thus, while non participation is not an adequate predictor of satisfaction with life as a whole, participating does have some influence. As a result of these violations the t-tests were carried out which again revealed violations in the assumption of homogeneity of variance for many of the items when comparing participants to non-



participants. This suggests again, that there are other factors involved which are influencing the scores on the wellbeing measure that haven't been accounted for in this research.

### **9.5 Recommendations for future research**

This research has demonstrated the ease with which standardised satisfaction, wellbeing and social capital measures can be adapted and administered to explore the relationship between arts participation and community wellbeing. Aside from an obvious need to obtain a larger sample size and more research generally in this field, further research could also focus more closely on different aspects of wellbeing and their relationship to participation in specific types of activities and groups. It would also be interesting to examine wellbeing over time for members of community groups and those engaging in on-going activities. Furthermore, different aspects of wellbeing of ongoing participation, such as members of a group, can be compared to participation in one-off events and programs. The development of a comprehensive participant profile would be extremely informative in determining who within the community is more likely to participate and in identifying both barriers to participation, and how these barriers might be addressed to increase access and involvement. As first mentioned in the results section, the presence of confounding variables has had the result of skewing the current data. Therefore, future research may also seek to identify these confounding variables and other elements that influence wellbeing and how they interact with participation and wellbeing. With new fields of research that are still in their infancy, such as this, the possibilities are plentiful, and while a few suggestions have been mentioned here there are still many research opportunities to explore before a clear understanding of the area emerges, and the testing of comprehensive theories can take place.

## 9.6 Summary

Wellbeing is a highly subjective measure concerning mostly social and personal factors as well as economic. While the field of social impact research is fairly new, compared with say, economic impact, the area of arts impact research could greatly benefit from current social impact models and research into satisfaction, wellbeing and quality of life. There should also be a distinction made between the impact of the arts and the impact of a specific arts project. Good business practice assumes the measurement and evaluation of projects and this should be a given for all organisations involved in community arts projects. However, individual assessment of a program should not be confused with the impact and social benefits of the arts as a whole to a community, and society at large. Perhaps the question shouldn't be what impact the arts have, but should focus more towards the place of the arts in a healthy society. How does involvement in the arts contribute to overall wellbeing, sustainability and health, rather than arts projects as a singular interventionist approach.

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## 12.0 Appendices

### Appendix A: The Social Impacts Of Arts Participation

Identified Variables:

- Develops confidence
- Increases self esteem
- Increases creativity
- Improves thinking skills
- Improves skills in planning and organising activities
- Improves communication of ideas and information
- Raises or enhances educational attainment
- Increases appreciation of the arts
- Develops community identity
- Decreases social isolation
- Decrease incidences of offending behaviour
- Raises public awareness and promotes interest in an area, such as the environment
- Enhances mental and physical health
- Improves understanding of different cultures
- Creates shared understanding, meaning or vision
- Increases employability of individuals

## Appendix B: Telephone survey questionnaire

### Art Participation and Wellbeing - Telephone survey questionnaire

Hello, my name is Julia Anwar McHenry and I am an Arts Management Honours student at Edith Cowan University. I am collecting survey data for my Honours thesis on arts participation and community wellbeing. Could you spare approximately ten minutes of your time to answer a few questions concerning your own involvement in the community and your perceptions of wellbeing in the Shire of Denmark?

- ☐ Yes
- ☐ No (Thank you for your time) - end.

Before we commence I must inform you that participation is voluntary and you are free to withdraw from participating in this survey at any time without any penalty or disadvantage. Should you decide not to continue with the survey any data collected to that point will be destroyed. If should wish to contact an independent person about the nature of this research you can contact the Director of the Academy, Ms Julie Warn on 9370 6843 or email: [j.warn@ecu.edu.au](mailto:j.warn@ecu.edu.au).

Would you like to proceed with the survey?

- ☐ Yes
- ☐ No (Thank you for your time) - end.

### Section A - Community Participation

The following questions are concerned with active involvement in your community.

Question 1 (a): Within the last 6 months have you participated, either creatively or by helping to organise/promote any of the following community arts activities:

Community/amateur theatre  
 Local art and craft group/exhibition  
 Local or amateur music club/concert  
 Local writing, poetry or 'spoken word' group  
 Community dance workshop/event  
 Community festival  
 Amateur drama or documentary filmmaking  
 Other arts activity at voluntary, amateur or local level  
 Please specify: \_\_\_\_\_

None of the above\* (Please go to question 2)

Question 1(b): In regard to the previous question:

How many hours a week would you estimate that you spent participating in community arts activities during the peak season or in the busiest times?

Number of hours per week: \_\_\_\_\_

Question 2 (a): Within the last 6 months have you been actively involved, either as a participant or an organiser in any of the following community groups or activities:

Local sport club/organisation  
 Community action group  
 Charity Organisation  
 Local political group/organisation



Religious, spiritual or church group  
 Special interest or support group  
 Other activity at voluntary, and/or local level  
 Please specify: \_\_\_\_\_

None of the above\* (Please go to Section B)

Question 2 (b): In regard to the previous question:

How many hours a week would you estimate that you spent participating in community groups or activities during the peak season or in the busiest times?

Number of hours per week: \_\_\_\_\_

### Section B - Life Satisfaction & Community Wellbeing

The following section involves questions concerning life satisfaction and wellbeing.

Please indicate on a scale of 0 to 10 how satisfied you feel, where 0 means you feel very dissatisfied, 10 means you feel very satisfied and 5 means you feel neutral:

Thinking about your own life and personal circumstances	Very Dissatisfied				Neutral		Very satisfied				
How satisfied are you with your life as a whole?	0	1	2	3	4	5	6	7	8	9	10

Turning now to various areas of your life:

How satisfied are you with...?	Very Dissatisfied				Neutral				Very satisfied			
Your standard of living?	0	1	2	3	4	5	6	7	8	9	10	
Your quality of life?	0	1	2	3	4	5	6	7	8	9	10	
Feeling part of your community?	0	1	2	3	4	5	6	7	8	9	10	
Your health?	0	1	2	3	4	5	6	7	8	9	10	

The following section consists of a series of statements concerning various aspects of subjective wellbeing.

Please indicate on a scale of 0 to 10 how much you agree or disagree with the following statements where 0 is strongly disagree, 10 is strongly agree and 5 is neither agree nor disagree:

	Strongly Disagree				Neutral				Strongly Agree			
I feel I can make an impact in making my community a better place to live	0	1	2	3	4	5	6	7	8	9	10	
Most people who live in my community are willing to help you if you need it	0	1	2	3	4	5	6	7	8	9	10	
*I have difficulty communicating my ideas to others	0	1	2	3	4	5	6	7	8	9	10	
I have a strong understanding of the issues that affect my community	0	1	2	3	4	5	6	7	8	9	10	
I always go out of my way to help someone in trouble	0	1	2	3	4	5	6	7	8	9	10	
*On occasion, I have doubts about my ability to succeed in life	0	1	2	3	4	5	6	7	8	9	10	
During the past few weeks I have felt particularly excited or interested in something	0	1	2	3	4	5	6	7	8	9	10	
*I feel very lonely or remote from other people	0	1	2	3	4	5	6	7	8	9	10	
During the past few weeks I have felt proud because someone complimented me on something I had done	0	1	2	3	4	5	6	7	8	9	10	
I feel connected with my community	0	1	2	3	4	5	6	7	8	9	10	

*During the past few weeks I have felt so restless that I could not sit for long in a chair	0	1	2	3	4	5	6	7	8	9	10
I have control over decisions that affect my everyday activities	0	1	2	3	4	5	6	7	8	9	10
During the past few weeks I have felt pleased about having accomplished something	0	1	2	3	4	5	6	7	8	9	10
I feel on top of the world	0	1	2	3	4	5	6	7	8	9	10
I have friends I can turn to when times are tough	0	1	2	3	4	5	6	7	8	9	10
*During the past few weeks I have felt depressed or very unhappy	0	1	2	3	4	5	6	7	8	9	10
Majority of people in my community have similar values to my own	0	1	2	3	4	5	6	7	8	9	10
*I often feel bored	0	1	2	3	4	5	6	7	8	9	10
My community is a safe place to live	0	1	2	3	4	5	6	7	8	9	10
Things have really gone my way over the past few weeks	0	1	2	3	4	5	6	7	8	9	10

### Section C - Demographics

The following section asks questions concerning demographic information that will be used to compare with the Census data for the Denmark region.

All of the following questions are optional, therefore you do not have to answer any of them if you do not want to.

Age:

In what year were you born? \_\_\_\_\_

[Gender]:

- ☐ Male
- ☐ Female

What is the highest year of primary or secondary school you have completed?

- ☐ Year 12 or equivalent
- ☐ Year 11 or equivalent
- ☐ Year 10 or equivalent
- ☐ Year 9 or equivalent
- ☐ Year 8 or below
- ☐ Never attended school

Have you completed a trade certificate, diploma, degree or any other educational qualification?

- ☐ Yes
- ☐ No

If 'yes' what is the level of the highest qualification that you have completed? \_\_\_\_\_

How would you describe your current employment status?

- ☐ Employed full-time
- ☐ Employed part-time
- ☐ Self-employed
- ☐ Family/Household Duties
- ☐ Student full-time
- ☐ Student part-time
- ☐ Retired
- ☐ Unemployed
- ☐ Other \_\_\_\_\_

Can you please give me an idea of your household's annual income, combined from all sources and before tax?

- ☐ Less than \$15,000
- ☐ \$15,000 - less than \$30,000
- ☐ \$30,000 - less than \$60,000
- ☐ \$60,000 - less than \$90,000
- ☐ \$90,000 and over

---

Thank you for your time in completing this questionnaire.

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### ARTSPART

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid nonarts	51	67.1	67.1	67.1
arts participant	25	32.9	32.9	100.0
Total	76	100.0	100.0	

### COMPART

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid noncom	21	27.6	27.6	27.6
community participant	55	72.4	72.4	100.0
Total	76	100.0	100.0	

### TOTPART

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid nonparticipant	17	22.4	22.4	22.4
participant	59	77.6	77.6	100.0
Total	76	100.0	100.0	

GENDER

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	male	31	40.8	40.8	40.8
	female	45	59.2	59.2	100.0
	Total	76	100.0	100.0	

HIGH

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Year 12 equivalent	36	47.4	48.6	48.6
	Year 11 equivalent	6	7.9	8.1	56.8
	Year 10 equivalent	26	34.2	35.1	91.9
	Year 9 equivalent	3	3.9	4.1	95.9
	Year 8 or below	2	2.6	2.7	98.6
	never attended school	1	1.3	1.4	100.0
	Total	74	97.4	100.0	
Missing	System	2	2.6		
Total		76	100.0		

EDTRA

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	postgrad	1	1.3	1.3	1.3
	degree	15	19.7	19.7	21.1
	diploma	15	19.7	19.7	40.8
	certificate	20	26.3	26.3	67.1
	no further education or training	25	32.9	32.9	100.0
	Total	76	100.0	100.0	

EMPLOY

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	employed fulltime	8	10.5	10.5	10.5
	employed parttime	14	18.4	18.4	28.9
	self employed	22	28.9	28.9	57.9
	household duties	5	6.6	6.6	64.5
	student fulltime	3	3.9	3.9	68.4
	student parttime	1	1.3	1.3	69.7
	retired	20	26.3	26.3	96.1
	unemployed	3	3.9	3.9	100.0
	Total	76	100.0	100.0	

INCOME

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	less than \$15K	8	10.5	12.9	12.9
	\$15K to less than \$30K	16	21.1	25.8	38.7
	\$30K to less than \$60K	23	30.3	37.1	75.8
	\$60K to less than \$90K	9	11.8	14.5	90.3
	\$90K and over	6	7.9	9.7	100.0
	Total	62	81.6	100.0	
Missing	9	14	18.4		
Total		76	100.0		

## Multiple Response

Group \$ARTTYPE type of arts participation  
(Value tabulated = 1)

Dichotomy label	Name	Count	Pct of Responses	Pct of Cases
Community/amateur theatre	THEATRE	4	11.1	16.0
Art and craft group/exhibition	ARTCRAFT	14	38.9	56.0
Music club/concert	MUSIC	5	13.9	20.0
Dance workshop/event	DANCE	2	5.6	8.0
Community Arts Festival	FESTIVAL	8	22.2	32.0
Other arts activity	OTHERA	3	8.3	12.0
		-----	-----	-----
	Total responses	36	100.0	144.0

51 missing cases; 25 valid cases

Group \$COMTYPE type of community participation  
(Value tabulated = 1)

Dichotomy label	Name	Count	Pct of Responses	Pct of Cases
Sport club/organisation	SPORT	19	18.4	34.5
Community Action Group	ACTION	14	13.6	25.5
Charity organisation	CHARITY	17	16.5	30.9
Local political group/organisation	POLITICS	13	12.6	23.6
Religious, spiritual or church group	RELIGION	8	7.8	14.5
Special interest or support group	INTEREST	18	17.5	32.7
Other activity at voluntary and/or local	OTHEREC	14	13.6	25.5
		-----	-----	-----
	Total responses	103	100.0	187.3

21 missing cases; 55 valid cases

Group \$PARTIC participation in community  
(Value tabulated = 1)

Dichotomy label	Name	Count	Pct of Responses	Pct of Cases
	ARTSPART	25	18.0	42.4
	COMPART	55	39.6	93.2
	TOTPART	59	42.4	100.0
		-----	-----	-----
	Total responses	139	100.0	235.6

17 missing cases; 59 valid cases

## Descriptive Statistics

	N		Minimum		Maximum		Mean		Std.		Skewness		Kurtosis	
	Statistic		Statistic		Statistic		Statistic		Statistic		Statistic		Statistic	Std. Error
Estimated hours of arts participation during the busiest times	76		0		40		2.39		6.868		4.624		23.101	.545
Estimated hours of community participation during the busiest times	76		0		30		3.97		5.951		2.747		8.789	.545
Satisfaction with life as a whole	76		2		10		8.07		1.893		-1.212		1.158	.545
Satisfaction with standard of living	76		4		10		8.20		1.689		-.762		-.409	.545
Satisfaction with quality of life	76		2		10		8.12		1.781		-1.230		1.565	.545
Satisfaction with feeling a part of community	76		1		10		6.67		2.081		-.167		-.276	.545
Satisfaction with health	76		0		10		7.25		2.275		-.715		.090	.545
IMPACT	76		0		10		6.09		2.743		-.533		-.196	.545
HELP	76		0		10		7.53		2.094		-.713		.760	.545
IDEA	76		0		10		6.88		2.643		-.527		-.638	.545
ISSUE	76		0		10		7.07		2.175		-.630		.466	.545
TROUBLE	76		0		10		8.00		1.855		-1.159		3.021	.545
SUCCESS	76		0		10		6.30		3.107		-.436		-.909	.545
EXCITED	76		0		10		7.53		2.511		-1.363		2.040	.545
LONELY	76		0		10		7.66		2.590		-1.072		.293	.545
PROUD	76		0		10		6.95		2.566		-.840		.512	.545
CONNECT	76		1		10		6.64		2.279		-.554		.161	.545
RESTLESS	76		0		10		6.43		3.419		-.621		-.930	.545
CONTROL	76		2		10		8.09		2.149		-1.182		.564	.545
ACCOMPLI	76		3		10		8.28		1.630		-.955		.543	.545
TOP	76		0		10		7.24		2.039		-.553		.604	.545
FRIENDS	76		2		10		8.75		1.745		-1.663		2.744	.545
DEPRESSE	76		0		10		7.59		2.791		-1.194		.520	.545
VALUES	75		0		10		6.04		2.251		-.533		.443	.548
BORED	75		0		10		7.49		2.878		-1.173		.403	.548
SAFE	75		3		10		8.75		1.525		-1.600		2.580	.548
MYWAY	75		2		10		7.11		2.064		-.232		-.849	.548
AGE	74		19		85		53.04		17.322		-.135		-.793	.552
TOTHS	76		0		41		6.37		8.747		2.336		5.993	.545
Valid N (listwise)	74													





Mann-Whitney Test

Ranks

	ARTSPART	N	Mean Rank	Sum of Ranks
AGE	nonarts	49	39.23	1922.50
	arts participant	25	34.10	852.50
	Total	74		
GENDER	nonarts	51	37.61	1918.00
	arts participant	25	40.32	1008.00
	Total	76		
HIGH	nonarts	49	40.43	1981.00
	arts participant	25	31.76	794.00
	Total	74		
EDTRA	nonarts	51	39.88	2034.00
	arts participant	25	35.68	892.00
	Total	76		
EMPLOY	nonarts	51	37.88	1932.00
	arts participant	25	39.76	994.00
	Total	76		
INCOME	nonarts	39	31.36	1223.00
	arts participant	23	31.74	730.00
	Total	62		

Test Statistics <sup>a</sup>

	AGE	GENDER	HIGH	EDTRA	EMPLOY	INCOME
Mann-Whitney U	527.500	592.000	469.000	567.000	606.000	443.000
Wilcoxon W	852.500	1918.000	794.000	892.000	1932.000	1223.000
Z	-.972	-.591	-1.788	-.808	-.357	-.083
Asymp. Sig. (2-tailed)	.331	.555	.074	.419	.721	.934

a. Grouping Variable: ARTSPART

Ranks

	COMPART	N	Mean Rank	Sum of Ranks
AGE	noncom	20	36.65	733.00
	community participant	54	37.81	2042.00
	Total	74		
GENDER	noncom	21	41.33	868.00
	community participant	55	37.42	2058.00
	Total	76		
HIGH	noncom	20	48.08	961.50
	community participant	54	33.58	1813.50
	Total	74		
EDTRA	noncom	21	45.07	946.50
	community participant	55	35.99	1979.50
	Total	76		
EMPLOY	noncom	21	35.26	740.50
	community participant	55	39.74	2185.50
	Total	76		
INCOME	noncom	17	28.68	487.50
	community participant	45	32.57	1465.50
	Total	62		

Test Statistics <sup>a</sup>

	AGE	GENDER	HIGH	EDTRA	EMPLOY	INCOME
Mann-Whitney U	523.000	518.000	328.500	439.500	509.500	334.500
Wilcoxon W	733.000	2058.000	1813.500	1979.500	740.500	487.500
Z	-.207	-.812	-2.807	-1.661	-.810	-.787
Asymp. Sig. (2-tailed)	.836	.417	.005	.097	.418	.431

a. Grouping Variable: COMPART

Ranks

	TOTPART	N	Mean Rank	Sum of Ranks
AGE	nonparticipant	16	38.19	611.00
	participant	58	37.31	2164.00
	Total	74		
GENDER	nonparticipant	17	42.82	728.00
	participant	59	37.25	2198.00
	Total	76		
HIGH	nonparticipant	16	50.84	813.50
	participant	58	33.82	1961.50
	Total	74		
EDTRA	nonparticipant	17	49.44	840.50
	participant	59	35.35	2085.50
	Total	76		
EMPLOY	nonparticipant	17	32.91	559.50
	participant	59	40.11	2366.50
	Total	76		
INCOME	nonparticipant	13	28.23	367.00
	participant	49	32.37	1586.00
	Total	62		

Test Statistics <sup>a</sup>

	AGE	GENDER	HIGH	EDTRA	EMPLOY	INCOME
Mann-Whitney U	453.000	428.000	250.500	315.500	406.500	276.000
Wilcoxon W	2164.000	2198.000	1961.500	2085.500	559.500	367.000
Z	-.144	-1.076	-3.057	-2.403	-1.215	-.764
Asymp. Sig. (2-tailed)	.885	.282	.002	.016	.224	.445

a. Grouping Variable: TOTPART

# Appendix D: RESULTS

Crosstab

Count		GENDER		Total
		male	female	
ARTSPART	nonarts	22	29	51
	arts participant	9	16	25
Total		31	45	76

Crosstab

Count		HIGH						Total
		Year 12 equivalent	Year 11 equivalent	Year 10 equivalent	Year 9 equivalent	Year 8 or below	never attended school	
ARTSPART	nonarts	20	5	19	2	2	1	49
	arts participant	16	1	7	1	0	0	25
Total		36	6	26	3	2	1	74

Crosstab

Count		EDTRA					Total
		postgrad	degree	diploma	certificate	no further education or training	
ARTSPART	nonarts	0	10	8	16	17	51
	arts participant	1	5	7	4	8	25
Total		1	15	15	20	25	76

Crosstab

Count		EMPLOY							Total
		employed fulltime	employed parttime	self employed	household duties	student fulltime	student parttime	retired	
ARTSPART	nonarts	7	10	12	4	0	1	15	51
	arts participant	1	4	10	1	3	0	5	25
Total		8	14	22	5	3	1	20	76

Crosstab

Count		INCOME					Total
		less than \$15K	\$15K to less than \$30K	\$30K to less than \$60K	\$60K to less than \$90K	\$90K and over	
ARTSPART	nonarts	4	13	11	8	3	39
	arts participant	4	3	12	1	3	23
Total		8	16	23	9	6	62

Crosstab

Count

		GENDER		Total
		male	female	
COMPART	noncom	7	14	21
	community participant	24	31	55
Total		31	45	76

Crosstab

Count

		HIGH					Total
		Year 12 equivalent	Year 11 equivalent	Year 10 equivalent	Year 9 equivalent	Year 8 or below	
COMPART	noncom	4	2	12	1	1	20
	community participant	32	4	14	2	1	54
Total		36	6	26	3	2	74

Crosstab

Count

		EDTRA					Total
		postgrad	degree	diploma	certificate	no further education or training	
COMPART	noncom	0	3	3	5	10	21
	community participant	1	12	12	15	15	55
Total		1	15	15	20	25	76

Crosstab

Count

		EMPLOY							Total
		employed fulltime	employed parttime	self employed	household duties	student fulltime	student parttime	retired	
COMPA	noncom	1	8	4	1	2	0	4	21
	community parti	7	6	18	4	1	1	16	55
Total		8	14	22	5	3	1	20	76

Crosstab

Count

		INCOME					Total
		less than \$15K	\$15K to less than \$30K	\$30K to less than \$60K	\$60K to less than \$90K	\$90K and over	
COMPAR	noncom	5	4	2	4	2	17
	community participa	3	12	21	5	4	45
Total		8	16	23	9	6	62

# Appendix D: RESULTS

Crosstab

Count

		GENDER		Total
		male	female	
TOTPART	nonparticipant	5	12	17
	participant	26	33	59
Total		31	45	76

Crosstab

Count

		HIGH					Total
		Year 12 equivalent	Year 11 equivalent	Year 10 equivalent	Year 9 equivalent	Year 8 or below	
TOTPART	nonparticipant	2	2	10	1	1	16
	participant	34	4	16	2	1	58
Total		36	6	26	3	2	74

Crosstab

Count

		EDTRA					Total
		postgrad	degree	diploma	certificate	no further education or training	
TOTPART	nonparticipant	0	1	2	5	9	17
	participant	1	14	13	15	16	59
Total		1	15	15	20	25	76

Crosstab

Count

		EMPLOY							Total
		employed fulltime	employed parttime	self employee	household duties	student fulltime	student parttime	retired	
TOTPART	nonparticipant	1	7	4	1	0	0	3	17
	participant	7	7	18	4	3	1	17	59
Total		8	14	22	5	3	1	20	76

Crosstab

Count

		INCOME					Total
		less than \$15K	\$15K to less than \$30K	\$30K to less than \$60K	\$60K to less than \$90K	\$90K and over	
TOTPART	nonparticipant	3	4	2	3	1	13
	participant	5	12	21	6	5	49
Total		8	16	23	9	6	62

## Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.278	.208
	Cramer's V	.278	.208
	Contingency Coefficient	.268	.208
N of Valid Cases		76	

- a. Not assuming the null hypothesis.  
b. Using the asymptotic standard error assuming the null hypothesis.

Total participation and employment status

## Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.828 <sup>a</sup>	7	.265
Likelihood Ratio	8.763	7	.270
Linear-by-Linear Association	1.110	1	.292
N of Valid Cases	76		

- a. 12 cells (75.0%) have expected count less than 5. The minimum expected count is .22.

## Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.341	.265
	Cramer's V	.341	.265
	Contingency Coefficient	.323	.265
N of Valid Cases		76	

- a. Not assuming the null hypothesis.  
b. Using the asymptotic standard error assuming the null hypothesis.

Total participation and household income

## Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.464 <sup>a</sup>	4	.347
Likelihood Ratio	4.644	4	.326
Linear-by-Linear Association	.545	1	.460
N of Valid Cases	62		

- a. 6 cells (60.0%) have expected count less than 5. The minimum expected count is 1.26.

## Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.268	.347
	Cramer's V	.268	.347
	Contingency Coefficient	.259	.347
N of Valid Cases		62	

- a. Not assuming the null hypothesis.  
b. Using the asymptotic standard error assuming the null hypothesis.

