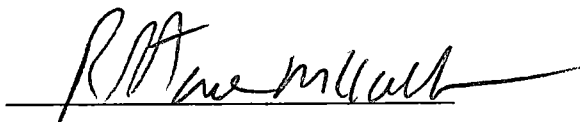


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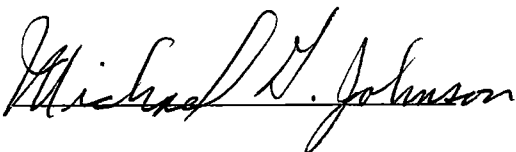
I am submitting herewith a dissertation written by Akenori Takeda entitled "Meaning in Life Among Japanese Elders: Development and Validation of a Four-Factor *Ikigai* Scale." I have examined the final copy of this dissertation for form and content and recommended that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Education.

  
Ralph G. Brockett, Major Professor

We have read this dissertation  
and recommended its acceptance:







Accepted for the Council:

  
Associated Vice Chancellor and  
Dean of The Graduate School

**Meaning in Life Among Japanese Elders:  
Development and Validation of  
a Four-Factor *Ikigai* Scale**

A Dissertation  
Presented for the  
Doctor of Philosophy  
Degree  
The University of Tennessee, Knoxville

Akenori Takeda

May 2000

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## ABSTRACT

The purpose of this study was to develop and validate a scale to measure *ikigai* (meaning in life) among Japanese elders. The *Ikigai* Scale was developed through a four-step process: initial creation of items, experts' review of items, implementation of a pilot study, and final refinement of the scale in the main study. The pilot study questionnaire included Part I (11 demographic questions and two questions about *ikigai*), Part II (the 60-item *Ikigai* Scale), and Part III (four previously-standardized scales, including the Japanese version of the Rosenberg Self-Esteem Scale, the Japanese version of the Purpose in Life Test, the "Energy for Living" factor in the Quality of Life Index, and the "Present Life Satisfaction" factor in the Quality of Life Index). The main study questionnaire included Part I and Part II (the 49-item *Ikigai* Scale). In the pilot study, 63 retired principals were used for the analysis. In the main study, 173 retired principals and 93 residents in a home for the aged were used for the analysis. The completed *Ikigai* Scale consists of 28 positive-statement items and has four factors: Self-Esteem, Purpose in Life, Life Satisfaction, and Personal Energy. Both studies supported the validity and reliability of the *Ikigai* Scale. Each item fit well into the conceptualized four factors; all items were closely related to one another; each of the four factors in the scale were acceptable to highly reliable (Cronbach's Alphas; ranged from .83 to .90), and the entire scale itself was reliable ( $\alpha = .95$ ). Each of the four factors was correlated with one of four previously-standardized scales; each of the four factors positively related with the others; and each of the four factors was significantly higher for the retired principals than the home residents. The revised scale was named the Four-Factor *Ikigai* Scale.

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## CHAPTER I

### INTRODUCTION

Most industrialized countries will encounter an aging society in the early 21st century, when the population of elders will be the highest in recorded history. The United States and Japan will have become "aging" societies, especially after 2020, because of baby-boomers reaching old age (65 years), falling fertility rates, and increases in longevity (Hurd & Yashiro, 1997). Japan already has the longest average longevity in the world, among both men and women (77.16 and 84.01 respectively, in 1998) (Koseisho Daijin-kanbo Tokeijoho-bu, 1999), and will have the highest percentage of aged people in the world in the early 21st century. The rate at which that percentage is rising is greatest among the industrialized countries (Bosworth & Burtless, 1998; Endo & Katayama, 1998) and the greatest in the history of the world (Somucho, 1998). For example, in 1994, 14.1 percent of the population was over age 65; however, this number is predicted to increase by 0.5 percent every year for the next 25 years, reaching over 30 percent by around 2040 (Takayama, 1997).

Even in the United States, where there has been extensive research on aging, studies of the elderly can not sufficiently meet the increasing social demands of elderly people in the aging society. In Japan, the study of psychology, compared to other fields such as medicine and business, has been behind (or at most keeping pace with) psychology in the U.S. This is also true in gerontology, which is a relatively new area of study, and one to which less attention has been paid by researchers in Japan. The amount of research in recent Japanese gerontological psychology has increased; however, both in amount and

quality, such research is still in the developmental stage (Ohta, Nakamura, Furuya, Ikeuchi, Tokita, & Agari, 1998).

This study is designed to examine Japanese elders' *ikigai*, a sense that life is meaningful and purposeful, among two different groups: retired principals and residents in a home for the aged. Here, the Japanese word *ikigai*, which is the most important concept in this study, needs to be explained. The Western idea that is most similar to the Japanese concept of *ikigai* is the concept of meaning in life, which is explained in detail by Baumeister (1991). Other related terms are "purpose in life," "life satisfaction," "self-esteem," or a general sense of "psychological well-being." Ryff (1989a; 1989b; 1991) explains the six dimensions of well-being as self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth. This author tentatively translates *ikigai* as "meaning in life" in English, but this is a very limited translation. On the other hand, Ryff's integrative concept of well-being would be too broad to explain the concept of *ikigai*. The detailed concept of *ikigai* and the Western concept of meaning in life and well-being will be explained in the section on "Conceptual Framework," and the author's own definition of *ikigai* will be presented in the section on "Definitions of Terms."

Because of recent social changes in Japan, where the number of older people in society is increasing and where elders (mostly men) suddenly have free time because of their retirement, it is important not only for elders to think of the rest of their lives as satisfactory, but also for people in other generations to think of supporting elders and learning from their interactions with them. Researchers need to focus more on this topic

of elders' sense of meaning in life. However, Noda (1981) points out that because it is so difficult to narrow down the broad meaning and difficult definition of *ikigai*, it has not been widely studied in Japan.

There have been several studies that individually discuss one of the elements of elders' well-being in Western countries, especially the United States, and some in Japan. However, elders' well-being, in general, has not been widely investigated. In addition, very little research has been done on the Japanese elderly, either in the English language or in Japanese. The amount of research on *ikigai*, which might be one of the most important elements in understanding elders' well-being in Japan, has been limited. In addition to the ambiguous and vague nature of the Japanese language when compared to most Indo-European tongues (Reischauer, 1977), the concept of *ikigai* is so broad that it has not been accurately explained in English language journals, so far as this author knows. Not only is the word *ikigai* so familiar among people and researchers in Japan that researchers ironically pay less attention to it, but also because of its complexity, most researchers avoid defining its meaning in their scientific papers. Thus, its definition depends on each researcher's narrow perception of *ikigai*. For example, Sugiyama et al. (1981a) and Sugiyama et al. (1981b), who standardized the Japanese version of Lawton's (1975) Philadelphia Geriatric Center (PGC) Morale Scale, translated *ikigai* as "life satisfaction" in their English abstract. Another example of the perception of *ikigai*, in which hobbies are included, is that of Hoshino, Yamada, Endo, and Nagura (1996), who developed a preliminary scale in their Quality of Life Scale for Elders, and who state that "to accept one's life positively, it is necessary for elders to have hobbies, which could be *ikigai*"

(p. 139; translated by the author). Because of such various definitions of *ikigai* for elders, researchers use various psychological inventories for measuring *ikigai*. These inventories are mostly based on Western research and are being translated and standardized for Japanese studies, such as Koyano's (1981) application of the Japanese version of the Philadelphia Geriatric Center Morale Scale.

### **Statement of the Problem**

Notwithstanding its importance as a theme for elders' well-being, *ikigai* has not been sufficiently studied in Japan. It does not help that the concept of Japanese *ikigai* has not been clearly defined and operationalized, nor that an integrative assessment of it cannot be found. Thus, it is necessary to reconsider the concept of *ikigai*, as well as to develop a measurement to assess the integrative concept of *ikigai* for Japanese people. This study defines the concept of *ikigai*, integrating Western and Japanese ideas of well-being and meaning in life, so as to develop a general scale of *ikigai*. It will also assess the *ikigai* of a sample of Japanese elders. The study will promote an understanding of Japanese elders' *ikigai* for the sake of contributing to these elders' well-being in Japan.

### **Purpose of the Study**

The purpose of this quantitative study is to develop and validate a scale to measure *ikigai* that can be used to understand certain aspects of aging and subjective well-being among Japanese elders. In the pilot study, the scale was validated among retired principals

in Tokyo and in the main study, among two groups: retired principals and public home residents for the aged in Tokyo.

### Research Questions

This study examines *ikigai* in two groups: retired elementary or junior high school principals and public home residents for the aged in Tokyo. The following questions are explored in this study:

1. To what extent does the *Ikigai* Scale demonstrate construct validity?
2. How reliable are the four sub-scales of Self-Esteem, Purpose in Life, Personal Energy, and Life Satisfaction?
3. How reliable is the *Ikigai* Scale?
4. What is the relationship between the *Ikigai* Scale and the following previously-standardized scales: the Japanese version of the Rosenberg Self-Esteem Scale (Yamamoto, Matsui, & Yamanari, 1982), the Japanese version of the Purpose in Life Test (PIL-Kenkyukai, 1993), the Energy for Living Factor in the Quality of Life Index (Ishihara, Naito, & Nagashima, 1992), and the Present Life Satisfaction Factor in the Quality of Life Index (Ishihara et al., 1992)?
5. Are there significant relationships among the four factors comprising *ikigai*?
6. Are there significant differences between the two groups (retired principals and residents in a public home for the aged) on the four factors that comprise *ikigai*?

## Conceptual Framework

The following section explores three fundamental concepts in this study: first, *ikigai* as the Japanese version of meaning in life; second, the integrative concept of well-being for Westerners; and third, meaning in life for Westerners. After explaining these three ideas, the conceptual links between *ikigai* and the other two will be discussed. Finally, each of the four elements of *ikigai* will be presented.

### Concept of *Ikigai*

Many words are hard to translate to another language. But it is particularly difficult to find the fitting translation of Japanese words into English because of the ambiguity of the Japanese language. In the Japanese-English dictionary, Kondo and Takano (1993) translate *ikigai* as “a reason for living; one’s *raison d’être*” (p. 88). *Iki-gai* consists of two parts, where *iki* or *ikiru*, “生(きる)” in *kanji* (Chinese-Japanese ideographs), represents “living” and *gai* or *kai*, “甲斐” in *kanji*, represents “worth doing something.” Shinmura (1991) in *Kojien*, the dictionary with the largest selection of words in Japanese, defines *ikigai* as “*hariai* for living” (p. 119), where *hariai*, similar to *ikigai*, means “getting some feeling of attainment from spending energy for something” (p. 2106). *Ikigai* is also defined as “things which one can feel wonder for in his/her life” (p. 119). Kamiya (1980) points out that since the same concepts do not exist in Western countries, it is difficult to translate *ikigai* into other Western languages in one word. Kamiya mentions that the only similar expression to *ikigai* would be the French “*raison d’être*,” or more precisely, she prefers to use “*raison de vivre*” and “*raison d’existence*.” Kamiya points out that if she



were to translate the word *ikigai*, she would translate it as “reason for living” or “value or meaning in life.”

Japanese people are familiar with the word *ikigai*. For example, one might ask someone, “What is your *ikigai* in your life?” Or, if a person has lost *ikigai*, he or she would lament that “I totally lost my *ikigai* because of my son’s sudden death.” Yamamoto (1994) suggests that the feeling of *ikigai* among younger people is accompanied by passion, whereas among the elderly it tends to be an internal, calm, and continuous experience. Also, Yamamoto points out that both ego-identity and the sense of the existence of self are significant for elders’ *ikigai*. *Ikigai* mostly comes up in conversations among or about elders. As Inoue (1988; 1993) points out, humans need to find *ikigai* rapidly when they reach old age. *Ikigai* is usually asked about and talked about among middle-aged and old people but seldom among younger people and almost never among children. The origin of *ikigai* dates back to the ancient days. The *gai* (or *kai*) of *iki-gai*, which means “worth doing” (in *kanji*, “甲斐”), is also a play on the word “shell” (“貝”). “Shell” was sometimes used to mean money in the ancient world and represented something precious. *Kai* can be found in two ancient Japanese literary works: one is *Manyo-shu*, a twenty-volume anthology of *waka* poems published around the middle seventh to middle eighth century (Hisano, 1981); the other is *The Tales of Taketori*, the oldest series of literature existing in Japan, published around the late ninth to early tenth century (Katagiri, Fukui, & Matsumura, 1983).

Because of the difficulty of translating *ikigai*, several different translations are found in the literature. Nakanishi et al. (1995) translate *ikigai* as “worth living” in their

English paper (p. 334). In Nakanishi et al.'s (1998) English paper on mortality in the elderly household in Japan, *ikigai* is translated as "life worth living" (p. 67). Also, in another English paper on intellectual dysfunction, Nakanishi, Tatara, Shinsho, Takatorige, Murakami, and Fukuda (1998) refer to *ikigai* as "particular aspects considered worth living for" (p. 199). Yamamoto et al. (1989) translate *ikigai* as "life satisfaction" in their English title, suggesting that if a person has a strong *ikigai* (life satisfaction), he/she is psychologically healthy and can consider him/herself as being blissful. In Toda, Nakamura, Fujinaga, Miyamoto, and Higashi's (1995) panel discussion, the panelists agree that the exact same concept as Japanese *ikigai* cannot be found anywhere else in the world. However, one of the panelists, Miyamoto, mentions that *ikigai* relates to the concept of "positive selves" constructed by Markus (Markus & Nurius, 1986), in that one's representations of the self include the cognitive components of future hopes. Aoi (1978) differentiates *ikigai* from life satisfaction and well-being, where the former, *ikigai*, is not a feeling from something that is already done but rather toward something in the future. In addition to problems with translation, few studies have focused on *ikigai*. Therefore, it is necessary for this author to now introduce some definitions, concepts, and models, so as to conclude the discussion by defining *ikigai* as a synthesizing concept.

The following are all definitions of *ikigai*. First, Aoi (1978) defines *ikigai* as "a satisfactory feeling when a person has aims for doing something in his/her life" (p. 115), (translation by the author). In Kaneko's (1984) statement, *ikigai* is the thing that makes "one's activity recognized by, profitable for, and desirable to other people" (p. 143), (translation by the author). Inoue's (1988) definition of *ikigai* is that it is something,

including object(s) or person(s), which both deserves to be engrossed in and gives a person value and meaning in his/her life. Inoue's explanation of *ikigai* in an English abstract is as follows: "A sense of meaning in one's life could be defined as that which gives value and meaning to one's life, whatever that value and meaning may be" (p. 254).

Second, as to the concept of *ikigai*, Sato (1993), a well-known family therapist in Japan, sees *ikigai* as the things which allow one to find a meaning in his/her life and, as a result, which lead to a sense of fulfillment in one's life. Sato's perception of having *ikigai* is as follows: "fundamental human life, or to be a real human being means that people are aware of their having responsibilities, something both for themselves and for others. In the course of people's responsibility for other people, they are able to feel that they actually exist in the world" (translated by the author). Kamiya Mieko Tokyo Kenkyukai (1997), a Japanese research group involved in studying the work of Mieko Kamiya, points out that Kamiya grasped *ikigai* as one of most important elements of general well-being. This research group interprets her concept of *ikigai*, stating that people should not identify the concepts of *ikigai* and satisfaction as equal. The reason is that while satisfaction sometimes includes obtaining temporary happiness, such as eating ice cream in summer, *ikigai* is more related to one's ego and even involves a sense of mission to some people. In fact, if people indulge themselves in short-term satisfactions too much and take them for granted, their *ikigai* would be paralyzed. Kobayashi (1990) mentions that *ikigai* should not be identified as one or two separate phenomena but instead considered as a configuration; that is, *ikigai* is made up of a "human's collective value for living, which

includes things such as work, play, one's existence, love, value for living, encounter, religion, self-actualization, care for others, and so forth" (p. 26; translated by the author).

Third, with regard to the classifications of *ikigai*, Hamaguchi (1994) mentions that in the old age of feudalism and class-bound society, people's *ikigai* was simple and limited; however, in the modern society of freedom and varieties in people's lifestyles, it has become gradually broader in meaning. Hamaguchi also attempts to explain *ikigai* in terms of personal direction and emotions. Hamaguchi sees different types of *ikigai* as experienced by different groups of people (pp. 237-240; summarized and translated by the author). Type I (Value Within Self & Feeling): These people (the majority) feel *ikigai* from enjoyment of such things as living a happy family life. Type II (Value in Outer World & Feeling): People in this category are absorbed in their work and hobbies. Type III (Value Within Self & Belief): Such people go their own way based on their interests, without consideration for others. Type IV (Value in Outer World & Belief): These people are future-oriented. They not only have a strong purpose in their lives, but also have a strong desire to help others.

In Nakanishi et al.'s (1995) three surveys on *ikigai*, they classify four sources of *ikigai* from the perspective of elders: 1) work, 2) learning, 3) civic or religious activity, and 4) group pleasure activity. Finally, Hasegawa and Gashu (1975) mention that people generally tend to experience one or more of the four types of loss that affect *ikigai*: 1) health, 2) economic base, 3) social relationships, and 4) purpose for life. Inoue (1988), based on Hasegawa and Gashu's discussion of loss, points out that the four types of loss may finally cause the loss of meaning in life itself, sometimes resulting in suicide. Inoue

states that these feelings of loss by elders are influenced by the recent Japanese negative social valuation and image of elders, not only by young people, but also by elders themselves. Inoue gives examples of *ikigai* in people's lives, such as an elder who has devoted him/herself most of the time to taking special care of a grandchild, or a person who is enthusiastic about a hobby, such as creating *haiku* poems. Inoue also points out that *ikigai* can even stem from negative feelings, such as hatred or revenge toward someone, when a person spends much energy thinking or praying for a chance for revenge on someone.

