

Tag Clouds: Visual Representations of the Experiences and Needs of Children and Young People in Care

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A decade of inquiries into the child protection and out-of-home care sectors across Australia has revealed a legacy of systemic abuse and individual neglect. The findings presented in this article form part of a larger research project that examined the experiences and needs of children and young people in out-of-home care within this broader context. Using document analysis, the larger study involved developing an in-depth understanding of their experiences and needs, and specifically, constructing a taxonomy of needs. The study also explored a series of salient findings about children and young people's experiences and needs in care and a number of these were explained using an innovative visual display method known as tag clouds. The aim of this article is twofold. First, to discuss the salient findings around the experiences and needs of children and young people in care in Australia using the tag clouds to illustrate the study's findings, and second, to discuss the potential use of tag clouds as an effective tool for providing visual representations of qualitative data.

■ **Keywords:** Tag clouds, word clouds, out-of-home care, document analysis, qualitative data visualisation

Over the last decade there has been considerable media and government scrutiny throughout the country into the experiences and current condition of children and young people in out-of-home care. The child protection and out-of-home care sector nationally has been in upheaval as a rolling series of royal commissions, parliamentary inquiries, ombudsman investigations, internal departmental audits, and industry reports from state and national peak bodies have swept across the country revealing the dire straits of the care system (Crime and Misconduct Commission Queensland, 2004; Cummins, Scott, & Scales, 2011; Department of Health and Human Services, 2006; Forde, 1999; Human Rights and Equal Opportunity Commission, 1997; Mullighan, 2008; Northern Territory Government, 2010; NSW Community Services Commission [NSW CSC], 2001; Senate Community Affairs References Committee, 2004, 2005; Victorian Ombudsman, 2011; Wood, 2008).

These inquiries have consistently found that children and young people experienced considerable hardships while in care. The systemic failure by statutory and nonstatutory agencies to provide quality care over many decades has resulted in many former wards experiencing lifelong family and cultural disconnectedness, chronic problems with per-

sonal and family relationships, poor employment and career prospects, increased vulnerability to exploitation and crime, and a sense of anxiety and loneliness throughout their adult lives.

Throughout these inquiries, and the subsequent debate about reforming the sector, the concept of 'needs' has increasingly become one of the central focal points, and there has been a growing consensus among governments, statutory authorities and community agencies that these children have a serious claim on society's resources to meet their needs (Churches Community Services Forum, 2001, p. 36; Forde, 1999; Mendes, Johnson, & Moslehuddin, 2011; NSW CSC, 2000a).

Given this context I undertook a study to examine the needs of children and young people in out-of-home care utilising document analysis, drawing on multiple stakeholder perspectives and multiple document types from across the child protection and out-of-home care sector

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in Australia. Although the study's primary purpose was to develop a taxonomy of needs (the development, structure and implications of the taxonomy has been described in a previous article, Redshaw [2011]), it also involved exploring in-depth the experiences and needs of children and young people in care, and portraying these through a series of salient findings.

In this first of a series of articles about the salient findings, I briefly describe the study's methodology and introduce the technology known as 'tag clouds', which has been used to provide a visual representation of the data as an alternative to unwieldy charts and tables. I discuss the origins and current usage of tag clouds in data display, and present a series of tag clouds to illustrate the findings. Following this I discuss their potential and limitations for providing visual representations of qualitative data.

Methodology

The findings presented in this article form part of a larger study that examined the experiences and needs of children and young people in care in Australia (Redshaw, 2009, 2011). In this first section I describe the broader study's methodology, the process used to identify and develop the salient findings and subsequently, to construct the series of tag clouds used to provide a visual representation of the findings.

Document Analysis

The guiding principle underpinning the document analysis was a statement by Glaser and Strauss (1967), who in their seminal work on grounded theory, wrote:

When someone stands in the library . . . he is, metaphorically speaking, surrounded by voices begging to be heard. Every book, every magazine article, represents at least one person who is equivalent to the anthropologist's informant or sociologist's interviewee. In those publications, people converse, announce positions, argue . . . and describe events . . . The researcher needs only to discover the voices in the library to release them for his analytic use. (p. 163).

For many years in my work with Mercy Family Services in Queensland, Australia, I had collected a large number of inquiry submissions and transcripts of public hearings (from royal commissions and parliamentary inquiries that had been posted on the Internet), interviews, personal stories and relevant empirical and practice papers. This collection of literally hundreds of primary documents, research papers and reports developed by agencies, industry representatives, academics, and state and national peak bodies became the 'library' I used to examine the experiences and needs of children and young people in care.