**Total participation and gender**

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	1.174 <sup>b</sup>	1	.279		
Continuity Correction <sup>a</sup>	.645	1	.422		
Likelihood Ratio	1.209	1	.272		
Fisher's Exact Test				.402	.212
Linear-by-Linear Association	1.158	1	.282		
N of Valid Cases	76				

a. Computed only for a 2x2 table

b. 0 cells (.0%) have expected count less than 5. The minimum expected count is 6.93.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	-.124	.279
	Cramer's V	.124	.279
	Contingency Coefficient	.123	.279
N of Valid Cases		76	

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

**Total participation and level of high school completed**

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.789 <sup>a</sup>	5	.038
Likelihood Ratio	12.943	5	.024
Linear-by-Linear Association	7.415	1	.006
N of Valid Cases	74		

a. 8 cells (66.7%) have expected count less than 5. The minimum expected count is .22.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.399	.038
	Cramer's V	.399	.038
	Contingency Coefficient	.371	.038
N of Valid Cases		74	

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

**Total participation and further education and training**

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5.878 <sup>a</sup>	4	.208
Likelihood Ratio	6.500	4	.165
Linear-by-Linear Association	5.732	1	.017
N of Valid Cases	76		

a. 5 cells (50.0%) have expected count less than 5. The minimum expected count is .22.

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.206	.519
Nominal	Cramer's V	.206	.519
	Contingency Coefficient	.202	.519
N of Valid Cases		76	

- a. Not assuming the null hypothesis.  
b. Using the asymptotic standard error assuming the null hypothesis.

Community participation and employment status

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.441 <sup>a</sup>	7	.121
Likelihood Ratio	10.925	7	.142
Linear-by-Linear Association	.436	1	.509
N of Valid Cases		76	

- a. 10 cells (62.5%) have expected count less than 5. The minimum expected count is .28.

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi *	.388	.121
Nominal	Cramer's V	.388	.121
	Contingency Coefficient	.362	.121
N of Valid Cases		76	

- a. Not assuming the null hypothesis.  
b. Using the asymptotic standard error assuming the null hypothesis.

Community participation and household income

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.462 <sup>a</sup>	4	.033
Likelihood Ratio	10.662	4	.031
Linear-by-Linear Association	.557	1	.456
N of Valid Cases		62	

- a. 5 cells (50.0%) have expected count less than 5. The minimum expected count is 1.65.

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.411	.033
Nominal	Cramer's V	.411	.033
	Contingency Coefficient	.380	.033
N of Valid Cases		62	

- a. Not assuming the null hypothesis.  
b. Using the asymptotic standard error assuming the null hypothesis.



Community participation and gender

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.668 <sup>b</sup>	1	.414		
Continuity Correction <sup>a</sup>	.309	1	.578		
Likelihood Ratio	.678	1	.410		
Fisher's Exact Test				.448	.291
Linear-by-Linear Association	.659	1	.417		
N of Valid Cases	76				

- a. Computed only for a 2x2 table
- b. 0 cells (.0%) have expected count less than 5. The minimum expected count is 8.57.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	-.094	.414
	Cramer's V	.094	.414
	Contingency Coefficient	.093	.414
N of Valid Cases		76	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

Community participation and level of high school

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.534 <sup>a</sup>	5	.061
Likelihood Ratio	11.127	5	.049
Linear-by-Linear Association	6.023	1	.014
N of Valid Cases	74		

- a. 8 cells (66.7%) have expected count less than 5. The minimum expected count is .27.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.377	.061
	Cramer's V	.377	.061
	Contingency Coefficient	.353	.061
N of Valid Cases		74	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

Community participation and further education and training

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.237 <sup>a</sup>	4	.519
Likelihood Ratio	3.427	4	.489
Linear-by-Linear Association	2.617	1	.106
N of Valid Cases	76		

- a. 4 cells (40.0%) have expected count less than 5. The minimum expected count is .28.

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.253	.303
Nominal	Cramer's V	.253	.303
	Contingency Coefficient	.245	.303
N of Valid Cases		76	

- a. Not assuming the null hypothesis.  
b. Using the asymptotic standard error assuming the null hypothesis.

Arts participation and employment status

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.750 <sup>a</sup>	7	.150
Likelihood Ratio	11.869	7	.105
Linear-by-Linear Association	.000	1	.999
N of Valid Cases		76	

- a. 10 cells (62.5%) have expected count less than 5. The minimum expected count is .33.

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.376	.150
Nominal	Cramer's V	.376	.150
	Contingency Coefficient	.352	.150
N of Valid Cases		76	

- a. Not assuming the null hypothesis.  
b. Using the asymptotic standard error assuming the null hypothesis.

Arts participation and household income

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.152 <sup>a</sup>	4	.086
Likelihood Ratio	8.803	4	.066
Linear-by-Linear Association	.000	1	.985
N of Valid Cases		62	

- a. 4 cells (40.0%) have expected count less than 5. The minimum expected count is 2.23.

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	.363	.086
Nominal	Cramer's V	.363	.086
	Contingency Coefficient	.341	.086
N of Valid Cases		62	

- a. Not assuming the null hypothesis.  
b. Using the asymptotic standard error assuming the null hypothesis.

Non-parametric tests: Cross-tabulation analysis

Arts participation and Gender

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.354 <sup>b</sup>	1	.552		
Continuity Correction <sup>a</sup>	.120	1	.729		
Likelihood Ratio	.357	1	.550		
Fisher's Exact Test				.625	.367
Linear-by-Linear Association	.349	1	.555		
N of Valid Cases	76				

- a. Computed only for a 2x2 table
- b. 0 cells (.0%) have expected count less than 5. The minimum expected count is 10.20.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.068	.552
	Cramer's V	.068	.552
	Contingency Coefficient	.068	.552
N of Valid Cases		76	

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

Arts participation and level of high school education completed

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.693 <sup>a</sup>	5	.455
Likelihood Ratio	5.683	5	.338
Linear-by-Linear Association	3.342	1	.068
N of Valid Cases	74		

- a. 8 cells (66.7%) have expected count less than 5. The minimum expected count is .34.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.252	.455
	Cramer's V	.252	.455
	Contingency Coefficient	.244	.455
N of Valid Cases		74	

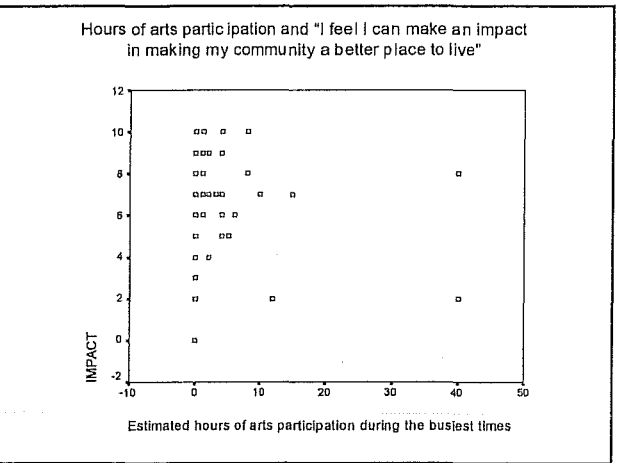
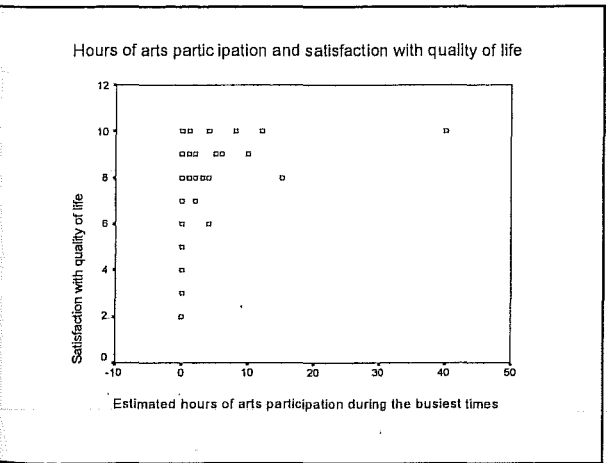
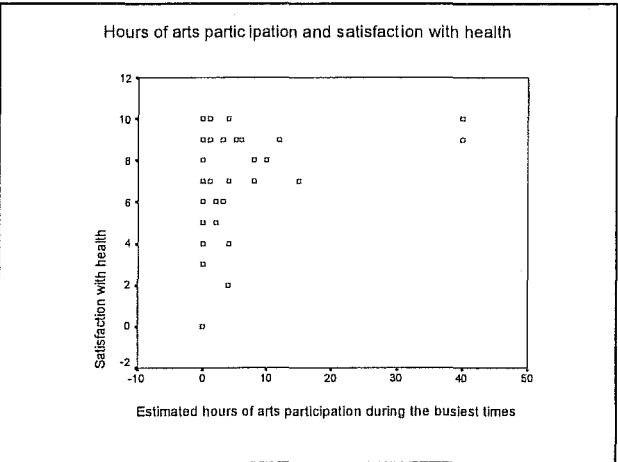
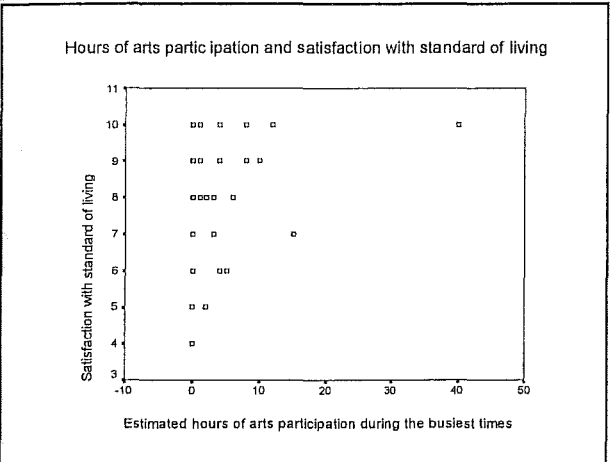
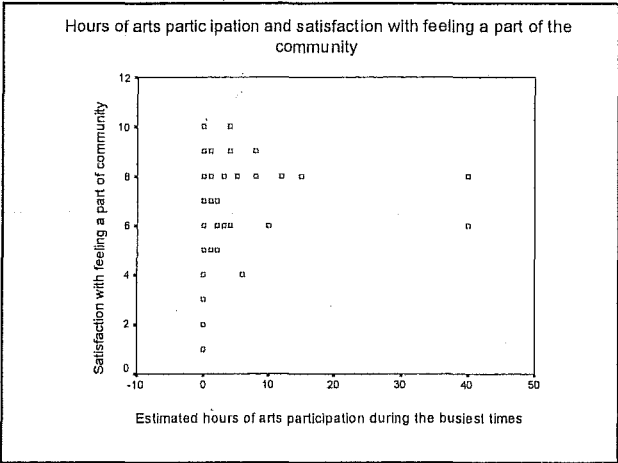
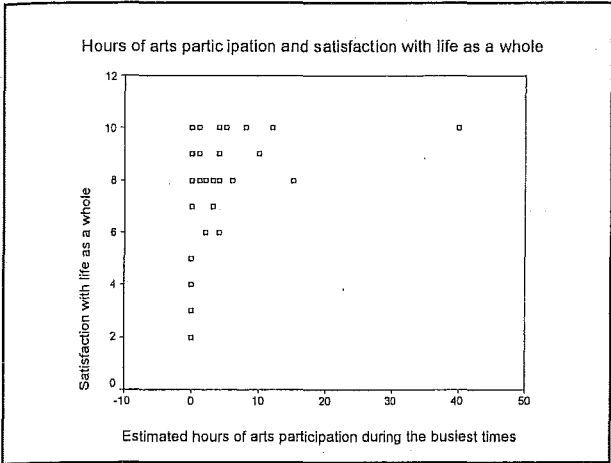
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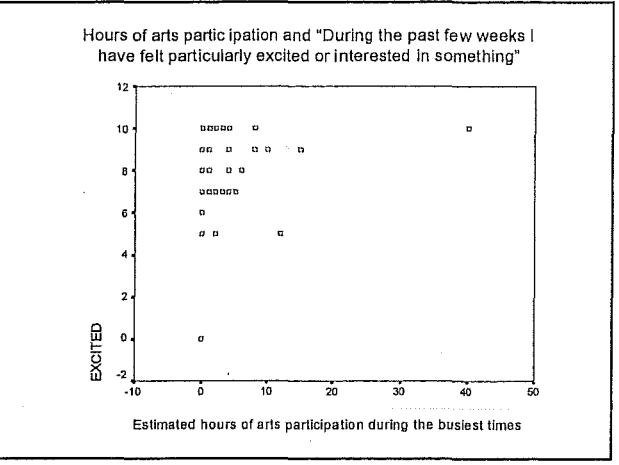
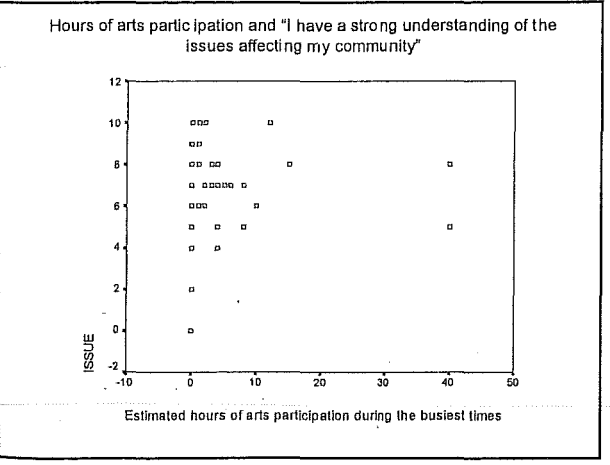
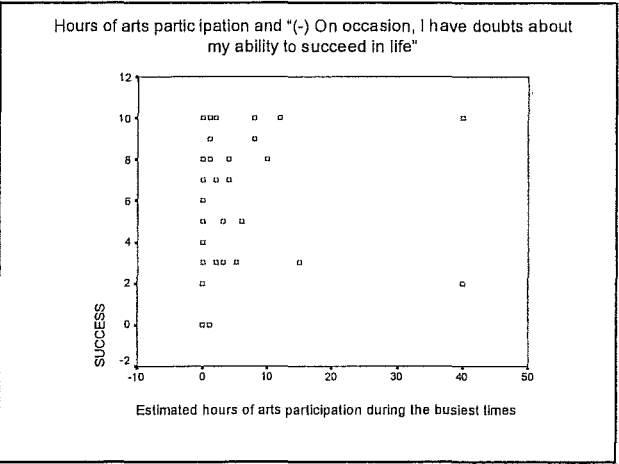
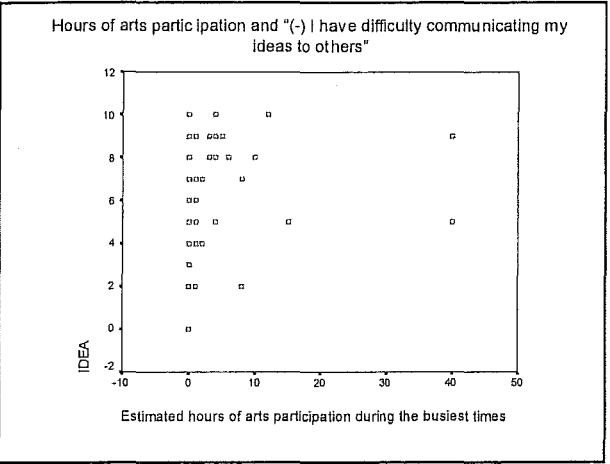
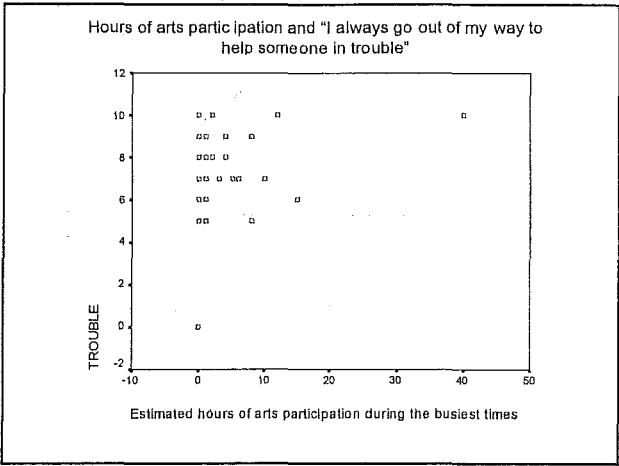
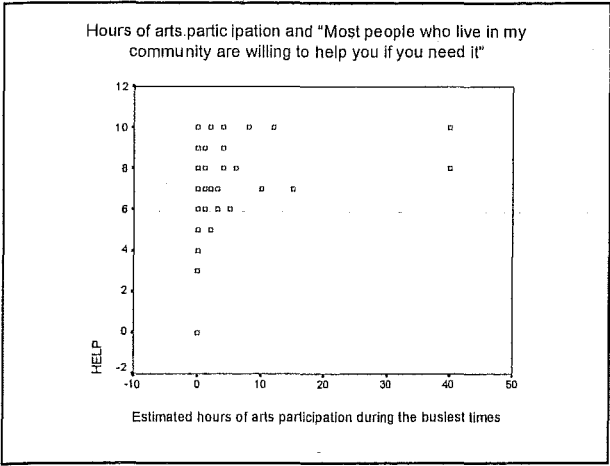
Arts Participation and further education and training

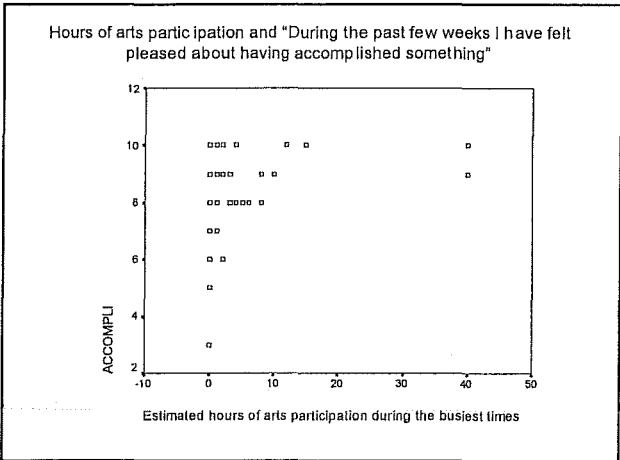
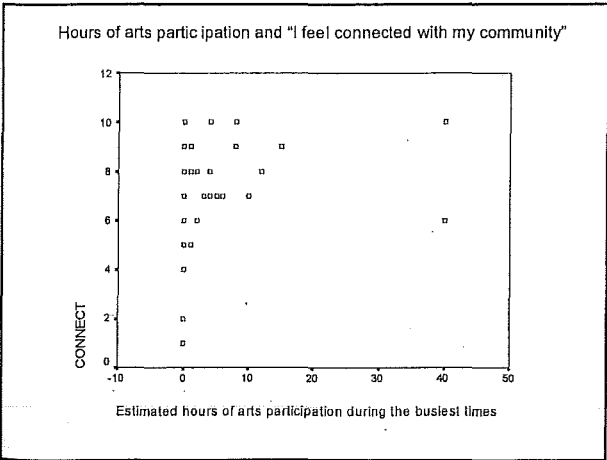
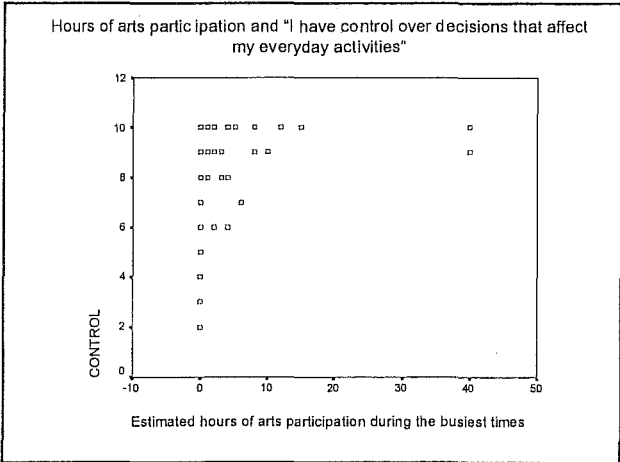
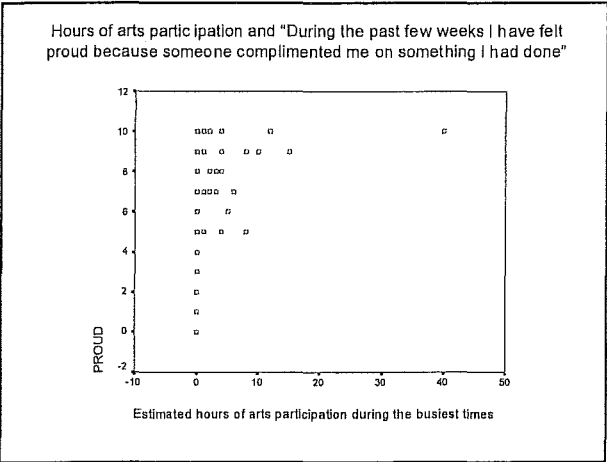
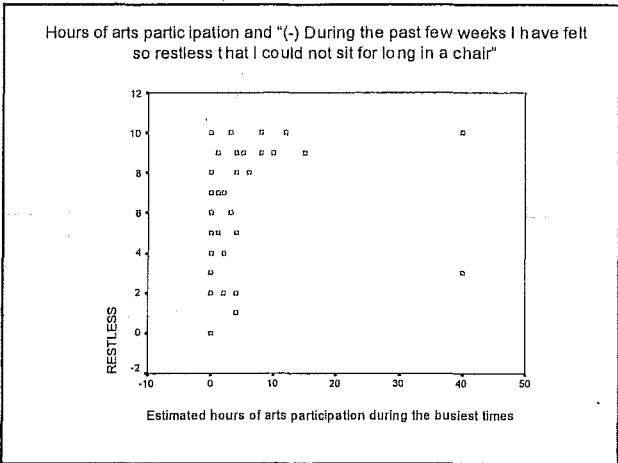
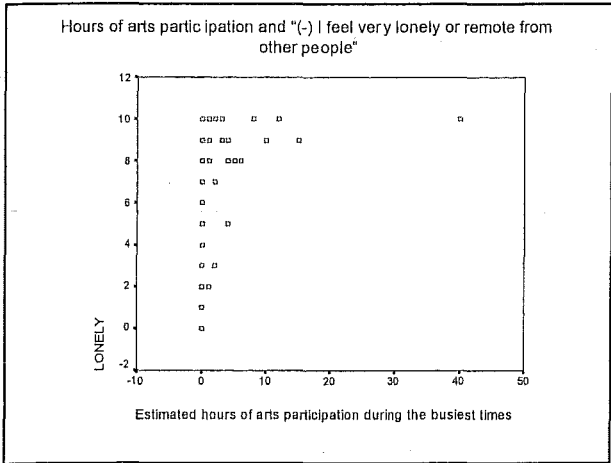
Chi-Square Tests

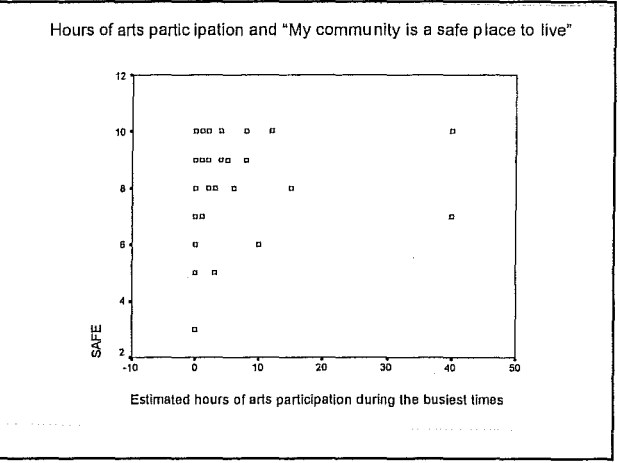
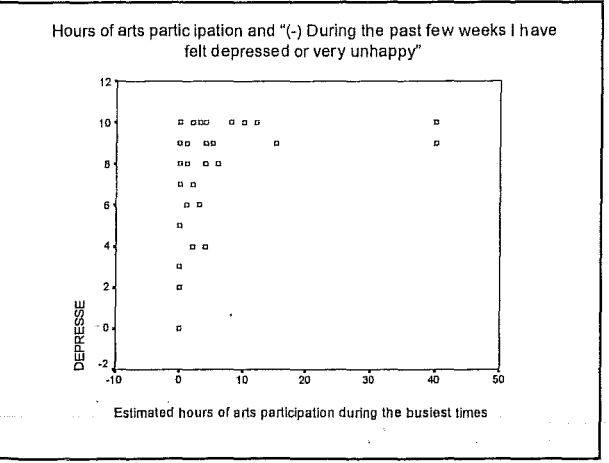
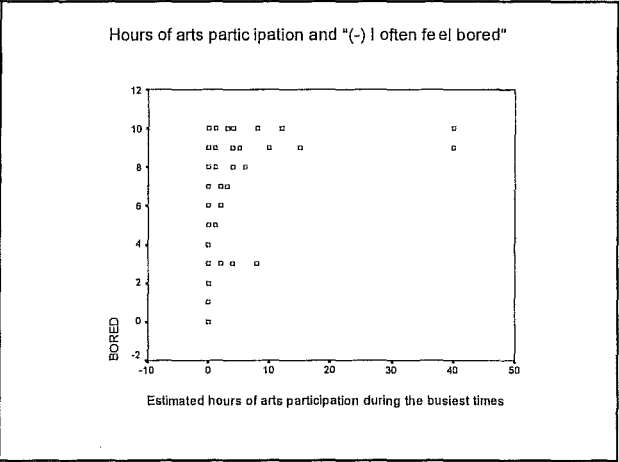
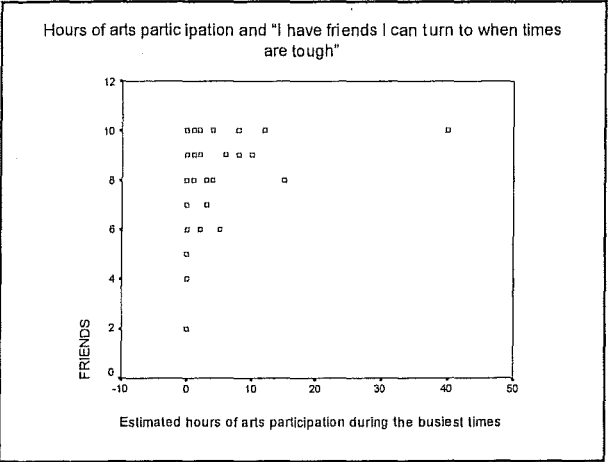
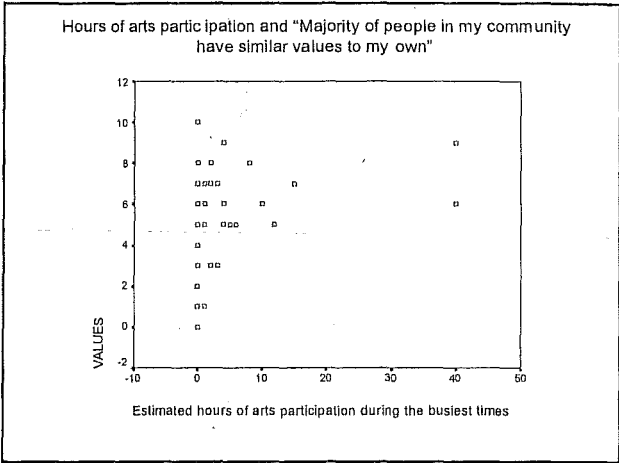
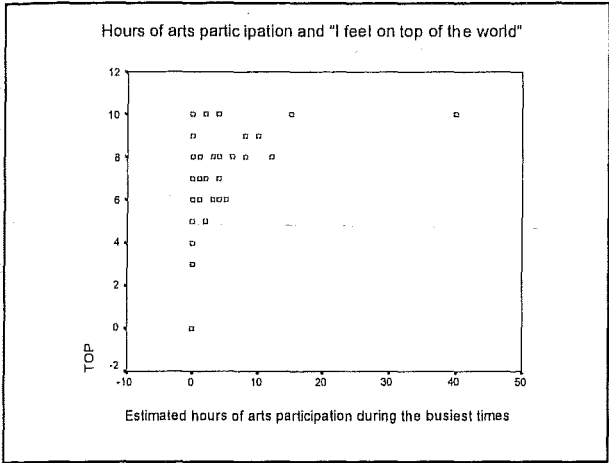
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Pearson Chi-Square	4.846 <sup>a</sup>	4	.303
Likelihood Ratio	5.099	4	.277
Linear-by-Linear Association	.861	1	.353
N of Valid Cases	76		

- a. 4 cells (40.0%) have expected count less than 5. The minimum expected count is .33.

