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Procedia
Social and Behavioral Sciences

Procedia - Social and Behavioral Sciences 35 (2012) 44 - 53

# AicE-Bs 2011 Famagusta

Asia Pacific International Conference on Environment-Behavior Studies, Salamis Bay Conti Resort Hotel, Famagusta, North Cyprus, 7-9 December 2011

# Low Cost Housing Environment: Compromising Quality of Life?

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#### **Abstract**

The Malaysian Government provides for the lower income group with low cost housing that includes adequate playground area, community hall, landscaping and car parking; with accessible public schools, shops, public transport, medical centers and other commercial outlets. With these provisions, there are also frequent complaints from residents regarding the quality of these flats in terms of the building materials used the quality of construction, the sanitary system, the facilities provided, the location, the maintenance along with many social problems. Although this is the case, findings from a study showed that quality of life does exist for residents in this housing environment.

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Keywords: Low cost flats; quality of life; housing; satisfaction; neighbors.

#### 1. Introduction

With the advent of industrialization and urbanization, many people from the rural hinterland migrated to urban centers aiming to gain employment and a better life for their families. During the 1970's many migrants came to urban centers in Malaysia in huge numbers especially swarming into Kuala Lumpur, Petaling Jaya, Shah Alam and Klang which made up the Klang Valley urban conurbation. The surge of urban population took the local authorities by surprise and without warning squatter settlements sprouted

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like mushrooms in and around these cities. These squatters were working legitimately in industries located in the Klang Valley. Their contribution to the country's economy is undeniably significant thus the government had to take their presence seriously. In the efforts to demolish the squatter settlements the government had to provide alternative housing for the workers. Initially the government had built low density low cost houses comprise of one and two storey compact houses. But as the price of urban land rose dramatically and developers saw the lack of profit in building low cost house, the policy of low cost housing provision was reviewed. Any low cost housing development in urban centers must only be in the form of high density multi-storey flats.

This paper is based on a research that examines the quality of life for the lower income residents in planned housing areas. Based on the subjective matter of this research, a combination of quantitative and qualitative approach was utilised to facilitate in collecting data, in analysing data and in procuring the findings.

# 2. A Brief History on Workers' Housing

Modern town planning started from the awareness to create a better environment for people to live in. During the nineteenth century industrial towns, conditions were prevalent with lack of proper housing for the workers; unhygienic living quarters, deprivation and squalor. As such these conditions had moved philanthropists like Robert Owen (1771-1858) and Titus Salt (1853) to improve workers' living conditions (Ratcliffe 1981). Their ideas and actions had improved the living environment of the working class people. These nineteenth century philanthropists along with Cadbury, Lever and others were not only social reformers but also early community planners who went further than just providing workers housing. They created a planned and organized housing schemes for industrial workers such as in New Lanark. Thus, it can be summarized that the planning for workers' housing environment were based on these principles; first and foremost a healthy environment where cleanliness is of utmost importance. The houses must be of sufficient size to accommodate a family with children, sanitation must be properly planned, surrounded by the clean air and abundance of green areas for recreation and leisure. Secondly, they can easily walk to their place of employment. Thirdly, there must be proper education facilities made available for children. Fourthly, the workers were provided with commercial outlets for them to replenish their supplies. These earlier planned communities had already become good examples of housing models for workers. Of course, their planning design would be outdated but the planning principles that guided their creation are still being practiced until now.

### 3. Quality of Life in Housing Environment

The concept of quality of life refers to an evaluation (an evaluation judgment) about major aspects or the entirety, of a life or a society (Des Gasper 2009). The Dictionary of Human Geography (Johnston, 2000) defined quality of life as the state of social well being of individuals or groups, either as they perceive it or as identified by 'observable indicators'. Cutter (1985) described overall well-being is determined by a person's happiness or satisfaction with life and the environment; this include needs and desires, lifestyle preferences, aspirations and other tangible and intangible factors. Aristotle the Greek philosopher claimed that happiness as being the ultimate end of man. Happiness in all its degree is good, and there is nothing more valuable than happiness. Generally happiness express itself in moral virtues (courage, temperance, liberality, magnanimity, love of honor, mildness, truthfulness, friendship and the higher of them all justice) and manifests itself in intellectual virtues (Sharif, 1963). Aristotle's interpretation of happiness does not involve materialistic wants and needs but only pure and moral virtues.