The final document sample chosen ($n = 580$) consisted of five categories: Primary documents (letters and submissions to inquiries, transcripts of interviews and public hearings, and personal accounts); Secondary documents (reports resulting from commissions of inquiries and departmental

reviews, audits and investigations); Empirical documents (published findings from empirical research); Legislative and Policy documents (legislation, regulation and quality frameworks); and Industry and Practitioner documents (reports by academics, peak bodies and advocacy groups, and writings by out-of-home care practitioners). Similar categories of documents suitable for analysis have been identified by numerous researchers (Drury-Hudson, 1999; Guba & Lincoln, 1981; Heaton, 2004; Jupp, 2006; Lincoln & Guba, 1985; Pawson, Boaz, Grayson, Long, & Barnes, 2003; Stewart & Kamins, 1993).

These documents reflected the views of five stakeholder groups: (a) children and young people in care; (b) parents; (c) carers, agency staff and practitioners; (d) statutory workers; and (e) advocates, academics, and peak bodies. The perspectives of Indigenous stakeholders were reflected throughout the sample; specifically, 69 of the 580 documents were purposely written by, or directly involved Indigenous stakeholders in the research process. This blend of multiple stakeholder perspectives and multiple document sources (particularly, the use of largely untapped primary documents) provided a rich knowledge base from which to explore the experiences and needs of children and young people in care.

The document sample was subjected to a prolonged analysis using the constant comparative method in which explicit and implicit references to need in out-of-home care were identified and coded resulting in approximately 9000 units of data and 350 codes. The analysis began with the least structured documents (e.g., submissions, letters, edited interview transcripts), and progressed towards the more structured documents (e.g., findings of judicial inquiries and empirical research). This allowed the voices of less powerful stakeholders to have maximum influence on the initial labels assigned to the codes during the unitisation and categorisation process, codes which in time became the building blocks of the 'salient findings' (and the associated tag clouds) presented in this article.

The term 'salient findings' refers to the experiences of children and young people in care (and former wards), or to the observations and/or findings of other out-of-home care stakeholders that were compelling in their intensity and that provided particularly poignant insight into the care experience, and, importantly, the needs of children and young people in care. Salient findings are aspects of the care experience that resonated with me (as an out-of-home care practitioner) as being worthy of further examination because of the particular insight they provide, and their relevance for training and supervision in care settings.

The main strategy used for identifying, recording and refining the salient findings was memos. Memos were the holding places for initial thoughts, comments, and observations about the experiences and/or needs of children and young people in their placements as observed in the data. As the analysis progressed, links with other memos, codes, or emerging categories were recorded, and in time, a

significant number of clusters of like ideas (i.e., salient findings) emerged.

The resultant salient findings were of various levels of sophistication, ranging from simple observations of the experiences and needs of children and young people that emerged relatively quickly from single codes (e.g., emotional putdowns), to more complex constructs that emerged and merged over a period of time, telling a compelling story about some aspect of the care experience (e.g., the personal characteristics of those who survive and thrive in care, and the characteristics of quality carers).

Once the analysis was complete and the findings identified, the challenge then was to illustrate the findings in such a way as to convey both the breadth and depth of the overall code set, and, the various salient findings. In time, I realised that tag clouds may well provide an effective and innovative way of illustrating those salient findings that consisted of simple lists in a typological structure, and from this, I turned to the literature to better understand tag clouds, their origins, and their potential use.

Tag Clouds

While quantitative researchers present their findings through a myriad range of well-founded visual technologies such as charts, tables, diagrams and figures; qualitative researchers have traditionally been limited to presenting their findings through the case study report with minimal use of visual technologies (Neuman, 1997; Rodwell, 1998).

Over recent years however, more creative and innovative ways of illustrating the findings from qualitative research have emerged, including creative writing, artwork, music, and dramatic performance (Boucher & Holian, 2001; Piercy & Benson, 2005), photography (Viegas & Wattenberg, 2008), graphical displays (Onwuegbuzie & Dickson, 2008), and poetry, songs, mandalas and multimedia tracks (Boucher & Holian, 2001; Brearley, 2004). With the advent of computer-assisted analysis technologies for qualitative research, other methods for displaying qualitative data that have emerged include network diagrams and mental maps (Viegas & Wattenberg, 2008), archival maps (Onwuegbuzie & Dickson, 2008), and in more recent years, tag clouds (Rivadeneira, Gruen, Muller, & Millen, 2007; Viegas & Wattenberg, 2008; Wendling, Johnson, & Kaske, 2008).