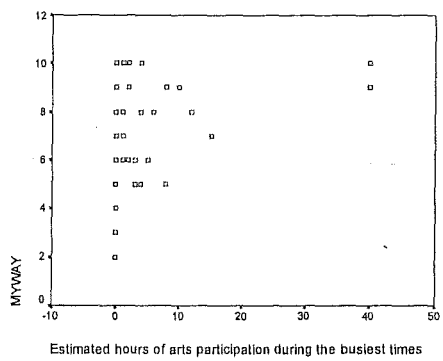




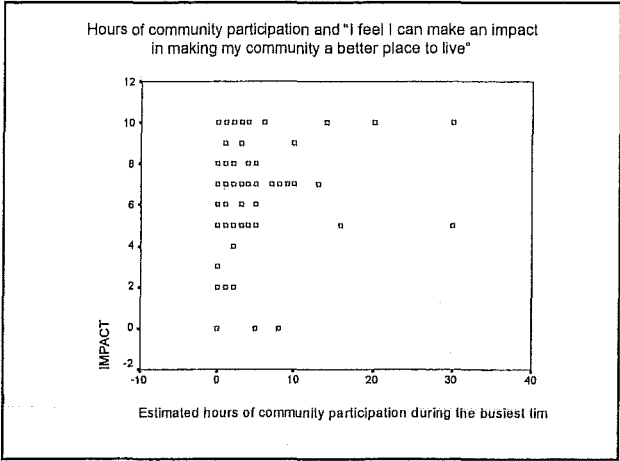
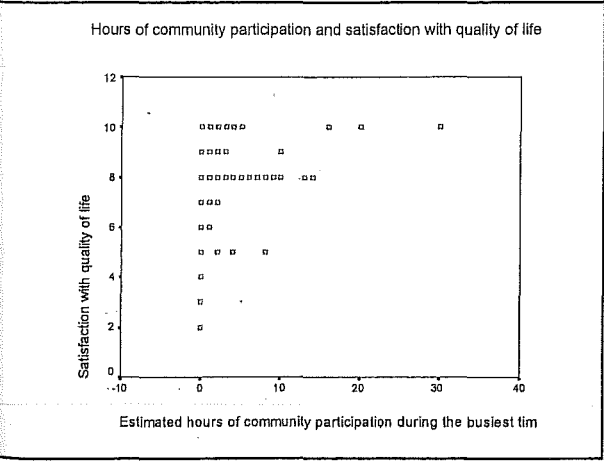
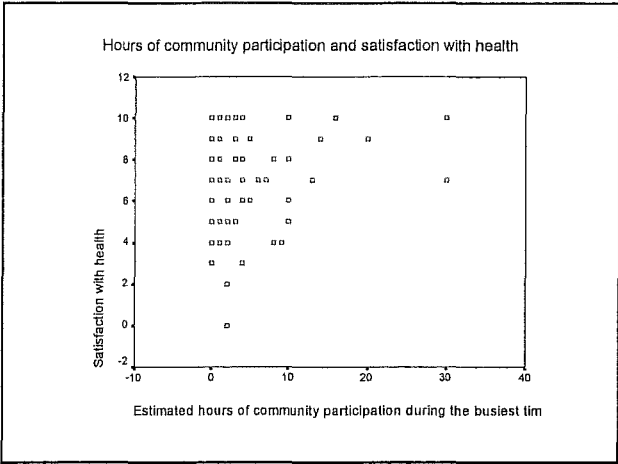
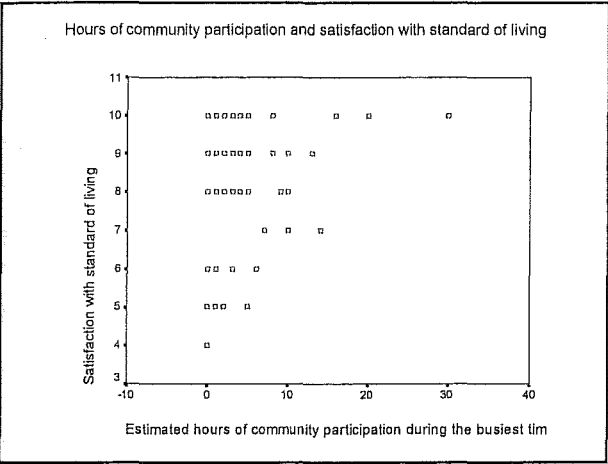
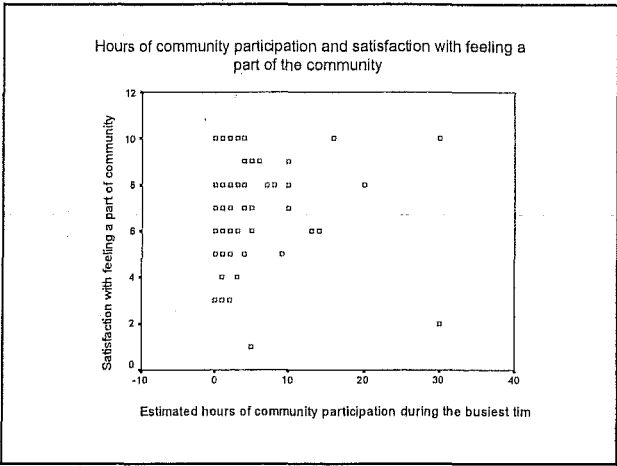
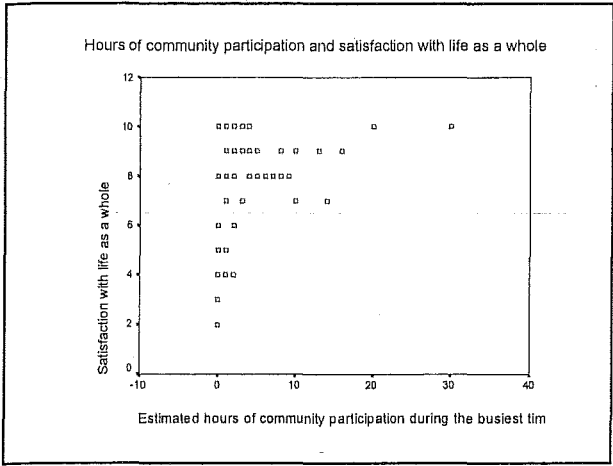


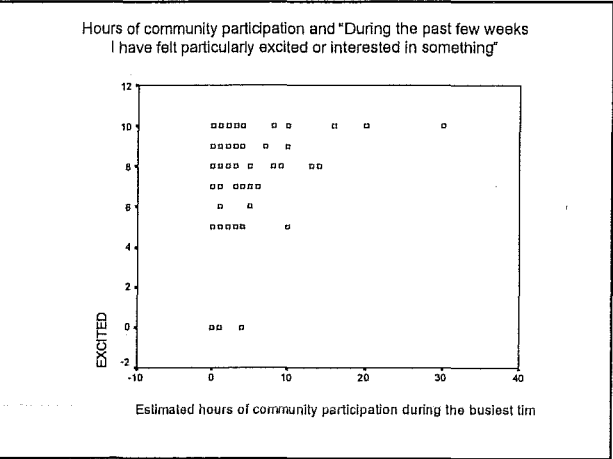
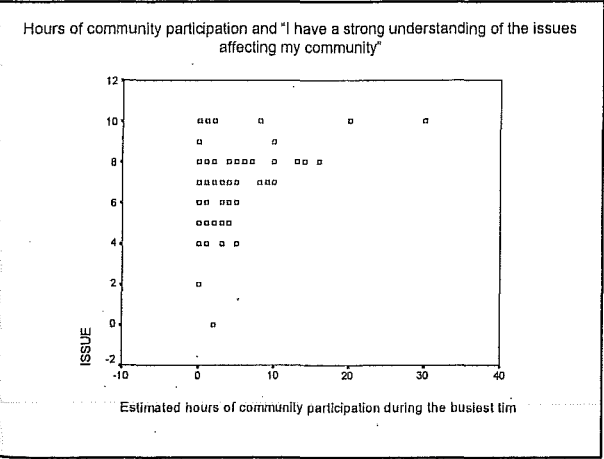
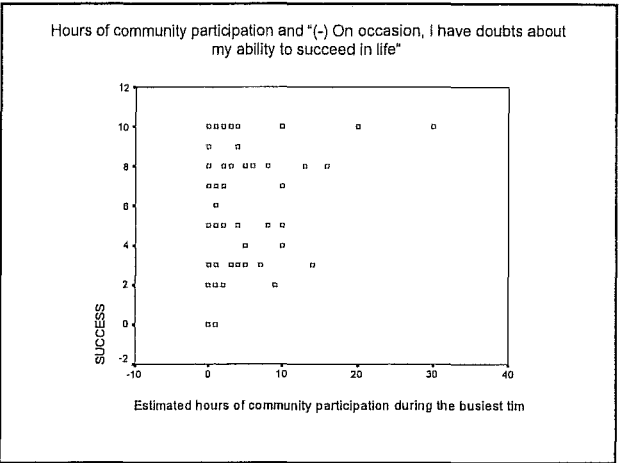
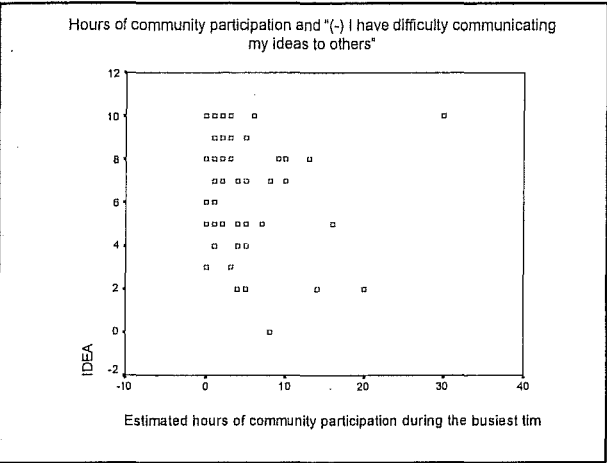
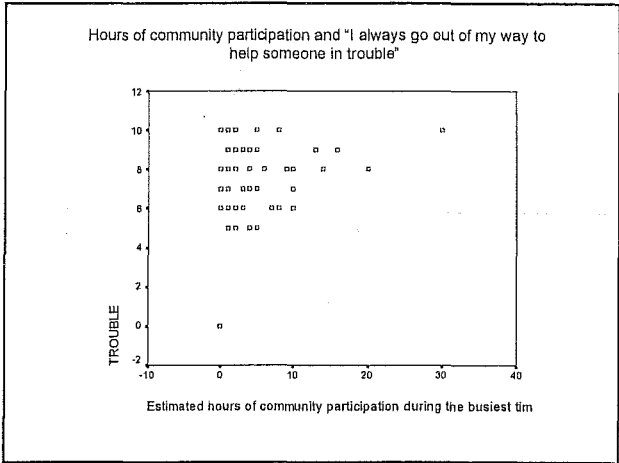
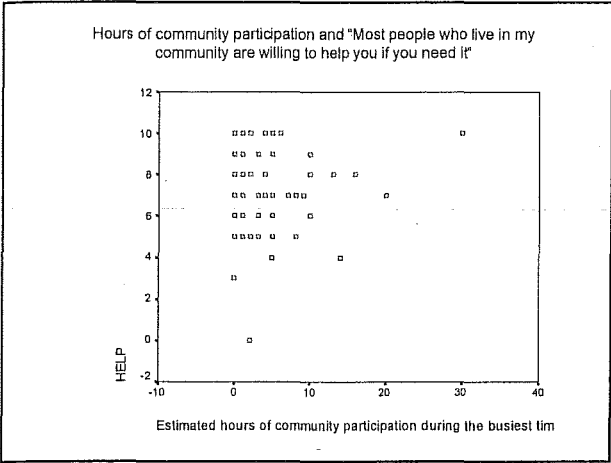


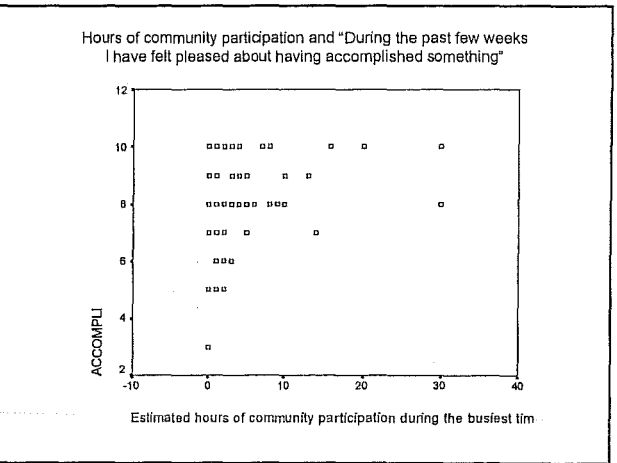
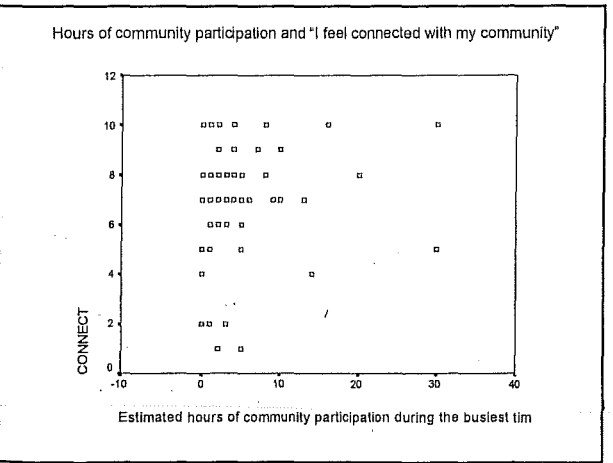
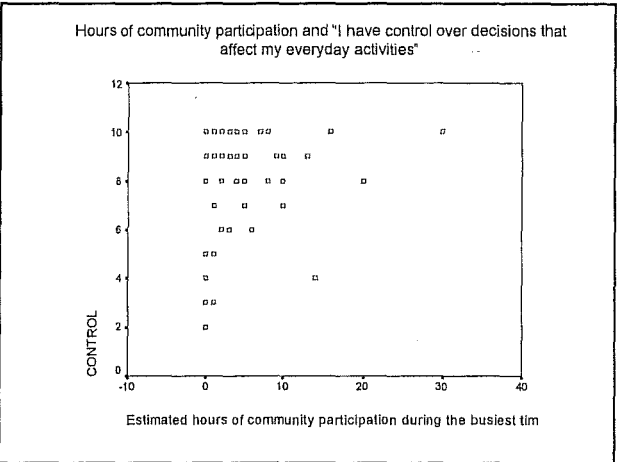
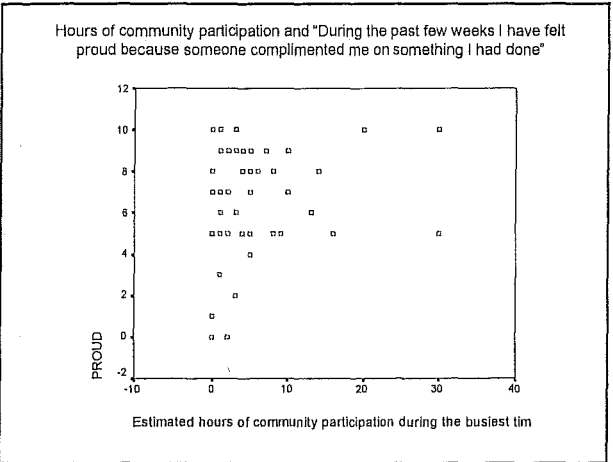
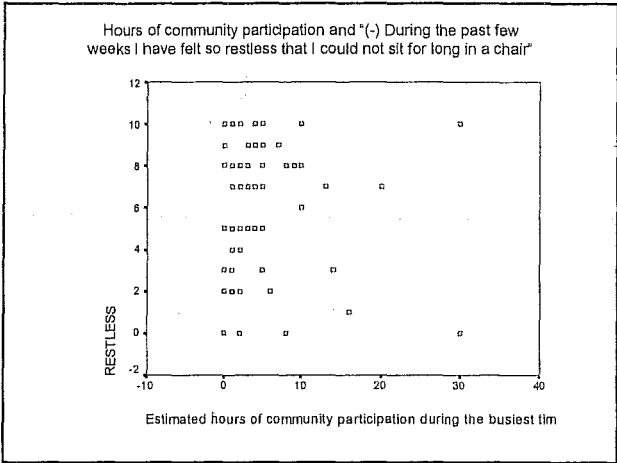
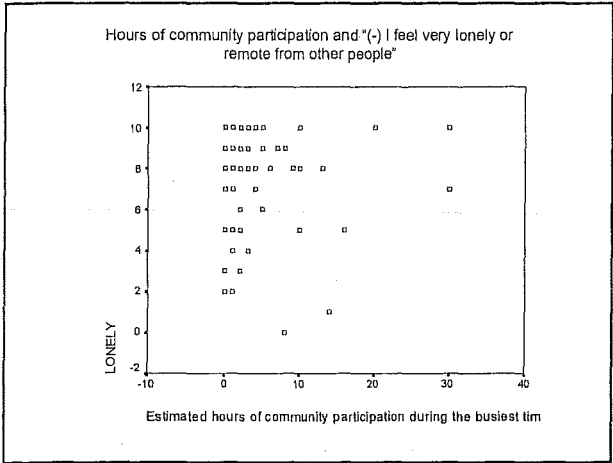
Hours of arts participation and "Things have really gone my way over the past few weeks"

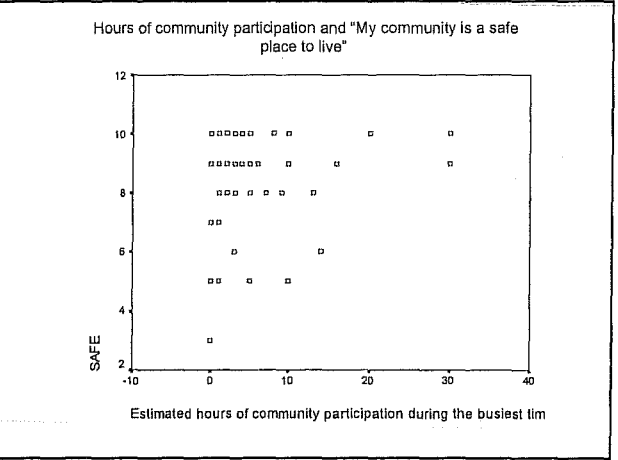
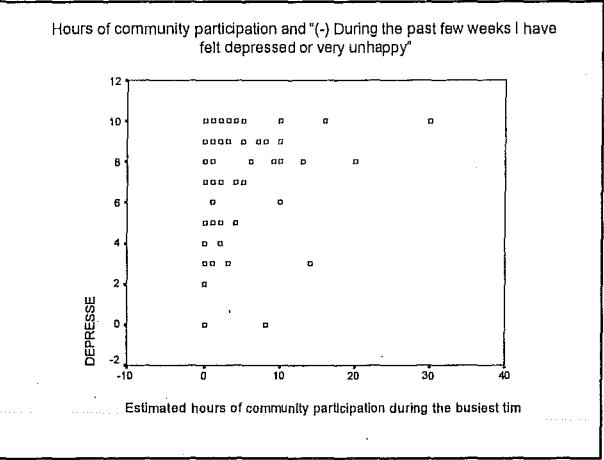
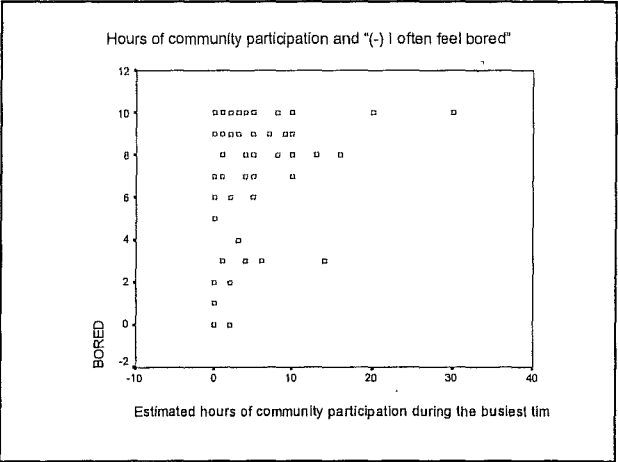
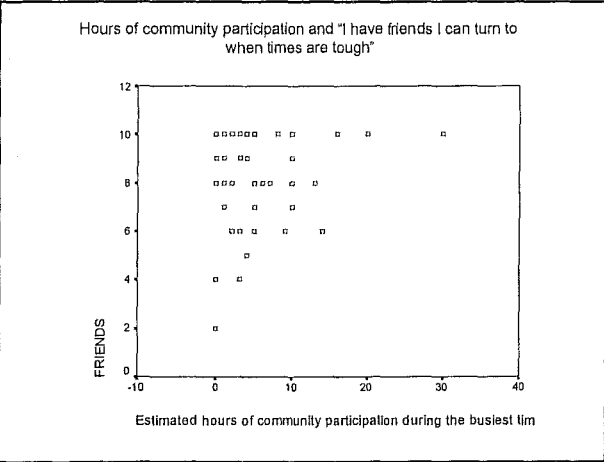
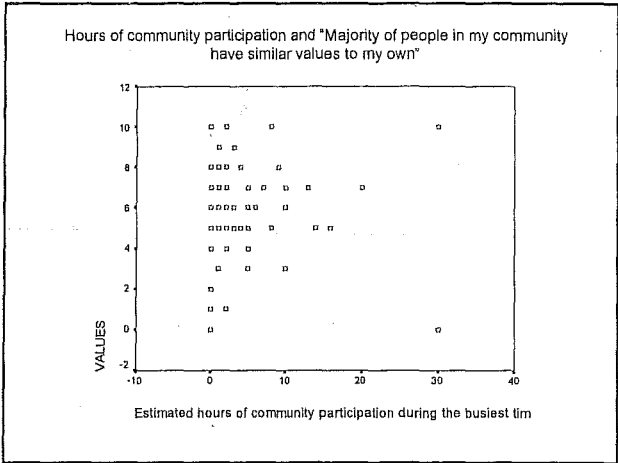
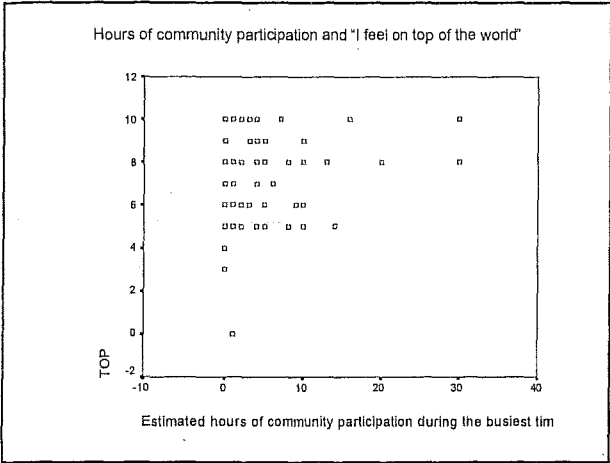