This author notes that *ikigai* can also be the result of socially prohibited/anti-social feelings (or acts), such as so-called "abnormal" sexual fantasies (or harassment) and dangerous political activities, such as involvement in extreme nationalist or terrorist parties. Of course, these kinds of people are quite few, and they would not reveal these feelings to other people but secretly harbor them in their minds. These negative and anti-social feelings of *ikigai* seem strange and paradoxical to most people when associated with human well-being; however, these negative feelings may not contradict this kind of person's sense of well-being because he/she is finding a purpose in life by getting rid of tension (adrenaline) and dedicating his/her time to these negative feelings or acts. Although this kind of person may not be satisfied with his/her life, some people are; *ikigai* can be anything, even the kinds of feelings mentioned above. This is why *ikigai* is not suitably translated simply as "life satisfaction."

### The Western Concept of Well-Being

There have been many studies focusing on the elements of human well-being. As George (1981) points out, "well-being is conceptualized as a subjective phenomenon, related to but distinct from objective life conditions" (p. 346). Some integrative concepts of well-being have been presented by researchers (e.g., George, 1981; Larson, 1978; Okun, Stock, Haring, & Witter, 1984; Ryff, 1989a; Ryff, 1989b; Ryff, 1991; Ryff & Essex, 1991). To illustrate the Western concept of well-being, this author has selected Ryff's (1989a; 1989b; 1991) presentation of six elements of well-being, because her conceptualization is concise and some of each element is similar to the concept of *ikigai*: self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth. Ryff explains that since there is little theoretical grounding on the concept of well-being, she has examined it in a wide range of literature and developed an integrative measurement of the six dimensions, based on structured self-report scales. Although Ryff (1991) does not define the integrative concept of well-being in one or two sentences, she defines each of six dimensions of well-being, explaining for each the features associated with high and low levels of that dimension (see Table 1 in the Chapter on "Literature Review").

### The Western Concept of Meaning in Life

Baumeister (1991) speaks of an individual's sense of meaning in life in his book *Meanings of Life*. He mentions that although there is no common consensus regarding life's meaning, he understands the concept as involving humans' needs, which are their motivation for "find[ing] ways of obtaining certain things – in this case, they are motivated to find certain types of answers or explanations" (p. 30). Baumeister explains that, first,

the needs for meaning in life may resemble other needs necessary for basic survival; however, the former needs are not necessary for survival. Second, the sources of satisfaction are interchangeable and can be substituted to some extent, and third, these needs are sometimes not recognized by the persons themselves. Based on his perception of needs, Baumeister presents four needs for meaning. The first need is for purpose, which is a fundamental motivation among not only humans but also animals, and is pursued by people but usually never reached during their lifetimes. It includes the extrinsic purposes of goals, such as things related to hobbies, and the purposes of intrinsic fulfillment, gained, for example, through human relationships. The second need is for value (justification), which is "people's motivation to feel that their actions are right and good and justifiable" (Baumeister, 1991, p. 36), and their desire to justify both past and present action. The third need is for efficacy, which is a sense of becoming strong and capable by achieving goals or realizing these goals. And the last need is for self-worth, which is the feeling of having positive value and being in some way superior to others, including both self-respect and some claim to the respect of others. Also, self-worth can have an individual or a collective basis.

#### The Conceptual Links Between *Ikigai* and Well-Being or Meaning in Life

Ryff's (1989a; 1989b; 1991) classifications about well-being seem to be such a sophisticated universal assessment that they are not only relevant for assessing American elders' well-being, but they are also applicable for assessing Japanese elders' well-being or *ikigai*. Ryff's concept of well-being is based on theories of personal growth, life-span development, and mental health. Ryff (1989b) states that the concept of personal growth is

derived from “Maslow’s (1968) conception of self-actualization, Rogers’ view of the fully functioning person, Jung’s (1933; Von Franz, 1964) formulation of individualism, and Allport’s (1961) conception of maturity”; that of life-span development is from “Erikson’s (1959) psychosocial stage model, Buhler’s basic life tendencies that work toward the fulfillment of life (Buhler, 1935; Buhler & Massarik, 1968), and Neugarten’s (1968; 1973) descriptions of personality change in adulthood and old age”; and the mental health concept is “Jahoda’s (1958) positive criteria of mental health” (p. 1070).

Works of these famous psychologists in Western culture have been introduced in several psychology textbooks in Japan. Some concepts, such as Maslow’s self-actualization, Erikson’s eight stage life-span development, and Rogers’ person-centered theory have been especially popular among educated people in fields other than psychology. For example, based on her successive studies on Erikson’s identity development, Okamoto (1997) presents a model for five types of identity in the old stage for the Japanese elders. In the interpretation of Erikson’s eighth stage (old age) of “ego integrity versus despair,” Niizato (1996) mentions that affection, work duties, and *ikigai* are the three most significant elements for generativity. Ueda (1990) interprets Maslow’s self-actualization in terms of *ikigai*. To have *ikigai*, one should be inspired by a purpose for living, and dedicate him/herself to achieve it: “*Ikigai* is acquired when one has already developed one’s self-identity, acts to fulfill desire and wishes, and these are perceived as valuable things for him/her” (Ueda, pp. 125-6; translation made by this author). Hoshino (1990) states that especially in the past, for some Japanese people, personality perfections, such as polishing one’s skills, training one’s physical strength, and disciplining one’s mind,



could lead to *ikigai*, and interprets these perfections in relation to Allport's concept of personality maturity.

Hence, it might be said that basic elements of Ryff's (1989a) recognition of psychological well-being are quite applicable to or have already existed among people in Japan. Actually, the well-being scale's elements of purpose in life and self-acceptance fit the concept of *ikigai*. Also, the rest of the four dimensions are somewhat similar to it. However, as will be discussed in the next chapter, the author considers that Ryff's integrative scale, with its six sub-categories of subjective well-being, is too broad for measuring the concept of *ikigai*.

The Japanese concept of *ikigai* generally overlaps with Baumeister's conceptualization of needs for meaning in life. However, the second need of value (justification) is not as important for *ikigai*. Compared to Western culture, people in Japan are not used to thinking so theoretically, nor do they justify right or wrong. In addition to this point, the fourth need for self-worth may not be obviously observed in the concept of *ikigai*. According to Reischauer (1977) on social orientation, Japanese society, being different from the individual-oriented U.S. society, is usually called group-oriented and culturally homogeneous. People, especially of the elder generations, are supposed to reach an accord with other people. Japanese people may not even notice their self-worth. On the contrary, in the United States, with its capitalist system and less rigid class society, people believe they have more individual freedom. However, at the same time, this also means people must take their responsibility for themselves seriously, including always thinking of their own self-worth, if they want to live successfully.

In summary, the Japanese concept of *ikigai* is a little different from the Western concept of well-being, which is a broader concept than *ikigai*, but part of the concept of *ikigai* is very similar to the concept of the four needs for meaning in life presented by Baumeister (1991). However, as for previous study on *ikigai*, there has not yet been a synthesized scale of *ikigai*. Hence, this author will offer one in this study.

#### Four Elements of *Ikigai*

Based on the previous discussions, the author presents the four elements of *ikigai* that comprise the whole concept of *ikigai*. The four individual elements of *ikigai* that this author considers most appropriate to explain the concept of *ikigai* are as follows: 1) self-esteem, which is the deepest (unconscious) level of *ikigai*; 2) purpose in life, which is the most important and fundamental element that drives people to act on their desires; 3) personal energy, based on the two previously-mentioned elements of *ikigai*; and 4) life satisfaction, which is the result of the first three elements. These elements were initially ordered for conceptual reasons. The order from the first element of self-esteem to the third of personal energy reflects the depth of a human's level of consciousness: first, the human's deepest and unconscious level of *ikigai*, "self"; second, the human's significant theme of "purpose" which is also the most important element of "*ikigai*"; and third, the observable and tangible level of *ikigai*, "interests." Since the fourth element of life satisfaction comes as a result of the above three elements, it is ordered last among the four. Although everyone has all four elements, most people show strong preferences for one. Next, these four elements comprising *ikigai* will be explained in detail separately, and

additional research about each element will be introduced in the next chapter, "Literature Review."

The first element is self-esteem, which is similar to concerns about "the self" in general, such as self-concept, self-consciousness, self-regard, self-dignity, self-worth, self-actualization, self-awareness, self-acceptance, ego-identity, locus of control, and so on. The first element in this study is labeled as "self-esteem" because Rosenberg's (1965) scale on self-esteem and its revisions are the most relevant among researchers throughout the world, including Japan, and because self-esteem represents the fundamental level of *ikigai*. For example, Kamiya (1980) observes that notwithstanding their difficulties or even the hopeless fatality in their lives, some leprosy patients showed strong *ikigai*. These patients who had strong *ikigai* could be helped, because they had a strong sense of self, which was the most important element of *ikigai* for them. On the other hand, this element in *ikigai* is such a deep psychological factor, and sometimes so unconscious among humans, that it may not even be perceived by some people. Like the related concept of self-esteem, Baumeister's idea of self-worth may not be appropriate for Japanese people, especially the elder generation, since they may not even be conscious of their self-worth. It could be that even though the element of self-esteem as a component of *ikigai* might exist among these people, they do not consciously perceive it. Thus, it is predicted that this element of *ikigai*, self-esteem, may be more difficult to measure in Japanese people on a scale than the other three elements. It is also difficult to conclude strongly that this element is part of the concept of *ikigai*. However, the self-esteem element is included in this study to accurately

read the results from the analysis, since this element about the self should not to be overlooked in evaluating the concept of *ikigai*.

The second element of purpose in life is the most central among the four elements. This element of purpose in life concerns humans' philosophical and existential concerns relating to *ikigai*, which include purpose/meaning in life and one's reasons for living. This element is the most important sub-concept for *ikigai*, because purpose/meaning in life relates most definitively to the English meaning of *ikigai*. This second element could also be called "meaning in life." However, since the Purpose in Life Test (Crumbaugh & Maholick, 1964) is widely used among researchers, as well as its items in the Japanese version, and will be the most referred to element of the *Ikigai* Scale, it is preferable to refer to the use of this element of *ikigai* as purpose in life. In Western countries, there is research on people's purpose in life that uses the Purpose in Life Test; however, it is seldom used in Japan for elder people because most of the subjects are college students.

The third element is personal energy, which means people's degree of concentration on their activities, observed through various occasions in people's lives where they are seeking *ikigai* through activity. This element is the most tangible source of *ikigai*. For example, conversations among people about *ikigai* can be heard. People ask: "What is your source of *ikigai*?" or "What is your *ikigai*?" These kinds of questions about the source of *ikigai* are so common that most of the surveys on *ikigai* are primarily for this element. These surveys ask about the tangible sources of *ikigai*, and this is easily answered by the subjects. In this study, this element in the *ikigai* scale measures people's

tangible source of *ikigai* in various situations in their lives as well as their degree of interests or activities.

The fourth element is life satisfaction, which is achieved only after the attainment of the previous three elements. The following are the explanations of peoples' categorizations of either high or low perceived life satisfaction: If people gained either one or two of these elements strongly, or all of the three elements relatively highly, then these people may view life as satisfactory. That is, if people have gained a high degree of the previous elements of *ikigai*, then they feel their lives to be successful and see their lives positively. Since these people with high *ikigai* are very energized, they will keep their *ikigai* continuously and may be further exploring another *ikigai* actively for the rest of their lives. However, if people do not have one or more of these elements, they may not consider their lives satisfactory. That is, they might consider their lives unsuccessful and negative and become depressed. Since people with little or no *ikigai* are less energized, they are unable or do not try to find any *ikigai* in their daily lives, and may be unable to find *ikigai* for the rest of their lives. Thus, the element of life satisfaction plays such a role in *ikigai* that it is not just a total of the previous three, but further promotes the finding of another *ikigai*. Research on examining this element of life satisfaction for *ikigai* among elders has been performed by many researchers (e.g., Okabe, Fukunishi, Nakagawa, Sasamori, Okabe, & Kratz, 1992; Yamamoto et al., 1989).

In short, the first and second elements represent psychological viewpoints, the third element is the most observable, and the fourth one is obtained from the results of the

previous three elements. Since these four elements comprise the whole concept of *ikigai*, the four elements of the *Ikigai* Scale will be created and tested in this study.

### Definition of Terms

In the following section, frequently used important terms in this study will be defined; however, it needs to be mentioned that some of these terms have too broad a meaning and too many interpretations to be fully defined in a few sentences.

*Ikigai*: For this study, *ikigai* is translated into English as “meaning in life.” The Japanese concept of *ikigai* is defined as humans’ feeling(s) or drive(s) toward something, such as affection, a hobby, or a belief. The feeling(s) could be one of the most precious things for them; however, it might happen that some people do not acknowledge or even have these feeling(s). In the process of pursuing the above-mentioned elements, people can get satisfaction. *Ikigai* consists of the following elements: self-esteem, purpose in life, personal energy, and life satisfaction.

Subjective well-being: “the self-perceived, global, affective experience of individuals as rated along a positive-negative continuum” (Okun, Stock, Haring, & Witter, 1984, p. 114).

Life satisfaction: “an outcome of an evaluative process, involving a comparison between current circumstances and personal standards or ideas” (Rapkin & Fischer, 1992, p. 138).

Meaning in life: A human being’s sense that his or her life is valuable and purposeful.

### Significance of the Study

There are very few English-language publications about the modern Japanese in the field of psychology and gerontology. However, this researcher is convinced that there are several Japanese-language research studies and much literature about *ikigai* which deserve to be introduced to foreign countries. Discussion of the concept of *ikigai* is one of these. The layperson can better understand the concept of *ikigai* through reading about the cultural backgrounds of Japanese elders, which is part of the following chapter. Diener, Suh, Lucas, and Smith (1999) suggest that since subjective well-being is such a global construct, it is not very clear, and hence it is necessary to conduct research about it in different societies to further understand its meaning. Research should always pay attention to people's cultural backgrounds. At the same time, studies need to consider not only differences between different cultures, but also their similarities. Such studies give people's thinking more sophistication. A theoretical foundation of *ikigai* and an integrated psychological scale have not yet been established. This study describes a model of a general concept of *ikigai* and the development of a scale to assess it. It is helpful in understanding the huge concept of *ikigai* to divide it into sub-categories, and to transform these categories into a developed scale assessing *ikigai*.

There are several ways in which this study may contribute to future research. First, this research on *ikigai* may help Japanese researchers' examination of the concept of *ikigai* in comparison to Western ideas of well-being and meaning in life. Second, the most expected contribution of this study is that the development of a new scale could help Japanese researchers create greater understanding of *ikigai* in Japanese society. Third, for

the future use of this study, the scale could be tested and validated for another purpose; for example, even a non-Japanese researcher might conduct cross-cultural research about *ikigai* and well-being, developmental research on *ikigai* throughout human life stages, or correlation research on *ikigai* with some variables such as degree of learning participation. Also, the four-step process of developing the *Ikigai* Scale could serve as a reference for other young researchers who intend to create a new scale. Ultimately, this author expects this study on *ikigai* to contribute to the promotion of elders' quality of life. These are the main reasons for conducting this research.

### **Limitations**

The first limitation of this study regards sampling of subjects and generalizability of the study results. Since the sample number is limited in this study, it would be more accurate if the number of subjects were increased. In this study, a total number of 63 participants for the pilot study and 273 participants for the main study were sampled for analysis. In the main study, the participants were composed of two different homogeneous groups: retired principals and residents in a public home for the aged in Tokyo. The former group is generally considered highly successful (teachers in general are still highly respected in Japan), whereas the latter are considered moderately to less than successful, and are sometimes less cared for by their families. Thus, the results from this research do not represent features of elders' *ikigai* in the whole country, but apply only to these two groups of elders.



The second limitation is the nature of the quantitative research, where people's deep level of psychological nuance may be missing, or people's exceptional and unique reaction may be ignored. This author hopes that after grasping the general features of elders' *ikigai* from this kind of quantitative research, some researcher in the future will conduct a qualitative study, such as using the interview method (by visiting homes) or the field work method (in a home facility) so as to compare the results with this author's quantitative research.

The third limitation relates to the development of Part II, the *Ikigai* Scale. Since this scale was created under the mentioned limitations of this study, and was used by only the author, the scale may not so accurately measure the concept of *ikigai* among Japanese elders. It will be necessary for other researchers to apply and validate this scale on other samples and at other occasions in order to further refine this scale.

### **Outline of the Study**

This dissertation consists of five chapters. After this chapter, "Introduction," the "Literature Review" chapter follows. In the first half of that chapter, literature from both Japan and the U.S. will be introduced, so as to present the characteristics of the elderly in the two nations in relation to *ikigai* and well-being. In the latter half of the chapter, the conceptualization of Japanese *ikigai* will be discussed and compared to the Western notion of well-being. The third chapter, "Method," will explain the procedures of developing the four-element *Ikigai* Scale by using a sample group of retired principals in the pilot study and two sample groups of retired principals and residents in a home for the aged in the main

study. The fourth chapter, "Results," will report the results of both studies, mainly focusing on reliability and validity of the scale. The final chapter, "Conclusions and Discussion," will interpret these results through comparison of the two groups. After the examination of the scale, it will be concluded whether this author's conceptualization of *ikigai* is appropriate, and some suggestions for improving the scale and for further examination by other researchers will be offered.