This interesting technique for displaying qualitative data has arisen from the field of computer sciences. Tag clouds, also known as word clouds (McNaught & Lam, 2010; Viegas & Wattenberg, 2008), tag clusters (Chen, Santamaria, Butz, & Theron, 2009), text clouds and topic clouds (Appelo, 2008), weighted lists (Hearst, 2008; Hearst & Rosner, 2008), content clouds (Cidell, 2010), and summary and differential tag clouds (Xexeo, Morgado, & Fiuza, 2009) are increasingly finding their way into publications authored not only by information technology specialists, but also in the work of social science, educational, and medical researchers as well (Cidell, 2010; Gill & Griffin, 2010; Hassan-Montero & Herrero-Solana, 2006; Wendling et al., 2008).

Tag clouds have their origins in the poetic work of Lang (1980), and the analogous writing of Coupland (1995) who used weighted lists of text to illustrate the relative importance of some concepts over others. This visual technique was further developed by a computer programmer called Flanagan and popularised by various Internet photo sharing sites, including Flickr, Del.icio.us and Technorati (Bumgardner, 2006). Tag clouds are now commonly used on Internet social networking and news media sites to illustrate current topics of interests and the content of a web page (Bielenberg & Zacher, 2005; Bumgardner, 2006; Halvey & Keane, 2007; Hassan-Montero & Herrero-Solana, 2006).

The technique has also been used only relatively recently as a means of graphically illustrating the content of documents and reports. The recently released *Munro Review of Child Protection* (Munro, 2011) has a tag cloud featured prominently on the front cover — highlighting some of the report's key themes. Another example is a study by Wendling et al. (2008) who examined the information-seeking behaviour of 650 students at the University of Maryland-College Park. Interestingly, they presented their results using a mix of quantitative and qualitative techniques including tables, charts and a tag cloud. McNaught and Lam (2010) also used tag cloud technology to conduct a preliminary analysis of the data obtained from a series of focus groups exploring the educational experiences of students at the Chinese University of Hong Kong. The authors of this study used tag clouds to conduct a preliminary analysis of focus-group transcripts, which allowed them to obtain a brief overview of the data.

In this present study I used an online tag cloud generator (<http://tagcrowd.com/>) to construct a tag cloud for the overall dataset (reflecting the broad themes of the care experience), and created three additional tag clouds for those salient findings that consisted of relatively simple lists of codes in a typological type arrangement and were therefore suitable for displaying as a tag cloud. These included the overwhelming emotions of care, the personal characteristics of children and young people who survive and thrive in care and beyond, and, the characteristics of quality carers.

The resultant tag clouds provided useful visual representations of the study's salient findings, enabling me to achieve an almost instant grasp of the overall dataset itself, and further, the salient findings. They were constructed using a frequency count of the basic underlying concepts (reflected by the codes and code families). The bigger the text, the more frequently that particular concept was present in the data. Conversely, smaller text indicates that a concept appeared less frequently. However, some caution is required in interpreting these tag clouds as they should not be taken to represent a quantitative 'content analysis' (displaying a frequency count of the words used), but rather understood as a visual representation of my 'impressions' of the data gained during the qualitative 'constant comparative analysis'. They were my attempt to diagrammatically illustrate



FIGURE 2

The overwhelming emotions of care.

stakeholders (particularly by children and young people in care and former wards) in these less prominent themes, made them compelling and these were subsequently taken up and explored further in the series of salient findings.

Tag Cloud Two: The Overwhelming Emotions of Care

From the outset of the analysis, it became clear almost immediately that many of the documents were dealing with powerful emotions. This was particularly true of the many submissions made to various inquiries by former wards, and of the stories told in interviews and personal accounts. The emotions expressed, for many, were still raw, often years after the events they were describing occurred. While there were many instances where children and young people reported feeling safe and happy in care, the overwhelming sense was that many experienced an array of devastating and overwhelmingly negative emotions. The following tag cloud (Figure 2) provides a visual representation of these overwhelming emotions.

Children and young people in care expressed feeling: (a) fear or constantly being afraid; (b) isolated and lonely in care; (c) naughty and bad — thinking that they were in care because they had done something wrong; (d) abandoned, unwanted and rejected; (e) intense feelings of anger, even hate; and (f) totally helpless and powerless.

The intensity with which these feelings were expressed was telling. Significantly, far from simply being characteristic of earlier, institutional experiences of care, these emotions were experienced across the eras of care (institutional and modern), across placement types (family-based care, group homes, residential and institutional care), and well beyond the child/young person's initial placement following their removal from their family (where such emotions are to be expected).