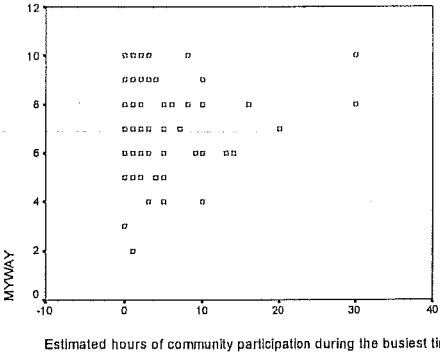


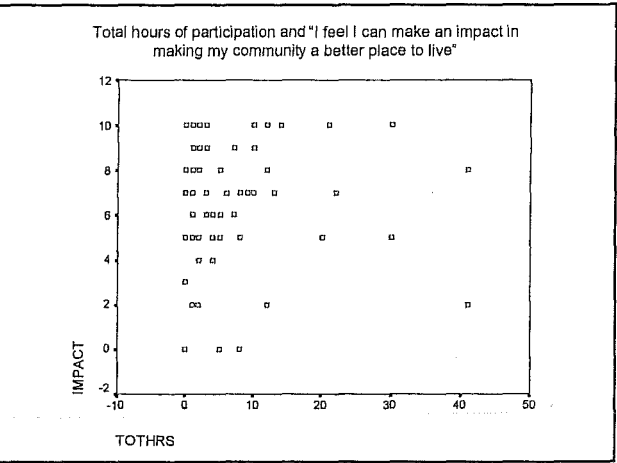
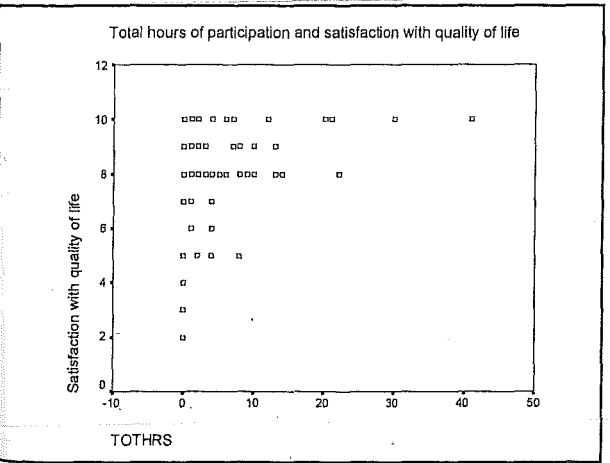
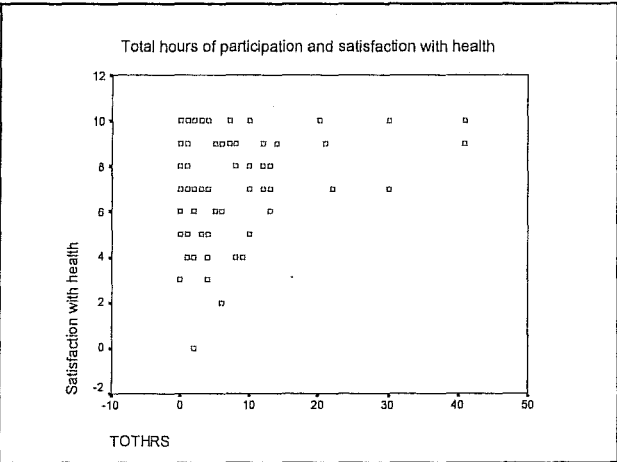
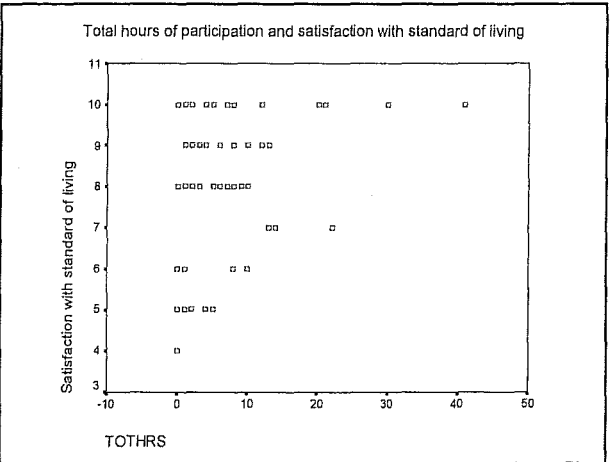
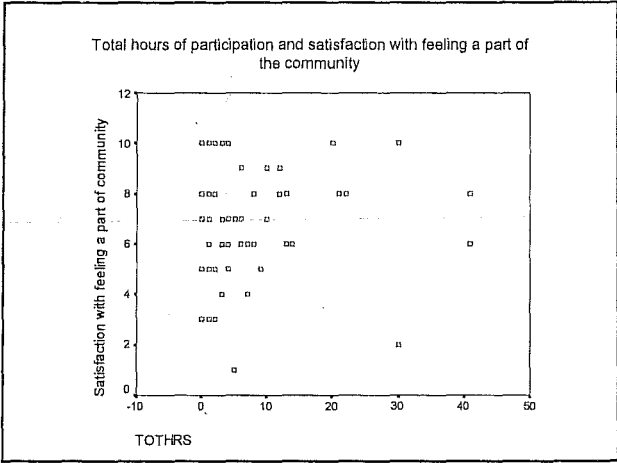
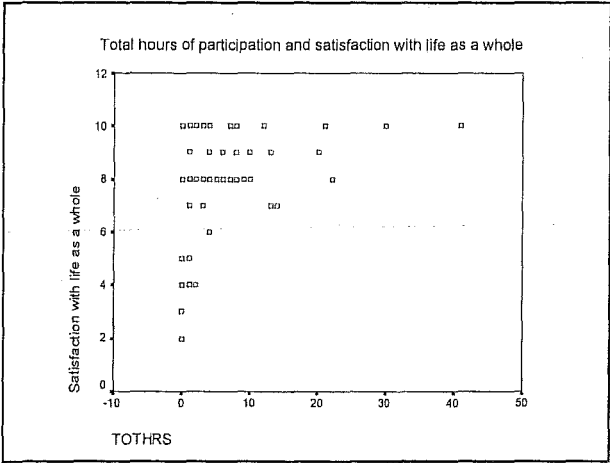


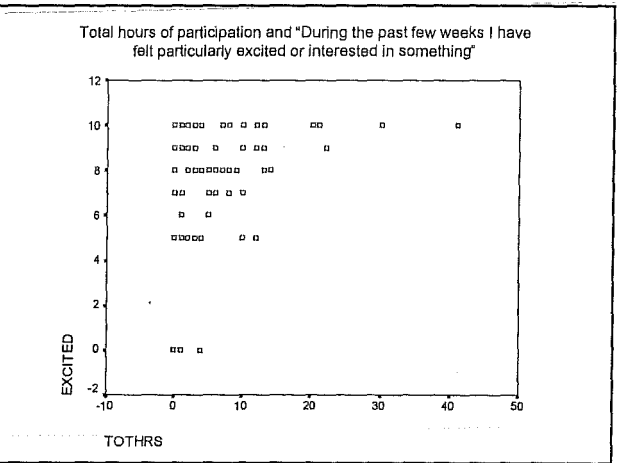
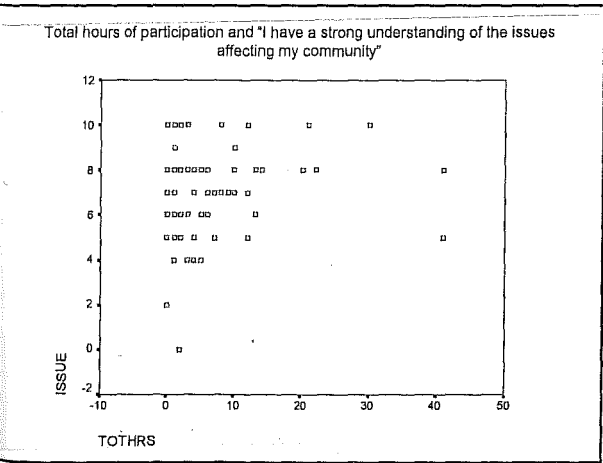
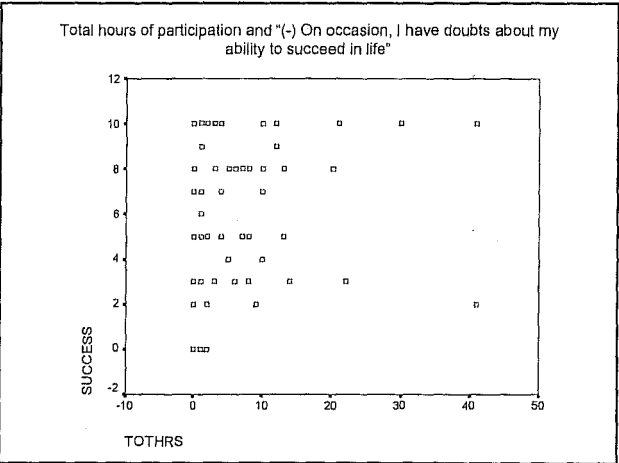
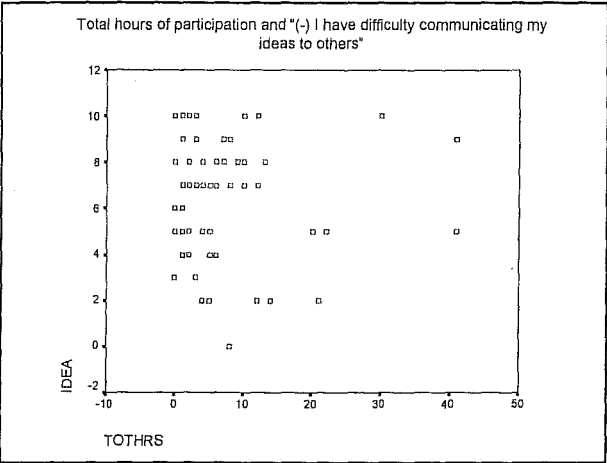
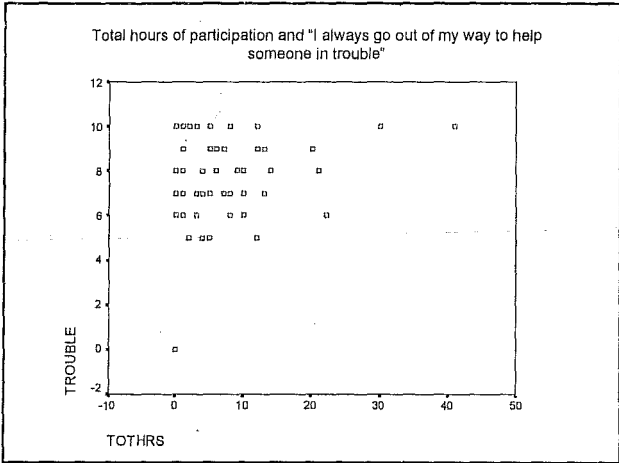
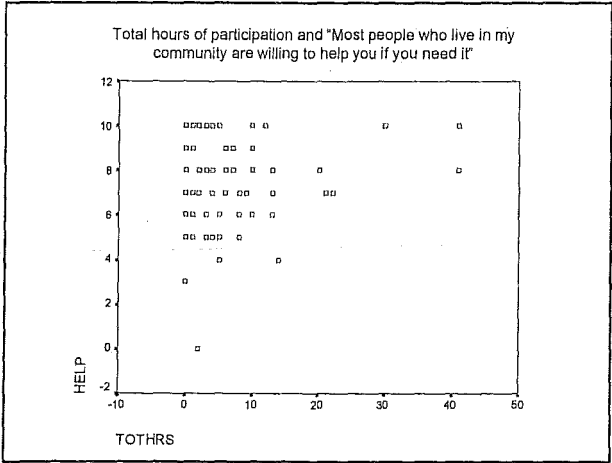


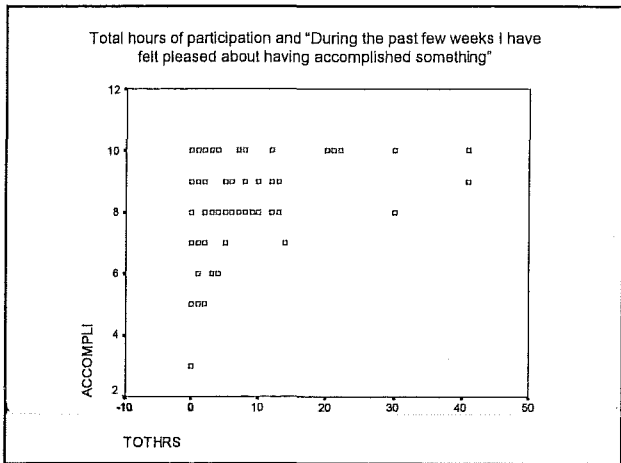
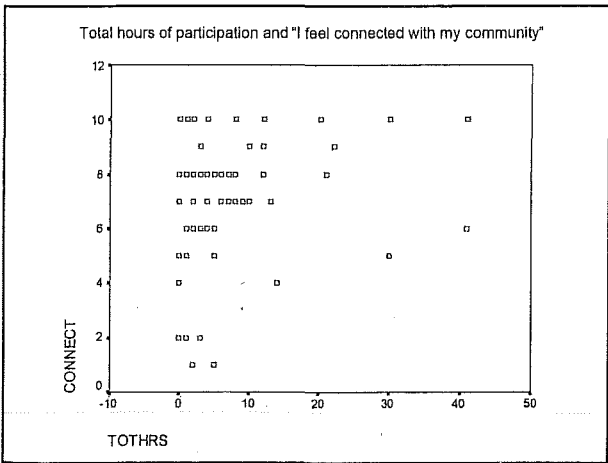
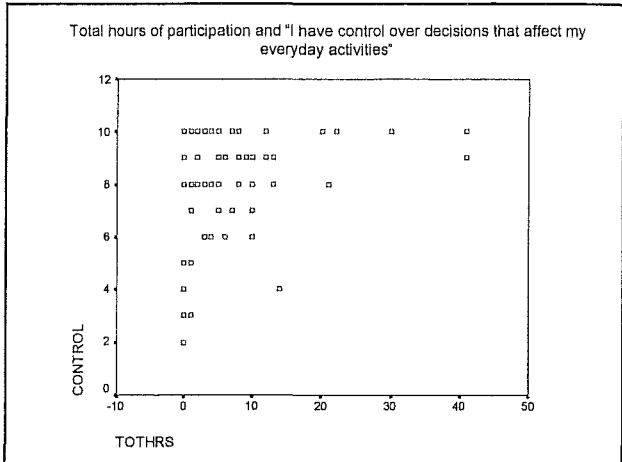
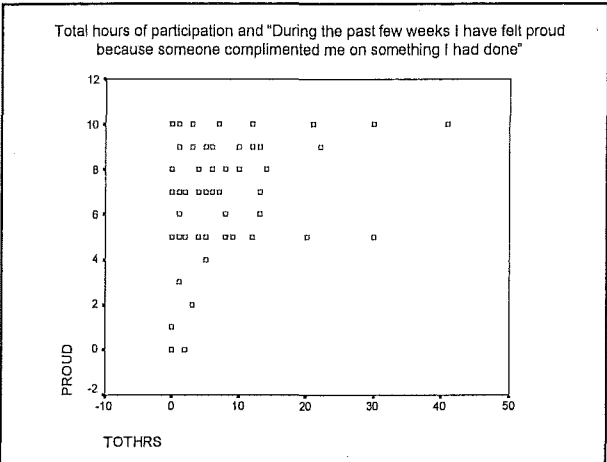
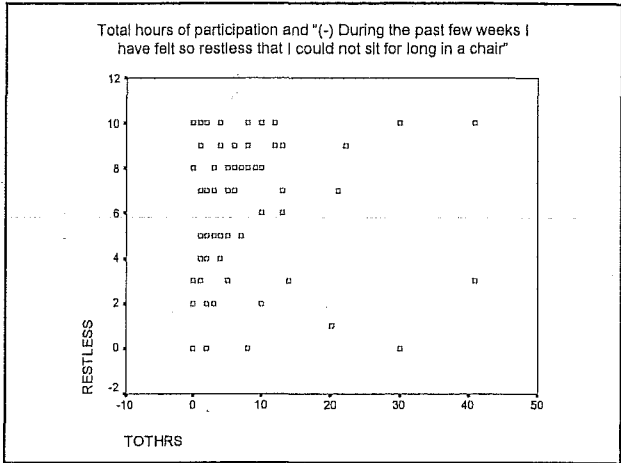
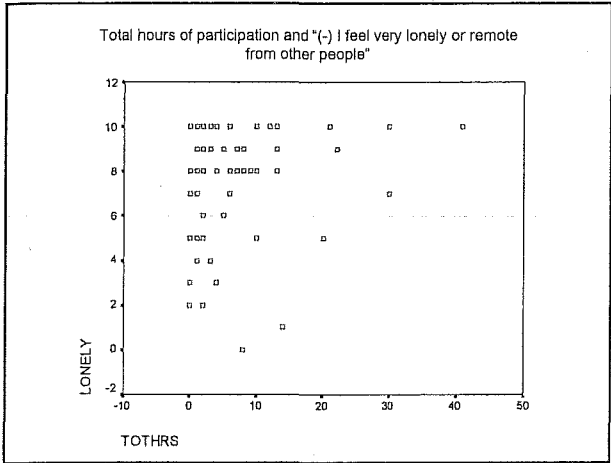


Hours of community participation and "Things have really gone my way over the past few weeks"

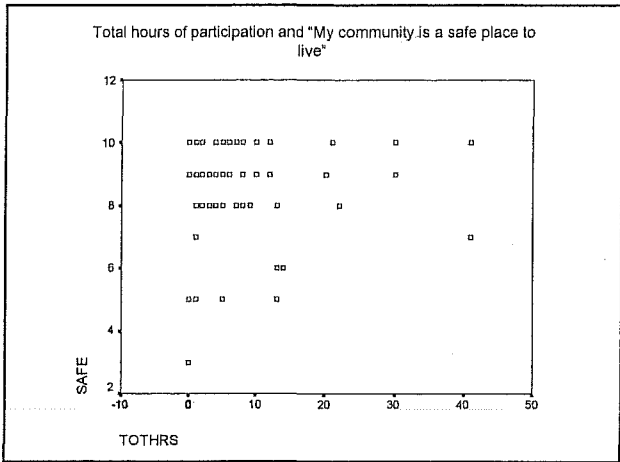
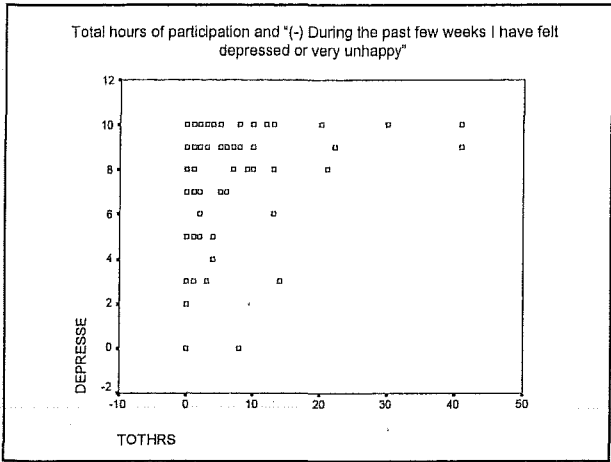
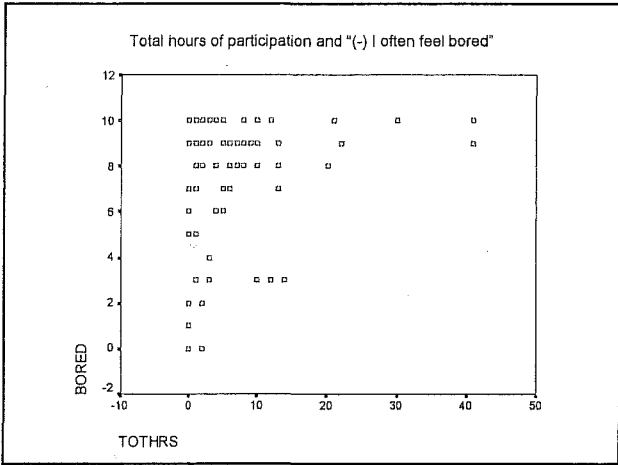
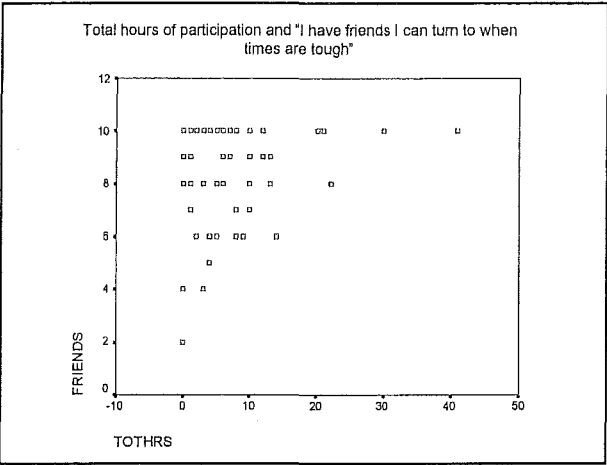
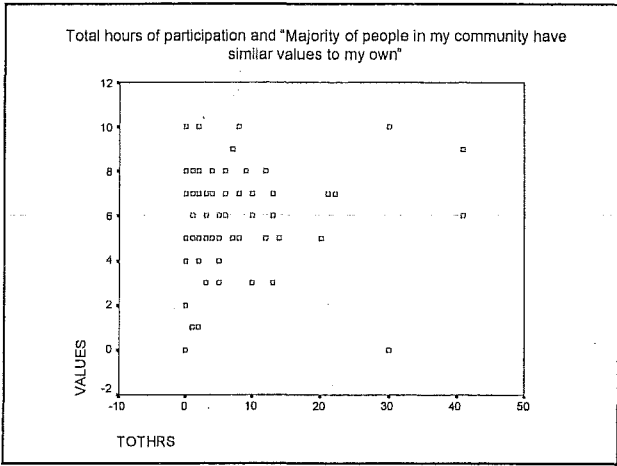
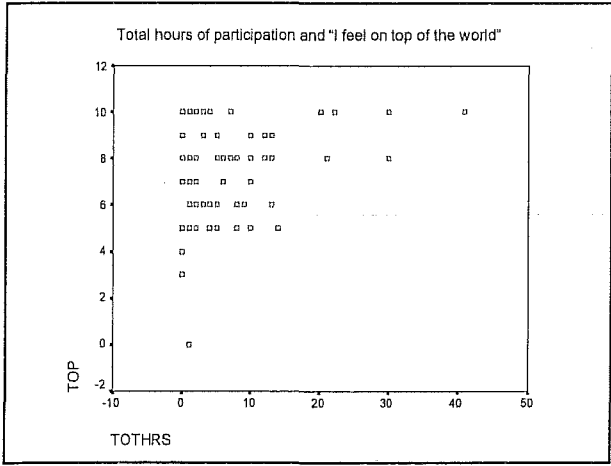


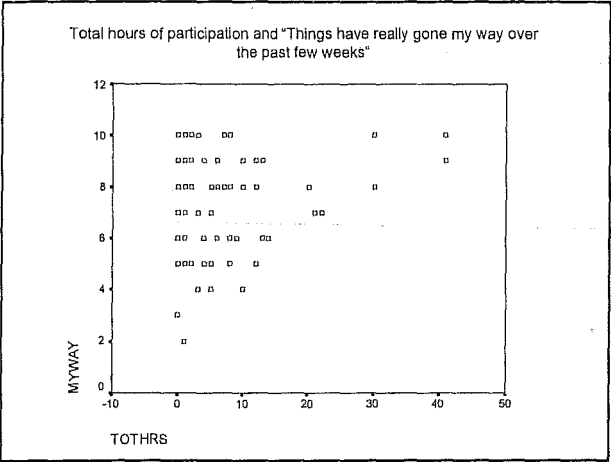












		SAFE	MYWAY	TOTHS
SAFE	Pearson Correlation	1		
	Sig. (2-tailed)			
MYWAY	N	75		
	Pearson Correlation	.339(**)	1	
TOTHS	Sig. (2-tailed)	.003		
	N	75	75	
TOTHS	Pearson Correlation	-.010	.231(*)	1
	Sig. (2-tailed)	.929	.046	
	N	75	75	76

\* Correlation is significant at the 0.05 level (2-tailed).