One way of approaching QOL is to assess the extent to which people's 'happiness requirements' are met - i.e. those requirements which are a necessary (although not sufficient) condition of anyone's happiness – those without which no member of the human race can be happy (MacCall 1975). In Islam, happiness is the feeling that resides in the heart, is characterized by peace of mind, tranquility, a sense of well-being, and a relaxed disposition (Ibraahim Ibn Saaleh al-Mahmud 2007). It comes as a result of proper behavior, both inward and outward, and is inspired by strong faith (Science ISLAM). From an Islamic viewpoint, happiness is not restricted to material prosperity, though material reasons make up some of the elements of happiness. The material aspect is merely a means, but not ends in itself. Thus, the focus in attaining happiness is on nonmaterial, more abstract concerns, like the positive effects of altruistic behavior. Islam has clearly defined man's role on Earth. It has made him vicegerent therein, whereby he must strive to inhabit and develop the Earth, bring about prosperity, and work for the best interests of mankind in this world. These noble objectives are surrounded by difficulties and require man to exert a lot of effort and bear heavy burdens in order to fulfill them. Life is not always as easy and straightforward as we would wish it to be. Quite the contrary, it goes from being easy to being extremely difficult, just like a person goes from being healthy to being ill or from being poor to being rich and vice versa. Man must constantly deal with these trials throughout his life. In this way, he can realize the noblest qualities that these trials demand from him, like patience, willpower, determination, courage, reliance upon Allah, industry, and strong morals. These qualities are among the greatest sources of tranquility, peace of mind, and happiness. Allah says, "Surely, we will try you with something of fear, hunger and loss of wealth, lives, and the fruits of your labor, but give glad tidings to the patient ones; who, when afflicted with calamity say, 'To Allah we belong and to Him we shall return.' These are the ones who will receive blessings and mercy from their Lord, and these are the ones who are rightly guided" (Al Quran: Surah Al Bagarah 155-157).

Findings from researches on the quality of low cost housing runs a familiar tune or similar trend where numerous complaints of dissatisfaction with the dilapidated condition of the buildings, the poor conditions of services, the recurrent problems of clogged drains and toilets, dull façade, badly maintained lifts and playgrounds and others. Anyone would question the existence of QOL for the people who lived in this type of housing on a daily basis.

Table 1. Dimensions of objective and subjective well-being.

Objective Living Conditions	Subjective Well-Being		
	Good	Bad	
GOOD	WELL-BEING:	DISSONANCE:	
	Good living conditions and positive well-being.	Inconsistent combination of good living conditions and dissatisfaction.	
		(Dissatisfaction dilemma)	
BAD	ADAPTATION:	DEPRIVATION:	
	Problematic combination of bad living condition and high levels of satisfaction.	Bad living conditions with a negative evaluation of them.	
	(Satisfaction paradox or disability paradox)		

Source: Adapted from Zapf 1984: 25.

Mackensen (1986) advocates that the physical environment has an impact on the social environment that can either make it worse or better. On the other hand, Zapf (1984) showed in Table 1 that there are four types of results that can be caused by the combination of objective living conditions and subjective well-being such as i) well-being ii) dissonance iii) adaptation and iv) deprivation. The rich and wealthy that lived in luxurious accommodation and feel happy about it will generally produce a deep sense of well-being. Those who lived in an unfortunate living condition yet have some perception of satisfaction has somehow adapted to that type of environment. This goes to show that 'well-being' is highly subjective that even when the living conditions are acceptable, there will be some people who will feel dissatisfied (dissonance). On the other hand, there are people who will feel satisfied with their living conditions even though the conditions are quite inadequate (adaptation).

Yuan et al. (1999) stated that QOL is a multifaceted concept that embraces not only the material aspects of life such as level of living, availability of physical and social infrastructural facilities but also the less tangible aspects of life such as quality health and opportunities for recreation and leisure. Most quality of life studies focus on aspects of the human condition. Thereafter, the term social well being is explained as the extent to which a population's needs and wants are being met. This is one of the most crucial concepts of QOL where it constitutes the well being of the population.