Of these and many other emotions expressed, one of the most prevalent was fear. Children and young people (and former wards reflecting back on their experiences) said that they experienced fear constantly. They were afraid of their carers (Forbes, 2004; Kitson, 2004, p. 1; Mason, 1993), afraid of other children and young people living with them (Anson, 2004, p. 2; Commission for Children and Young People and Child Guardian, 2006, p. 45), afraid of being abandoned or of having to leave their placement (Ewens, 2004, p. 3; McLeod, 1989), and deeply afraid of what the future may hold for them (Giles, 2004, pp. 1–2; Mason & Gibson, 2004, p. 37). For many children and young people in foster care, residential and institutional care, the very place where they should have felt safe, was beset with fear and constant anxiety.

A number of studies have unearthed a similar array of overwhelming emotions (Fernandez, 2006; Gilbertson & Barber, 2003; Mason, 1993; Maunder, Liddell, Liddell, & Green, 1999). In a longitudinal study examining the well-being of children in care, Fernandez (2006) found that many children and young people in care experienced multiple and simultaneous emotions such as sadness, anxiety, fear, anger and loneliness. Clearly this is an issue that requires further examination to both understand the array of overwhelming emotions experienced, and, to find ways of helping children and young people to manage them.

Tag Cloud Three: The Characteristics of Children and Young People Who Survive and Thrive the Care Experience

In stark contrast to the previous salient finding which focused on the negative aspects of the care experience, the focus of this set of findings is on those 'personal characteristics' of children and young people who not only survived the care experience, but appeared to thrive in care and beyond as well.

This cluster of findings emerged over time through a number of codes and memos, which evolved into a series of protective characteristics or 'traits'. As the analysis progressed, and as children and young people (or former wards) told their stories, they would say something or describe some incident that gave hint to some underlying personal attribute or characteristic that stood them in good stead not only during their care experience, but beyond. These were coded and memos written, and in subsequent months, a tentative typology of characteristics took shape as I perused the memos and began to identify patterns in the stories children, young people, and former wards told.

While there were relatively few examples, those that existed were very illustrative of the importance of such traits. It seemed that those children and young people (or adults reflecting back on how their lives have gone) who talked about, or demonstrated these characteristics, tended to have a better outlook on life, to have more hope and optimism and appeared (though it was not always possible to tell for sure), to have had more success in their adult lives. Figure 3



FIGURE 3

The characteristics of children and young people who survive and thrive in care and beyond.

provides a visual representation of these important personal characteristics.

Clearly important were hope in life and for the future, having career goals, and a strong desire to 'better themselves'. Similarly, a sense of personal pride, self-confidence and determination, a sense of humour and a personal spirituality were also critical.

Among these characteristics, one of the most striking clusters of findings was the assertiveness, sheer determination and tenacity shown by some children and young people to overcome adversity. They demonstrated this by speaking up for their rights, and fighting for their personal beliefs, goals or dreams. One such young person was Marcus, who displayed this assertiveness and determination in fighting for the right to remain at his school. Recently moved to a children's home, and told that he would have to go to the school located on the campus, he refused. He recalled: 'I refused to go to the school. I wanted to go to my own school. I showed them all my Student Representative Council badges; I'd actually taken my uniform with me, tucked in my bag. I said, 'I'm going to my school' (Owen, 1996 p. 124). And he did.

In another example, Ben, a young man who had recently left care and was working as a computer technician commented: 'The main reason I want to start my own business is that I want to prove everybody (wrong) that said I'm not going to make it, seeing that I've been in care . . . I'm going to prove them wrong' (Maunder et al., 1999, p. 53).

Maunder et al. (1999) describe this important attitude as a ' . . . sheer determination and will to succeed' (p. 53). Such assertiveness, determination, and tenacity (the ability

to speak up for themselves and to pursue their desires) appeared to be extraordinarily important in the lives of these young people.

Another striking characteristic that bears highlighting was optimism and hope for the future. In particular, having clear personal and career goals helped these young people to transverse the potentially stressful later teenage and early adult years. A number of young people spoke about clear goals for their future. They spoke about moving on in their lives, looking forward to realising their dreams of finding good jobs, furthering their education, and having a family. Katie (The Tasmanian FACE to FACE Committee, 2003) was one such person. About life after care she comments 'No more heavy luggage to carry anymore, just a great time in life to look forward to' (p. 51). My impression was that this optimism and sense of purpose was also extremely important to these young people.