\*\* Correlation is significant at the 0.01 level (2-tailed).

		CONNECT	RESTLESS	CONTROL	ACCOMPLI	TOP	FRIENDS	DEPRESS	VALUES	BORED
CONNECT	Pearson Correlation	1								
	Sig. (2-tailed)									
RESTLESS	N	76								
	Pearson Correlation	.196	1							
CONTROL	Sig. (2-tailed)	.089								
	N	76	76							
CONTROL	Pearson Correlation	.246(*)	.091	1						
	Sig. (2-tailed)	.032	.436							
ACCOMPLI	N	76	76	76						
	Pearson Correlation	.292(*)	.045	.446(**)	1					
TOP	Sig. (2-tailed)	.010	.698	.000						
	N	76	76	76	76					
TOP	Pearson Correlation	.446(**)	.039	.415(**)	.421(**)	1				
	Sig. (2-tailed)	.000	.741	.000	.000					
FRIENDS	N	76	76	76	76	76				
	Pearson Correlation	.158	-.082	.451(**)	.208	.238(**)	1			
FRIENDS	Sig. (2-tailed)	.171	.480	.000	.072	.038				
	N	76	76	76	76	76	76			
DEPRESSE	Pearson Correlation	.354(**)	.420(**)	.429(**)	.201	.439(**)	.176	1		
	Sig. (2-tailed)	.002	.000	.000	.082	.000	.128			



DEPRESSE	Sig. (2-tailed)	.303	.796	.621	.034	.692	.598	.994
	N	76	76	76	76	76	76	76
VALUES	Pearson Correlation	.198	.169	.646(**)	.416(**)	.576(**)	.264(*)	.417(**)
	Sig. (2-tailed)	.086	.145	.000	.000	.000	.021	.000
BORED	Pearson Correlation	.114	.053	.243(*)	.162	.156	.196	.058
	Sig. (2-tailed)	.328	.649	.036	.165	.180	.093	.619
SAFE	Pearson Correlation	.154	.190	.335(**)	.354(**)	.168	.145	.333(**)
	Sig. (2-tailed)	.188	.102	.003	.002	.149	.215	.003
MYWAY	Pearson Correlation	.042	.033	.107	.265(*)	.022	.141	.077
	Sig. (2-tailed)	.719	.776	.361	.022	.848	.228	.513
TOTHS	Pearson Correlation	.735(**)	.622(**)	.364(**)	.325(**)	.367(**)	.130	.238(*)
	Sig. (2-tailed)	.000	.000	.001	.004	.001	.264	.039
	N	76	76	76	76	76	76	76

		IMPACT	HELP	IDEA	ISSUE	TROUBLE	SUCCESS	EXCITED	LONELY	PROUD
IMPACT	Pearson Correlation	1								
	Sig. (2-tailed)									
	N	76								
HELP	Pearson Correlation	.203	1							
	Sig. (2-tailed)	.079								
	N	76	76							
IDEA	Pearson Correlation	-.006	.074	1						
	Sig. (2-tailed)	.960	.525							
	N	76	76	76						
ISSUE	Pearson Correlation	.372(**)	.177	.057	1					
	Sig. (2-tailed)	.001	.127	.624						
	N	76	76	76	76					
TROUBLE	Pearson Correlation	.039	.295(**)	.046	.274(*)	1				
	Sig. (2-tailed)	.736	.010	.692	.016					

ISSUE	Sig. (2-tailed)	.862	.579	.898	.255	.294	.574	.179
	N	76	76	76	76	76	76	76
TROUBLE	Pearson Correlation							
	Sig. (2-tailed)	-.021	.311(**)	.368(**)	.207	.180	.326(**)	.158
SUCCESS	N	.860	.006	.001	.073	.119	.004	.172
	Pearson Correlation	76	76	76	76	76	76	76
EXCITED	Sig. (2-tailed)	.127	.080	.239(**)	.243(*)	.085	-.014	.104
	N	.276	.494	.037	.035	.467	.906	.370
LONELY	Pearson Correlation	76	76	76	76	76	76	76
	Sig. (2-tailed)	.024	.206	.282(*)	.268(*)	.227(*)	.094	.174
PROUD	N	.835	.074	.014	.019	.048	.419	.133
	Pearson Correlation	76	76	76	76	76	76	76
CONNECT	Sig. (2-tailed)	.211	.279(*)	.369(**)	.198	.436(**)	.176	.147
	N	.067	.015	.001	.086	.000	.127	.205
RESTLESS	Pearson Correlation	76	76	76	76	76	76	76
	Sig. (2-tailed)	.222	.009	.323(**)	.378(**)	.336(**)	.300(**)	.311(**)
CONTROL	N	.054	.939	.004	.001	.003	.008	.006
	Pearson Correlation	76	76	76	76	76	76	76
ACCOMPLI	Sig. (2-tailed)	.276(*)	.087	.100	.024	-.022	.077	.203
	N	.016	.454	.392	.837	.851	.511	.078
TOP	Pearson Correlation	76	76	76	76	76	76	76
	Sig. (2-tailed)	.209	.213	.392(**)	.496(**)	.204	.681(**)	.195
FRIENDS	N	.070	.065	.000	.000	.077	.000	.092
	Pearson Correlation	76	76	76	76	76	76	76
	Sig. (2-tailed)	.087	-.085	.222	.091	.055	.150	.070
	N	.456	.467	.054	.434	.637	.197	.549
	Pearson Correlation	76	76	76	76	76	76	76
	Sig. (2-tailed)	.184	.181	.389(**)	.366(**)	.248(*)	.114	.227(*)
	N	.111	.119	.001	.001	.031	.326	.049
	Pearson Correlation	76	76	76	76	76	76	76
	Sig. (2-tailed)	.197	.138	.288(*)	.208	.071	.090	.182
	N	.087	.234	.012	.072	.541	.439	.115
	Pearson Correlation	76	76	76	76	76	76	76
	Sig. (2-tailed)	.310(**)	.170	.317(**)	.470(**)	.297(**)	.364(**)	.407(**)
	N	.006	.143	.005	.000	.009	.001	.000
	Pearson Correlation	76	76	76	76	76	76	76
	Sig. (2-tailed)	.120	.030	.058	.243(*)	-.046	.062	-.001

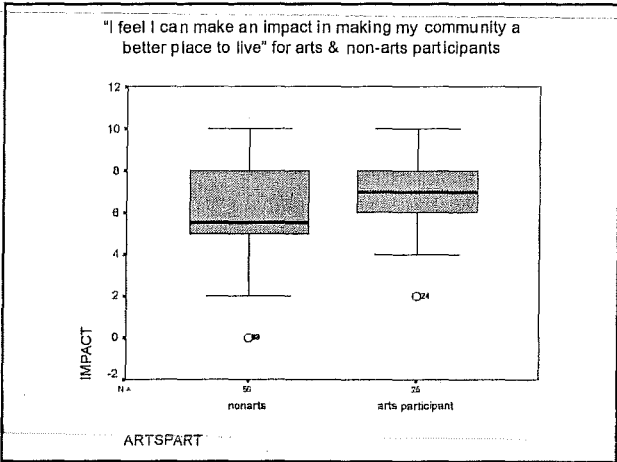
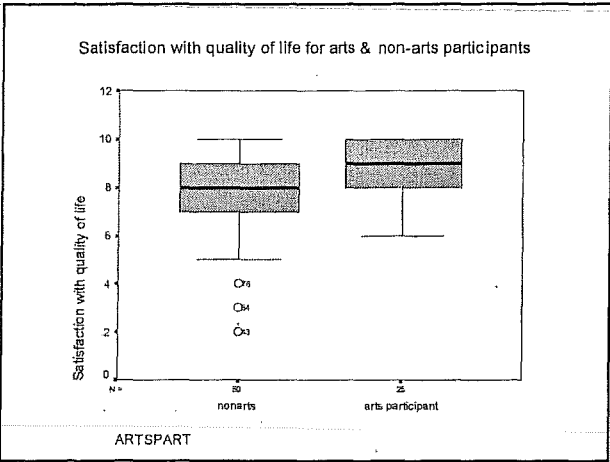
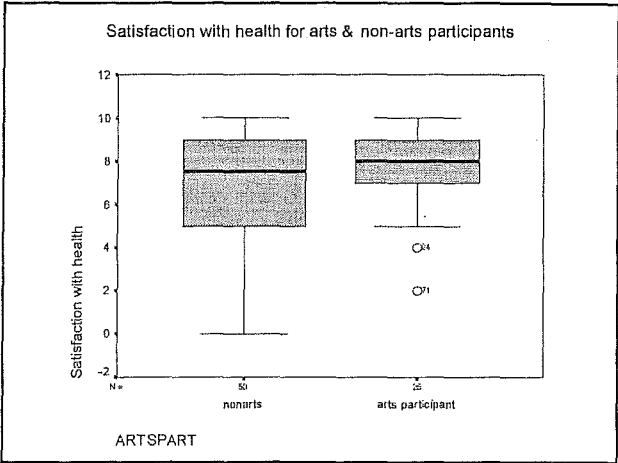
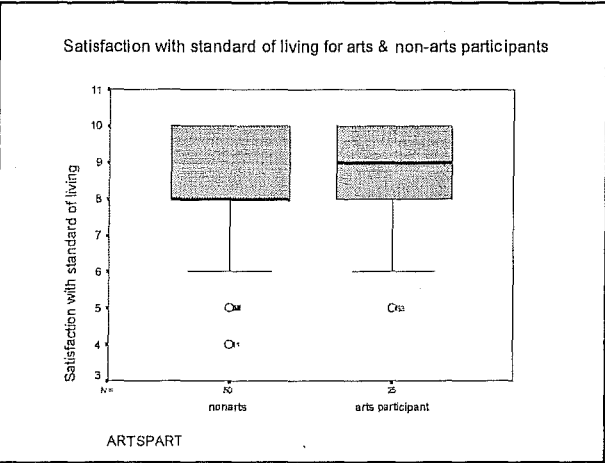
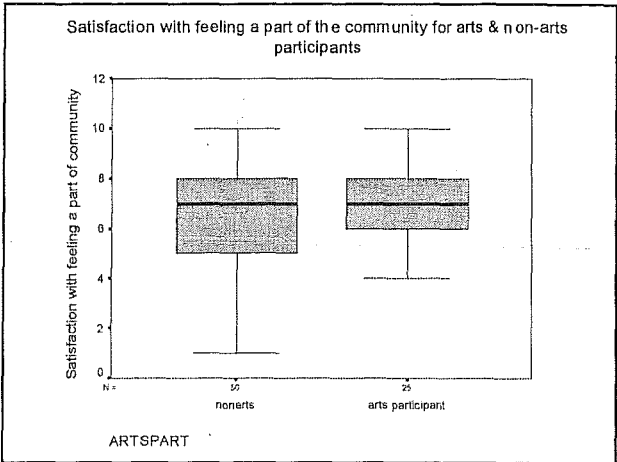
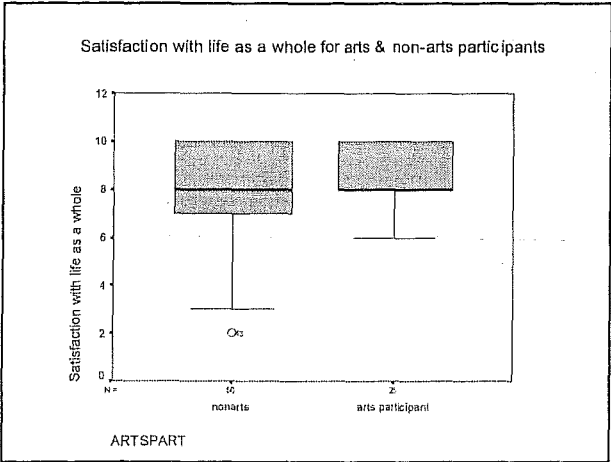
Pearson's Product Moment Correlation Coefficient (2-tailed)

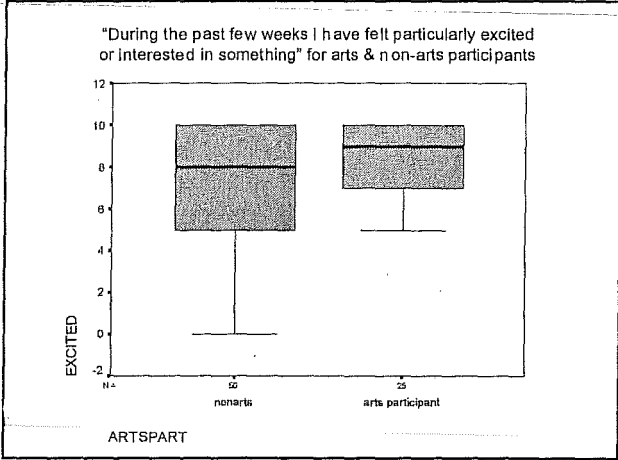
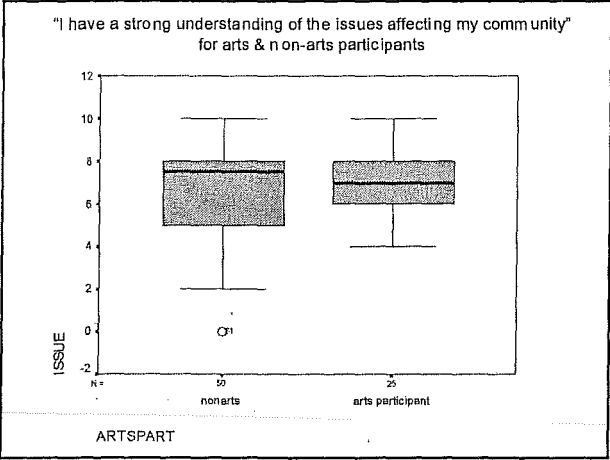
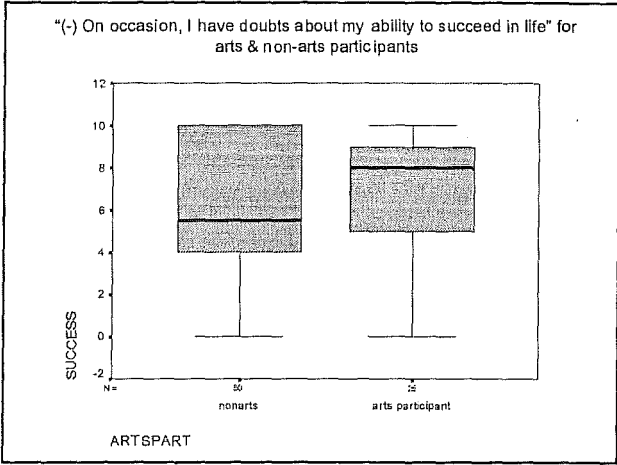
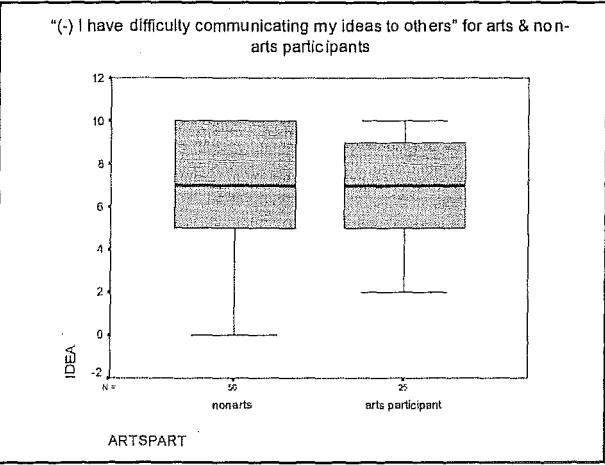
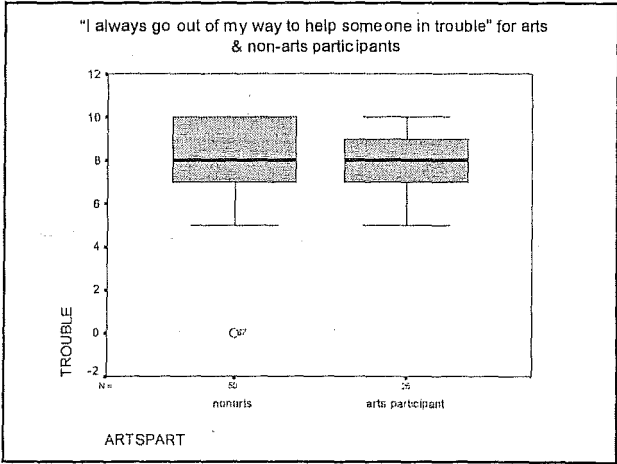
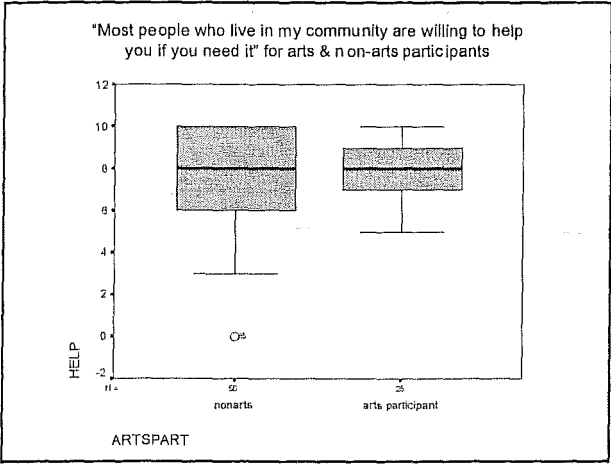
			Estimated hours of participation	Estimated hours of community participation	Satisfaction with life as a whole	Satisfaction with standard of living	Satisfaction with quality of life	Satisfaction with feeling a part of community	Satisfaction with health
Estimated hours of arts participation during the busiest times	Pearson Correlation Sig. (2-tailed) N	1 76							
Estimated hours of community participation during the busiest times	Pearson Correlation Sig. (2-tailed) N	-.074 .523	1						
Satisfaction with life as a whole	Pearson Correlation Sig. (2-tailed) N	.76 .234(*) .042	.76	.265(*) .021	1				
Satisfaction with standard of living	Pearson Correlation Sig. (2-tailed) N	.76 .193 .095	.76	.76 .255(*) .026	.609(**) .000	1			
Satisfaction with quality of life	Pearson Correlation Sig. (2-tailed) N	.76 .249(*) .030	.76	.76 .252(*) .028	.76 .690(**) .000	.76 .440(**) .000	1		
Satisfaction with feeling a part of community	Pearson Correlation Sig. (2-tailed) N	.084 .472	.76 .76	.094 .419	.361(**) .001	.390(**) .000	.356(**) .002	1	
Satisfaction with health	Pearson Correlation Sig. (2-tailed) N	.181 .117	.76 .76	.140 .227	.374(**) .001	.303(**) .008	.522(**) .000	.299(**) .009	1
IMPACT	Pearson Correlation Sig. (2-tailed) N	-.020 .866	.76 .76	.239(*) .038	.235(*) .041	.195 .092	.200 .084	.426(**) .000	.76 .280(*) .014
HELP	Pearson Correlation Sig. (2-tailed) N	.168 .147	.76 .76	.077 .508	.274(*) .017	.162 .161	.319(**) .005	.187 .106	.020 .867
IDEA	Pearson Correlation	.020	.76	.065	.015	.76	.122	.066	.156

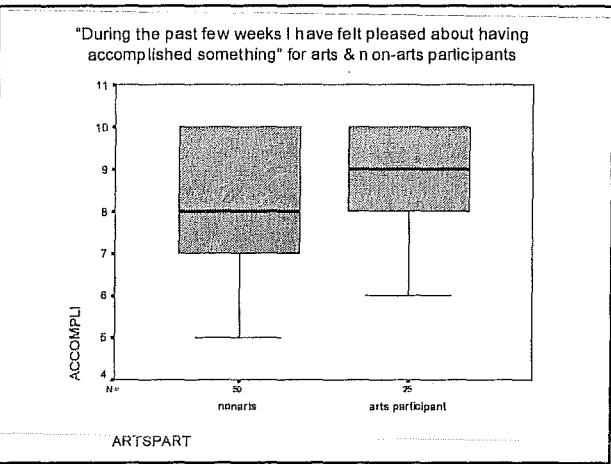
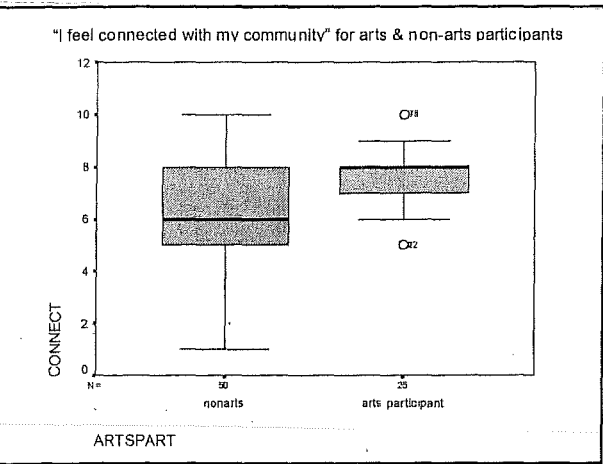
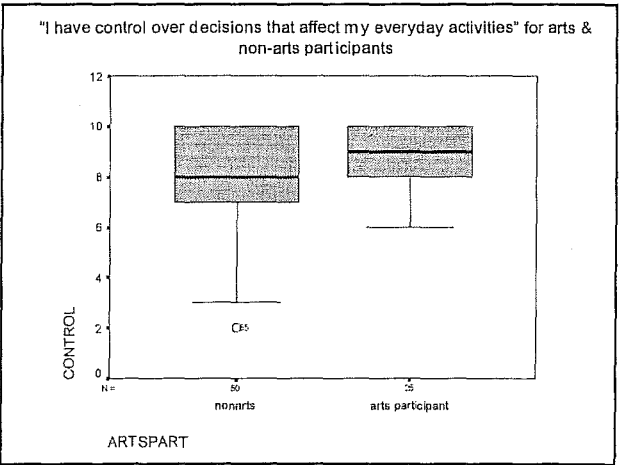
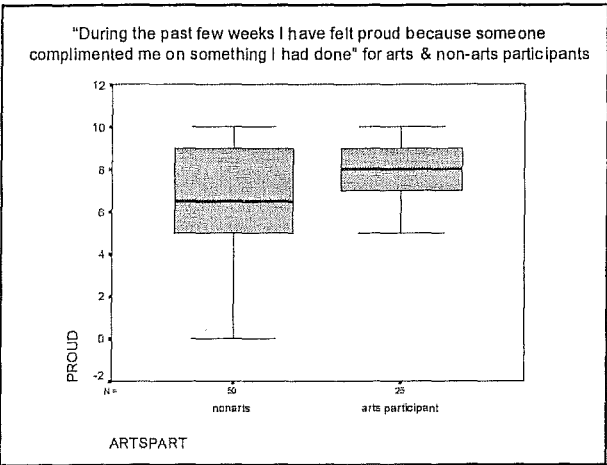
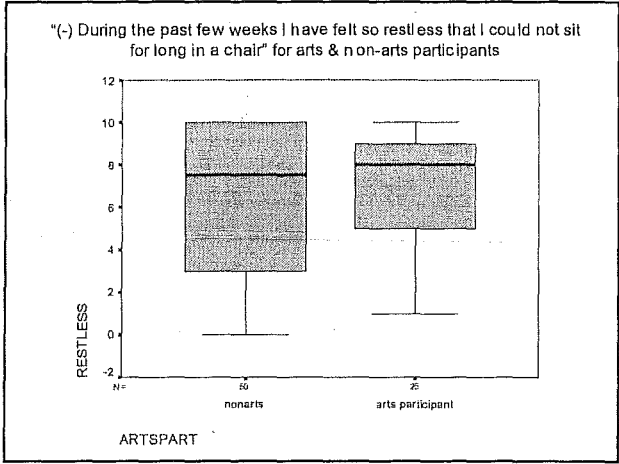
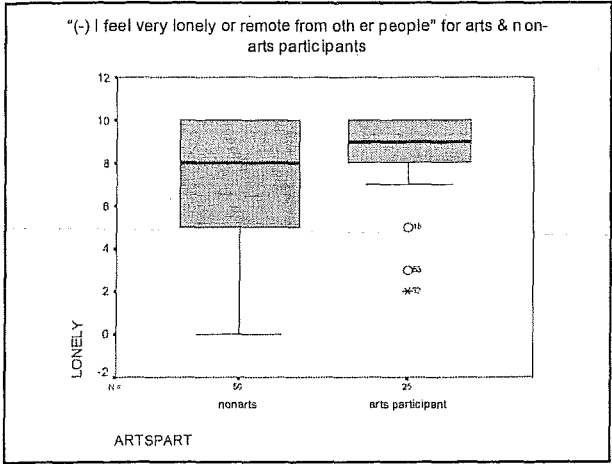