# 4. Housing Domains

Housing is not limited to just the housing unit. Housing denotes a physical domain and a social domain. The physical domain includes the housing unit, the infrastructure within the housing environment such as the roads, the lighting fixtures, the other buildings used for community purposes, the recreational areas and others. The social domain includes the residents living in that unit, the neighbors within that housing block or neighborhood, the community of that geographical space that include the people engaging in activities other than being residents such the local shopkeepers and the local administrators. These two domains overlap each other; complement each other and where usually there is a cause and effect relationship between them.

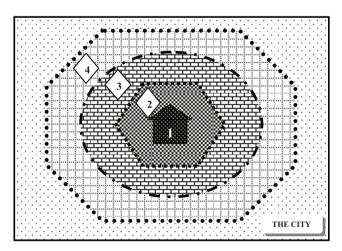


Figure 1. The 4 domains of the housing environment

Note: Domain - The family domain, Domain 2 - The social environment (neighbors and community), Domain 3 - The community facilities environment, Domain 4 - The neighborhood physical environment

Figure 1 shows the four housing environment domains that exist in a city. The housing unit is within the other domains inside the city. Once the resident steps out of the house, he/she will encounter the neighbor and community domain, and then will continue to do their daily activities in the community facilities environment such the school, to the shops or others.

The relationship between these four domains produces the perception and the experience of the residents. A good and clean physical environment will produce satisfied residents. On the other hand, a responsible community will take care of their housing blocks where they have a low tolerance level for dirty and messy surroundings. And the whole setting result in the existence of quality of life which can be good, bad or just fair. Therefore, the housing environment is made up of several domains and the summation of satisfaction of residents for each domain will make up for the overall quality of life.

# 5. Indicators of QOL in Housing Environment

The first question that comes to mind is that; can we plan for QOL? When we plan for QOL, we are planning a quality housing environment. This means that the environment has to provide comfort, convenience, safety and eventually contributing to happiness. Town planners are trained to design towards the comfort, convenience and safety of people, but can they plan for QOL? This is a tall order for town planners, yet if the residents feel satisfied with their living environment then the town planners have somehow achieved the difficult task of planning for QOL. Then again, how do planners plan for a quality housing environment especially for the lower income group?

How then is QOL measured? There are agencies that have their own quality housing indicators to measure quality housing like the Homes and Community Agency (2008-2011) in UK that measure quality housing schemes funded by the HCA. The quality housing indicators looked at the unit, design and the context and surrounding and this helps to evaluate a, compare and monitor the quality of housing developed.

This is an exemplary practice where there is transparency in the efforts to building quality homes that they claimed. The indicators to measure QOL in the low cost flats can be established by the QOL Indicators Matrix (Table 2) where the different domains are matched against the aspects of QOL. Indicators are then decided based on the QOL aspects in each domain and the numbers of indicators depends on the context of the study.

Income is an important indicator in the family domain on the aspect of comfort for the lower income group but this same indicator might be of less significance for those living in luxurious homes. The usage of this matrix is useful in that the list of indicators can be exhaustive because the researcher can come up with relevant and meaningful indicators in each domain. Furthermore, this matrix is not confined to this study but can also be adapted to other types of study such as the well-being of students in residential colleges, residents in old folk's home and impact of night bazaar towards residents living nearby.

Table 2. QOL Indicators Matrix

Domains Aspects	Family Life	Neighboring And Social Activities	Community Facilities	Neighborhood Physical Surrounding
Comfort	•internal home-space for family activities  •privacy •household belongings •income •savings	•ability to live with other ethnic groups •communicate with neighbors •rely on neighbors	•availability of facilities for playing •availability of facilities for interaction	•clean •noise factor •foul odor
Convenience	•to invite family and friends over •to go to work •to go to school •to go shopping	•to ask for help from neighbors •to gather neighbors for discussion	•adequate facilities •good access to facilities •accessibility	•access to clean tap water •access to electricity •rubbish collection •planted landscape
Satisfaction	•homeowner •family's health •family's education •family's economy	•helpful neighbors •friendly neighbors •community activities •community association	•provision of adequate facilities •facilities located nearby •accessibility	•visual image of flats •cleanliness •noise factor •foul odor •landscaping
Safety	•security of their belongings •safety for their family	•recognize neighbors •recognize strangers •crimes •social and moral problems	<ul> <li>maintenance of facilities</li> <li>design of playing equipment</li> <li>open drains</li> </ul>	•criminal activities •accidents •fire hazards
Usage	•adequate indoor space	• proper space for interactions	•preference and choice •vandalism	•sustainable practices