## CHAPTER II

### LITERATURE REVIEW

This chapter will discuss previous studies to provide support for developing the concept of *ikigai* and the scale for assessing it among Japanese elders. The chapter is organized into two sections: "Japanese Elders and *Ikigai*" and "Literature Related to the Elements of *Ikigai*." The first section includes subsections on "Characteristics of Elders in Japan" and "*Ikigai* Among Elders"; the second includes subsections on "General Concept of Well-being" and "Four Elements of the *Ikigai* Scale."

In the first subsection of the first section, characteristics of the culture and social background of elders in Japan and elders in the U.S. are briefly introduced. The section then describes some literature about the two samples in this study: retired principals and institutionalized elders. Finally, some studies of nursing care for the elderly and of retirement in both Japan and the U.S. are introduced. The second subsection explains *ikigai* among the elderly and presents some research about *ikigai* in order to help explain the conceptualization of the four elements composing the *Ikigai* Scale.

In the second section, literature about well-being is introduced to illustrate the general concept of well-being, including purpose in life and relationship to *ikigai*. Finally, literature about each of the four elements is introduced to examine the development of the *Ikigai* Scale.

## **Japanese Elders and *Ikigai***

### **Characteristics of Elders in Japan**

It is important to consider cultural aspects influencing the target research topics before conducting a research study. In this section, the literature on cultural aspects of elders in Japan will be compared to the literature on elders in the United States, in order to help non-Japanese readers understand the context for this investigation. In some cross-cultural studies, the U.S. and Japan are sometimes compared with each other because of their different cultural orientations. For example, according to Harpaz and Fu's (1997) research on work centrality, there are some cultural differences between the two nations: 1) in terms of social orientation, the United States is an individualistic country, whereas Japan is a group-oriented country; 2) whereas Japan is a male-oriented society, the U.S. maintains a masculine and feminine orientation; 3) regarding perceptions of human nature, "American cultures see it as a mixture of good and evil, whereas the Japanese culture believes it to be basically good" (p. 174); and finally, 4) in its attitude toward nature, the U.S. is characterized as dominating nature; by contrast, Japan is seen as existing in harmony with nature.

In both in the United States and Japan, it appears that elders are not always respected. In the U.S., younger people's positive attitude toward elders tends to decrease with the elders' age (Sanders, Montgomery, Pittman, Jr., & Balkwell, 1984). There are many studies in Japan which report a similar negative attitude toward elders (e.g., Koyano, Kodama, Ando, & Asakawa, 1997). It is true that in Japan people celebrate when elders become the age of 88 ("*Beijyu*") and elders in general have played important roles in their

families and society, especially in the past and in rural areas. In addition, the Japanese educational curriculum may contribute to people's respect for elders. Since every curriculum is under the supervision of the Ministry of Education, Science, Sports, and Culture of Japan, the value of respecting elderly people is promoted in every compulsory educational system throughout the nation (Nakamura, 1994).

Although elders have historically been treated with respect because of the culture of Confucian practice among Japanese people, elders have been sometimes treated as "being in the way" (Tomita, 1994). There are negative as well as positive misconceptions about old age (Koyano, Inoue, & Shibata, 1987). As an example, Shinmura (1991) introduces an old story about *Obasute*, casting away the elders, shown in *Yamato Monogatary-shu*, which was published around the middle of the 10th century. In this story, a man went to the mountain to cast out his elder mother because of the impurity of death and because of being forced by his wife to do so; however, when he saw the mountain he felt regret and decided to bring her back. Shinmura comments that since the story is only a legend, no one can prove whether this custom existed at that time. However, this casting out custom might have seen in some of the ancient times in Japan.

These negative points of view toward elders are reflected in Henrich's (1987) book review of two famous Japanese novels: Sawako Ariyoshi's *The Twilight Years* (Ariyoshi, 1972/1984) and Yasushi Inoue's *Chronicle of My Mother*, which collects three of his autobiographical novels (Inoue, 1964, 1969, & 1974 /1982). In both of these novels, Henrich interprets people, especially women, who care for their elderly parents as ending up exhausted and seeing the parents as a burden for their family. Also, Donow (1990)

compares a U.S. play and Japanese novel about elders' care: One is Robert Anderson's *I Never Sang for My Father* (Anderson, 1980) and the other is the aforementioned *The Twilight Years*. Donow finds a general similarity in people's dilemma about taking care of their old parents in both countries, but Japanese women are more burdened by elders' care.

This burden seems to come from the style of family. Most Japanese elders prefer to live with their families. Based on the national demographic data in 1989, "62 percent of 'very elderly' (those aged 75 or over) men and 77 percent of very elderly women live with their families in Japan, compared to 9 and 22 percent in the United States, respectively" (Yashiro, 1997, p. 90). Likewise, Okuyama (1990), reporting the results of Koseisho (1986), points out that in the United States, 84 percent of elder parents were living by themselves (not with their adult-children), whereas in Japan, 70 percent of the elder parents were living with one of their adult children in the early 1980's. However, the percentage of families in which two adult generations live together in Japan has been decreasing year by year, and elders have become estranged from their family (adult-children's) support. Okabe, Fukunishi, Nakagawa, Sasamori, Okabe, and Kratz (1992) conducted interview surveys on elders' lives and *ikigai* among Japanese city dwellers, rural dwellers, and *Nikkei*, Japanese-Americans. They found that most of the Japanese elders are living with their adult children, whereas *Nikkei* elders, like the general American public, live separately from their adult children but help each other in their communities, participating in some voluntary activities. Two generations living together in Japan is from the old custom of family: The eldest brother should take care of his parents; in return, he inherits the

parents' house and properties. In addition, Nakazato, Shimonaka, Kawaai, and Sato (1996) point out that Japanese people see dependency in human relationships as not negative, but positive, while people in Western societies consider it as negative. It could be thought that in Japan two generations living together is taken as natural and as something that gives psychological comfort to both generations.

Sometimes when two generations live together, a consequence is that some Japanese women have trouble taking care of their parents in the family, especially their mothers-in-law. Harris and Long (1993) point out that Japanese women are expected to take care of mothers-in law despite their increased participation in the paid labor force. Even though more nuclear families have appeared in modern Japan, it is expected that wives more or less take care of their parents and their husbands' parents, which can involve going to and from the parents' homes when they need care or visiting the nursing facilities frequently to inquire about their parents' health.

In addition to people's partly negative perception toward elders, elders themselves tend to have some negative self-images. This is often seen in elders' younger identification, because by seeing themselves as younger, they can avoid the socially stereotyped negative perception toward elders (Sato, Simonaka, Nakazato, & Kawai, 1997). Shimonaka's (1980) study on self-image in adolescents and elders reports that elders tend to accept their lives calmly, see their future negatively, and be satisfied with their lives in their families. According to Shimonaka and Murase's (1976) research on self-image among Japanese elders, male elders had more positive images than negative images of their present self and showed no decline with age; on the other hand, female elders had a less positive

image with increased age.

Koyano (1989) points out that there exist simultaneously both positive and negative attitudes among people, that come from people's ambivalence between *Tatemae* (normative meaning: what one should do) and *Honne* (actual feeling), two attitudes that are discussed in detail by Doi (1971/1973). These Janus-faced images of attitudes toward elders may relate to people's values about elders in ancient times. Imazeki (1998) explains in several *waka*-poems how elders were dealt with in the old time of the Heian and Kamakura eras. At this time, attitudes toward elders were very different between the nobility and the common people: That is, the peerage disliked the elders (or becoming old) because they accepted death as a natural phenomenon and did not accept those who clung to life with the status of being old. On the other hand, the common people respected elders because they thought highly of elders' wisdom about natural disasters and the harvest.

Characteristics of the two samples in this study. In this sub-section, the characteristics of both samples in this dissertation study will be explained. For this study, participants were selected from two groups: retired public school principals and residents in a home for the aged. Members of the former group can generally be considered to be successful people. Although this may not apply as much to recent Japanese society, teachers in general have been highly respected in Japanese society. For example, people add to a teacher's family name "*Sensei*," which means "teacher," a phrase only added for some professional people, such as professors, medical doctors, clinical psychologists, *zen* masters, and so on. (This custom is very similar to Westerner's putting "Dr." in front of



people's family names, even though these professionals in Japan have no doctoral degrees.) Thus, because of this difference from the United States, it can be easily imagined that teachers in Japan, especially principals, are highly respected among society.

On the other hand, in general, Japanese elders in home facilities seem to be socially recognized as unsuccessful, except for those in some private (nursing) homes for the wealthy elderly. This is especially true when comparing elders in home facilities to elders who are retired principals. Lack of esteem for home elders may derive from the insufficiency of home facilities and the Japanese custom of family. Brown (1988) points out that many older facilities in Japan face problems of over-crowding and that nursing home care is primarily for those elderly who are poor. Japanese elderly home facilities, especially private nursing homes, do not always provide good service to the residents, mainly because of the lack of staff. A detailed explanation of the classification of the nursing home is explained in Chapter III.

Miyauchi (1995), the owner of several private facilities for the elderly in Japan, points out that there are some merits of life in the care facilities for the elderly, and points out recent changes in people's negative attitude toward these kinds of facilities. However, Miyauchi also mentions that negative images of those facilities still remain among some people. For example, from his experience about half of the chief mourners in a funeral appear to hide the fact that their parents (or kindred) were living in home facilities instead of living with them, because they are afraid of criticism from attendants that they were unfilial children to their parents. These scruples on the part of the chief mourners may come from the custom of *Ie Seido* (house system), the common Japanese custom before the

War, where birthright is supposed to be given to the first-born child, who in return should be duty-bound to take care of his parents (Okuyama, 1990). The negative images about care facilities for the aged seem gradually to be changing among the younger generation; however, several reports in the media of ill-treatment of elders in the *Kikakuen* home for the elderly, (e.g., "Rojinhoomu," 1999) and diminishing care service because of the budgetary problems (e.g., "Keieinan," 1999), may have contributed to people maintaining the negative image. On the contrary, in the United States, people's attitude toward residential facilities for the elderly seems neutral or at least not as negative as in Japan. Schmidt (1990) states that in the U.S. some people may be concerned about living in these facilities because of the care in them, and some people may not like these facilities because of the group living with certain diminished opportunities for privacy and few opportunities for interacting with other generations. However, from Schmidt's explanations, U.S. people's negative image toward facilities for the aged seems to be not as pronounced as it is in Japan.

Concerning the income of the two groups of elders, both receive regular national mandatory pensions to meet their minimum basic needs for living. However, it is expected in this study that in general, the retired principals receive higher stipends than the aged home residents. Krause, Jay, and Liang (1991) conducted a national survey on financial strain and well-being between U.S. and Japanese elders, and found that financial strain negatively influences personal control and self-esteem in both nations. Although people's average salaries were thought to be similar in the U.S. and Japan, Barro and Lee (1986) reported that "Japanese teachers' salaries are substantially higher relative to national indicators of per capita economic activity than are teachers' salaries in the United States"

(p. 6). In addition, Japanese society has an age seniority wage system as well as a payment upon retirement and a retirement pension system. Teachers and principals have received ever-increasing salaries. On the other hand, except for some wealthy private homes for the aged, most of the residents in the public or socially-funded homes are not so rich. It can be considered that even though they are not supposed to have any economic concerns at the end of their lives, they are not given enough spending money for their leisure activities. Thus, it is possible to conclude that retired principals seem to have fewer economic problems than aged home residents.

Nursing care for elders. Holden, McBride, and Perozek (1997) examined the expectations of nursing home use in the U.S. in relation to personal characteristics and health conditions. Holden et al. found that the use of the nursing home is determined by health conditions for men, while for women it is more influenced by their family histories of placing elderly family members in nursing homes, family structures, and educational levels. Cross-cultural demographical studies on nursing home care, including the U.S. and Japan, are reported on by Ribbe et al. (1997), and rates of admission are reported on by Frijters, Mor, Dupaquier, Berg, Carpenter, and Ribbe (1997).

Shimonaka and Murase (1975) conducted research on elderly Japanese women's self-perceptions, by comparing two groups of elderly women: elders living in their homes and elders being institutionalized. Shimonaka and Murase found that the elders living in their homes had positive self-images and active interests toward their future lives, with no difference between the younger and elder group, whereas the institutionalized elders had negative perceptions toward their lives, and these negative perceptions increased with age.

Yokoyama (1989) examined the relationship between subjective well-being and activity level, using her multiple well-being scale and attitude scale, among elders from nursing homes and open-college participants. Yokoyama found that although neither the distribution of the subjects nor a significant correlation between subjective well-being and activity level can be seen among the subjects as a whole, there are some relationships between subjective well-being and low level of activity within the passive attitude group. Also, positive attitudes were found to be more common among the open-college participants than the nursing home residents.

Meaning of retirement among elders. In the following subsection, literature about retirement in both nations will be introduced that is also related to the Part I questionnaire, Current Status, in this study. Erik H. Erikson's eight-stage developmental theory has been discussed by many researchers in Japan. From Erikson's view, the "eighth stage" is characterized by a theme of reintegration (Erikson, 1959). Based on Erikson's developmental stage theory, Antonovsky and Sagy (1990) discuss four developmental tasks among elders, which include active involvement, reevaluation of life satisfaction, reevaluation of a world view, and sense of health maintenance. Most people, especially men, encounter their retirement around 60 to 65 years old. Even some women who have not worked may share the retirement experience with their husbands, and feel a psychological retirement, such as after their children achieve independence. Thus, the meaning of retirement is a very important theme for both elderly men and women. Gall, Evans, and Howard (1997) introduce several studies on both the positive and negative impacts on retirement. Gall et al. conducted a longitudinal study on the adjustment

process of retirement and found that within one year postretirement, retirees show increases in psychological health, energy level, financial and interpersonal satisfaction, and internal locus of control; whereas after six to seven years, they show decreases in psychological health and internal personal satisfaction. Floyd et al. (1992) developed the Retirement Satisfaction Inventory with elder retirees and found the inventory was valid and reliable. The inventory has six subscales: preretirement work functioning, adjustment and change, reasons for retirement, satisfaction with life in retirement, current source of enjoyment, and leisure and physical activities.

Kaneko (1984) compares characteristics of the U.S. and Japanese people's retirement. He states that most married American elders seem to adapt to their lives after retirement and even to enjoy having a "second honeymoon," whereas some Japanese elders may feel their lives are vacant, because of their sudden loss of a job and missing their children, who leave the family around that time. In Deeken's cross-cultural insights about German and Japanese elders, published both in English (1972) and Japanese (1997), Deeken agrees that since Japanese people are very proud and find meaning in life (*ikigai*) through their work in the world, some of them suddenly lose purpose and meaning in their lives after their retirement. As a matter of fact, "[m]any people at this stage develop neuroses and various psychological imbalances due to the seeming emptiness and aimlessness of old age" (Deeken, 1972, p. 69). Carter and Cook (1995) see retirement as a transition period of role change and redefinition in life and suggest the necessity of retirement planning before one leaves the workplace. However, realistically, especially for Japanese men, who are sometimes criticized for being workaholics, it is very difficult to

prepare such plans. Instead, they suddenly find themselves in retirement without having had a chance to prepare any plan beforehand. In Toda, Nakamura, Fujinaga, Miyamoto, and Higashi's (1995) panel discussion on motivation, Toda wondered why Japanese people tend to pay so much attention to *ikigai* after their retirement and examined the reason. Toda mentions that since these people have been used to living in a group-oriented society with the mind of "company-first-priority," people suddenly need to focus on the topic of *ikigai* to avoid the vacant feelings after their retirement. Toda's interpretation of the vacant feeling after men's retirement can be similar to the so-called "empty nest syndrome," the depression and identity crisis, especially among middle-aged women, that result from losing the role of parenting their children because of the children's independence and moving (Barber, 1989; Borland, 1982).

In this sub-section, the cultural aspects of Japanese elders compared to U.S. elders were introduced, so as to make the bird's-eye-view of these characteristics understood by non-Japanese people. Based on this introduction, the next sub-section will discuss the relationships between these characteristics and *ikigai*, so as to narrow down the topic of *ikigai*.

### *Ikigai Among Japanese Elders*

Since late 1998, the book *Rojin-ryoku* (Elders' Power), written by a 61-year-old writer (Akasegawa, 1998), has been one of the best sellers in Japan. This book advocates the significance of the role of the elderly in Japanese society and explains the greater chances that creativity is due to the slowness of elderly life.

In *Yomigaeru*, a life magazine for the later adulthood and elder years, Kawai (1999) presents a special topic dealing with finding *ikigai* after retirement, and some successful cases (people who found *ikigai*) are introduced. For example, Kawai (1999, p. 14) introduces Minami Hiramatsu's case: Hiramatsu quit his job as a successful editor in a publishing company before his retirement and found *ikigai* by concentrating on volunteer work, such as guiding handicapped people on a natural observation tour.

However, it is thought that some Japanese elders are spending their lives less successfully, by leading their lives with less *ikigai*. Shimonaka (1995) mentions the high ratio of suicide among elders in Japan. Also, Yoshizawa (1995) points out the critical factor of the relationship between a man's wife and mother in the same house, due to the tug-of-war that results between them about getting the man's affection, and there being "two house wives existing in one house" (p. 99) (translation by this author). In addition, Imuta, Yasumura, Fujita, Arai, and Fukao (1998) state that many elders who live with their families in Japan are home-bound and bedridden. These negative aspects of elders' lives having less *ikigai* are extreme ones.

Some male elders with less *ikigai* are treated as nuisances by their families, which is one of the negative national characteristics for the elderly. An extreme case can be described as follows: Most of the men have dedicated their lives to their companies during a period of high economic growth and paid less attention to family matters. However, especially after their retirement, where they suddenly come to have a "huge" amount of free time, some of the male elders may lose their identities because of their loss of social status and cannot find a place in their family because of psychologically "distant"

relationships with their family members over many years (Oikawa & Mochizuki, 1980).