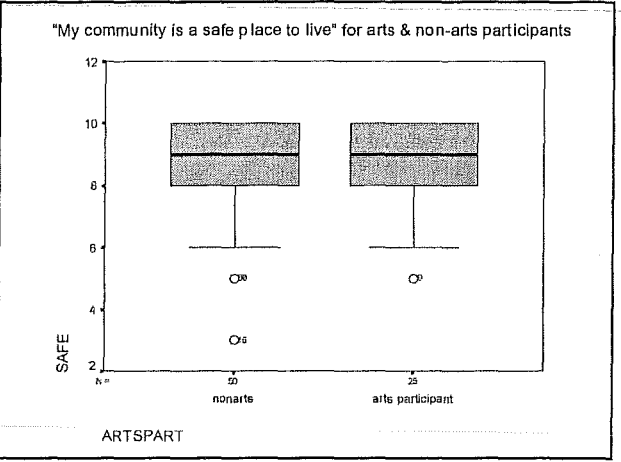
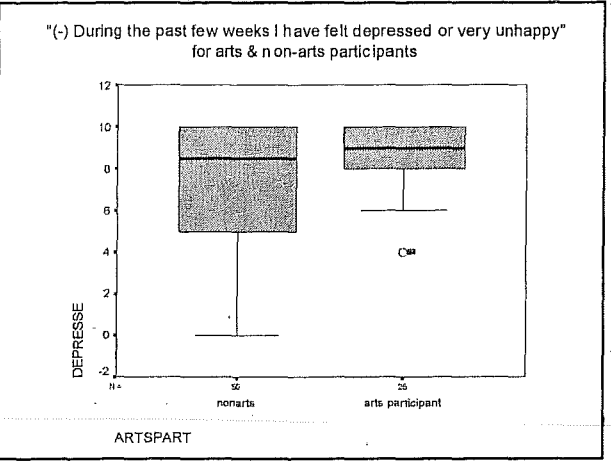
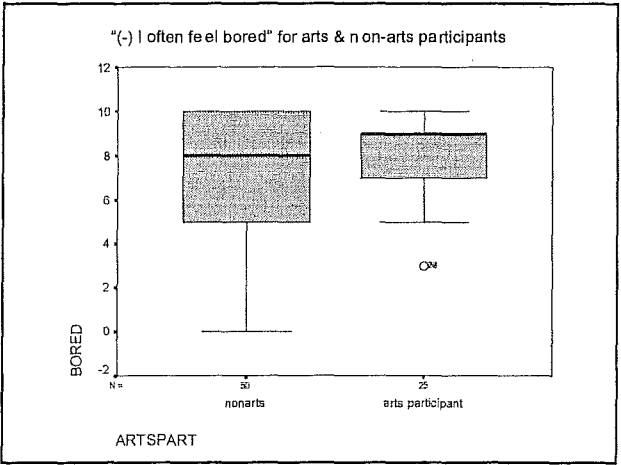
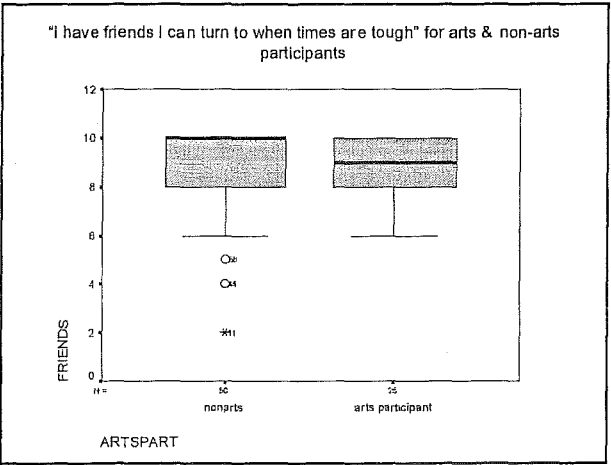
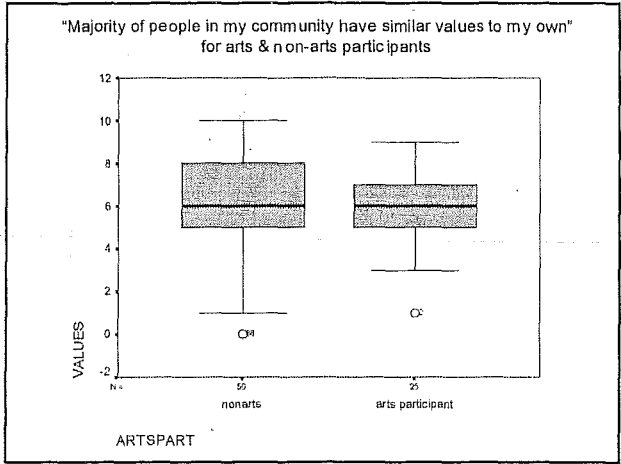
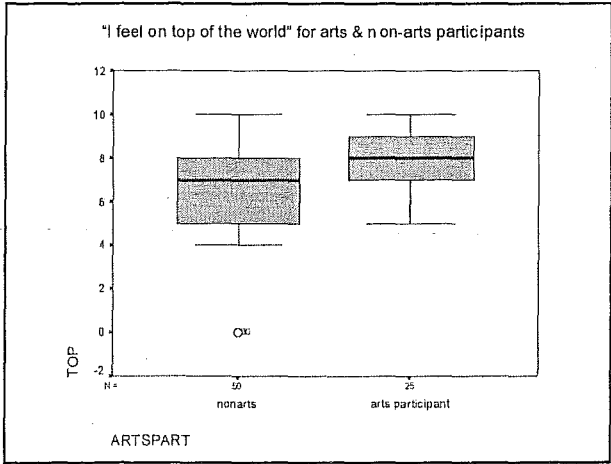
Descriptive Statistics

	Mean	Std. Deviation	N
Estimated hours of arts participation during the busiest times	2.39	6.868	76
Estimated hours of community participation during the busiest times	3.97	5.951	76
Satisfaction with life as a whole	8.07	1.893	76
Satisfaction with standard of living	8.20	1.689	76
Satisfaction with quality of life	8.12	1.781	76
Satisfaction with feeling a part of community	6.67	2.081	76
Satisfaction with health	7.25	2.275	76
IMPACT	6.09	2.743	76
HELP	7.53	2.094	76
IDEA	6.88	2.643	76
ISSUE	7.07	2.175	76
TROUBLE	8.00	1.855	76
SUCCESS	6.30	3.107	76
EXCITED	7.53	2.511	76
LONELY	7.66	2.590	76
PROUD	6.95	2.566	76
CONNECT	6.64	2.279	76
RESTLESS	6.43	3.419	76
CONTROL	8.09	2.149	76
ACCOMPLI	8.28	1.630	76
TOP	7.24	2.039	76
FRIENDS	8.75	1.745	76
DEPRESSE	7.59	2.791	76
VALUES	6.04	2.251	75
BORED	7.49	2.878	75
SAFE	8.75	1.525	75
MYWAY	7.11	2.064	75
TOTHR	6.37	8.747	76

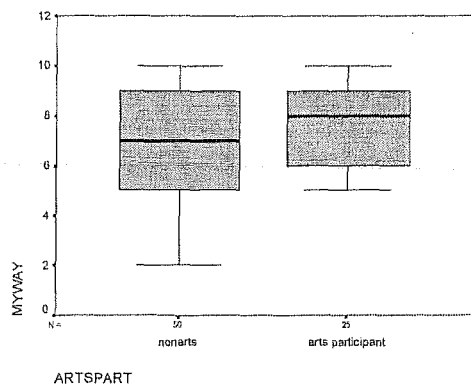


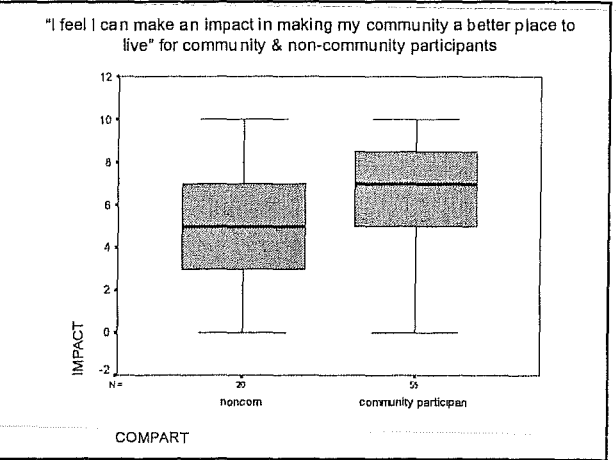
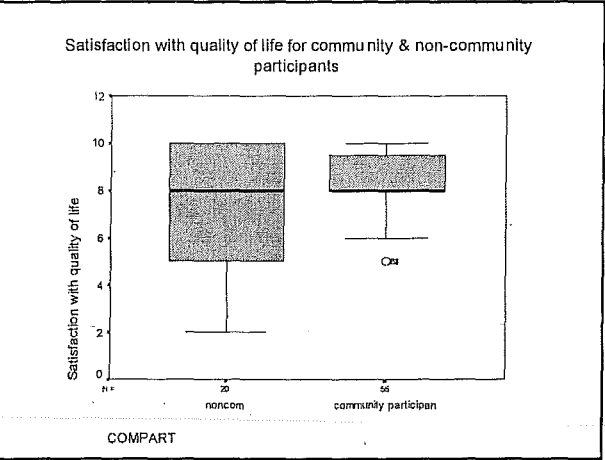
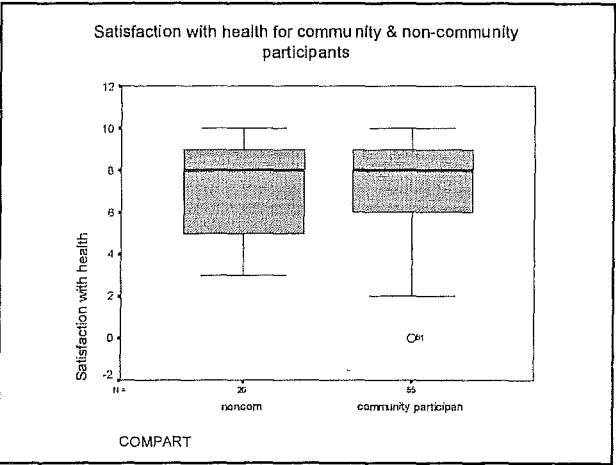
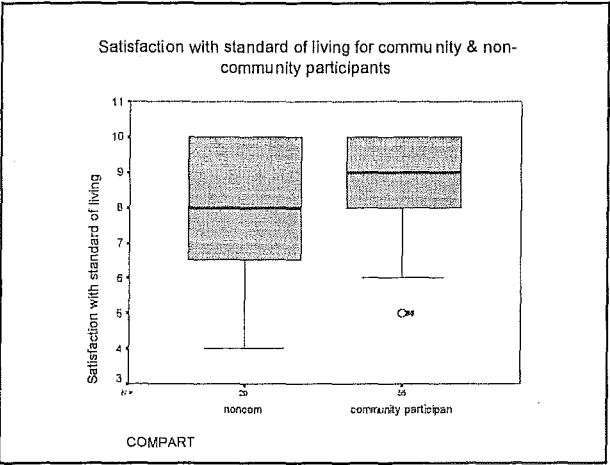
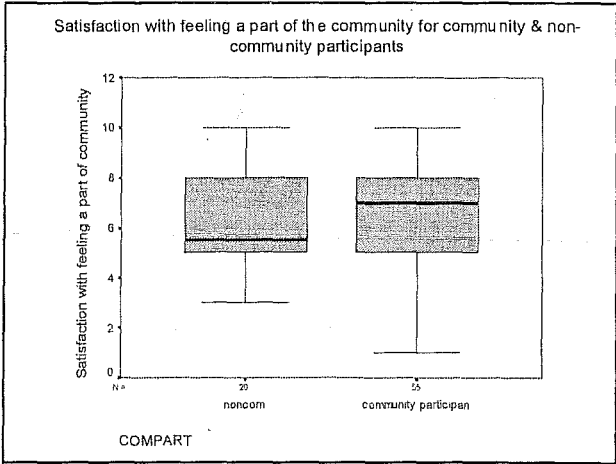
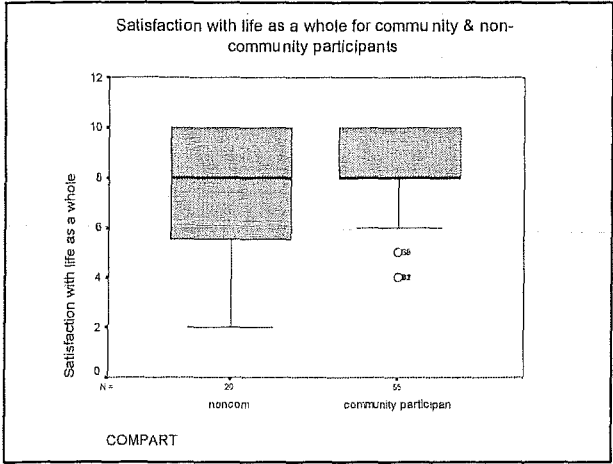


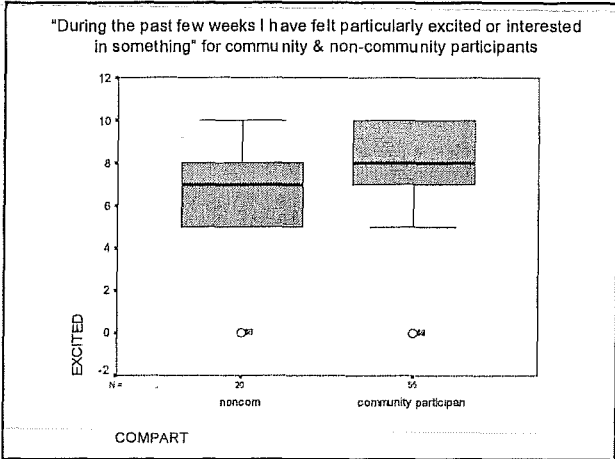
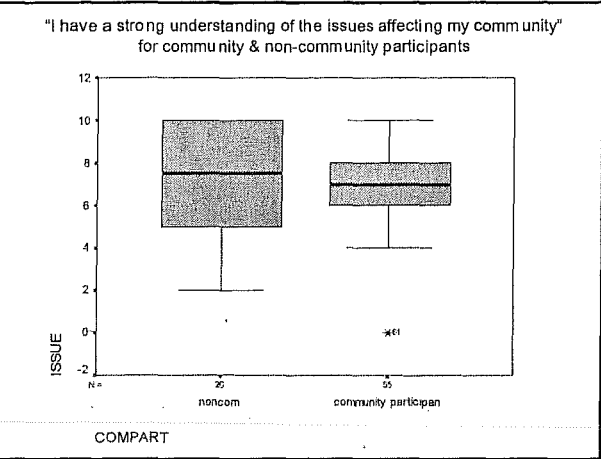
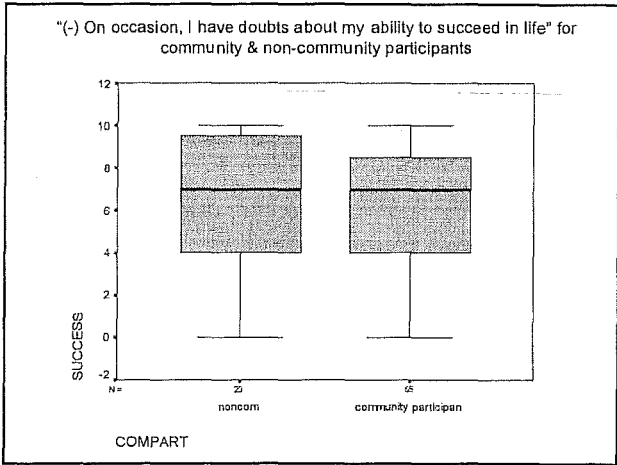
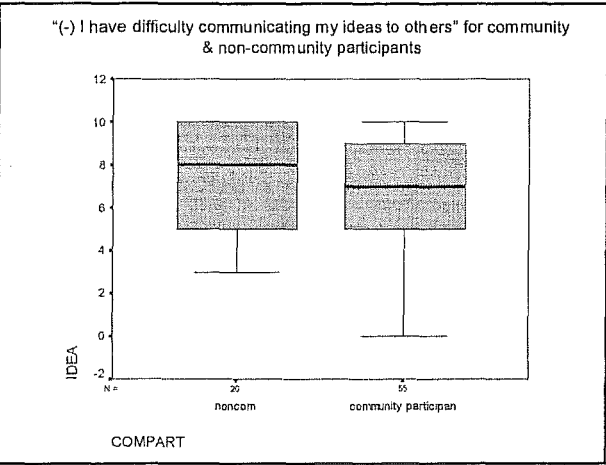
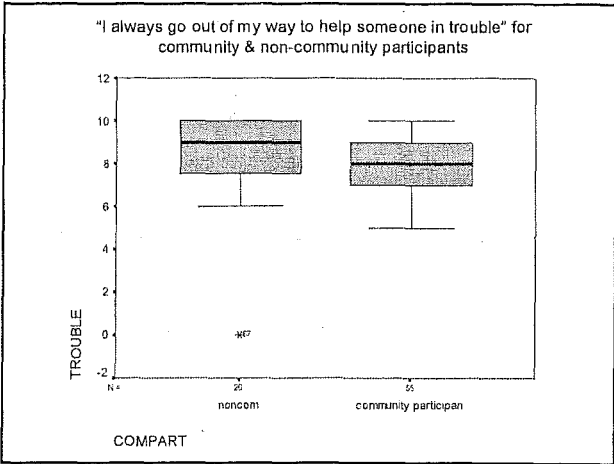
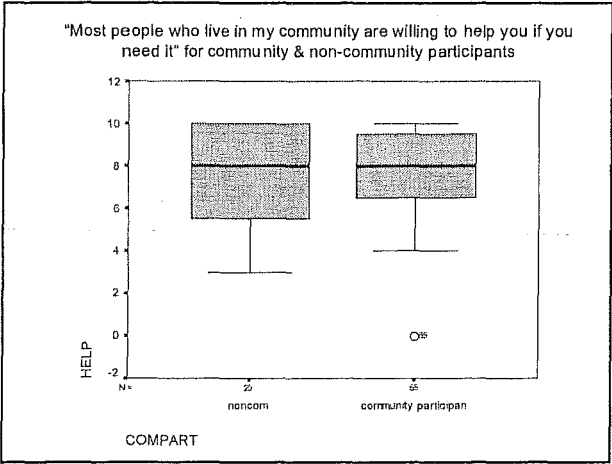




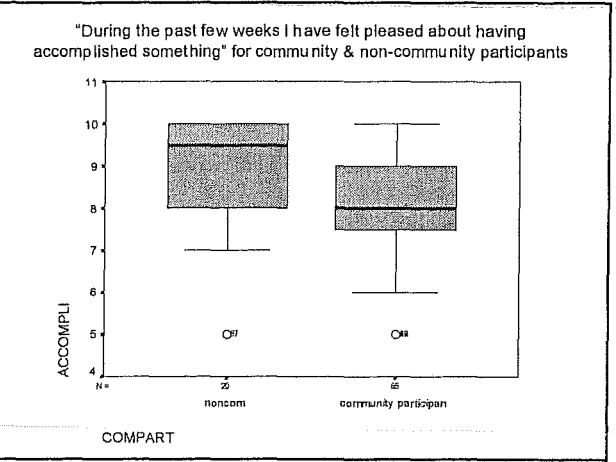
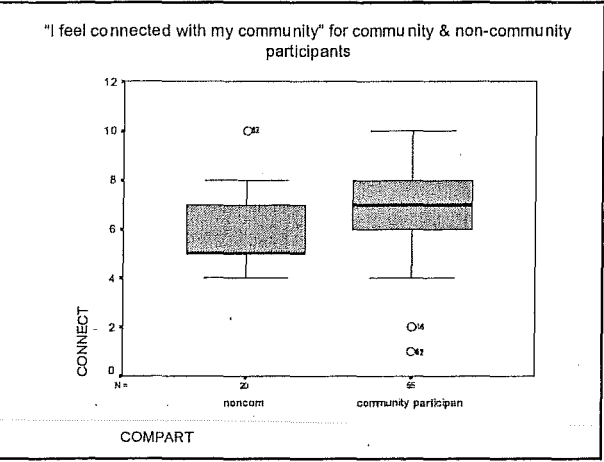
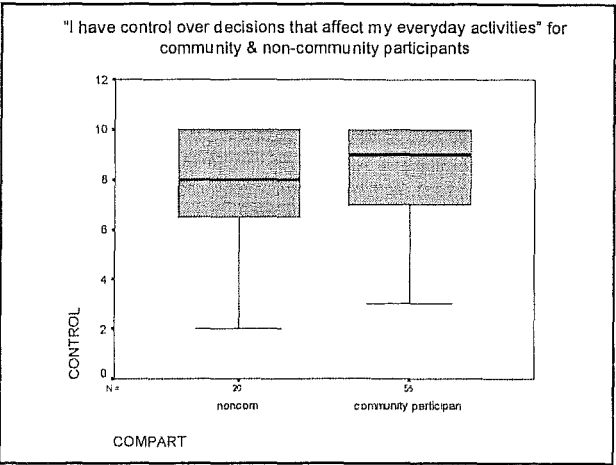
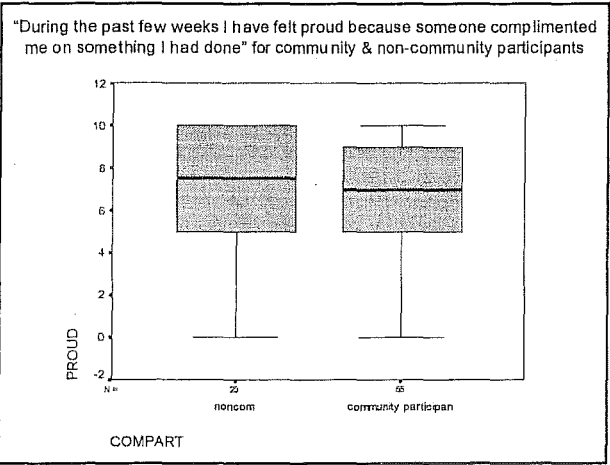
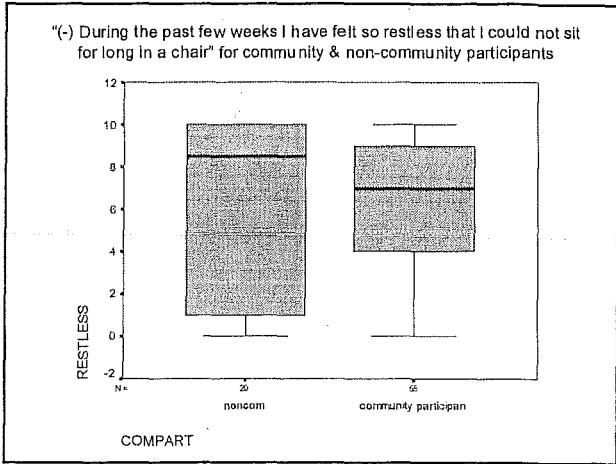
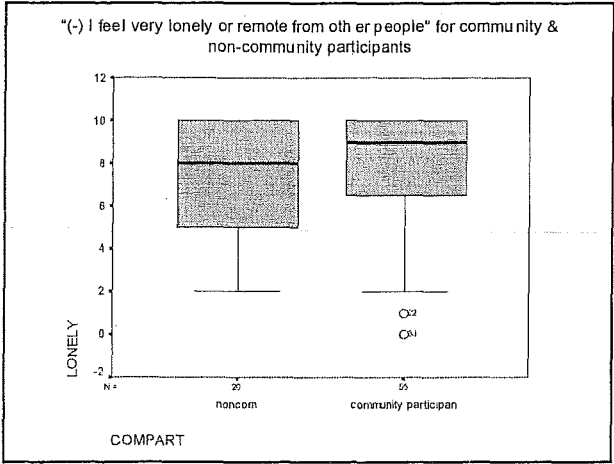
"Things have really gone my way over the past few weeks" for arts & non-arts participants