#### 6. The Characteristics of Shah Alam

The city of Shah Alam is the state capital of Selangor whereby Selangor has the second highest urban population in Malaysia, second only to Wilayah Persekutuan Kuala Lumpur. It is located about 25 kilometers west of the nation's capital, Kuala Lumpur. Shah Alam is a planned city with a layout similar to the garden city concept but not quite the same. Shah Alam has a town center which is surrounded by sections of residential area with its own shops, playgrounds and schools (which are provided when there is enough population to support this facility). The city center has a vibrant commercial area with shopping malls, offices, hotels and medical center. Shah Alam has a heterogeneous population, strong commercial activity, active housing industry and fairly dependable transportation system. Many industries are also located in Shah Alam that attracted workers from other states and also from other countries. Due to this factor many low cost houses were build in the early 1970s to cater for the influx of the factory workers. These low cost houses located in and around the city center were built by the private, public or a joint venture sector. There are five study locations selected in the central zone of Shah Alam for the purpose of this study. All are five storey walk-up flats and were built by a state housing corporation. Findings are

produced from both quantitative and the qualitative analysis and had been able to demonstrate the living conditions in the study area

#### 6.1. The Family Domain

Most of the respondents are quite contented but not to the point of being happy. There are many reasons affecting their satisfaction level yet there are some who declared they are quite happy. Although it was not conclusive that people are happy or not happy; that they lived in low cost flats nevertheless living in urban centers does have its advantages. Living in urban centers gives them the opportunity to secure employment even though many do not have high qualifications or skills. It is true to say that economic opportunities are abundant in the city as compared to the rural areas as long as the person is willing to work hard. Residents with cooking skills can help earn an extra income for themselves and their family. They can set up a small business like a small grocery shop in the kitchen area or set up a stall selling *nasi lemak* (coconut milk rice with chili and condiments). This is one opportunity that is not feasible if they were to stay in their own *kampong* (villages). People in the city are more affluent to buy food and eat outside their homes as compared to villagers; furthermore these working people have less time to prepare for themselves.

Many respondents are found to be protective of their children and they instill values such as family togetherness, hard work and traditional values. But there are instances where some would complain of undisciplined neighborhood children and of the negative influence of their peers. Stories of problems like playing truant, bullying, street gangs, vandalism and break-ins, would appear thus showing signs of social problems amongst the children of the residents in the low-cost flats. This is not the norm but there are instances of such behavior. The dark side of the city is that the congregation of so many people tends to amplify and strengthen its problems and issues. This is the case in high density living where the provision of affordable housing for the lower income group comes in the form of low-cost flats. The small units offered to these people meant that they have to fit in their family no matter how many members they have. This meant the house will be crowded and there is little privacy for everyone. They have to adapt whatever situation they encounter and sometimes this creates tension and stress for family members. This problem can be avoided if residents of the low-cost flats limit the number of family members; whether they want it or not. When they were asked of the things that they value most from a list of thirty elements, the least preferred family value is "having many children". And the two elements that they value most are (i) a safe and a happy family life and (ii) have enough money.

Another advantage of the city is that it provides the economies of scale for the provision of shops and facilities such as hospitals, schools and policing. The competitiveness of commercial outlets makes it more attractive and affordable for the lower income group to purchase home furnishings and appliances.

## 6.2. The Social Environment (Neighbors and Community)

Neighborhood and community activities are alive and well in the study area. The findings showed that large numbers of respondents interacting with neighbors and other members of the community. They have a strong sense of identification with their community and share common attitudes, values and feelings towards their community. Although the findings are convincing, there are also some feelings of dissatisfaction towards the thoughtless and insensitive neighbors who create an atmosphere of abhorrence and detestation. Amongst the residents in the low cost flats were former squatter settlers who are mostly Indians; and in some locations they do not integrate well with the Malay residents. The numbers of conflict are not worrisome and such situation is common in almost all the low-cost flats. The gravity of the problem depends on the number of problem-makers. At least two of the five study locations are

riddled with problems of truly bad neighbors that respondents from these places have plans to move out of their flats in future.