These people are sometimes treated as “nuisances” by their families: As a matter of fact, these retired men (along with middle-age men) are often called *sodai gomi*, large-size refuse, even though this phrase has become less common. This author interprets that these social phenomena may be related to the recent trend of books published in search of *ikigai* among elders: Since these elders can find no *ikigai* in their lives, they thirst for books or anything that brings them a chance to promote *ikigai*.

Seeking *ikigai* is a more important topic among male elders in Japan than female elders, because male elders are more exposed to more psychological crises upon retirement than women. Shimonaka (1995) reports that in Japan, elders’ suicide rate was the second highest among the nations in the early 1990’s, and the elders’ ratio is higher than that of any other age group. Shimonaka explains that the most frequent reason for committing suicide (about 70 %) is sickness; the second one is family trouble; and the third is alcoholism or mental illness. Osada (1993) interprets that loneliness is the main cause of the high rate of the elders’ suicide, which may come from their losing the meaning of life and loss of desire for the future. This suicide rate is higher among men than women. Koseisho Daijin-kanbo Tokeijoho-bu (1999) reports that the suicide rate was the highest in statistic history in 1998: The ratio showed more men died than women, and the critical age peaks were the 40’s and 60’s for men. Ookuma (1995) compares middle-aged and elderly men and women’s fragility in encountering a spouse’s sudden death and points out that men are more fragile than women: since men are not accustomed to doing house duties, they feel at a loss after their wives’ death. Whereas women have human relationships or private



networks among their neighbors, men tend to have those officially in their company.

Hence, it is difficult for men to get neighbors' assistance when their wives die.

On the contrary, since women have been dealing with both housework and some job (part- or full-time) experience before and during their old age, retirement may be not such a big event for them, compared to that for men. In addition, many women have many relationships, such as in PTA and community activities, and even though some of them have the "empty nest syndrome," they can be supported by those relationships (Nakazato, Shimonaka, Kawaai, & Sato, 1996). Thus, it is thought that Japanese elderly women tend to be psychologically healthier than men. This is why finding of *ikigai* is an especially big issue for elderly men.

If Japanese elders were filled with *ikigai* by participating actively in society, people's negative perception toward elders might be changed. While people's negative attitudes toward elders were mentioned in the previous section, "Characteristics of Elders in Japan," there are other reasons for the negative attitude toward elders. Japanese elders tend to confine themselves in their own homes. Since those elders have been bound and limited to their homes for a long time, their physical mobility and mental health have been lessened; they end up lying in their beds until they die (Imuta, Yasumura, Fujita, Arai, & Fukao, 1998). Takahashi (1995) mentions that compared with Western elder people, Japanese elders tend to have fewer hobbies or fewer friends, especially friends of the opposite sex. Takahashi points out that Japanese elders tend to shut themselves in their house with few relationships with other people, are excluded from the society, and end up losing their *ikigai*. In addition, elders tend to interact with people mostly in the same

generation such as those in senior citizens' clubs in the communities. A typical example is elders playing gate ball in the park. Elders' self-isolation may come from the socially covert exclusion of elder people. It could be also thought that elders themselves have neglected to interact with the society. It is necessary that elders make the society understand their social status and take more active roles in the society. Minagawa (1988) points out that in Japan, there is no political pressure association of senior citizens, such as the U.S. "Gray Panthers." Minakawa suggests that an organization such as the National Federation of Senior Citizens Clubs, the largest elders' organization in Japan, should play a political role by exerting its influence in the society and promoting elders' enriched experience as useful to communities. To be active in the society, this author suggests that it should be an important precondition that the elders themselves lead an active life. That is, pursuing of the elders' *ikigai* is a significant theme for elders' active lives, and this pursuit will make a great contribution to changing people's negative images toward elders and elders' perceptions of themselves.

Research related to *ikigai*. In the following, some research related to *ikigai* is explained. Seeking *ikigai* is so important for people that it is utilized in psychotherapy. Jiro Itami, a surgeon, noticed the significance of cancer patients' pursuit of *ikigai* from his medical experience, and created "*ikigai* therapy" for them (Itami, 1990). This therapy is influenced by the "Morita therapy," developed by Masatake Morita (1874-1938), whose therapy is intended mainly for anxiety neurosis and whose philosophy comes from Zen practice (Doi, 1962; Bankart, 1997; Morita, 1998/1928). This cognitive behavioral therapy is designed to promote patients' accomplishment of their goals and self-esteem by

providing challenging activities for them. Itami explains that the assumptions of *ikigai* therapy include that each person's *ikigai* can be acquired by cognitive training. The theory of the therapy is made up of the following five fundamental purposes (Itami, 1990, p. 196; translated by this author):

Fighting against cancer, as if the patient has become his/her physician in charge.

Living enthusiastically so as to achieve one's own daily purposes.

Doing something for others' sake.

Practicing the skills for coping with anxiety and fears.

Accepting death as a natural fact, and preparing for it constructively.

As an example of *ikigai* therapy for cancer patients, the newspaper article "Jyunenmae" (1997) introduces Jiro Itami's application of *ikigai* therapy: In this trial, some cancer patients, their families, and medical doctors attempted to climb Mont Blanc in Switzerland as a form of therapy. From this activity, the participants obtained their goals and found their direction for living, which made the therapy successful.

I. Arai (1993) conducted a global social survey on Japanese retired elders, in which the following three research results were reported: In Hamana's (1993) chapter, he explains that the elderly, when asked about their *ikigai*, consider, in order of importance, their work, family lives, healthy lives without illness, hobbies and learning, friendships, tranquil lives, religious activities, and volunteer activities. Hamana also found positive relations between *ikigai* and life satisfaction. S. Arai (1993) found that the higher after-retirement job positions they have, the more retired people feel *ikigai*, and the higher both *ikigai* and life satisfaction are, the more retired people had experienced social activities

in the past, in their school days. Finally, Higuchi (1993) examined the relationships between *ikigai* and locus of control, as conceptualized by Rotter (1966). Higuchi analysed the 18 items of the standardized Japanese version of the Locus of Control Scale (Kamahara, Higuchi, & Shimizu, 1982), and found positive relationships between high *ikigai* and internal locus of control.

Nakanishi (1990) conducted a survey about middle aged and elder people's living, and found that among men, the first source of *ikigai* is working, second is rearing their children and grandchildren, and third is spending time with families. Takahagi and Natori (1993) administered the survey on *ikigai* to elders living in Osaka city, one of the biggest cities in Japan, and found although more than 80 % of elders feel *ikigai* in their lives, aging elders tend not to feel *ikigai*, and elders' source of *ikigai* is first, family, second, interests and hobbies, and third, none.

There have been some studies in Japan in which Lawton's (1975) Philadelphia Geriatric Center (PGC) Morale Scale was used for evaluating elders' subjective well-being (e.g., Maeda, Noguchi, Tamano, Nakatani, Sakata, & Liang, 1989; Koyano, 1981). Liang, Bennett, Akiyama, and Maeda (1992) compared the PGC Morale Scale for measuring both American and Japanese elders' well-being, and found a general similarity in the factorial structure of the scale between the two groups. However, the problem is that other researchers use the PGC Moral Scale as the only instrument for evaluating elders' "*ikigai*" (e.g., Sugiyama et al., 1981a; Sugiyama et al., 1981b). The author of this study might say that little discussion has been conducted about the Japanese concept of *ikigai* or about the reason why the researchers use the PGC Morale Scale to evaluate elders' *ikigai*. As was

pointed out in the previous chapter, some researchers just translate *ikigai* as “life satisfaction.” And then they use the PGC Morale Scale for elders (e.g., Sugiyama et al., 1981a; 1981b). This process of application of the PGC Morale Scale in Japanese society without sufficient discussion of *ikigai* itself seems to be a fundamental problem. Thus, this author might say that since the initial studies did not discuss in enough detail the application of the PGC Morale Scale for evaluating the concept of *ikigai*, and since most of the items are to evaluate people’s health and life satisfaction, it could happen that the measured results by using the PGC Morale Scale mainly represent these elements and do not sufficiently predict other elements of *ikigai*.

There exists one scale in Japan that is called the “*Ikigai* Scale.” From the psychiatric viewpoint, Yoshida (1994) developed eight items of this “*Ikigai* Scale,” called the “Positive Purpose and Social Support Scale” in English, for 426 high school students. This scale was validated with the 20 items of the Japanese version of the Self-Rating Depression Scale (SDS) (Tsutsui, 1979), originally developed by Zung (1965), which showed moderate correlation with the SDS ( $- .49$  for men, and  $- .55$  for women). It also showed relatively high reliability ( $\alpha = .76$  for men, and  $.71$  for women). Yoshida’s scale is so concise that it is easy to conduct; however, the author of this dissertation feels that Yoshida’s scale does not seem to measure appropriately the concept of *ikigai*. The author of this dissertation agrees with the English title, “Social Support Scale,” but has difficulty agreeing with the Japanese name of “*Ikigai* Scale,” because the scale does not have enough items to evaluate the large concept of *ikigai*, and because it mostly evaluates human support (in three of the ten total items). In addition to these problems with the scale, it seems that

high school students are not mature enough to be answering questions about *ikigai* to begin with. *Ikigai* is most commonly associated with middle aged and elderly people. Thus, the author questions the appropriateness of Yoshida's framework for understanding *ikigai*.

### **Literature Related to the Elements of *Ikigai***

Since the Japanese concept of *ikigai* is considered as a large part of the general "umbrella" concept of well-being, it is profitable to begin by examining literature about well-being. The first part of this section will examine of the literature on each element of well-being and its measurements. This examination will help to explain *ikigai*. Based on this discussion, the second part of the section will examine the literature on each of the four elements in *ikigai*.

#### **General Concept of Well-Being**

The theme of general well-being has been presented by many researchers. However, George (1981) criticized the conceptual ambiguities, methodological problems, and the non-integration of measuring subjective well-being. Also, George discussed the conceptualization of both positive and negative components of subjective well-being.

In order to assess these elements of well-being, George introduced five elements of a test battery of subjective well-being, which he proposed as the alternative to creating a global measurement of subjective well-being. George collected already-standardized measurements and examined them for three kinds of reliability, such as split-half, and four kinds of validity, such as convergent. George first introduced Crandall and Dohrenwend's (1967) presentation of four measurements of specific domains of well-being. The first

measure is the Life Satisfaction Index A (Neugarten, Havighurst, & Tobin, 1961, the original scale is shown on p. 141), which is later reported as a one-factor structure by Adams (1969) and two by Bigot (1974). The second measure is the revised version of the Philadelphia Geriatric Center (PGC) Morale Scale (Lawton, 1975), a 22-item original scale measuring “agitation,” “attitude toward one’s own aging,” and “lonely dissatisfaction” (Lawton, 1975). The third is the Twenty-Two Item Screening Score (Langner, 1962), which screens the people who show a rough indication of psychiatric symptoms, and the fourth is the Affect Balance Scale (Bradburn, 1969), which is an instrument that measures the recent experience of positive affect and negative affect. In addition to introducing these four classifications by Crandall and Dohrenwend, George adds three other standardized measurements for explaining the total concept of subjective well-being: the Cantrill Self-Anchoring Ladder (Andrews & Withey, 1976; Cantril, 1965), which assesses the level of personal satisfaction; the Seven-Point Satisfaction Rating (Campbell, Converse, & Rodgers, 1976), which is a brief and straightforward assessment of satisfaction; and the single-item Delighted-Terrible Rating (Andrews & Withey, 1976), which measures global well-being.

The PGC Morale Scale has been widely used throughout the world to measure elders’ well-being. Stock, Okun, and Benito (1994) translated this scale, along with the Life Satisfaction Index and the Affect Balance Scale, into Castilian Spanish and Catalan, and standardized it for 151 elders from Barcelona, Spain. After an examination of validity, they found that all the three translated scales are consistent with the previously-reported measurements in English. Also, they found that translated versions of the Life Satisfaction

Index and the Affect Balance Scale turned out to be reliable; however, the PGC Morale Scale was not so reliable.

Other scales about subjective well-being, including some original scale items, are reviewed by Andrews and Robinson (1991). Andrews and Robinson (1991) point out that the concept of subjective well-being overlaps with the following and may be synonymous, but they are not necessarily the same: "satisfaction, happiness, morale, positive affect, negative affect, affect balance, cognitive evaluations, elation, subjective well-being, sense of well-being, psychological well-being, perceived well-being, subjective welfare, (subjective/sense of/psychological/perceived) ill-being, anxiety, depression, distress, tension, and perceived life quality" (p. 61). Andrews and Robinson mention that subjective well-being can be conceptualized in at least three ways: mental health, quality of life, and social welfare. Okun and Stock (1987) believe that subjective well-being consists of several subordinate constructs, including happiness, life satisfaction, and morale. Further, Okun and Stock state that "[h]appiness is present oriented, life satisfaction is past oriented, and morale is future oriented" (pp. 490-491). Stock, Okun, and Benin (1986) examined the structures of three models of subjective well-being. Models 1 and 2 are based on Liang's (1984) presentation of two models that describe subjective well-being as consisting of mood tone, zest, and congruence. On the other hand, Model 3 consists of the three components of positive affect, negative affect, and cognition, originally modified from Andrews and McKennell's (1980) study. Stock et al. concluded that generally all three models statistically fit, and that both Models 1 and 2 showed substantial positive



correlations among the factors, whereas Model 3 showed moderate correlations among the factors.

From Diener, Suh, and Oishi's (1997) point of view, "[s]ubjective well-being is only one aspect of psychological well-being" (p. 26), and is based on "people's own views of their lives" (p. 26). Diener et al. agree that subjective well-being consists of three primary components. The first is satisfaction, which can be further broken down into "various domains of life such as recreation, love, marriage, friendship and so forth" (p. 27). The second component is the pleasant affect, which can be divided into "specific emotions such as joy, affection, and pride" (p. 27). Finally, the unpleasant affect is "separated into specific emotions and moods such as shame, guilt, sadness, anger, and anxiety" (p. 27). Based on Diener et al.'s (1997) perception, and on several previous studies, especially Wilson's (1967), Diener, Suh, Lucas, and Smith (1999) evaluated three decades of research about subjective well-being. As one approach, Diener et al. (1999) introduce Wilson's viewpoint on happiness, which is characterized as identifying external, situational, or "bottom-up" factors which affect happiness. From Wilson's viewpoint, happy people are "young, healthy, well-educated, well-paid, religious, married persons, with high job morale, of either sex, and of any level of intelligence" (Diener et al., 1999, p. 286). The other approach is identifying the comparative factors that influence well-being, which Diener et al. called "the top-down process within the individual" (p. 278): This approach emphasizes the "need to understand the complex interplay of culture, personality, cognitions, goals and resources, and the objective environment" (p. 295). They concluded that the former approach ("bottom-up") is limited and has been shifted to the latter

("top-down") by the researchers, because the former one evaluates a small part of the variance in subjective well-being.

Ryff's (1989a; 1989b; 1991) and Ryff and Essex's (1991; 1992) presentations of six elements of well-being contribute much to conceptualizing and evaluating the idea of well-being. Ryff (1989b) developed an integrative measurement of six structured self-report scales, composed of the following dimensions: self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth. In each of the six dimensions of the scale, there is a 20-item measure that includes equal numbers of positive and negative phrases. This scale was developed based on ideas some theorists, such as Erik H. Erikson, Gordon W. Allport, Abraham, H. Maslow, and Carl R. Rogers. Each of the six dimensions of the scale is presented by contrasting high and low features in each element (Table 1). Although there are only a few studies available, they are very concise conceptualizations of the concept of well-being. However, Ryff's discussion of the six dimensions of well-being is more systematic, thorough, and well-organized. Also, her conceptualization of well-being is persuasive because of the examination of the scale not only from her own studies (Ryff, 1989b, 1991; Ryff & Essex, 1991, 1992), but also those of other researchers. Ryff and Keyes (1995) conducted approximately 30-minute telephone interviews with 1,108 US adults, and compared three generation groups: young ( $n = 133$ ), middle ( $n = 805$ ), and older adults ( $n = 160$ ). The purpose of the research was to ensure the theoretical appropriateness of the multidimensional model of psychological well-being, and in Ryff's (1989b) aforementioned scale, only three items from the 20 in each of the six dimensions were chosen for the

Table 1

Definition of Psychological Well-Being by Ryff (1991, p. 288, Table 1)

| Dimension             | Score | Definition                                                                                                                                                                                                                                                                     |
|-----------------------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Self-acceptance       | High  | Possesses a positive attitude toward the self; acknowledges and accepts multiple aspects of self, including good and bad qualities; feels positive about past life.                                                                                                            |
|                       | Low   | Feels dissatisfied with self; is disappointed with what has occurred in past life; is troubled about certain personal qualities; wishes to be different from what one is.                                                                                                      |
| Positive relations    | High  | Has warm, satisfying, trusting relationship with other; is concerned about the welfare of others; is capable of strong empathy, affection, and intimacy; understands the give and take of human relationships.                                                                 |
|                       | Low   | Has few close, trusting relationship with others; finds it difficult to be warm, open, and concerned about others; is isolated and frustrated in interpersonal relationships; is not willing to make compromises to sustain important ties with others.                        |
| Autonomy              | High  | Is self-determining and independent; is able to resist social pressures to think and act in certain ways; regulates behavior from within; evaluates self by personal standards.                                                                                                |
|                       | Low   | Is concerned about the expectations and evaluations of others; relies on judgments of others to make important decisions; conforms to social pressures to think and act in certain ways.                                                                                       |
| Environmental mastery | High  | Has a sense of mastery and competence in managing the environment; controls a complex array of external activities; makes effective use of surrounding opportunities; is able to choose or create contexts suitable to personal needs and values.                              |
|                       | Low   | Has difficulty managing everyday affairs; feels unable to change or improve surrounding opportunities; lacks sense of control over external world.                                                                                                                             |
| Purpose in life       | High  | Has goal in life and a sense of directedness; feels there is meaning to present and past life; holds beliefs that give life purpose; has aims and objectives for living.                                                                                                       |
|                       | Low   | Lacks a sense of meaning in life; has few goals or aims lacks sense of direction; does not see purpose of past life; has no outlook or beliefs that give life meaning.                                                                                                         |
| Personal growth       | High  | Has a feeling of continued development; sees self as growing and expanding; is open to new experiences; has sense of realizing his or her potential; sees improvement in self and behavior over times; is changing in ways that reflect more self-knowledge and effectiveness. |
|                       | Low   | Has a sense of personal stagnation; lacks sense of improvement of expansion over time; feel bored and uninterested with life; feels unable to develop new attitudes or behaviors.                                                                                              |

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purpose of convenience in the national survey. Ryff and Keyes found that “each of the six factors belongs to a single conceptual domain called *well-being*” (p. 722). Also, they found that the dimensions of Environmental Mastery and Autonomy increased with age, whereas both Purpose in Life and Personal Growth declined with age, and no age difference was indicated on Self Acceptance.