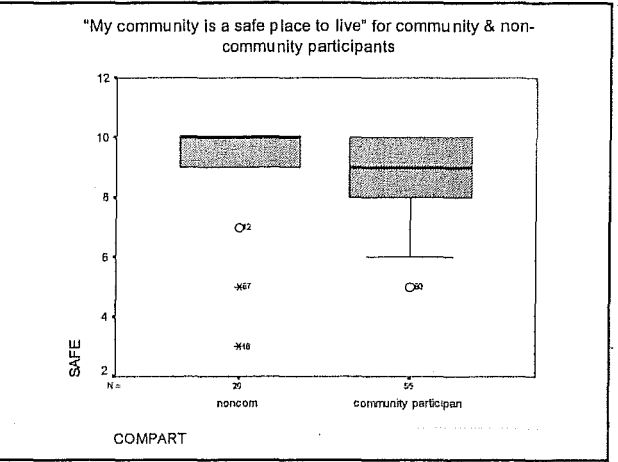
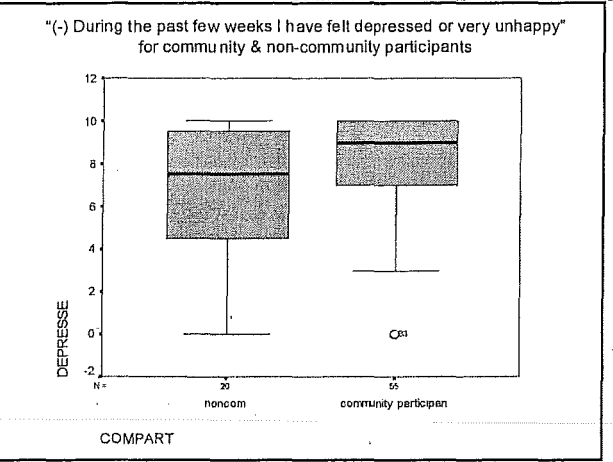
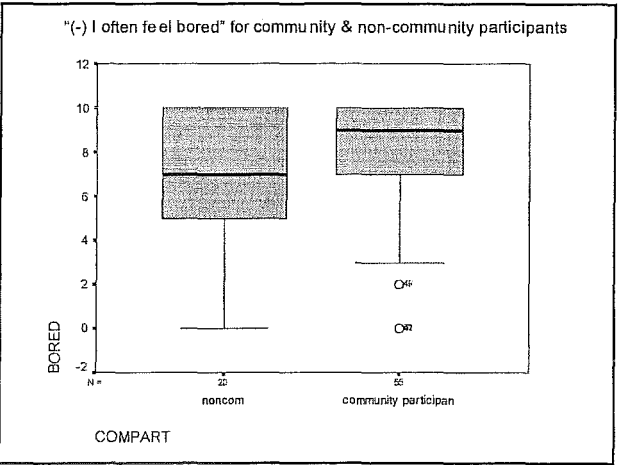
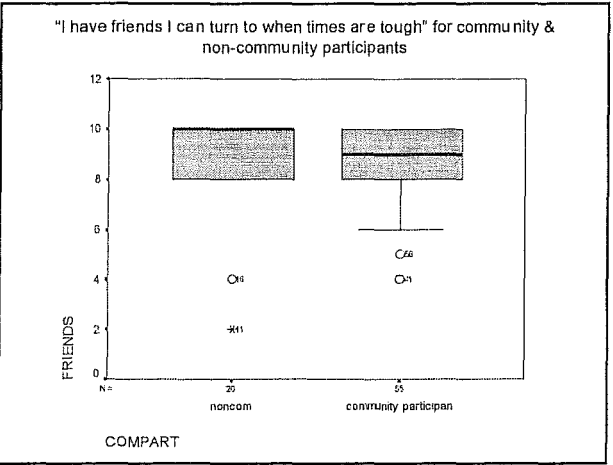
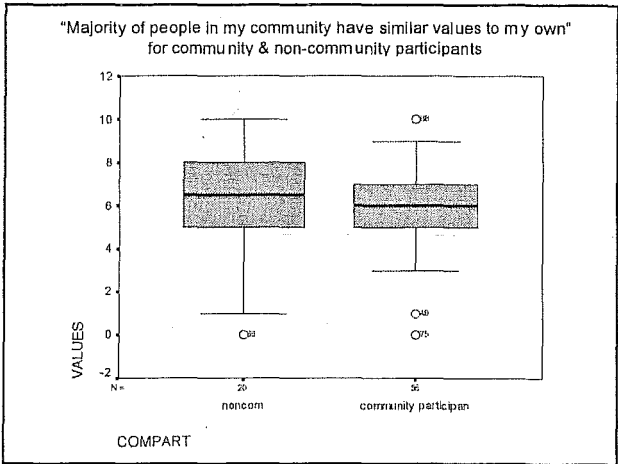
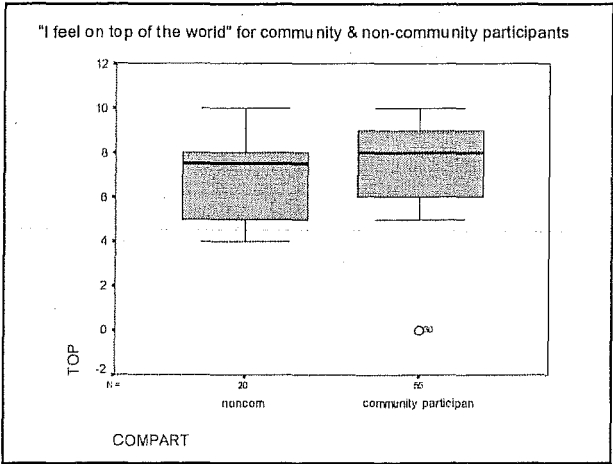


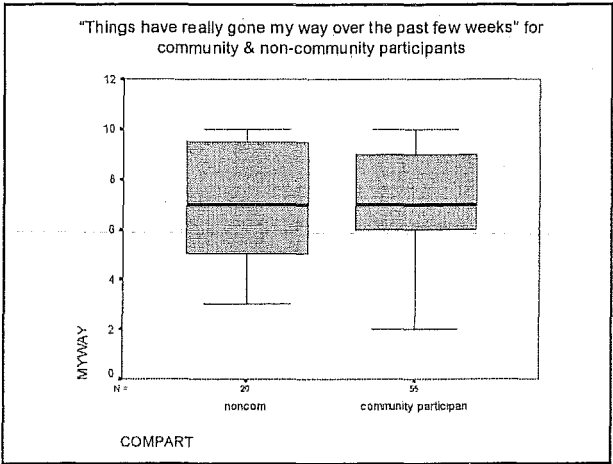




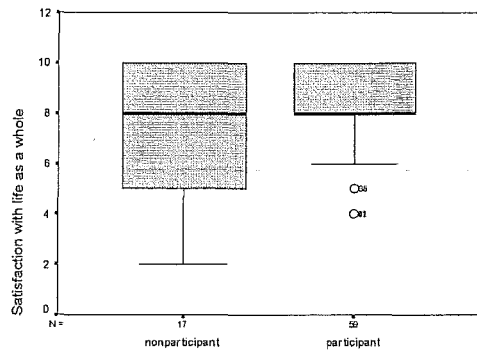






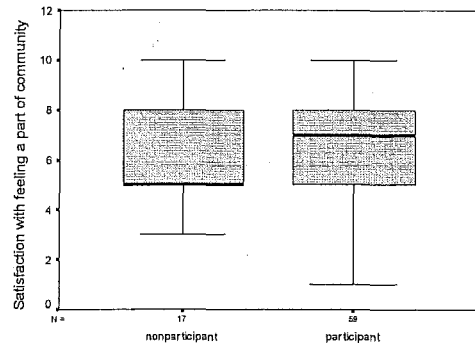


Satisfaction with life as a whole for total participants & non-participants



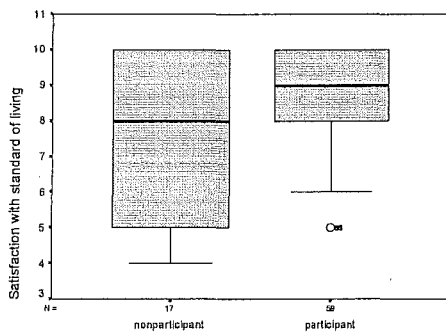
TOTPART

Satisfaction with feeling a part of the community for total participants & non-participants



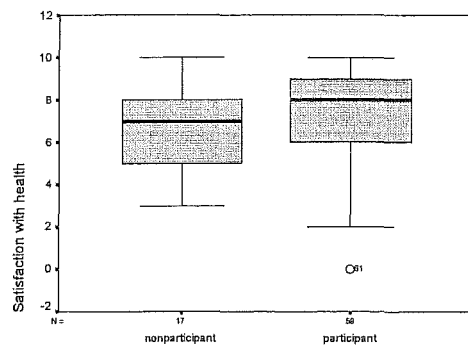
TOTPART

Satisfaction with standard of living for total participants & non-participants



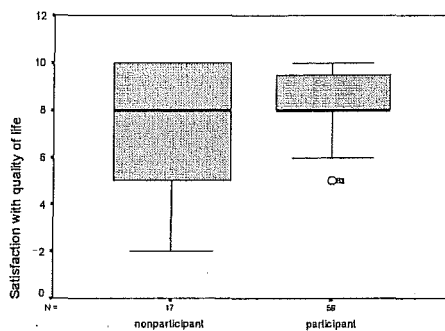
TOTPART

Satisfaction with health for total participants & non-participants



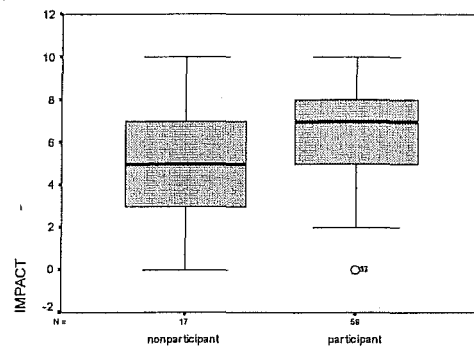
TOTPART

Satisfaction with quality of life for total participants & non-participants

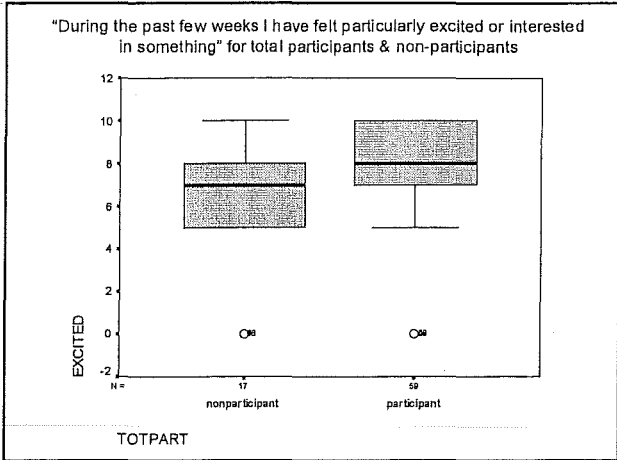
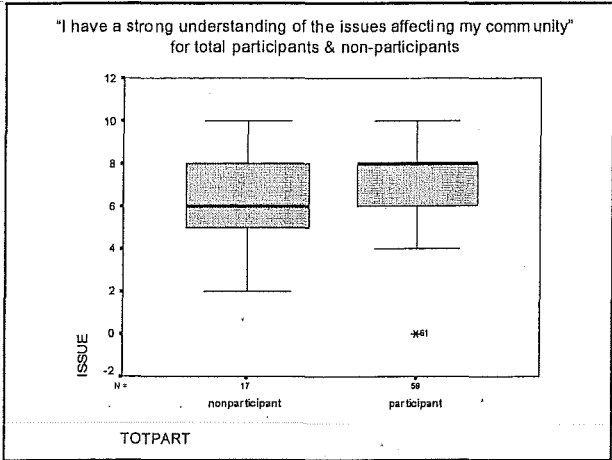
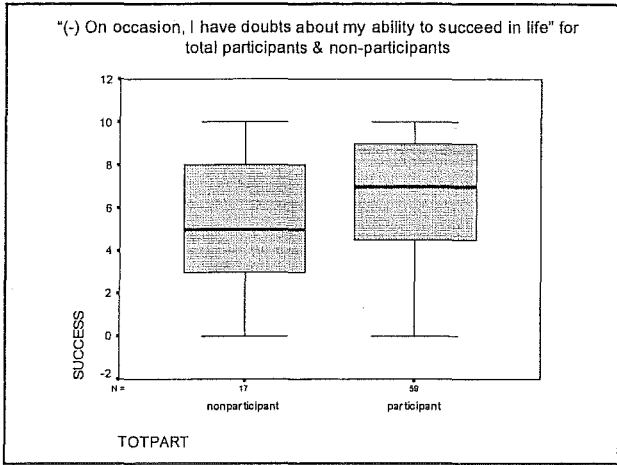
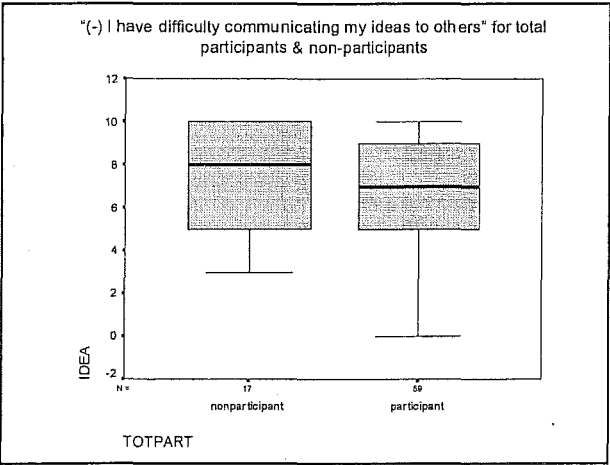
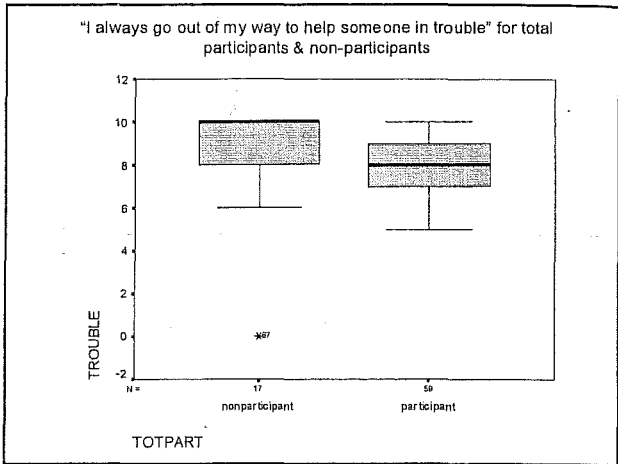
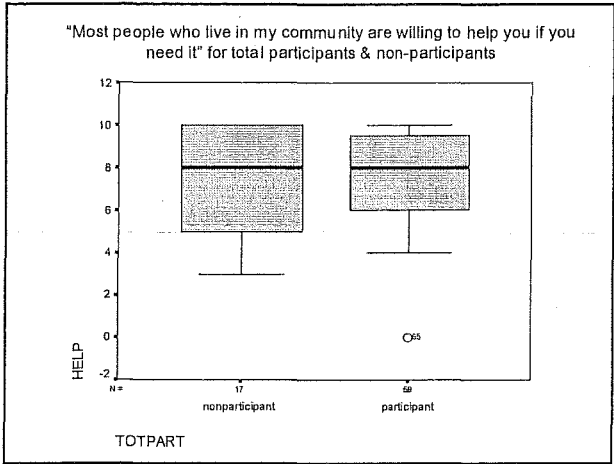


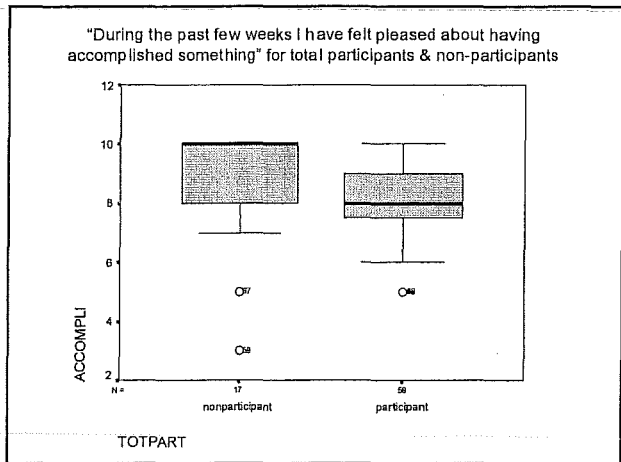
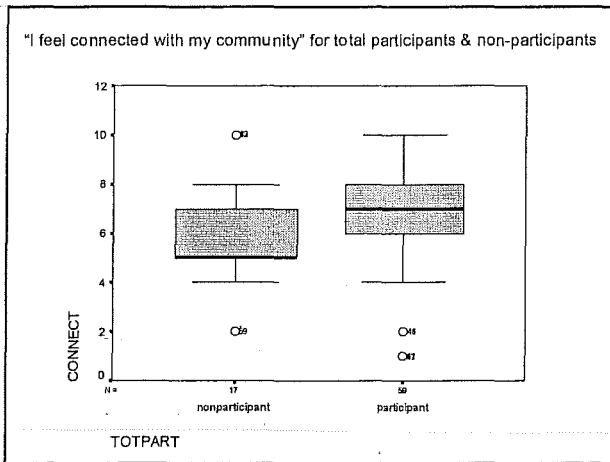
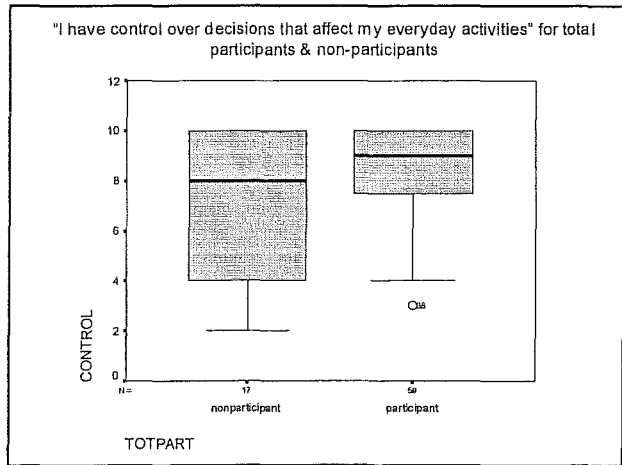
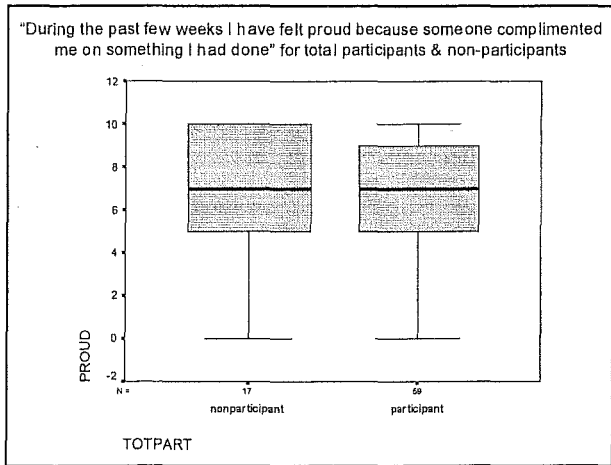
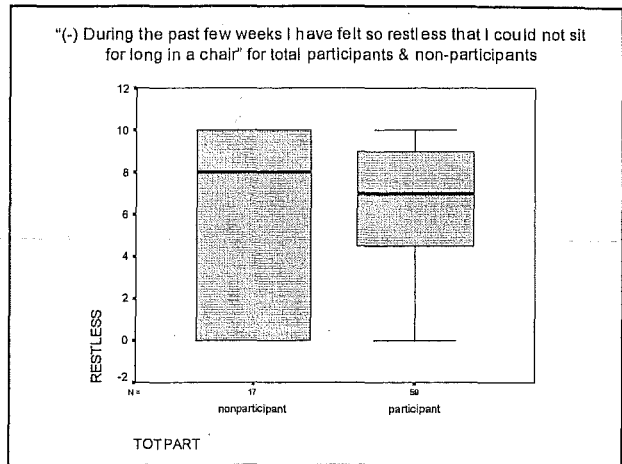
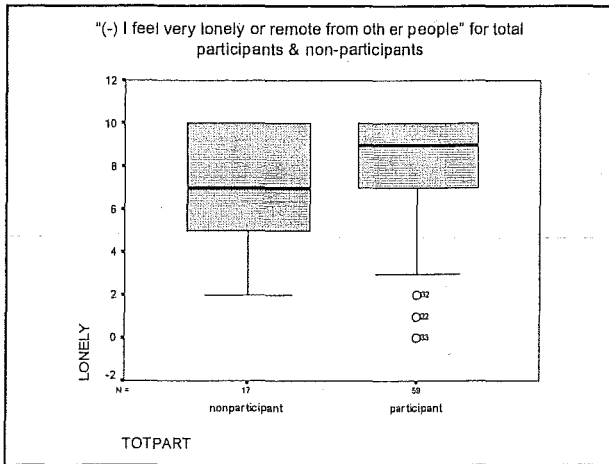
TOTPART

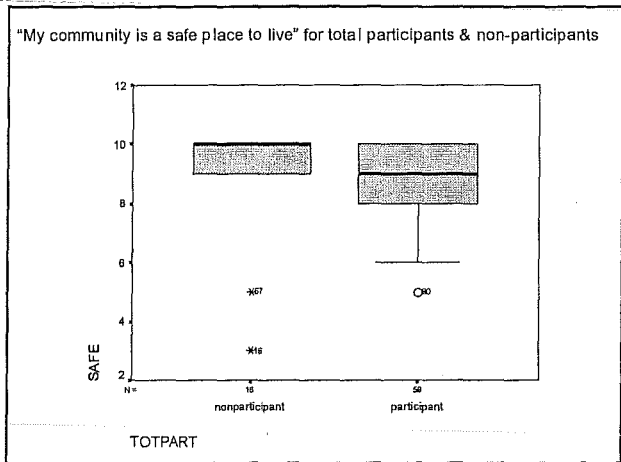
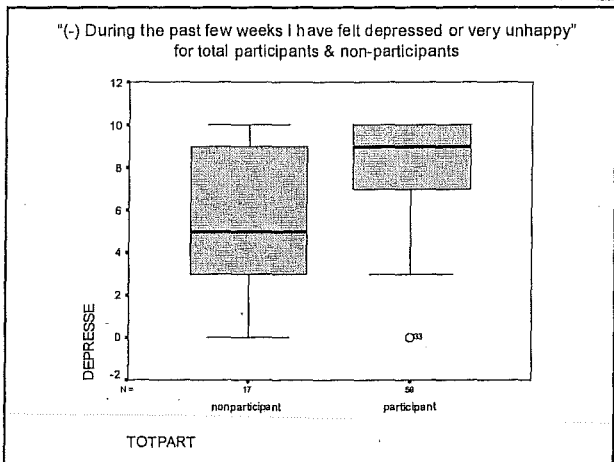
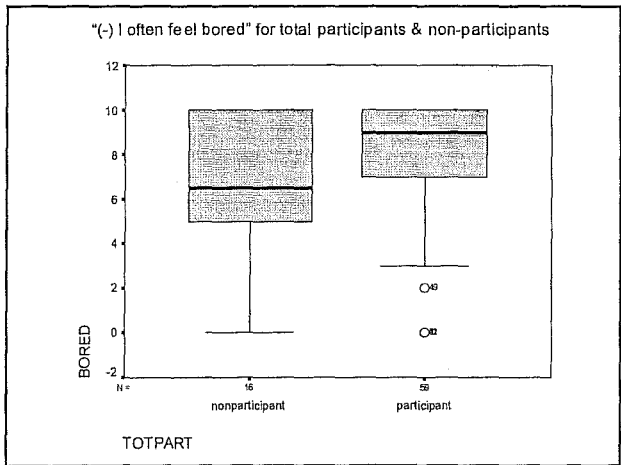
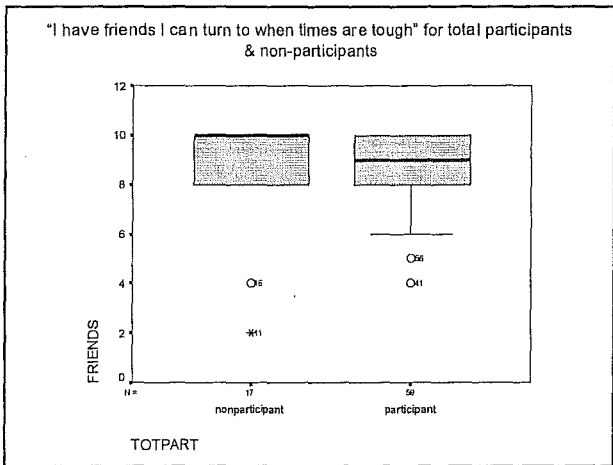
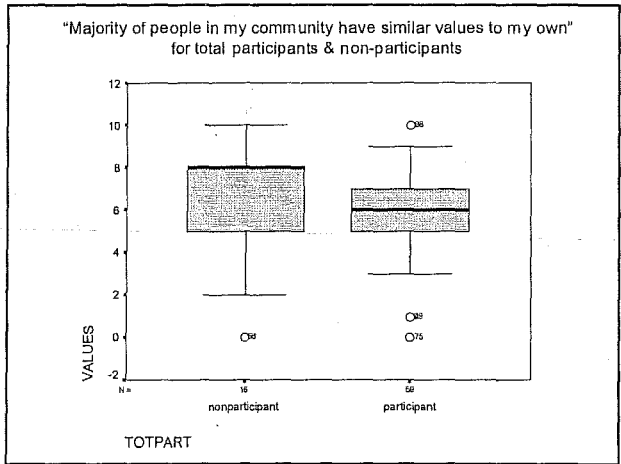
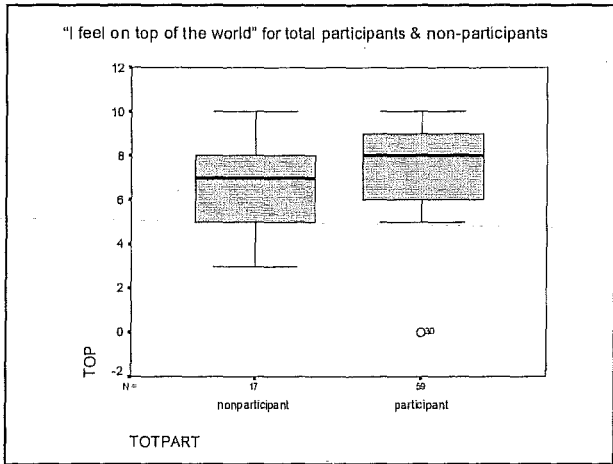
"I feel I can make an impact in making my community a better place to live" for total participants & non-participants