Simply put, the implications of these findings for the needs of children and young people in care are that the development of characteristics such as assertiveness, determination and tenacity, courage, a desire to better oneself, optimism and hope, career goals, personal pride, humour and transcendent beliefs should be explored and encouraged wherever possible. These traits were especially important during those critical years when these young people were transitioning from care and during the early years of living independently. While for many, this time was characterised by anxiety and loneliness, a number of young people who spoke about these personal strengths appeared to cope much better with the transition (Cashmore, 2003; Cashmore & Paxman, 1996; Maunder, et al., 1999; Mendes, et al., 2011; Owen, 1996). This important fact is gaining currency in the out-of-home care literature as numerous authors have begun to discuss the importance of such personal characteristics in relation to resiliency (Atwool, 2006; Bauman, 2002; Daining & DePanfilis, 2007; Dearden, 2004; Dent & Cameron, 2003; Gilligan, 1999; Hass & Graydon, 2009; Hines, Merdinger, & Wyatt, 2005).

Tag Cloud Four: The Characteristics of Quality Carers

In a similar vein to the previous discussion, another salient finding was a profile of the personal characteristics that children and young people wanted in their carers. These characteristics were derived from explicit statements describing either what they said they received or wanted from their carers, or, in which they lamented the absence of such experiences. The tag cloud (Figure 4) summarises these characteristics.

Similar findings about such critical personal characteristics and ways of caring are found throughout the broader out-of-home care literature (Dahms, 1978; Jackson, 2004; Juratowitch & Smith, 1996; Laursen, 2002; Miskimins, 1990; Shealy, 1996).

As illustrated in the tag cloud, some of the main characteristics that children and young people wanted in their carers (among the many illustrated) was for carers who would



FIGURE 4

The characteristics of quality carers.

advocate for them and act on their behalf, engage in quality interactions with them (spending time with them and having fun), understand them and have insight into their experiences and needs, are unconditional and tenacious in caring, and who stay in touch with them when they move to another placement, return home, or move into independent living.

Some of the most critical clusters bear highlighting. The first is the importance of love, warmth and affection. As illustrated in Figure 4 this cluster was the most prominent in this subset of the data.

Through the analysis, it emerged almost immediately that children, young people and former wards were almost desperate in their cry that the carers in their lives should show them more emotional nurture, including such basic things as warm affection, smiles, touch (including hugs, cuddles, kisses, and playful 'wrestling'), nice words, spending time together, being read to at bedtime and engaging in other special activities. The frequency and emotional intensity in which the comments were made emphasises the utter importance of this need.

One of the primary findings of the Senate Inquiry into the experiences of children in Australian institutions and other forms of out-of-home care (Senate Community Affairs References Committee, 2004) was the almost systemic lack of emotional care and nurture across the care system. Mendes (2005), when reviewing the inquiry findings comments that 'The overwhelming consensus was that children in care were not provided with the love, affection and nurturing' necessary for adequate personal and emotional development' (p. 7).

While only noted a few times in their stories, there were instances reported in which such warm affection was not shown by carers due to either the misunderstanding of the carers or the misguided policies of the agency or government department involved (Cashmore & Paxman, 1996; Kelly, 2004). Cashmore and Paxman (1996) describe a situation where the foster parents of one young woman told her 'We're not supposed to give you hugs. We're not allowed to because we're foster parents and because of what's happened to you. We'd get into all sorts of trouble' (p. 156). This young woman then went on to describe how she gave her foster dad her first hug in seven years.

Similarly, Kelly (2004) has told how she was threatened with sexual assault charges after asking for a hug from a youth worker in a children's home, summarising her beliefs with the blunt statement: 'Ward children don't get hugged, it's that simple' (p. 2). As acknowledged previously, many children and young people did (and continue to) report feeling safe and loved in their placements, however, for many, such love, nurture and emotional warmth was seriously lacking. As Karen (The Tasmanian FACE to FACE Committee, 2003) comments, 'If I had three wishes I'd want to be loved like I was their own child' (p. 29).

A second characteristic of quality carers of particular interest was the call by children and young people for more quality interactions with their carers. A constant cry was for their foster carers, group home and residential care staff, and case workers to spend more one on one time with them, doing fun things with them and getting to know them better.

There were many examples in the data of former wards (now adults) fondly recalling those special moments in their lives when their carers spent quality time with them (Owen, 1996; The Tasmanian FACE to FACE Committee, 2003). It is significant that such events remained clearly etched in their memories. Similarly, there was a clear call from children and young people currently in care for carers, staff, and caseworkers to do likewise (Centre for Excellence in Child and Family Welfare, 2004; CREATE Foundation, 2004; NSW CSC, 2000b; Owen, 1996; Senate Community Affairs References Committee, 2004).