As an application of Ryff’s concept of well-being, Fleeson and Heckhausen (1997) used six elements of the scale to conduct a developmental study on an individual’s perceived personality in the individual’s past, present, and future. Ishii-Kuntz (1990) examined the relationship between psychological well-being and social interaction using the U.S. national sample. The results show that the qualitative dimension of social interaction, such as family relations and friendship, is an important predictor of well-being, and a positive relationship between psychological well-being and social interaction is stable across stages of adulthood. Tran, Wright, Jr., and Chatters (1991) examined relationships among sociodemographic characteristics, health, stress, psychological resources, and subjective well-being among black elderly, using the data from the National Survey of Black Americans. Their main findings were that (1) subjective health directly affects personal efficacy and subjective well-being, and (2) stressful life events negatively affect subjective well-being.

Larson (1978) conducted a comprehensive research review on subjective well-being among older Americans in the 1970’s, which has been widely cited. Larson found from these reviews that health is the dimension most strongly related to subjective well-being, followed by socioeconomic status. Okun, Stock, Haring, and Witter (1984)

attempted a meta-analysis on the subjective well-being and health relationship in U.S. adults from 556 literature sources published prior to 1980. Okun et al. found that both subjective well-being and health were positively and significantly related, and were greater in the samples from institutionalized people, that is, people in nursing homes, than those of non-institutionalized individuals.

Since the concepts of well-being and *ikigai* are somewhat similar, and since there is some research on the relationship between the elements of well-being and sociodemographic and health status, the Part I questionnaire of this study, Current Status, also includes some of these and other demographic elements, such as learning participation (e.g., Yokozawa, 1991) and perception of old age and family and friend relationships, issues referred to by Choi (1994), Goldsmith and Heiens (1992), Ruuskanen and Ruoppila (1995), and Tesch (1983). However, examinations of these elements will not be performed in this study, although they should be analyzed in the future.

#### Four Elements of the *Ikigai* Scale

The conceptualization of *ikigai* was described in Chapter I, which discussed each of the four elements composing *ikigai*: 1) self-esteem, which is the deepest level of *ikigai*; 2) purpose in life, which is the most important element, that drives people to act on their aims; 3) personal energy, based on the two previously-mentioned elements of *ikigai*; and 4) life satisfaction, which is the result of attaining the first three elements. Each of these elements is examined in this section of the chapter.

Self-esteem. According to Branden (1969), “[s]elf-esteem has two interrelated aspects: It entails a sense of personal efficacy and a sense of personal worth. It is the

integrated sum of self-confidence and self-respect” (p. 104). As an overlapping concept of self-esteem, self-concept will be discussed briefly. Brinthaupt and Erwin (1992) mention that self-esteem refers to “the evaluation of one’s described self,” while self-concept refers to “the descriptive aspects of the self” (p. 155). Shavelson, Hubner, and Stanton’s (1976) definition of self-concept is a person’s perceptions of oneself, formed through one’s experience with one’s environment, which is influenced especially by environmental reinforcements and significant others. Blascovich and Tomaka (1991) understand that “self-esteem is usually thought to be the evaluative component of a broader representation of self,” whereas the self-concept is “a more inclusive construct than self-esteem” (p. 115). Also, Blascovich and Tomaka further state that “self-esteem is more global than the evaluation of specific attributes (e.g., height or academic ability) or a circumscribed set of related attributes (e.g., one’s body or intelligence)” (p. 116). Marsh and Hattie (1996) discuss the concept of self-concept based on Soares and Soares’s (1977) six conceptual models of self-concept, which include the unidimensional model and five other kinds of multidimensional models. Assessing self-concept for clinical and educational purposes, Bracken (1992; 1996) developed the Multidimensional Self Concept Scale (MSCS), which has 25 items each for six sub-scales. This scale is based on his conceptualization of the self as composed of six primary concepts, including “social,” “competence,” “affect,” “academic,” “family,” and “physical,” and how these individual domains influence each other, contributing to make up the “global” self-concept. Other self-esteem scales, including each original scale, are reported in Blascovich and Tomaka’s (1991) chapter on measures of self-esteem.

Although the concepts of self-esteem and self-concept are similar to each other, both are derived from fundamental ideas, in terms of the “self,” “identity,” or “ego.” Here, the concept of self will be explained. On one hand, there are understandings of the self as multiple identities: Rosenberg (1997) explains that in the multiple-selves framework, which consists of “a multiplicity of ego and alter elements and their interrelationships” (p. 24), the self is “an amalgam of features — perceived physical and psychological characteristics, feelings, values, images, and intentions — experienced by the individual” (p. 24). On the other hand, there are perceptions of the self as unifying and integrative: in the view of McAdams (1997), “the self functions as a unifying process through which subjective experience is synthesized and appropriated as one’s own” (p. 56).

In this study, the purpose is not mainly to examine self-esteem and self-concept, but to examine them as part of the umbrella concept of *ikigai*. Hence, the self-esteem element in the *Ikigai* Scale will be created to be minimal, focusing on the global and unidimensional aspect of “self.” This example of treating self-esteem like a sub-concept of *ikigai* also applies to the other three elements of the *Ikigai* Scale: That is, although each of the four elements in the *Ikigai* Scale is individually a comprehensive concept, these four elements are dealt with as four sub-concepts composing the integrative concept of *ikigai*. The original self-esteem elements are drawn by this author mostly from the ten items of Rosenberg’s Self-Esteem Scale both in English and in Japanese. The author’s self-esteem items are intended for measuring the global realm of self-esteem, or they are constructed as unidimensional and not like Bracken’s (1992; 1996), understanding of the self-concept as a multi-dimensional phenomenon that is demonstrated in many different daily activities.

Rosenberg's (1965) 10-item Self-Esteem Scale (see the scale, pp. 305-307, Appendix D) has been one of the most widely used for measuring global self-esteem (Brown, 1998). The scale is divided into four categories, from "1. Strongly agree" to "4. Strongly disagree." It has been revised by many researchers. For example, Bachman (1970) and Bachman and O'Malley (1977, p. 368, Table 1) revised the Rosenberg Self-Esteem Scale by eliminating four of the original items from it and adding four items from Cobb, Brooks, Kasl, and Connelly's (1966) scale. The new scale has five response categories from "1. Almost always" to "5. Never." From their new scale, they found high reliability and construct validity as well. Bachman and O'Malley's eight-year longitudinal study examined relationships among self-esteem, educational attainment, and occupational status of boys in the tenth grade (in 1966), eleventh grade (in 1968), twelfth grade (in 1969), and five years after, when most of them had completed high school (in 1974). They found that there exists a positive correlation between self-esteem and level of educational attainment, as well as self-esteem and occupational status. Ranzijn, Keeses, Luszcz, and Feather (1998) examined Bachman's revision of the Rosenberg Self-Esteem Scale, and found that the scale has good reliability. They also found that the scale is multidimensional with two first-order factors, labeled Positive Self-Regard and Usefulness/Competence, as well as an orthogonal second-order factor, General Self-Esteem.

In the Japanese psychology community, the Rosenberg Self-Esteem Scale has been widely used among researchers. Hoshino (1970, p. 1452) first translated the Rosenberg Self-Esteem Scale into Japanese, which had not yet been standardized. Yamamoto,



Matsui, and Yamanari (1982) translated the scale into Japanese differently and examined it for construct and factorial validity from research with 644 university students. Although the translated scale is not attached to Yamamoto et al.'s paper, the scale is shown in Shimizu's chapter on evaluation of self in Japan (see Shimizu, 1994, p. 68). The response choices of the Japanese version of the Rosenberg Self-Esteem Scale are categorized into five levels, and are scored ranging from 1 point for "disagree" to 5 points for "agree."

Watanabe (1994) developed the 16 items of the Japanese version of the Collective Self-Esteem Scale, based on the 46 items of the Collective Self-Esteem Scale (Luhtanen & Crocker, 1992). In his development of the scale, Watanabe first translated the original 46 items into Japanese, then standardized it with 347 university students; next, he finalized it after conducting factor and item analysis, and finally he selected 16 items. Watanabe's scale turned out to have high reliability and validity, but to have low positive correlation ( $r = .26$ ) with the Rosenberg Self-Esteem Scale. Kurosawa (1992) developed the 41 items of the Self-Consciousness Scale, including the four factors of Private Self-Consciousness, Public Self-Consciousness, Self-Esteem, and Social Self-Esteem, based on several studies of self-consciousness and self-esteem, such as the Rosenberg Self-Esteem Scale (Rosenberg, 1965) and the Self-Esteem Measure by Cheek and Buss (Buss, 1980). Later, Kurosawa (1993) applied the Self-Conscious Scale to experimental study on the conformity pressure toward self-consciousness and self-esteem and achieved high reliability from the scale.

Purpose and meaning in life. Purpose in life or meaning in life, the second element of *ikigai*, is closely related to Frankl's (1969, 1997) idea of existential analysis in the form of logotherapy. Logotherapy is a psychotherapeutic method practiced by helping

patients, particularly those who are diagnosed as neurotic, to become more aware of their responsibilities; it is also practiced psychoanalytically, by making people conscious of the self. In this theory, the two main concepts are "will to meaning," humans' basic need for finding and fulfilling a meaning in their lives, and "existential vacuum," a lack of will to meaning, or being haunted by a feeling of emptiness, mainly manifested as boredom and apathy (Frankl, 1997, p. 139). In Frankl's recent book, he points out that modern industrialized society provides humans with many things that satisfy their needs; however, considering that the most important human need is to find and fulfill a meaning in one's life, human needs are also frustrated by this society. Frankl concludes that among the several needs which give humans meaning in life, "doing a deed or creating a work" and "experiencing something or encountering someone" (p. 141), that is love, are the best. And finally he says that humans need to accept fate, and make the best of it, by changing themselves, allowing them to turn suffering from pain, guilt, and death into achievement and accomplishment.

Crumbaugh and Maholick (1964) define purpose in life as "the ontological significance of life from the point of view of the experiencing individual" (p. 201). Based on Frankl's logotherapy, Crumbaugh and Maholick first developed the Purpose in Life Test (PIL) by comparing it with other related scales, including the Frankl questionnaire (not published), the Allport-Version-Lindzey Scale of Values, and Minnesota Multiple Personality Index (MMPI), among neurotic and normal subjects. Crumbaugh and Maholick explain that the PIL is an attitude scale specially designed to evoke responses believed related to the degree to which the individual experienced purpose in life.

Crumbaugh and Maholick mainly found a high relationship between the PIL and Frankl's questionnaire, and low relationships between the PIL and the six value scale, as well as the PIL and the MMPI. The three components of the PIL are described as follows (Crumbaugh, 1972; Ebersole, Levinson, & Svensson, 1987): Part A is made up of 20 self-rating items. Each item consists of seven scaled ratings for 20 items, such as item 1: "I am usually:" followed by the responses: (1) "completely bored" through (4) "neutral" to (7) "exuberant, enthusiastic." These test scores in Part A are simply summed. On the other hand, Part B consists of 13 incomplete sentences asking about one's purpose, and "Part C requires the subject to write a paragraph on his life goals, ambitions, and future plans" (p. 419). Since Parts B and C are descriptive with no objective scoring, both need clinicians' interpretations. Since both parts are seldom used among researchers, it seems that even though some researchers mention just "PIL" in their papers, this is strictly saying that they are using only the "PIL-Part A." The PIL test manual (Crumbaugh & Maholick, 1981, p. 3) says that a total score of 113 or above on Part A is considered to show a definite meaning/purpose in life, whereas 91 or below is to show a lack of it. Crumbaugh (1968) examined cross-validation of the PIL and found that it is a reliable and valid measure of Frankl's conception of meaning/purpose in life. There have been several studies which simply use the PIL to examine group differences, such as racial and sex differences (Butler & Carr, 1968), age and sex differences (Meier & Edwards, 1974), age differences of alcoholics (Adams & Waskel, 1991), religious non-believer, conservative believer, or non-conservative believer (Dufton & Perlman, 1986), and instructional response set (detachment or involvement) and participation in organization (low or high) (Doerries,

1970). Other kinds of research which examine the relationships between the PIL and other tests include the PIL and Self-Esteem Scale among women alcoholics (Schlesinger, Susman, & Koenigsberg, 1990).

Battista and Almond (1973) examined the relationship among Battista's development of the Life Regard Index (LRI), Shostrom's Personal Orientation Inventory, and the PIL for 30 subjects. The LRI has 28 total items, which are divided into two elements (with 14 items each in the Framework Scale and the Fulfillment Scale), further divided into two each (seven items, half phrased positively and half phrased negatively). They found that the LRI was reliable, that all three scales correlated with each other, and that all were measuring the same meaning in life.

Hablas and Hutzell (1982) developed the Life Purpose Questionnaire (LPQ) as an alternative to the PIL for easier administration (see the questionnaire, Hutzell, 1986, pp. 42-43, Table 1). Hablas and Hutzell obtained high correlation from a test-retest correlation between the LPQ scores, and found the correlation between the LPQ and the PIL. Later, Hutzell and Peterson (1986) attempted to examine the LPQ for an alcoholic population and concluded that the LPQ is not only useful for alcoholic patients, but also applicable for other groups. Crumbaugh (1977), the originator of the PIL, also developed the 20 items of the Seeking of Noetic Goals Test (SONG), designed for distinguishing the "abnormal" patients from "normal" people. Crumbaugh found that there was moderate negative correlation between the SONG and the PIL and concluded it is useful to supplement the PIL with the SONG instrument. However, Dyck (1987) states that since it is inherently impossible to measure the will to meaning (by Frankl), as well as to assess

independently the perception of meaning, “[t]he SONG, therefore, was doomed to be an invalid measure from the beginning” (p. 446). Likewise, Dyck points out that the PIL also needs to be replaced as the operational measure of existential vacuum. This author considers that, notwithstanding the problem of the PIL, coming mainly from the difficulties of measuring a human’s will to meaning, this instrument is currently the most beneficial measure for assessing the one element of human’s purpose/meaning in life for the *Ikigai* Scale.

The PIL has been applied to different cultures. Jenerson-Madden, Ebersole, and Romero (1992) applied it to Mexicans in the States and American Caucasians and concluded that the test is culture-free. Also, the PIL has been standardized and examined in Chinese by Shek. Shek, Hong, and Cheung (1986) found that the PIL had high reliability and internal consistency, and determined five factors of Quality of Life, Meaning of Existence, Constraints of Existence, Answers to Existence, and Future Existence/Self-responsibility. Other examinations show that the PIL is quite applicable to Chinese people (Shek, 1988; Shek, 1989; Shek, 1992; Shek, 1993).

In Japan, Sato and Tanaka (1974) translated and used the PIL for 625 Japanese undergraduate and adult subjects, including “normal” and “psychiatric patient” groups, and compared the results with American research by Crumbaugh (1968). Sato and Tanaka found that three factors were obtained from the Japanese subjects, and the total scores on the PIL from the Japanese subjects are remarkably lower than that of Americans. Sato (1975) introduced the translated Parts B and C of the PIL, which are the descriptive and difficult interpretation parts of the PIL. Sato also (1976a; 1976b; 1985) examined the PIL

(Part A) with Part B and Part C from some case studies. Sato and Sato and Tanaka have not yet standardized their translated Japanese PIL. However, later, the Japanese PIL was comprehensively standardized (Cronbach's  $\alpha = .90$ ,  $n = 4693$ ) under the supervision of professor Tetsuo Okado (PIL-Kenkyukai, 1993). The PIL-Kenkyukai is entrusted with the standardized research by a psychometric company. The PIL-Kenkyukai attempted to standardize even Parts B and C of the PIL, which is not attempted in the original version in the States. Recently, the PIL has been admitted to use in clinics and hospitals as one of the authorized assessments by the national health insurance in Japan.