In spite of these problems the neighbor relations in the study area tend to lean towards tolerance and caring neighborliness. Generally they respect the privacy of their neighbors but they do not like residents who do not want to interact or participate in community activities. In one neighborhood, the sense of community and sense of belonging is very high and this is attributed to the age of the community. The residents have grown fond of the neighborhood, settled in their homes and have known their neighbors for a very long time. The friendship they formed is time-tested. They know that in times of emergencies, their neighbors are ever so willing to help them. They are facing a dilemma though with a new housing project that is going to be developed inside their neighborhood. The new high-rise flat will have three bedrooms and will house all the residents of the old buildings. The relocation will be done in stages and most of the residents agree to this project except for a few. This relocation exercise will not take into account locations of neighbors thus; they might or might not have their current neighbors living near their future units. One of the in-depth interviewee is quite happy to move because she is willing to get a bigger unit. And she still gets to stay in the same neighborhood.

The community in Shah Alam is made up of residents who came from different backgrounds, values and cultures. Although the respondents belong to the lower income group, they belong to different subcultures. They need time to adjust to the community also to the city. It has been found that those who stay longer have a deeper sense of loyalty and sense of belonging to their community. The social aspect of the community is one aspect that needs to be looked into by the designers and the policy makers in order to find ways to improve the social relations amongst the lower income residents.

#### 6.3. The Community Facilities Environment

One significant factor influencing the quality of life for residents in an urban housing area is the availability of community facilities. There may be other complementing factors such as the accessibility and the quality of facilities. The respondent's perception of satisfaction towards facilities includes also the quality of the facilities. Dissatisfied respondents are assumed to be unsatisfied with the quality of the facilities available.

Community facilities are an important domain in the life of any residents in a housing area, more so for the lower income group. Members of such group are at a disadvantage if the location of facilities is too far from their homes and not within the comfortable walking distance, given the hot and humid climate of this country. The lower income respondents are not particularly choosy nor do they make too many complaints about the lack of provision or the lack of quality of certain facilities. They are aware of their status (being residents of low cost flats) and they seem to be able to accept whatever facilities provided for them. Some of the respondents have even resigned to the fact that once they bought low cost units, they should not complain too much if what they get is not of high quality.

Yet, there are still a few who felt that they deserve better quality and service because they are house owners and felt cheated by the developers (PKNS) for not providing enough facilities such as inadequate children's playground, and a small size community hall. One particular respondent bemoaned the PKNS decision to disallow the residents to build a *wakaf* (community shelter) even though the residents are willing to use their own money. But they went ahead with building this *wakaf* which turns out to be a magnet for the neighborhood people and children to sit and chat during their spare time thus enhancing the community's well-being. This goes to show that more can be done for the residents, for they deserve a better quality of life.

Nevertheless, complaints from the residents although valid, did not lower the satisfaction for community facilities in Shah Alam. This shows that provision of facilities must be planned into the

neighborhood for the benefit of the residents in terms of accessibility and choice regardless of the cost of housing.

# 6.4. The Neighborhood Physical Environment

The living environment of the residents of the low cost flats is not confine to the housing unit only but also includes the neighborhood environment. The resident of this housing must share the external space of their house with many other residents. They must share the corridor, the staircase, the grounds, the playground, the parking lot and also they share the image and the identity of the place. They also have their own perception of their housing condition and that they share certain values towards the living conditions. Many of the respondents complain about certain living conditions like noise and littering of rubbish, yet these problems are not considered major problems by most respondents. There are some problems which bother many of the respondents yet they still can tolerate them because they are quite satisfied with the overall living condition. Some of the respondents confided that they will certainly move to a better house or to their own hometown but only if they are unsatisfied with the current problems like high cost of living, unruly neighbors, plumbing problems, earthquake tremors and growing family. But they also confided that when there is no problem, there is no urge to move out. There are also respondents who will not move out at all and they can tolerate whatever problems happening around them as long as it does not affect their family. Respondents like this view problems that exist in their housing area as trivial and they feel that problems will exist no matter where they go especially regarding neighbors' attitude, public services, facilities and others. The important thing is not to let these problems affect their daily life. They are resigned to the fact that they live in a low cost flat and accept whatever shortcomings in their housing area as part and parcel of their life. In the words of one respondent, 'fahamfaham aje lah, kita kan duduk rumah pangsa kos rendah', translated as 'we should be able to understand, we are aware that we live in a low cost flat'.