However, many children and young people (or former wards) described situations where they were actively 'excluded' from engaging in specific activities with their carers, and/or denied the opportunity to spend quality time with them (The Tasmanian FACE to FACE Committee, 2003). Angela, for example, said that there were times when she was left behind when her foster family went away on holidays or to some special event. Others told of situations in which carers would lock themselves away in the office or their bedroom, constantly leaving foster children to their own devices, and subsequently denying them important quality interaction and time with their carers (Centre for Excellence in Child and Family Welfare, 2004; Owen, 1996; The Tasmanian FACE to FACE Committee, 2003). From their retelling of these experiences, it appears that considerable pain remains because of this

failure to actively engage with the children and young people in their care.

A final characteristic of quality carers that was particularly critical was the importance of unconditional and tenacious care. Perhaps more than any other characteristic, this one involved some striking use of language by young people and carers alike. Following are some of the salient phrases that illustrate just what it means to be unconditional and tenacious in care. (The key phrase has been formatted in italics to highlight the tenacious aspect.) Children and young people need:

- carers who ‘... *never give up* ...’ (Berry Street Victoria, 2004, p. 16)
- carers who say ‘*As bad as it gets we will still care for you; you might run but we will still be here for you*’ (Clark, 2000, p. 43)
- carers that ‘... *don’t pack up and leave when things get tough*’ (CREATE Foundation, 2002, p. 29)
- carers who are there ‘... *for the long haul* ...’ Who do not give up on kids when it gets hard (CREATE Foundation, 2004, p. 104)
- carers who ‘... *hold on to [them] with both hands* and really want to help them sort it out’ (CREATE Foundation, 2004, p. 105)
- carers who are patient, able to ‘*hang in there with them*’ (Mason & Gibson, 2004, p. 52)
- carers who demonstrate ‘... *endurance and creativity*’ (Ranahan & Mudaly, 2004, p. 14)
- carers who persist ‘... *in the face of everything*, no matter what’ (Meade, 2001, p. 10)
- carers who are able to ‘*stick with*’ the young people, irrespective of the behaviours they present (Cummings & Clinton 1996, p. 6), and
- carers who demonstrate ‘... unconditional care of, and *persistent allegiance* ...’ to the children and young people in their care (Life Without Barriers, 2003, p. 15).

Children and young people wanted carers who were unconditional and tenacious in their care; who never gave up on them, regardless of their behaviour. They wanted carers who would not pack up and leave when things got tough but make a commitment to be there for the long haul. They wanted carers who would figuratively take hold of them with both hands and hang in there, persisting in the face of the many difficulties that may come their way. For far too many children and young people however, such basic nurture, care, and tenacious commitment, seemingly fundamental to quality caregiving, was missing from their lives.

The Potential Uses of Tag Clouds

As the analytical phase of my research project was drawing to a close, my thoughts turned to ways of displaying the increasingly large and complex data set. Faced with long, un-

wieldy lists of codes and code families, hopelessly cluttered frequency charts and uninspiring (alphabetised and rank-ordered) tables, I became increasingly dissatisfied with the traditional ways of displaying data. It became obvious almost immediately that these approaches would not be able to convey the breadth and depth of the myriad range of codes highlighting the experiences and needs of children and young people in care, and that alternative ways of representing the data were needed.

Over time, I started to ponder the idea of using tag clouds — a tool (that at that time was) becoming increasingly popular on Internet social networking and media sites. From the various examples I saw it seemed that tag clouds had the potential to portray large and complex bodies of codes, and importantly, convey the relative weighting of the codes and/or code families in a creative and innovative manner.

After a few test runs using smaller data sets, I created the first tag cloud — the themes of the care experience. I remember the excitement I felt when this tag cloud first appeared and how it provided an almost instantaneous grasp of the entire data set — especially when compared with the unwieldy lists and tables I had been using up to that time. Following this, I created the other three tag clouds presented in this article and they also resulted in a similar ‘aha’ moments. The tag clouds had provided me with a readily accessible summary and overview of my data sets in a visually powerful way, conveying both the breadth and depth of the issues examined.

Once completed and inserted into my thesis, I began to use the tag clouds in induction training with residential and foster care staff in my work with Mercy Family Services in Queensland, Australia, and found them to be an effective tool for facilitating individual reflection and group discussion about the experiences and needs of children and young people in care. Further, over the next few months, staff began to create posters from the tag clouds and display them in meeting and training rooms as a means of continuing to enhance staff and carer understanding of the ‘world of kids in care’.