Personal energy. This element examines elders' degree of activeness, focusing on the degree of participation in various activities and interests during their lives. This element was originally named "enthusiasm for personal interests." However, after the factor analysis, it was renamed "personal energy." Therefore, "personal energy" will be used throughout the remainder of this document. Although the other three elements in the *ikigai* are all considered as "deeply" psychological assessments, evaluating one's specific areas of perception, this element is the only one element among the four that is characterized as tangible: The element intends to assess the degree of enthusiasm for pursuing *ikigai*, observed in many life occasions. Most of the research on *ikigai* in Japan assesses only this element, as the specific sources of *ikigai* (e.g., Hamana, 1993; Nakanishi, 1990), which was discussed in the earlier sub-section of "*Ikigai* among Elders." However, their research is not psychologically-based, but instead are social surveys which ask about the sources of *ikigai* and show the percentage of the sources of *ikigai*. The "personal energy" element in this study measures the degree of concentration for participating in

interests or activities, including work, hobbies, learning, volunteer and religious activities, and family duties.

Ishihara, Naito, and Nagashima (1992) developed a Quality of Life (QOL) Index based on the Life Satisfaction Index A and the PGC Morale Scale for evaluating elders' quality of life, comparing between both 545 physically healthy elders who attend adult school and 324 frail elders. The QOL Index is made up of 31 original items. The initial 11 items of the Interests factor among the QOL Index (the "before" analysis) were applied to the items about the "personal energy" in the *Ikigai* Scale in this study. The "interests" factor (Ishihara et al. 1992) was later reduced to four items after their analysis and was named "energy for living." In their first factor analysis, they found four factors: present life satisfaction, interests, vitality and sense of purpose, and relationships with others. Finally, each item from these four factors was concisely reduced to three factors, including each of these three items: present life satisfaction, psychological stability, and energy for living.

Life satisfaction. Adams (1971) reviews several studies' correlates of satisfaction, such as positive self-concept and psychological well-being, as categorized by biological and psychological correlates, and three kinds of social correlates, in which each study is listed on the 51 concisely stated aspects (p. 66, Table 1). His main findings are as follows: (1) there is no general agreement concerning age effects on satisfaction, (2) "health is generally considered an intervening variable restricting possible social contacts, which in turn adversely affects satisfaction" (p. 65), (3) chronological age is not consistently related to satisfaction; however, self perceived age shows decline in satisfaction when one moves

from a "middle-age" to "elderly" to "more old" self-concept, (4) socio-economic status positively relates to satisfaction, (5) there are modal positive relationships between continuity of life-style and satisfaction, and (6) "all revised literature points to a positive relationship between social contact and satisfaction"(p. 67).

Neugarten, Havighurst, and Tobin (1961) developed three measures of life satisfaction. The first scale is the Life Satisfaction Ratings (LSR); however, since the LSR needs at least one long interview and is a larger scale, they further developed the rest of two Life Satisfaction Indexes, A and B, for practical usefulness and easy administration. These two instruments are: 20 attitude items of the Life Satisfaction Index A, (LSI-A) responding "agree," "disagree," or "?" (each scored 1 point for each marked X on the LSI-A, p. 141), and 12 open-ended questions and check-list items of that of B. Among their two indices, Index A has been widely used and revised by many researchers. For example, Steinkamp and Kelly (1987) apply the LSI-A in their research on social (objective/subjective) integration, leisure activity, and life satisfaction, conducting approximately thirty-minute interviews with 400 older adults and elders. In Morganti, Nehrke, Hulicka, and Cataldo's (1988) study of life satisfaction, self-concept, and locus of control throughout life-span, they modified Neugarten et al.'s LSI-A by reducing the number of items to 17 and modifying the response categories, which were increased from three to five and arranged from "Strongly Agree" to "Strongly Disagree." Wood, Wylie, and Sheafor (1969) reexamined the relationships among the LSR and the LSI-A, and presented 13 items of Life Satisfaction Index Z in which seven items are dropped from the 20 original LSI-A by item analysis, and devised an alternative scoring (two points for



“agree” or “disagree,” and one point for “?” for each item marked X in the Index Z, pp. 467-468). Liang (1984) examines the structure of the LSI-A, and finally found three factors including 11 items: three items for “mood tone” factor, four items for “zest for life” factor, and four items for “congruence” factor. It was pointed out that since the LSI-A does not completely measure subjective well-being, it can be more useful in conjunction with measures of transitory affects, such as Bradburn’s (1969) Affect Balance Scale. Hong and Duff (1994) utilize the Liang’s 11 items of Life Satisfaction Index A for their study on widows’ subjective well-being in retirement communities. Other measurements for life satisfaction include a five-item Life Satisfaction Index (Diener, Emmons, Larsen, & Griffin, 1983). Rapkin and Fischer (1992) examine how elders’ life satisfaction is related to personal goals by using Diener et al.’s life satisfaction as the measurements for their study.

There are also some studies on life satisfaction among Japanese elders. To evaluate life satisfaction, the Life Satisfaction Index A (Neugarten et al., 1961) is translated and used by some researchers (Naito, Ishihara, & Nagashima, 1989). Wada (1981) and Fujita (1981) translated Neugarten’s (1961) 20 items of the Life Satisfaction Index, and each applied it to Japanese samples. Wada developed the Japanese version of the Index, called the LSI-M. Also, Fujita developed 19 items of the LSI for the Japanese aged. Later, the English LSI-A was modified for fitting Japanese elderly and named the Life Satisfaction Index K (Koyano, Shibata, Haga, & Suyama, 1989). This scale was further examined for construct validity and reliability among 1651 Japanese elders and was found to have high construct validity and high reliability (Koyano & Shibata, 1994). Nakatani

(1997) points out that both the PGC Morale Scale and the LIS-K have been widely used among the Japanese researchers, measuring elders' subjective well-being. The nine items of the Life Satisfaction Index K in their English translation are as follows (Koyano & Shibata, 1994, p. 183):

- (1) All in all, how much unhappiness do you find in your life today?
- (2) Do you think you have gotten more breaks in life than most people?
- (3) As you look back on your life, are you reasonably satisfied?
- (4) Do you think you have gotten pretty much what you expected out of life?
- (5) Do you feel life is hard for you?
- (6) Do you take things seriously?
- (7) Recently, do you feel yourself bothered by little things?
- (8) Do you think you are as healthy as you were last year?
- (9) Do you feel you become less useful as you get older?

Also, as an application of this Index K, Koyano et al. (1995) examined the relationship between subjective well-being and social network. Ishihara, Naito, and Nagashima (1992) developed a quality of life (QOL) Index based on the Life Satisfaction Index A and the PGC Morale Scale for evaluating elders' quality of life. The initial nine items of the Present Life Satisfaction factor among the QOL Index (the "before" analysis) were modified to the items about "life satisfaction" in the *Ikigai* Scale. This "present life satisfaction" factor was later reduced to four items after analysis. As was mentioned in the previous part of "personal energy," these nine items will be mostly referred to in creating the items of the "life satisfaction" element in the *Ikigai* Scale in this study. The life

satisfaction items, prepared by this author, refer to global life satisfaction, which is the individual's collective perception toward specific life situations.

### Synthesis of the Literature Review

Finally, a synthesis of this chapter is presented. In the first section of this chapter, characteristics of Japanese elderly were compared with U.S. elders in order to increase non-Japanese readers' general understanding about Japanese elderly. It is known that the seeking of *ikigai* is an important theme among Japanese elderly, especially for men, even though they do not always successfully obtain it. Notwithstanding the significance of *ikigai* among the elderly, it was found from this literature review that there are few studies about *ikigai* in Japan, nor do there exist psychological assessments measuring the comprehensive concept of *ikigai*. To be sure, there exists the eight-item "*Ikigai Scale*" by Yoshida (1994). However, since this scale was developed to measure one's purpose in life and social support and was validated among high school students, it can hardly be considered as an appropriate assessment measuring the general concept of *ikigai*. The second section of this chapter explained the similarities and differences between the Western concept of subjective well-being and the Japanese concept of *ikigai*. In addition, it was noted that some Western theories are applicable to Japanese society, such as Yamamoto et al.'s (1982) application of Rosenberg Self-Esteem Scale (Rosenberg, 1965) to the Japanese people, even though Western and Japanese culture have different orientations. Based on literature in both the West and Japan, this author attempted to build the conceptualization of *ikigai* by presenting four sub-categories of *ikigai*, including self-esteem, purpose in life, personal energy, and life satisfaction. Both the pilot and main

studies were conducted to develop a measurement to assess the concept of *ikigai*. By examination of this measurement, the *Ikigai* Scale, the appropriateness of the author's conceptualization will be supported.

### Summary

This chapter introduced a wide range of literature that serves as the groundwork for the development of the *Ikigai* Scale. The synthesis of these four elements of *ikigai* was discussed in the previous chapter (Introduction) where the comparison of the Western concepts of well-being and meaning in life and the Japanese concept of *ikigai* were discussed. In short, the concept of *ikigai* is part of the general concept of well-being. This includes such elements as "self-concept" and "purpose in life" under the broad concept of well-being, explained by Ryff (1989a; 1989b; 1991). Among the general concept of well-being, the concept of *ikigai* is closely related to the concept of meaning in life or purpose in life. Finally, based on these cross-cultural examinations, the relationships among the four elements of *ikigai*, including self-esteem, purpose in life, personal energy, and life satisfaction were discussed.

In the first part of this chapter, literature was introduced to understand the overall characteristics of the Japanese elderly, especially for the research subjects, elders of retired principals and residents in the home facility. In the latter part, literature about the general concept of well-being and each of the four elements of *ikigai* was presented. Since it is known that some of the sub-concepts of well-being and those of *ikigai* overlap, the relationships among some of these elements were examined. Examples of sub-concepts

within well-being are such elements as life satisfaction, self-concept, and locus of control (e.g., Morganti et al., 1988). Most of the social surveys on *ikigai* (e.g., Nakanishi, 1990; Takahagi & Natori, 1993) only ask about the tangible sources of *ikigai*, which could be similar to the element of “personal energy” in *ikigai* in this study, but they cannot be considered as psychological assessments. There are some psychological studies on *ikigai*; however, those mostly measure one of the elements of *ikigai*, such as the element of life satisfaction or health, with insufficient discussion about the larger concept of *ikigai* (e.g., Sugiyama et al., 1981a; 1981b).

In Chapter III (Method), the development of the *Ikigai* Scale will be discussed and validated from the pilot study, which included retired principals, and from the main study, which included two groups: retired principals and residents in a home for the aged. By conducting the study of the *Ikigai* Scale, the appropriateness of the conceptualization of *ikigai* presented by this author will be tested.

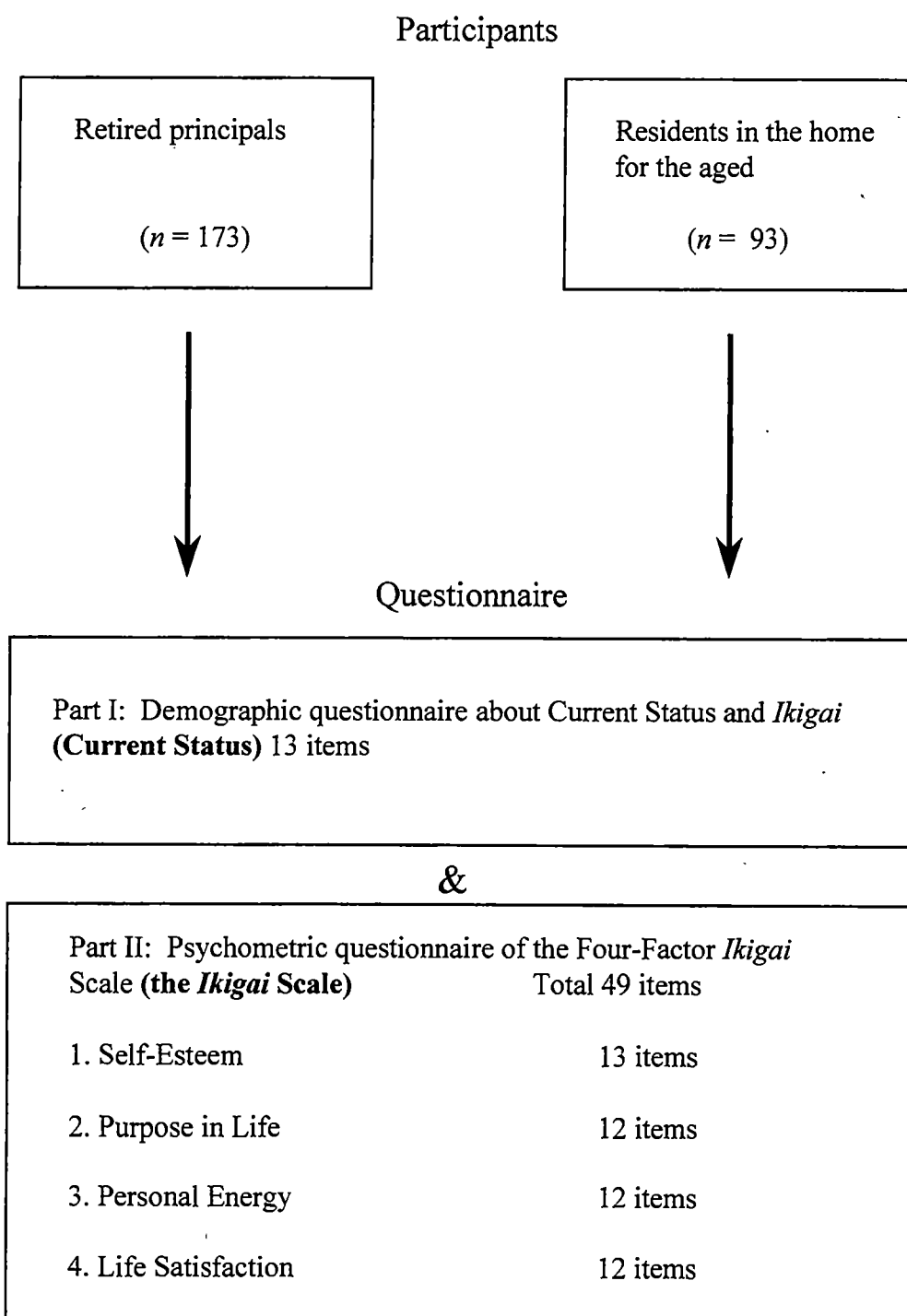
## CHAPTER III

### METHOD

This quantitative study was designed to develop a psychological measure of *ikigai*. The *Ikigai* Scale was developed through the following process: the initial creation of items by this researcher, examination of items by experts, and testing the scale both in pilot and main studies. The pilot and main studies were planned in order to develop the *Ikigai* Scale. The pilot study was planned for the retired principal group to test the validity and reliability of the *Ikigai* Scale by comparing it with previously-standardized tests, as well as eliminating unnecessary items in the scale. In order to clarify the general idea of this study, the research framework of the main study is described in Figure 1. The participants are from two groups: retired principals and residents in a home for the aged. The *ikigai* (meaning in life) questionnaire for the main study consists of two parts: Part I, Current Status, is made up of 11 demographic questions and two questions asking directly about *ikigai*. Part II, the *Ikigai* Scale, is composed of items which measure the four elements of *ikigai*. The four elements are explained in the section "Instrumentation."

#### Population and Sample

The participants for this study are from two homogeneous groups. A total of 273 elders (over 65 years old) in Tokyo were chosen from the following two categories: 1) retired public elementary or junior high school principals who once worked in schools in Tokyo, and 2) residents of a home for the aged in Tokyo. Retired principals were selected randomly from a list of retired public school principals in Tokyo (Tokyo-to Taishoku



**Figure 1.** Research framework for the main study: Explanation of sample and instrumentation.

Kochokai, 1996). However, principals living in some rural areas, such as mountain areas and islands in Tokyo, were not selected, because the rural dwellers' living environment is so different from the city dwellers' that the group would no longer be homogeneous.

The residents of the home for the aged were volunteers from both *Sakura* building residents and *Taiseikan* recreation center users in the Higashimurayama Home for the Aged, located in Higashimurayama-city, Tokyo. Generally, *Rojin Hoomu* (home for the aged) care available in Japan falls into one of three categories: public institutions, private institutions, or social foundations, a combination of the previous two. Participants for this study were selected from *Yogo Rojin Hoomu*, "a nursing home for the aged," as translated by Kondo and Takano (1993), or "a home for the elderly," as translated by Nakamura, Kojima, and Tompson (1981) in a social welfare glossary. In this study, *Yogo Rojin Hoomu* is translated as "home for the aged"; it is a facility designed for more healthy residents who can take care of basic needs on their own. It also refers to an institution run by a public operation. The institution used in this study fits into this category. A more detailed explanation of Japanese home facility care for the elderly (Nakamura et al., 1981) is provided in Appendix A. New residents who had been living in a home for the aged less than six months were not included in this study, because they might not have been accustomed to living in the home facility, nor would they be considered as representative of home residents. Also, participants who were both retired principals and home residents were not included, because overlapping subjects would not constitute a large enough group to form a category of their own. The sample of the retired principals for the pilot study is described in the subsection of "Data collection for the pilot study."



## Instrumentation

The Japanese questionnaires about *ikigai* for the main study include two parts. The English version of the Part I questionnaire is attached in Appendix C, and the Japanese version is attached in Appendix D. The English version of Part II appears in Appendix E, and the Japanese in Appendix F. Both parts of the questionnaire were printed in large size characters for easy reading by elders.