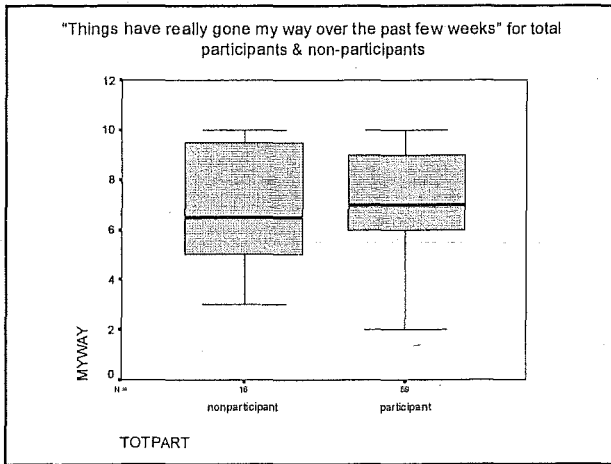


TOTPART











## Appendix D: RESULTS

## Group Statistics

	ARTSPART	N	Mean	Std. Deviation	Std. Error Mean
Satisfaction with life as a whole	nonarts	51	7.80	2.107	.295
	arts participant	25	8.60	1.225	.245
Satisfaction with standard of living	nonarts	51	8.08	1.809	.253
	arts participant	25	8.44	1.417	.283
Satisfaction with quality of life	nonarts	51	7.78	1.953	.273
	arts participant	25	8.80	1.118	.224
Satisfaction with feeling a part of community	nonarts	51	6.49	2.292	.321
	arts participant	25	7.04	1.541	.308
Satisfaction with health	nonarts	51	7.06	2.361	.331
	arts participant	25	7.64	2.079	.416
IMPACT	nonarts	51	5.69	2.922	.409
	arts participant	25	6.92	2.159	.432
HELP	nonarts	51	7.35	2.314	.324
	arts participant	25	7.88	1.536	.307
IDEA	nonarts	51	6.90	2.816	.394
	arts participant	25	6.84	2.304	.461
ISSUE	nonarts	51	6.92	2.382	.334
	arts participant	25	7.36	1.680	.336
TROUBLE	nonarts	51	8.08	2.018	.283
	arts participant	25	7.84	1.491	.298
SUCCESS	nonarts	51	6.04	3.175	.445
	arts participant	25	6.84	2.954	.591
EXCITED	nonarts	51	7.06	2.767	.387
	arts participant	25	8.48	1.531	.306
LONELY	nonarts	51	7.31	2.739	.383
	arts participant	25	8.36	2.139	.428
PROUD	nonarts	51	6.43	2.780	.389
	arts participant	25	8.00	1.658	.332
CONNECT	nonarts	51	6.16	2.477	.347
	arts participant	25	7.64	1.381	.276
RESTLESS	nonarts	51	6.24	3.680	.515
	arts participant	25	6.84	2.838	.568
CONTROL	nonarts	51	7.78	2.403	.336
	arts participant	25	8.72	1.339	.268
ACCOMPLI	nonarts	51	8.06	1.816	.254
	arts participant	25	8.72	1.061	.212
TOP	nonarts	51	6.90	2.175	.305
	arts participant	25	7.92	1.552	.310
FRIENDS	nonarts	51	8.69	1.944	.272
	arts participant	25	8.88	1.269	.254
DEPRESSE	nonarts	51	7.18	3.103	.434
	arts participant	25	8.44	1.781	.356
VALUES	nonarts	50	6.04	2.432	.344
	arts participant	25	6.04	1.881	.376
BORED	nonarts	50	7.28	3.143	.445
	arts participant	25	7.92	2.253	.451
SAFE	nonarts	50	8.78	1.632	.231
	arts participant	25	8.68	1.314	.263
MYWAY	nonarts	50	6.84	2.216	.313
	arts participant	25	7.64	1.630	.326

Independent Samples t-test: Arts Participants v Non-arts participants

Independent samples t-test: first participants v non-first participants											
		Levene's Test for Equality of Variances			t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Diff.	Std. Error Difference	95% Confidence Interval of the Difference		
									Lower	Upper	
Satisfaction with life as a whole	Equal variances assumed	3.646	.060	-1.746	74	.085	-.80	.456	-1.704	.112	
	Equal variances not assumed			-2.076	71.711	.041	-.80	.384	-1.561	-.032	
Satisfaction with standard of living	Equal variances assumed	1.246	.268	-.875	74	.384	-.36	.413	-1.185	.462	
	Equal variances not assumed			-.951	59.477	.345	-.36	.380	-1.122	.399	
Satisfaction with quality of life	Equal variances assumed	3.492	.066	-2.409	74	.018	-1.02	.422	-1.856	-.176	
	Equal variances not assumed			-2.876	72.077	.005	-1.02	.353	-1.720	-.312	
Satisfaction with feeling a part of community	Equal variances assumed	4.329	.041	-1.083	74	.282	-.55	.507	-1.561	.461	
	Equal variances not assumed			-1.236	66.671	.221	-.55	.445	-1.438	.338	
Satisfaction with health	Equal variances assumed	.698	.406	-1.047	74	.299	-.58	.555	-1.687	.525	
	Equal variances not assumed			-1.094	53.649	.279	-.58	.531	-1.647	.484	
IMPACT	Equal variances assumed	3.448	.067	-1.873	74	.065	-1.23	.659	-2.546	.079	
	Equal variances not assumed			-2.074	62.339	.042	-1.23	.595	-2.423	-.045	
HELP	Equal variances assumed	5.523	.021	-1.031	74	.306	-.53	.511	-1.545	.491	
	Equal variances not assumed			-1.180	67.177	.242	-.53	.446	-1.418	.364	
IDEA	Equal variances assumed	2.202	.142	.095	74	.924	.06	.650	-1.232	1.356	
	Equal variances not assumed			.102	57.285	.919	.06	.606	-1.152	1.276	

ISSUE	Equal variances assumed	3.869	.053	-.824	74	.413	-.44	.532	-1.499	.622
	Equal variances not assumed			-.926	64.521	.358	-.44	.473	-1.384	.507
TROUBLE	Equal variances assumed	1.293	.259	.524	74	.602	.24	.455	-.668	1.145
	Equal variances not assumed			.580	62.335	.564	.24	.411	-.583	1.060
SUCCESS	Equal variances assumed	.414	.522	-1.056	74	.294	-.80	.758	-2.311	.710
	Equal variances not assumed			-1.083	51.026	.284	-.80	.739	-2.285	.683
EXCITED	Equal variances assumed	5.627	.020	-2.390	74	.019	-1.42	.595	-2.606	-.236
	Equal variances not assumed			-2.878	72.802	.005	-1.42	.494	-2.405	-.437
LONELY	Equal variances assumed	5.332	.024	-1.674	74	.098	-1.05	.625	-2.291	.199
	Equal variances not assumed			-1.821	59.606	.074	-1.05	.574	-2.195	.103
PROUD	Equal variances assumed	7.058	.010	-2.598	74	.011	-1.57	.604	-2.772	-.366
	Equal variances not assumed			-3.067	71.001	.003	-1.57	.511	-2.588	-.549
CONNECT	Equal variances assumed	7.822	.007	-2.783	74	.007	-1.48	.533	-2.545	-.421
	Equal variances not assumed			-3.345	72.655	.001	-1.48	.443	-2.367	-.599
RESTLESS	Equal variances assumed	3.866	.053	-.722	74	.472	-.60	.837	-2.273	1.064
	Equal variances not assumed			-.789	60.222	.433	-.60	.767	-2.138	.929
CONTROL	Equal variances assumed	8.148	.006	-1.810	74	.074	-.94	.517	-1.966	.094
	Equal variances not assumed			-2.176	72.659	.033	-.94	.430	-1.793	-.079
ACCOMPLI	Equal variances assumed	5.845	.018	-1.682	74	.097	-.66	.393	-1.444	.122
	Equal variances not assumed			-1.996	71.558	.050	-.66	.331	-1.322	-.001

TOP	Equal variances assumed	5.297	.024	-2.091	74	.040	-1.02	.487	-1.988	-.048
	Equal variances not assumed			-2.341	63.973	.022	-1.02	.435	-1.887	-.149
FRIENDS	Equal variances assumed	3.459	.067	-.452	74	.652	-.19	.428	-1.047	.659
	Equal variances not assumed			-.521	67.875	.604	-.19	.372	-.936	.549
DEPRESSE	Equal variances assumed	12.108	.001	-1.885	74	.063	-1.26	.670	-2.599	.072
	Equal variances not assumed			-2.249	72.015	.028	-1.26	.562	-2.384	-.143
VALUES	Equal variances assumed	2.345	.130	.000	73	1.000	.00	.555	-1.106	1.106
	Equal variances not assumed			.000	60.261	1.000	.00	.510	-1.020	1.020
BORED	Equal variances assumed	4.169	.045	-.907	73	.367	-.64	.706	-2.046	.766
	Equal variances not assumed			-1.011	63.828	.316	-.64	.633	-1.905	.625
SAFE	Equal variances assumed	.837	.363	.266	73	.791	.10	.376	-.649	.849
	Equal variances not assumed			.286	58.322	.776	.10	.350	-.600	.800
MYWAY	Equal variances assumed	5.325	.024	-1.599	73	.114	-.80	.500	-1.797	.197
	Equal variances not assumed			-1.769	62.661	.082	-.80	.452	-1.704	.104

## Group Statistics

	COMPART	N	Mean	Std. Deviation	Std. Error Mean
Satisfaction with life as a whole	noncom	21	7.33	2.477	.540
	community participant	55	8.35	1.554	.210
Satisfaction with standard of living	noncom	21	7.76	1.998	.436
	community participant	55	8.36	1.544	.208
Satisfaction with quality of life	noncom	21	7.38	2.519	.550
	community participant	55	8.40	1.328	.179
Satisfaction with feeling a part of community	noncom	21	6.52	2.136	.466
	community participant	55	6.73	2.077	.280
Satisfaction with health	noncom	21	7.14	2.151	.469
	community participant	55	7.29	2.339	.315
IMPACT	noncom	21	5.00	2.983	.651
	community participant	55	6.51	2.552	.344
HELP	noncom	21	7.33	2.221	.485
	community participant	55	7.60	2.060	.278
IDEA	noncom	21	7.48	2.379	.519
	community participant	55	6.65	2.723	.367
ISSUE	noncom	21	6.95	2.636	.575
	community participant	55	7.11	1.997	.269
TROUBLE	noncom	21	8.24	2.385	.521
	community participant	55	7.91	1.625	.219
SUCCESS	noncom	21	6.19	3.356	.732
	community participant	55	6.35	3.038	.410
EXCITED	noncom	21	6.48	2.713	.592
	community participant	55	7.93	2.332	.314
LONELY	noncom	21	7.29	2.667	.582
	community participant	55	7.80	2.570	.347
PROUD	noncom	21	6.81	3.188	.696
	community participant	55	7.00	2.317	.312
CONNECT	noncom	21	5.95	1.936	.422
	community participant	55	6.91	2.359	.318
RESTLESS	noncom	21	6.29	4.256	.929
	community participant	55	6.49	3.084	.416
CONTROL	noncom	21	7.48	2.857	.623
	community participant	55	8.33	1.785	.241
ACCOMPLI	noncom	21	8.67	1.880	.410
	community participant	55	8.13	1.516	.204
TOP	noncom	21	6.90	2.047	.447
	community participant	55	7.36	2.040	.275
FRIENDS	noncom	21	8.86	2.128	.464
	community participant	55	8.71	1.595	.215
DEPRESSE	noncom	21	6.24	3.434	.749
	community participant	55	8.11	2.339	.315
VALUES	noncom	20	6.05	2.781	.622
	community participant	55	6.04	2.054	.277
BORED	noncom	20	6.80	3.254	.728
	community participant	55	7.75	2.716	.366
SAFE	noncom	20	9.00	1.892	.423
	community participant	55	8.65	1.377	.186
MYWAY	noncom	20	6.95	2.395	.535
	community participant	55	7.16	1.951	.263

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower Upper	
Satisfaction with life as a whole	Equal variances assumed	9.212	.003	-2.133	74	.036	-1.01	.474	-1.957	-.067
	Equal variances not assumed			-1.746	26.247	.092	-1.01	.580	-2.203	.179
Satisfaction with standard of living	Equal variances assumed	1.703	.196	-1.397	74	.166	-.60	.431	-1.460	.256
	Equal variances not assumed			-1.246	29.594	.223	-.60	.483	-1.589	.385
Satisfaction with quality of life	Equal variances assumed	18.059	.000	-2.293	74	.025	-1.02	.444	-1.905	-.133
	Equal variances not assumed			-1.762	24.365	.091	-1.02	.578	-2.211	.173
Satisfaction with feeling a part of community	Equal variances assumed	.369	.545	-.379	74	.706	-.20	.537	-1.273	.866
	Equal variances not assumed			-.374	35.340	.710	-.20	.544	-1.307	.900
Satisfaction with health	Equal variances assumed	.012	.914	-.252	74	.802	-.15	.587	-1.318	1.022
	Equal variances not assumed			-.262	39.165	.795	-.15	.566	-1.292	.996
IMPACT	Equal variances assumed	.438	.510	-2.199	74	.031	-1.51	.686	-2.877	-.142
	Equal variances not assumed			-2.049	31.819	.049	-1.51	.736	-3.009	-.009
HELP	Equal variances assumed	1.066	.305	-.494	74	.623	-.27	.540	-1.343	.809
	Equal variances not assumed			-.477	33.942	.636	-.27	.559	-1.402	.869
IDEA	Equal variances assumed	.215	.644	1.216	74	.228	.82	.676	-.525	2.168
	Equal variances not assumed			1.292	41.189	.204	.82	.636	-.463	2.106



TOP	Equal variances assumed	.033	.856	-876	74	.384	-.46	.524	-1.503	.585
	Equal variances not assumed			-875	36.120	.388	-.46	.525	-1.523	.605
FRIENDS	Equal variances assumed	.202	.654	.329	74	.743	.15	.450	-.749	1.045
	Equal variances not assumed			.289	29.004	.774	.15	.512	-.899	1.195
DEPRESSE	Equal variances assumed	9.625	.003	-2.722	74	.008	-1.87	.687	-3.240	-.502
	Equal variances not assumed			-2.301	27.394	.029	-1.87	.813	-3.538	-.204
VALUES	Equal variances assumed	3.589	.062	.023	73	.982	.01	.592	-1.166	1.193
	Equal variances not assumed			.020	26.916	.984	.01	.681	-1.383	1.411
BORED	Equal variances assumed	2.133	.148	-1.263	73	.210	-.95	.748	-2.437	.546
	Equal variances not assumed			-1.161	29.189	.255	-.95	.815	-2.611	.720
SAFE	Equal variances assumed	.194	.661	.866	73	.389	.35	.399	-.450	1.141
	Equal variances not assumed			.748	26.681	.461	.35	.462	-.603	1.294
MYWAY	Equal variances assumed	2.144	.147	-.394	73	.695	-.21	.542	-1.294	.866
	Equal variances not assumed			-.358	28.691	.723	-.21	.597	-1.434	1.007



\*\*\*\*\* Method 1 (space saver) will be used for this analysis \*\*\*\*\*

RELIABILITY ANALYSIS - SCALE (ALPHA  
A)

		Mean	Std Dev	Cases
1.	LIFESAT	8.1200	1.8451	75.0
2.	STANDARD	8.2267	1.6812	75.0
3.	QUALITY	8.1333	1.7884	75.0
4.	COMUNITY	6.6933	2.0858	75.0
5.	HEALTH	7.2533	2.2904	75.0
6.	IMPACT	6.1333	2.7378	75.0
7.	HELP	7.5600	2.0875	75.0
8.	IDEA	6.8400	2.6357	75.0
9.	ISSUE	7.1333	2.1075	75.0
10.	TROUBLE	8.0267	1.8525	75.0
11.	SUCCESS	6.3200	3.1243	75.0
12.	EXCITED	7.5600	2.5107	75.0
13.	LONELY	7.6533	2.6071	75.0
14.	PROUD	6.9467	2.5832	75.0
15.	CONNECT	6.7067	2.2286	75.0
16.	RESTLESS	6.4800	3.4184	75.0
17.	CONTROL	8.1467	2.1098	75.0
18.	ACCOMPLI	8.3467	1.5201	75.0
19.	TOP	7.2933	1.9917	75.0
20.	FRIENDS	8.7333	1.7502	75.0
21.	DEPRESSE	7.6667	2.7328	75.0
22.	VALUES	6.0400	2.2508	75.0
23.	BORED	7.4933	2.8776	75.0
24.	SAFE	8.7467	1.5254	75.0
25.	MYWAY	7.1067	2.0637	75.0

Statistics for	Mean	Variance	Std Dev	N of Variables
SCALE	185.3600	685.2876	26.1780	25

RELIABILITY ANALYSIS - SCALE (ALPHA  
A)

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
LIFESAT	177.2400	622.5903	.6440	.8261
STANDARD	177.1333	635.5495	.5534	.8296
QUALITY	177.2267	636.1777	.5089	.8304
COMUNITY	178.6667	631.0360	.4762	.8306
HEALTH	178.1067	626.7723	.4645	.8307
IMPACT	179.2267	629.0425	.3550	.8352
HELP	177.8000	644.7838	.3409	.8352

IDEA	178.5200	656.4422	.1621	.8430
ISSUE	178.2267	643.7452	.3469	.8350
TROUBLE	177.3333	659.4685	.2353	.8383
SUCCESS	179.0400	626.1741	.3156	.8380
EXCITED	177.8000	651.0000	.2184	.8403
LONELY	177.7067	599.4804	.6189	.8237
PROUD	178.4133	640.9214	.2882	.8377
CONNECT	178.6533	615.7431	.5839	.8264
RESTLESS	178.8800	643.2962	.1748	.8466
CONTROL	177.2133	632.0890	.4595	.8311
ACCOMPLI	177.0133	655.9593	.3470	.8355
TOP	178.0667	622.6577	.5902	.8271
FRIENDS	176.6267	650.8587	.3512	.8350
DEPRESSE	177.6933	590.6479	.6562	.8216
VALUES	179.3200	660.8692	.1672	.8414
BORED	177.8667	625.4955	.3579	.8353
SAFE	176.6133	657.1323	.3303	.8359
MYWAY	178.2533	636.7593	.4251	.8324

#### Reliability Coefficients

N of Cases = 75.0

N of Items = 25

Alpha = .8394

# KMO and Bartlett's Test

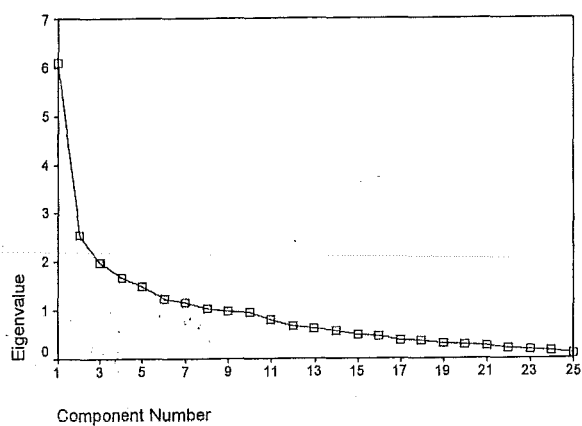
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.683
Bartlett's Test of Sphericity	Approx. Chi-Square	769.243
	df	300
	Sig.	.000

## Communalities

	Initial	Extraction
Satisfaction with life as a whole	1.000	.795
Satisfaction with standard of living	1.000	.658
Satisfaction with quality of life	1.000	.857
Satisfaction with feeling a part of community	1.000	.701
Satisfaction with health	1.000	.696
IMPACT	1.000	.735
HELP	1.000	.607
IDEA	1.000	.517
ISSUE	1.000	.748
TROUBLE	1.000	.748
SUCCESS	1.000	.504
EXCITED	1.000	.772
LONELY	1.000	.658
PROUD	1.000	.760
CONNECT	1.000	.805
RESTLESS	1.000	.628
CONTROL	1.000	.672
ACCOMPLI	1.000	.646
TOP	1.000	.685
FRIENDS	1.000	.693
DEPRESSE	1.000	.808
VALUES	1.000	.547
BORED	1.000	.639
SAFE	1.000	.672
MYWAY	1.000	.702

Extraction Method: Principal Component Analysis.

## Scree Plot



# Total Variance Explained

Component	Initial Eigenvalues		Extraction Sums of Squared Loadings		Rotation Sums of Squared Loadings	
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.111	24.444	24.444	6.111	24.444	24.444
2	2.559	10.237	34.682	2.559	10.237	34.682
3	1.992	7.968	42.649	1.992	7.968	42.649
4	1.662	6.650	49.299	1.662	6.650	49.299
5	1.493	5.972	55.272	1.493	5.972	55.272
6	1.233	4.931	60.203	1.233	4.931	60.203
7	1.164	4.656	64.859	1.164	4.656	64.859
8	1.039	4.155	69.014	1.039	4.155	69.014
9	.985	3.941	72.955			
10	.951	3.803	76.758			
11	.809	3.236	79.994			
12	.674	2.696	82.690			
13	.608	2.431	85.122			
14	.564	2.255	87.377			
15	.489	1.955	89.332			
16	.463	1.850	91.182			
17	.387	1.548	92.730			
18	.348	1.392	94.122			
19	.312	1.246	95.368			
20	.273	1.093	96.461			
21	.260	1.039	97.500			
22	.197	.788	98.288			
23	.176	.706	98.994			
24	.156	.624	99.618			
25	.095	.382	100.000			

Extraction Method: Principal Component Analysis.

Component Matrix(a)

	Component							
	1	2	3	4	5	6	7	8
Satisfaction with life as a whole	.713	-.305						
DEPRESSE	.701	-.379						
TOP	.687					.324		
Satisfaction with standard of living	.671							
LONELY	.670				-.473	.316		
CONNECT	.651				.409			
Satisfaction with quality of life	.598	-.410		-.331				
CONTROL	.558							
Satisfaction with feeling a part of community	.557		-.389		-.356			
Satisfaction with health	.540						.453	-.345
MYWAY	.517	.516						
SAFE	.414	.405	.352					
RESTLESS		-.521	.323	.387				
FRIENDS	.418	.506					-.367	
IMPACT	.413		-.584	.401				-.424
EXCITED	.328		-.505	-.411				
SUCCESS	.377	-.311	.468					
PROUD	.338	.428		.505			.352	
VALUES				-.433	-.394			
IDEA			.311	.416	.306			
BORED	.403	-.302				-.474		
HELP	.421	.331			.324	.437		
ACCOMPLI	.417	.414				-.418		
ISSUE	.399			.439			-.490	
TROUBLE	.327	.513						.514

Extraction Method: Principal Component Analysis.  
a. 8 components extracted.

Rotated Component Matrix(a)

	Component							
	1	2	3	4	5	6	7	8
Satisfaction with quality of life	.888							
Satisfaction with life as a whole	.770							
EXCITED	.626			-.311		.529		-.334
Satisfaction with health	.550							
Satisfaction with standard of living	.484		.307		.318		.344	
FRIENDS		.753						
CONTROL		.720						
MYWAY		.663	.309					
CONNECT			.788					
Satisfaction with feeling a part of community			.754					
IMPACT			.663			.437		.416
ISSUE			.600		-.389			
IDEA				.652				
DEPRESSE	.568			.624				
RESTLESS				.599			.398	
LONELY				.592	.322			
SUCCESS				.548				
VALUES					.682			
SAFE		.381			.655	.387		
TOP		.412			.450	.773		
PROUD						.523		
ACCOMPLI		.446					.729	
BORED							-.503	.380
HELP								.778
TROUBLE								

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.  
a. Rotation converged in 10 iterations.

Component Transformation Matrix

Component	1	2	3	4	5	6	7	8
1	.544	.459	.446	.327	.273	.265	.138	.156
2	-.415	.559	-.091	-.397	.184	.287	-.317	.364
3	-.233	.258	-.599	.584	.184	-.123	.340	.125
4	-.487	-.082	.385	.414	-.509	.397	.070	.124
5	.464	.035	-.409	.127	-.546	.116	-.429	.322
6	-.150	-.106	.191	.446	.319	-.312	-.729	-.025
7	.052	-.330	-.282	.080	.344	.751	-.148	-.313
8	.024	-.531	.050	-.046	.284	.013	.149	.781

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.