Hence, through my research and in practice settings, I found that tag clouds not only had potential as a research tool for summarising and analysing data, and for providing an immediately accessible overview of my findings; they also had potential for practical use in care settings for stimulating reflection and discussion about the experiences and needs of children and young people in care.

These uses in both research and practice settings are reflected in the computer and information technology and social and behavioural sciences literature referred to earlier. For example, McNaught and Lam (2010) note that tag clouds can be used for analysing spoken and written responses of informants, for gaining a fast and visually rich way of obtaining a basic understanding of the data, for conducting preliminary analysis, and even for validating the findings of previous studies. Onwuegbuzie and Dickson (2008) also suggest that tag clouds can be used for data

display, data analysis, and data reduction and for drawing conclusions. Speaking generally about visual graphics, they also note that 'Graphical displays can help us discover patterns and recognise important truths about our data not readily apparent in a table or text' (2008, p. 220). As discussed earlier, there has been considerable interest in recent years in exploring alternative ways of displaying qualitative data and the findings of qualitative research, and one of these emerging approaches has been the use of tag clouds.

In addition to supporting the use of tag clouds in research processes, there is also some discussion in the literature about using tag clouds for facilitating reflection and discussion. Hamm (2011) provides an example where tag clouds (or 'word clouds' as he calls them) have been used for facilitating reflection and discussion about the findings of a research project. In his brief, but informative article he describes using tag clouds to guide a discussion during online and face-to-face classes. Describing the benefits of using tag clouds, he notes that the process is '... fun, visually appealing, and incorporates various learning styles ... [and involves] ... a variety of learning skills which increases participation and potential for deeper learning' (p. 1).

Thus, in both research and practice contexts, I have found tag clouds to be a very useful tool for portraying the data in a way that conveys their breadth and depth and for providing a creative and innovative approach for encouraging staff reflection and discussion about a range of critical issues relating to the experiences and needs of children and young people in care.

However, quite apart from introducing an innovative approach for displaying qualitative data, the substantive findings presented in this article have a number of implications for child protection and out-of-home care policy and practice. While the implications of the broader study into the needs of children and young people in care have been discussed elsewhere (Redshaw, 2011), the findings presented in this article suggest that there is a limited awareness of (and/or sensitivity to) the lived experiences and needs of children and young people in care among child protection and out-of-home care practitioners and other stakeholders involved in their care. Consequently, it would appear crucial that information highlighting these experiences and needs (derived from this or other similar research projects) be included in induction and ongoing training and supervision activities for new and existing carers and practitioners, and disseminated more widely to the broader child protection and out-of-home care community. Facilitating this learning and heightened sensitivity to their experiences and needs, to the overwhelming emotions that many children and young people in care experience, or to the importance of encouraging personal resilient traits, for example, would potentially enhance the quality of the day-to-day care provided. While it might be tempting to suggest that the considerable reform processes that have been implemented across the country over the last decade or more may have vastly improved the

quality of care provided, the findings of more recent inquiries suggest that continued vigilance by child protection and out-of-home care practitioners is needed (Cummins et al., 2011; Mullighan, 2008; Northern Territory Government, 2010; Victorian Ombudsman, 2011; Wood, 2008).

The Limitations of the Study and of Tag Clouds

Notwithstanding the fact that adopting document analysis and the constant comparative approach proved effective for exploring the experiences and needs of children and young people in care, there were a number of limitations of the study methodology itself and, in how tag clouds are constructed and perceived.

With regard to the overall study methodology (document analysis), relying solely on documentary data can be problematic because of the potential to disenfranchise those stakeholders who had not documented their experiences or perspectives of the care system. Another limitation is the potentially skewed nature of the document sample because of the number of negatively focused letters and submissions to various judicial and parliamentary inquiries, and the large proportion (30%) of documents that focused on historical and/or institutional aspects of the care experience. Further, there was limited representation in the sample from the parents of children and young people in care and from culturally and linguistically diverse (CALD) communities. Finally, the majority of the documents in the sample only represented the perspectives of stakeholders from the eastern states, and there was minimal input from stakeholders in rural and remote regions of Australia. The implications of these limitations for the salient findings in particular (and the associated tag clouds presented) are that they can only be considered preliminary, and that further research is needed before definitive conclusions can be drawn.