The physical environment domain has shown that air quality and safety affect the sense of well-being. Yet on the average these elements can be tolerated by the respondents because they have gotten used to their surroundings. This adaptation process has made the respondents tolerant of their housing area even though there are flaws and problems.

#### 7. Conclusion

There are four domains in the housing environment and it was found that the respondents in Shah Alam were most satisfied with the community facilities domain. Shah Alam is planned as a new town provided with ample facilities for its residents regardless of their socio-economic background. The planning of the city of Shah Alam has taken into consideration the location and accessibility of the community facilities for each residential sections of the city. This planning concept is called the neighborhood concept. This shows that the physical planning aspect and the characteristic of the city play an important role in contributing towards the QOL of the residents. In second place is the family domain, third is the physical environment and lastly is the neighboring and community domain. It is a fact that the population of Shah Alam comprises mainly of migrants and they came from all over Malaysia even from Sabah and Sarawak. There are also foreigners and a large student's population. Although the social domain in Shah Alam has the least score amongst the four domains, this does not mean that there is a social crisis brewing in Shah Alam.

Nevertheless, everyone wants to be happy with their life, their family, career and home but it is not possible to get everything in life. People with money have little problem in selecting the suitable home to fit to their taste and preferences. Even then that might not necessarily make them happy. There is no end

to the list of things that we want in life that we assume can make us happy. Then again, referring back to the definitions and meaning of happiness, happiness can happen to those who do not have many. Residents of a low cost flat would have their quality of life increased if they have a bigger and more beautiful house than their own flat. But that perception is not true because as was found from their list of preferred values, many did not choose to have a bigger house or have their own land instead they chose to have happiness, health and safety. They seem quite contented with their life, their home and their housing area. Their acceptance of their life is quite humbling.

Low cost flats are the popular method of housing the lower income people in Malaysia. Residents are hard working and proud of their family and home. They are a valuable asset to the country and towards nation building. They are the human resources that can be capitalized for the social capital in the country. The residents of the low cost flats should not be side-lined for a better living environment. There should not be any compromise on a better living condition for the lower income group in the low cost flats. Planning policies and design of low cost housing environment with quality of life in mind will create an environment that is comfortable, safe and convenient for people to live in.

#### Acknowledgements

The author would like to acknowledge the previously known Bureau of Research and Consultancy, Universiti Teknologi MARA for a grant of RM10,000 towards the completion of this research.

#### References

Al Quran: Surah Al Bagarah 155-157

Cutter, S.L. (1985). Rating places: a geographer's view on quality of life. Resource publications in Geography, the Association of American Geographers.

Des Gasper (2009). 'Understanding the diversity of conceptions of well-being and quality of life'. *The Journal of Socio-economics* 39 (2010) 551-360. Elsevier on-line journal. www.elsevier.com/locate/socecoS

Homes and Communities Agency (2008-2011). *Housing Quality Indicators*. http://www.homesandcommunities.co.uk/hqi (15 September 2011)

Ibraahim Ibn Saaleh al-Mahmud (2007). Winning the Heart of Your Wife. London: Al Firdous Publications Ltd

Johnston R.J. et. al. (2000). The dictionary of human geography. Oxford: Blackwell.

MacCall, S. (1975). 'Quality of Life'. Social Indicators Research 2. pp. 229-248. http://www.gdrc.org/uem/qol-define.html (14 October 2011)

Mackensen, R. (1986). Social networks. In Dieter Frick. The Quality of Urban Life. Pp. 49-60. Berlin: Walter De Gruyter.

Ratcliffe, J. (1981). (2<sup>nd</sup> edition) *Town and country planning*. London: Hutchinson.

Science ISLAM, undated. 'Happiness in Islam'. http://www.islamtoday.net/english (4 October 2009)

Sharif, M.M. (1963). A history of Muslim Philosophy. Volume 1. Wiesbaden: Otto Harrassowitz.

Yuan, Yuen & Low. (Eds.) (1999). Urban quality of life. Singapore: University of Singapore.

Zapf, W. (1984). Individuelle Wohlfahrt: Lebensbedingungen und wahrgenomene Lebensqualitat in der Bundesrepublik, In Rapley, M. (2003). *Quality of life research: A critical introduction*. London: Sage Publications, pp. 31.