### Part I: Questionnaire about Current Status and *Ikigai* (Current Status)

This part of the questionnaire provides information about the following descriptive variables: gender, age, perception of old age, previous education, living situation, current employment, past job status, relationship with family and friends, social activity, perceived health, and learning participation. The retired principals in the main study were additionally asked whether they were living in a home for the aged. For the home residents in *Sakura* building, the question about the living situation was eliminated, because all of these residents were living in individual rooms. On the other hand, since participants from the *Taiseikan* recreation center were expected to include those who were living in married or four-person rooms, the question about living situation was asked orally by the researcher; however, all residents reported living in individual rooms. Likewise, since it was found that all residents in the *Sakura* building had lived there for more than six months, the question about the participant's length of residency in the home was not asked. This question was asked orally for the participants in the *Taiseikan* recreation center; however, all respondents reported that they had been living in the home more than six months.

In addition to these 11 demographic questions, Part I also asks about the level of *ikigai* (“Do you currently have any *ikigai*?”) and the types of current *ikigai* (“Can you list the source of your *ikigai*, ranked from first [most important] to third?”). However, since the purpose of this study was to develop an instrument to measure *ikigai* for Japanese elders, and since the examination of these 13 questions in Part I is in itself a big research topic, these demographic questions, except for question of the level of *ikigai* (“Do you currently have any *ikigai*?”), are only for descriptive purposes in this study. Further analysis of the demographic variables may be done at a later time. Only the question about the level of *ikigai* in Part I, which asks specifically about *ikigai*, was used for analysis to examine its correlation to the preliminary scale of Part II, the *Ikigai* Scale.

#### Part II: Four Elements of the *Ikigai* Scale (*Ikigai* Scale)

In the following section, the *Ikigai* Scale (the main study version) is explained. The *Ikigai* Scale covers four dimensions of *ikigai*: Self-Esteem, Purpose in Life, Personal Energy, and Life Satisfaction. These four elements have been conceptualized by this researcher to explain *ikigai*. Each element is based on previous studies (e.g., Yamamoto, Matsui, & Yamanari, 1982; PIL-Kenkyukai, 1993; Ishihara, Naito, & Nagashima, 1992). Other related studies were explained in Chapter II, “Literature Review.” Forty-nine items were prepared for the main study by this author. After examination by psychometric analysis in the main study, 21 items were eliminated from the original 49 items. The detailed process involved in developing the *Ikigai* Scale is described in the next section, “Procedure.” Each dimension has 12 or 13 items, and all 49 items are written to be answered on a Likert Scale. All items related to the four elements in the *Ikigai* Scale are

answered using a five-point rating scale, from 1, "strongly disagree," to 5, "strongly agree." Each of the four dimensions is discussed below.

Self-Esteem. Thirteen items were prepared to assess elders' self-esteem. These questions are based on relevant literature and ideas taken from several scales by Japanese and Western researchers (e.g., Kurosawa, 1992, 1993; Yamamoto, Matsui, & Yamanari, 1982). Yamamoto et al. used 10 items from the Rosenberg Self-Esteem Scale (Rosenberg, 1965), which were translated into Japanese. The Yamamoto et al. scale has not been examined for reliability; however, it was examined for construct and factorial validity from research on 644 university students and it was found that the scale has a single factor. Another scale referred to is the 10-item Bachman Revision of the Rosenberg Self-Esteem Scale (1970), which consists of six items from Rosenberg and four items from Cobb, Brooks, Kasl, and Connelly (1966). An example of these items from the Rosenberg Self-Esteem Scale is "I feel that I'm a person of worth, at least on an equal plane with others." In this scale, four responses are scaled from "strongly agree" to "strongly disagree."

Purpose in Life. Twelve items were selected, based on ideas from the literature and from other related scales, such as Part A of the Japanese version of the Purpose in Life Test (PIL) developed by PIL-Kenkyukai (1993). The PIL is intended for measuring elders' life meaning; all 20 items were taken originally from the Purpose in Life Test by Crumbaugh and Maholick (1964). The original test was based on the concept of logotherapy described by Frankl (1969). The Japanese PIL was translated (Sato, 1974) and standardized (Cronbach's Alpha = .90,  $n = 4693$ ) under the supervision of Professor

Tetsuo Okado (PIL-Kenkyukai, 1993). Although both the Japanese and the original English PIL consist of three parts, only items from Part A of the PIL were considered. Parts B and C are descriptive, and the researcher of this study, like most researchers of purpose in life, chose not to use them because they are intended for clinical purposes. Part A consists of seven scaled ratings for 20 items, such as item #1: "I am usually" followed by responses from "completely bored" (first) to "neutral" (fourth) to "exuberant, enthusiastic" (seventh).

Personal Energy. Twelve items were based on relevant literature, especially the "Energy for Living" factor of the Quality of Life (QOL) Index developed by Ishihara, Naito, and Nagashima (1992). The QOL Index includes four questions for each of its three factors. The factors are named as follows: Present Life Satisfaction, Psychological Stability, and Energy for Living. The Index was mostly derived from the Life Satisfaction Index K (LSI-K) of Koyano, Shibata, Haga, and Suyama (1989), who originally based their questionnaire items on the literature of Western researchers, such as Larson (1978). One example of Ishihara et al.'s questions in the "Energy for Living" factor is, "Do you have any hobbies or pleasure in your life?" (translation by this author). Responses are scaled as 0 (Yes), 1 (In between), to 2 (No).

Life Satisfaction. Twelve items were based on related literature and the nine items of the "Present Life Satisfaction" factor in the QOL Index (Ishihara et al., 1992), which was described above. The "Present Life Satisfaction" factor has four questions; an example is, "Are you satisfied with your current living?" (translation by this author). Responses are scaled as 0 (Yes), 1 (In between), to 2 (No).

## Procedure

In this section, the process of creating Part II, the *Ikigai* Scale, is described. First, it is mentioned that the initial foundation of the scale was based on previous studies and experts' comments. Second, in the pilot study, the conceptual validity within the scale and reliability of the scale were explored. Finally, in the main study, the further examination of Part II (the *Ikigai* Scale) and its relation to the demographic questionnaire of Part I (Current Status) were investigated. For developing the scale, helpful literature included a description of the procedure for developing a new instrument (e.g., Gross, 1997; Kurosawa, 1992), as well as explanations of reliabilities and validities (e.g., George, 1981; Nunnally, 1978).

### Development of the Scale

The *Ikigai* Scale was developed through a four-step process: the initial creation of the scale by this researcher, the examination of the scale by experts in both Japan and the United States, the implementation of the scale in the pilot study, and the final refinement of the scale in the main study. This subsection describes both the first and second procedures.

Initial creation of the scale. The Part I and II questionnaires were prepared by the following procedures. The Part I questionnaire on Current Status was designed for collecting basic demographic data about the participants; Part II on the *Ikigai* Scale was created initially with 18 items for each of the four elements, comprised of both positive and negative statements. Japanese items for each of the four elements of the scale were based on previous studies by Western and Japanese researchers. This number of 18 items in the

initial stage was reduced to 15 in response to item analysis, and the number was further reduced after the pilot study and the main study.

Item examination of the *Ikigai* Scale. First, Parts I and II were checked by the three psychology professors who agreed to serve on the review panel: Dr. Toshio Utena, professor emeritus of the University of Tsukuba; Dr. Takashi Kusumi, associate professor at Kyoto University; and Dr. Shoji Yamaguchi, professor at Tokyo Denki University. These panel members were first given a brief explanation of this study as well as of each element of *ikigai*. Then, the items in Part II were checked by the three professors to determine whether each of the four sets of items fits with the concept of one of the four elements (self-esteem, purpose in life, personal energy, and life satisfaction) as well as whether each item contributes to the concept of *ikigai*. These items in Part II were prepared not only in Japanese, but also in English; the wording was examined by the professors, so as to arrive at agreement about the translation of the list of items for the *Ikigai* Scale. In addition, Part I, Current Status, was examined by these professors for the appropriateness of content and Japanese wording.

Second, Parts I and II were revised based on the three professors' feedback, and each sub-scale in Part II, the *Ikigai* Scale, was narrowed to 15 items. Finally, the corrected Part II was further checked for English wording by the professors on the author's dissertation committee. The *Ikigai* Scale for the pilot study has 52 positive statement items and eight negative (reversed) statement items. It was decided that in order to avoid elders' confusion in answering each item, most of the items would be positive statements; however, eight negative statements were included because the wording would be awkward

if these items were changed (e.g., #17. "I feel lonely").

Through these processes, the items for the pilot study version of the *Ikigai* Scale were determined. The list of the 60-item *Ikigai* Scale for the pilot study version in English (with Japanese shown in parenthesis) can be found in Appendix B. Also, the Readability Index in the Microsoft Word computer software was used to determine the grade level of the item wording in English for the convenience of English readers. The Readability Index includes both the "Flesch Reading Ease" score, evaluating the level of sentences on a 100-point scale (the higher the score, the easier to understand), and the "Flesch-Kincaid Grade Level" score, evaluating the U.S. grade level. Both scores are calculated for each of the 60 items and are shown in parentheses at the end of each item (see Appendix B). The average score of the Flesch Reading Ease for total items is 74.9, and the average score of the Flesch-Kincaid Grade Level for total items is 4.2. The resulting high score of the Reading Ease and the low score of the Grade Level indicate that the English wording of the *Ikigai* Scale is generally quite understandable for those who read above a fourth grade level.

#### Pilot Study

A pilot study was planned for the Japanese elderly who were retired principals in Tokyo and selected on the recommendation of three retired principals known by the researcher. The purpose of the pilot study was to develop the Part II questionnaire, the *Ikigai* Scale, and secondarily, to predict the return rate of the main study questionnaire, including Parts I, II, and III.

Instrumentation of the pilot study. The instrument used in the pilot study included three parts: Part I, Current Status; Part II, the *Ikigai* Scale; and Part III, four standardized

scales. Since Parts I and II were the same as those in the main study, except for the numbers of items in the *Ikigai* Scale, only the Part III questionnaires are explained in the following discussion. The pilot study included four additional scales already standardized in Japanese, in order to examine the correlation between each of the four elements of the *Ikigai* Scale and each of the four standardized scales. These standardized scales included the 10 items of the Self-Esteem Scale (Yamamoto, Matsui, & Yamanari, 1982), the 20 items of the Purpose in Life Test (PIL-Kenkyukai, 1993), the four items of the “Energy for Living” factor in the QOL Index (Ishihara, Naito, & Nagashima, 1992), and the four items of the “Present Life Satisfaction” factor in the QOL Index (Ishihara et al., 1992). These four previously-standardized scales were not included in the main study. The questionnaire was anonymous and was accompanied by an informed consent sheet (“information sheet”) containing a request for individuals’ participation in the study and instructions for filling out the form. Both English and Japanese versions of the information sheets are found in Appendices G and H, respectively. Procedures for the data collection were the same as those for the retired principals in the main study, which will be described in the next section. Individuals who participated in the pilot study were not asked to participate in the main research study. Since this pilot study involved a considerable number of items, each participant was given a ¥500 (about \$5) telephone card as a token of appreciation. This incentive was included in the envelope for the participants.

Data collection for the pilot study. The pilot study was conducted during August and September 1999 by mailing from the researcher’s permanent home in Japan 105



questionnaires to retired principals. Here, retired principals were defined as those who had retired from their schools in Tokyo. However, they included both those who were currently living in Tokyo and those who were currently living in the vicinity of Tokyo. Seventy-five questionnaires were sent back from the participants, including five returned because of deaths or address changes. After excluding 25 questionnaires, on which a minimum of five items in each of the three Parts were skipped or (one whole page was skipped), 63 questionnaires were used for analysis.

Data analysis for the pilot study. Minimal analysis of the pilot study was performed, mostly for Part II of the *Ikigai* Scale. In order to determine item fit, factor analysis of the *Ikigai* Scale was done first. In general, items which loaded at .35 or lower on their relevant scales were eliminated. The reliability (Cronbach's  $\alpha$ ) of the whole *Ikigai* Scale was examined as well. After examining the results, items on each of the four elements in the *Ikigai* Scale were eliminated but a .70 level of reliability was maintained. The correlation between each of the four elements of the *Ikigai* Scale and each of the four tests (or factors) already mentioned on the standardized tests was analyzed. For example, the correlation between this researcher's 13-item Self-Esteem sub-scale in the *Ikigai* Scale and the 10-item standardized Japanese version of the Rosenberg Self-Esteem Scale (Yamamoto et al., 1982) was examined. The correlation between each of four factors of the pilot study *Ikigai* Scale, based on the item categorizations from the factor analysis in the main study, and each of four standardized scales was analyzed.

General results of the pilot study. The questionnaire collection rate turned out to be relatively high, and most of the participants answered all of the questions and items. A

minor problem was found in that some of the respondents did not answer the question about the kinds of *ikigai* in Part I of Current Status, which required them to select the source of their *ikigai* from a list. Instead, they described their kinds of *ikigai* in their own words. These descriptions were recorded, however, under the appropriate number from the list. It was decided that the general layout of the questionnaire of the pilot study could be used for the main study. Since the general results of this pilot study revealed no serious problems, the main study was conducted. The 49-item *Ikigai* Scale for the main study, which has three negative statement items, evolved from the pilot study (Appendix E). In general, the 49-item *Ikigai* Scale turned out to be reliable and valid from the factor analysis, reliability analysis, and correlation analysis.

### Main Study

Based on the analysis of the *Ikigai* Scale in the pilot study, the main study was planned in order to further refine the scale. For the retired principals, both parts of the questionnaire were mailed with a stamped return envelope and the informed consent sheet (information sheet), incorporating a brief statement about the research purpose and confidentiality. Upon completion of the questionnaire, the respondent was asked to put the questionnaire into the stamped envelope and to mail it back to the researcher.

The data collection for the home residents was done in a different way. After discussion with the managers in the home facility, the researcher gathered data from the home residents in the *Sakura* building the following four ways: First, based on the previously prepared list of residents provided by the managers, individuals were visited in their rooms and the researcher then waited outside the room for them to complete the

questionnaire; second, the researcher met with a group of residents in the lounge or dining room in the home; third, staff in the home provided questionnaires to the residents; finally, for the rest of the participants, since the number of participants was not as high as the researcher had expected from the above three data collection methods, the researcher recruited additional participants in the *Taiseikan* recreation center in the home facility by asking them to participate after finishing their social club activities. In all four cases, upon completion, all questionnaires were collected in a box.

The main study was conducted in Japan for both groups of elders during September and October 1999. For the group of retired principals, questionnaires were sent to 320 participants; 206 were returned, 16 of which were returned unanswered because of the death of the addressee or an address change. Of the remaining 190, eleven questionnaires, in which respondents skipped a minimum of five items in each of the two Parts or skipped one whole page in the questionnaire, were excluded. The number of usable questionnaires for analysis was 179. For the home residents, the questionnaires were distributed to and collected directly from 132 volunteers in the Higashimurayama Home for the Aged by the researcher and staff persons. The number of usable questionnaires for analysis was 94. The reason for the low ratio of usable questionnaires is that on most of the unusable questionnaires, the home residents omitted several items in Part II of the *Ikigai* Scale, or mistakenly skipped some of the pages printed on the back of the questionnaires. Even though the instructions indicated that questions were also printed on the back, it is thought that some of the elders might not have seen the instructions. The problem of skipped pages might be avoided in the future if each page is printed on only one side.

As with the pilot study, the informed consent form (information sheet) accompanied each questionnaire (see Appendix G). As in the pilot study, the incentive of a ¥500 (about \$5) phone card was given in person to the residents in the home for the main study. Since there were few volunteers in the first round of recruitment, on advice of the manager, the researcher decided to give the telephone card as an incentive to increase the number of participants. However, it was not given to the retired principals because it was too expensive to do so. Since the same questionnaires in Part I and II (except for a question in Part I ["How long have you been in this facility?"] for the home residents) were provided for both the retired principals and the home residents, a small mark, such as "A" or "B," referring to each group of participants was printed on the top of the front questionnaire for the purpose of later convenience. The manner of protecting the confidentiality of respondents was exactly the same as for the pilot study.

### **Data Analysis for the Pilot and Main Studies**

Results are reported in the next chapter. This section, however, briefly outlines the data analysis procedure. Data analysis was performed using the Statistical Package for the Social Sciences (SPSS) computer software. The analysis was designed to answer the following six research questions:

#### Research Question 1

To what extent does the *Ikigai* Scale demonstrate construct validity? To ensure the content validity and unity of this scale, the factor analysis was performed. First, factor analysis for both pilot and main studies was done for Part II of the *Ikigai* Scale to determine

the factor structure of the scale, which was expected to divide the scale into the four categorized factors that the researcher had constructed. Second, the unnecessary items were examined; those items loading at .30 or lower were deleted. Third, those items showing overlap between two factors were examined for possible elimination, even if an item showed a high loading score.

#### Research Question 2

How reliable are the four sub-scales of Self-Esteem, Purpose in Life, Personal Energy, and Life Satisfaction? Factor analyses were performed and Cronbach's Alphas were obtained for the *Ikigai* Scale. Based on the results of the factor analyses, explained in research question #3, some unnecessary items were eliminated. Meeting the .70 level of reliability required further elimination of items both in the pilot and main studies.

#### Research Question 3

How reliable is the *Ikigai* Scale? The reliability of the *Ikigai* Scale was examined using Cronbach's Alpha for both the pilot and main studies. In addition, the correlation between the score on the question about the level of *ikigai* (Do you currently have any "*ikigai*"?) in the Current Status and the total mean score on the *Ikigai* Scale was examined.

#### Research Question 4

What is the relationship between the *Ikigai* Scale and the following previously-standardized scales: the Japanese version of the Rosenberg Self-Esteem Scale (Yamamoto, Matsui, & Yamanari, 1982), the Japanese version of the Purpose in Life Test (PIL-Kenkyukai, 1993), the "Energy for Living" factor in the Quality of Life Index (Ishihara, Naito, & Nagashima, 1992), and the "Present Life Satisfaction" factor in the Quality of Life

Index (Ishihara et al., 1992)? This question was intended only for the pilot study, to test content validity. Each of the already-standardized four scales was examined to see the correlation between them and the four factors from the author's main study.