Insomuch that there are considerable potential uses of tag clouds in research and practice contexts, there are also clear limitations that need to be considered. Essentially there are three: First, how the findings displayed in tag clouds are viewed and understood by research consumers; second, the complexity involved in constructing tag clouds; and third, the inability of tag clouds to adequately reflect the intensity of a particular code or concept.

The discussion about the construction, uses and limitations of tag clouds (and their variants) occurs largely in the computer sciences and information technology literature (Appelo, 2008; Chen et al., 2009; Halvey & Keane, 2007; Hassan-Montero & Herrero-Solana, 2006; Hearst, 2008; Hearst & Rosner, 2008; Rivadeneira et al., 2007; Viegas & Wattenberg, 2008), with some limited discussion in the social, behavioural, and health sciences literature (Cidell, 2010; Gill & Griffin, 2010; Hamm, 2011; McNaught & Lam, 2010).

While a detailed examination of the technical issues involved in tag cloud construction and perception is beyond

the scope of this article, this complex discourse notes that there are numerous technical difficulties involved in constructing and interpreting tag clouds. For example, difficulties in distinguishing between similar font sizes, the impact of alphabetising the tag clouds as opposed to clustered designs revolving around semantically similar themes, and the impact of other technical features such as variations in font styles, bolding or colour (Onwuegbuzie & Dickson, 2008; Rivadeneira et al., 2007; Viegas & Wattenberg, 2008). Viegas and Wattenberg (2008) note that ‘... long words get undue emphasis over short ones. It is cumbersome to find any single word, and font sizes can be difficult to compare. Alphabetical ordering means that sets of related words are scattered’ (p. 51). This discussion makes it clear that such variations in tag cloud construction can and do impact how the inherent concepts are interpreted and understood. Consequently, until these issues are better understood, the consensus in the research community is that tag clouds (and their variants) are best used only as part of a suite of data analysis and display methodologies: as an adjunct tool in the research process rather than as a ‘stand-alone’ tool (McNaught & Lam, 2010; Rivadeneira et al., 2007). Further, findings derived and extrapolated, and conclusions made, should be considered tentative and with some caution, particularly because of the dearth of studies examining the effectiveness and reliability of tag clouds to accurately reflect the underlying data.

Beyond these technical aspects of tag cloud construction, another more practical limitation includes a reliance on web-based tag cloud generation programs. For my research project, I could only construct the tag clouds featured in this article by accessing an online tag cloud generator (i.e., <http://tagcrowd.com/>). At times the program I used was offline and unavailable, resulting in delays. Further, the series of complex steps involved in generating a tag cloud from such a large dataset and then inserting and adjusting the resultant tag cloud into my research report poses a natural barrier to those who may not be computer ‘savvy’. Even today, several years after first accessing online tag cloud generators, it appears that there are still no stand-alone desktop programs available (though the latest release of Atlas.ti, the qualitative data analysis program used in this research project, includes the capacity to generate tag clouds).

Another practical limitation inherent in tag clouds is that while they reflect the frequency that a particular issue or concept appears in the data very well, they do not reflect the intensity underlying that issue at all (Gill & Griffin, 2010 p. 321). For example, in Figure 1, the tag cloud displaying the broad themes of the care experience, the final tag (on the lower right-hand side) is ‘vicarious trauma’. The relevantly small size of the tag fails to portray the heart-rending intensity of the stories told by children and young people in care (and former wards) about the impact on them of witnessing violence and abuse in care. This problem became obvious when using this introductory tag cloud during training and induction sessions for staff employed in our residential care

programs. Staff would (quite reasonably) question the size of some of the small tags, noting that from their experience, such issues were more significant than their relative size would indicate. As a result, when using tag clouds in training and supervision contexts to facilitate reflection and discussion, I now pre-empt this concern by explaining upfront that while some issues may not have appeared all that often in my data, the sheer intensity of the stories told and observations made in many instances highlights the critical importance of these issues.

Conclusion

In this article I have presented the findings of a study examining the experiences and needs of children and young people in care in Australia, with a particular emphasis on the broad themes of the care experiences, the overwhelming emotions of care, the characteristics of those who survive and thrive in care, and the critical characteristics they wanted in their carers. I have also introduced an innovative approach for visually representing qualitative data — tag clouds. Notwithstanding the limitations inherent in both the study methodology itself and in the construction and use of tag clouds, they do provide a useful and indeed effective tool for undertaking preliminary and exploratory analysis, providing an immediately accessible overview of particularly large and complex data sets. They also provide an effective and innovative tool for facilitating reflection and discussion about the topic at hand, in this case, the experiences and needs of children and young people in out-of-home care in Australia.

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