#### Research Question 5

Are there significant relationships among the four factors comprising *ikigai*? To see the relationships among the four sub-scales of *Ikigai*, the Pearson correlation among the four factors of the *Ikigai* Scale was examined.

#### Research Question 6

Are there significant differences between the two groups (retired principals and residents in a public home for the aged) on the four factors that comprise *ikigai*? The four factors were compared to one another to see if the relationships among the four factors was the same for both groups. A multivariate analysis of variance (MANOVA) for the four factors was significant. Individual ANOVAs for the four factors between the two groups were used to determine which factors were significantly different from each other.

### **Summary**

The primary purpose of this study was to develop an *Ikigai* Scale for Japanese elderly and to use it to determine if there were differences between retired principals and home residents. The *Ikigai* Scale was developed through the process of (1) initial creation by this researcher, (2) examination by experts in both Japan and the United States, (3) the implementation of a pilot study, and (4) further testing in the main study. During these steps, the number of items in the scale was reduced from 72 to 49, and eventually to 28.

The two questionnaires of Part I (Current Status) and Part II (the *Ikigai* Scale) were used for the pilot and main studies. The Current Status demographic questions, about such things as gender and perceived health, were used only for descriptive purposes. The *Ikigai* Scale consists of four elements comprising the concept of *ikigai*: Self-Esteem, Purpose in Life, Personal Energy, and Life Satisfaction. Each element in the *Ikigai* Scale (main study version) has 12 or 13 items. The participants for the main study were comprised of two groups of elderly participants living in Tokyo, retired school principals and residents in a home for the aged. The questionnaires were sent to 320 retired principals, and from this group the number of usable questionnaires for the data analysis was 179. On the other hand, 132 questionnaires were administered in person in the Higashimurayama Home for the Aged, and the number of usable questionnaires for the analysis was 94. The data analysis was performed mainly for the examination of the *Ikigai* Scale from the pilot and main studies, and secondarily, for a comparison of the *Ikigai* Scale between the two groups of the participants. In the next chapter, the results of both pilot and main studies are reported in detail.

## CHAPTER IV

### RESULTS

This study was designed to develop a psychological measure of *ikigai* among Japanese elderly. The questionnaire used in the study includes Part I, Current Status, and Part II, the *Ikigai* Scale. Part I of the questionnaire includes 11 demographic questions and two questions directly about *ikigai*. Part II, the psychological measurement of *ikigai*, was developed through a four-step process: initial scale creation, judgment of the scale by experts, examination of pilot study data, and final testing in the main study. During these steps, the number of items in the *Ikigai* Scale was reduced in order to increase the efficiency of the scale. Both the pilot and main studies were conducted between August and October 1999. In the pilot study, data from 63 retired principals were used for analysis; in the main study, 179 retired principals and 94 residents in a home for the aged comprised the study sample. In the following chapter, the demographic data from the main study are introduced. The results of both the pilot and main studies are then presented in order to answer the six research questions listed in Chapter I.

#### A Profile of the Sample

In the following section, data from Part I of the demographic questionnaire for the participants in the main study are presented in order to establish the general features of the two groups in the sample. Results are shown on the same table: retired principals ( $n = 179$ ), home residents ( $n = 94$ ), and total for the two groups ( $n = 273$ ). The results are reported in the order they appear on the Part I questionnaire: gender (Table 2); sample age



(Table 3); perception of beginning of old age (Table 3, Figure 2); previous education (Table 4); living situation (Table 5); current employment (Table 6); and past job status (participants' main position or their position at the age of 60, Table 7). These are followed by four questions about relationship with family and friends, social activity, perceived health, and learning participation, all of which are shown in the same table (Table 8). The independent samples t-tests for these four variables are shown in Table 9. In addition, a question about the level of *ikigai* ("Do you currently have any *ikigai*?") is shown on the table (Table 10). This question is the most important question in Part I, and was examined to see the correlation with the *Ikigai* Scale. For these questions about four variables and the level of *ikigai*, a five-point Likert scale was used, ranging from 1 (high) to 5 (low), though those numbers were reversed in the analysis. In this scoring, a high mean score indicates positively in each variable. Finally, among 13 categorized items about the source of *ikigai*, only the first ranked response is introduced (Table 11).

Table 2

Gender of Study Participants for Retired Principals, Home Residents, and Total Sample

| Type               |        | Frequency | Percent |
|--------------------|--------|-----------|---------|
| Retired principals | Male   | 167       | 93.3    |
|                    | Female | 12        | 6.7     |
|                    | Total  | 179       | 100.0   |
| Home residents     | Male   | 37        | 39.4    |
|                    | Female | 57        | 60.6    |
|                    | Total  | 94        | 100.0   |
| Total sample       | Male   | 204       | 74.7    |
|                    | Female | 69        | 25.3    |
|                    | Total  | 273       | 100.0   |

Table 3

Average Sample Age and Perceived Beginning of Old Age for Retired Principals, Home Residents, and Total Sample

| Type               |                     | N   | Mean  | Std. Deviation |
|--------------------|---------------------|-----|-------|----------------|
| Retired principals | Age                 | 179 | 73.91 | 5.70           |
|                    | Begining of old age | 169 | 71.16 | 4.85           |
| Home residents     | Age                 | 94  | 77.03 | 6.79           |
|                    | Begining of old age | 87  | 69.40 | 6.71           |
| Total sample       | Age                 | 273 | 74.99 | 6.26           |
|                    | Begining of old age | 256 | 70.56 | 5.60           |

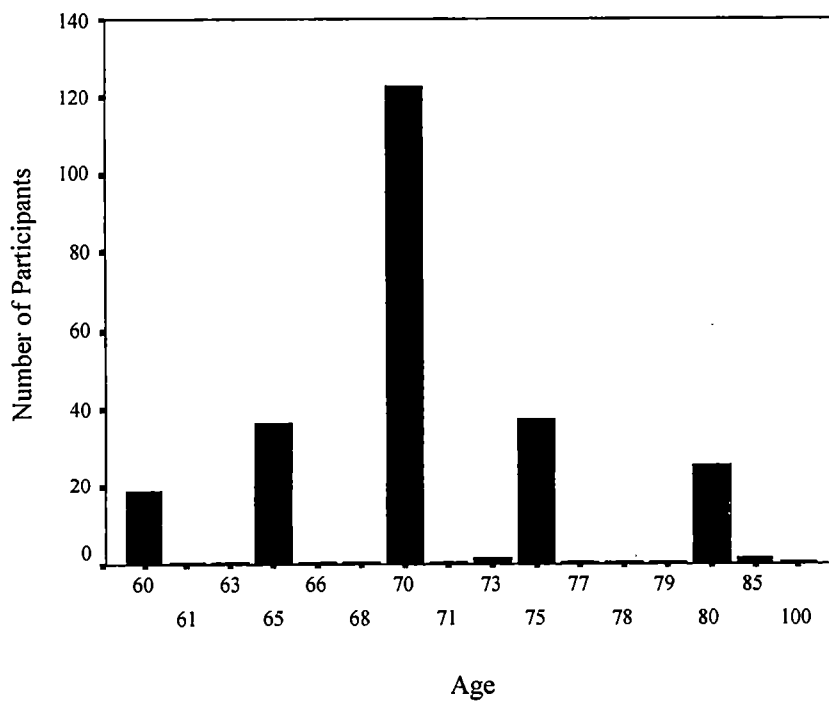


Figure 2. Perceived beginning of of old age.

Table 4

Previous Education for Retired Principals, Home Residents, and Total Sample

| Type               |                                               | Frequency | Percent |
|--------------------|-----------------------------------------------|-----------|---------|
| Retired principals | Finished high school                          | 3         | 1.7     |
|                    | Finished more than a junior or 4-year college | 176       | 98.3    |
|                    | Total                                         | 179       | 100.0   |
| Home residents     | Finished less than junior high school         | 36        | 38.3    |
|                    | Finished high school                          | 46        | 48.9    |
|                    | Finished more than a junior or 4-year college | 12        | 12.8    |
|                    | Total                                         | 94        | 100.0   |
| Total sample       | Finished less than junior high school         | 36        | 13.2    |
|                    | Finished high school                          | 49        | 17.9    |
|                    | Finished more than a junior or 4-year college | 188       | 68.9    |
|                    | Total                                         | 273       | 100.0   |

Table 5

Living Situation of Retired Principals

| Type               |                            | Frequency | Percent |
|--------------------|----------------------------|-----------|---------|
| Retired principals | Alone                      | 10        | 5.6     |
|                    | Only with spouse           | 96        | 53.6    |
|                    | Only with child(ren)       | 10        | 5.6     |
|                    | With spouse and child(ren) | 58        | 32.4    |
|                    | Other                      | 5         | 2.8     |
|                    | Total                      | 179       | 100.0   |

Table 6

Current Employment for Retired Principals, Home Residents, and Total Sample

| Type               |                                    | Frequency | Percent | Valid Percent |
|--------------------|------------------------------------|-----------|---------|---------------|
| Retired principals | Doing any job (full- or part-time) | 50        | 27.9    | 28.1          |
|                    | Doing household work               | 9         | 5.0     | 5.1           |
|                    | Without any occupation             | 109       | 60.9    | 61.2          |
|                    | Other                              | 10        | 5.6     | 5.6           |
|                    | Total                              | 178       | 99.4    | 100.0         |
|                    | Missing                            | 1         | .6      |               |
|                    | Total                              | 179       | 100.0   |               |
| Home residents     | Doing any job (full- or part-time) | 3         | 3.2     | 3.2           |
|                    | Doing household work               | 1         | 1.1     | 1.1           |
|                    | Without any occupation             | 86        | 91.5    | 92.5          |
|                    | Other                              | 3         | 3.2     | 3.2           |
|                    | Total                              | 93        | 98.9    | 100.0         |
|                    | Missing                            | 1         | 1.1     |               |
|                    | Total                              | 94        | 100.0   |               |
| Total sample       | Doing any job (full- or part-time) | 53        | 19.4    | 19.6          |
|                    | Doing household work               | 10        | 3.7     | 3.7           |
|                    | Without any occupation             | 195       | 71.4    | 72.0          |
|                    | Other                              | 13        | 4.8     | 4.8           |
|                    | Total                              | 271       | 99.3    | 100.0         |
|                    | Missing                            | 2         | .7      |               |
|                    | Total                              | 273       | 100.0   |               |

Table 7

Previous Job Status for Retired Principals, Home Residents, and Total Sample

| Type               |                           | Frequency | Percent | Valid Percent |
|--------------------|---------------------------|-----------|---------|---------------|
| Retired principals | Professional              | 179       | 100.0   | 100.0         |
| Home residents     | Business or office worker | 7         | 7.4     | 7.9           |
|                    | Professional              | 14        | 14.9    | 15.7          |
|                    | Private business          | 16        | 17.0    | 18.0          |
|                    | Farmer or fisherman       | 2         | 2.1     | 2.2           |
|                    | Housewife/husband         | 20        | 21.3    | 22.5          |
|                    | Other                     | 30        | 31.9    | 33.7          |
|                    | Total                     | 89        | 94.7    | 100.0         |
|                    | Missing                   | 5         | 5.3     |               |
|                    | Total                     | 94        | 100.0   |               |
| Total sample       | Business or office worker | 7         | 2.6     | 2.6           |
|                    | Professional              | 193       | 70.7    | 72.0          |
|                    | Private business          | 16        | 5.9     | 6.0           |
|                    | Farmer or fisherman       | 2         | .7      | .7            |
|                    | Housewife/husband         | 20        | 7.3     | 7.5           |
|                    | Other                     | 30        | 11.0    | 11.2          |
|                    | Total                     | 268       | 98.2    | 100.0         |
|                    | Missing                   | 5         | 1.8     |               |
|                    | Total                     | 273       | 100.0   |               |

Table 8

Relationship with Family and Friends, Social Activity, Perceived Health, and Learning Participation for Retired Principals, Home Residents, and Total Sample: Means and Standard Deviations

| Type               |                                      | N   | Mean | Std. Deviation |
|--------------------|--------------------------------------|-----|------|----------------|
| Retired principals | Relationship with family and friends | 178 | 4.39 | .55            |
|                    | Social activity                      | 179 | 3.32 | 1.07           |
|                    | Perceived health                     | 179 | 3.93 | .85            |
|                    | Learning participation               | 179 | 3.07 | 1.05           |
| Home residents     | Relationship with family and friends | 94  | 3.90 | .70            |
|                    | Social activity                      | 93  | 2.71 | 1.28           |
|                    | Perceived health                     | 93  | 3.60 | .92            |
|                    | Learning participation               | 94  | 2.85 | 1.35           |
| Total sample       | Relationship with family and friends | 272 | 4.22 | .65            |
|                    | Social activity                      | 272 | 3.11 | 1.18           |
|                    | Perceived health                     | 272 | 3.82 | .88            |
|                    | Learning participation               | 273 | 3.00 | 1.17           |

Note. Scores are ranged from 1 (low) to 5 (high) for each of the four variables.

Table 9

The Level of *Ikigai* for Retired Principals, Home Residents, and Total Sample: Mean and  
Standarder Deviation

| Type               |                 | N   | Mean | Std. Deviation |
|--------------------|-----------------|-----|------|----------------|
| Retired principals | Level of ikigai | 176 | 4.24 | .69            |
| Home residents     | Level of ikigai | 92  | 3.54 | 1.17           |
| Total sample       | Level of ikigai | 268 | 4.00 | .95            |

Note. Scores are ranged from 1 (low) to 5 (high).

Table 10

Relationship with Family and Friends, Social Activity, Perceived Health, and Learning  
Participation: Independent Samples T-Tests

|                                      | Levene's Test for<br>Equality of Variances |        | t-test for Equality of Means |        |                 |
|--------------------------------------|--------------------------------------------|--------|------------------------------|--------|-----------------|
|                                      | F                                          | Sig.   | t                            | df     | Sig. (2-tailed) |
| Relationship with family and friends | .45                                        | .501   | 6.28                         | 270.00 | < .001          |
| Social activity                      | 7.24                                       | .008   | 3.93                         | 159.54 | < .001          |
| Perceived health                     | 9.18                                       | .003   | 2.89                         | 172.80 | .004            |
| Learning participation               | 13.87                                      | < .001 | 1.38                         | 153.78 | .169            |

Note. Equal variance was assumed only for relation.

Table 11

Source of *Ikigai* for Retired Principals, Home Residents, and Total Sample

| Type               |                                     | Frequency | Percent | Valid Percent |
|--------------------|-------------------------------------|-----------|---------|---------------|
| Retired principals | Spending time with friends          | 3         | 1.7     | 1.7           |
|                    | Spending time with family or spouse | 26        | 14.5    | 14.9          |
|                    | Working                             | 42        | 23.5    | 24.0          |
|                    | Doing household duties              | 1         | .6      | .6            |
|                    | Doing volunteer activities          | 14        | 7.8     | 8.0           |
|                    | Doing religious activities          | 2         | 1.1     | 1.1           |
|                    | Doing hobbies or sports             | 52        | 29.1    | 29.7          |
|                    | Traveling                           | 6         | 3.4     | 3.4           |
|                    | Watching TV or listening to music   | 5         | 2.8     | 2.9           |
|                    | Studying or reading                 | 22        | 12.3    | 12.6          |
|                    | Other                               | 2         | 1.1     | 1.1           |
|                    | Total                               | 175       | 97.8    | 100.0         |
|                    | Missing                             | 4         | 2.2     |               |
|                    | Total                               | 179       | 100.0   |               |
| Home residents     | Spending time with friends          | 14        | 14.9    | 18.7          |
|                    | Spending time with family or spouse | 6         | 6.4     | 8.0           |
|                    | Working                             | 4         | 4.3     | 5.3           |
|                    | Doing volunteer activities          | 4         | 4.3     | 5.3           |
|                    | Doing religious activities          | 1         | 1.1     | 1.3           |
|                    | Doing hobbies or sports             | 28        | 29.8    | 37.3          |
|                    | Traveling                           | 1         | 1.1     | 1.3           |
|                    | Watching TV or listening to music   | 6         | 6.4     | 8.0           |
|                    | Studying or reading                 | 5         | 5.3     | 6.7           |
|                    | Other                               | 6         | 6.4     | 8.0           |
|                    | Total                               | 75        | 79.8    | 100.0         |
|                    | Missing                             | 19        | 20.2    |               |
|                    | Total                               | 94        | 100.0   |               |
| Total sample       | Spending time with friends          | 17        | 6.2     | 6.8           |
|                    | Spending time with family or spouse | 32        | 11.7    | 12.8          |
|                    | Working                             | 46        | 16.8    | 18.4          |
|                    | Doing household duties              | 1         | .4      | .4            |
|                    | Doing volunteer activities          | 18        | 6.6     | 7.2           |
|                    | Doing religious activities          | 3         | 1.1     | 1.2           |
|                    | Doing hobbies or sports             | 80        | 29.3    | 32.0          |
|                    | Traveling                           | 7         | 2.6     | 2.8           |
|                    | Watching TV or listening to music   | 11        | 4.0     | 4.4           |
|                    | Studying or reading                 | 27        | 9.9     | 10.8          |
|                    | Other                               | 8         | 2.9     | 3.2           |
|                    | Total                               | 250       | 91.6    | 100.0         |
|                    | Missing                             | 23        | 8.4     |               |
|                    | Total                               | 273       | 100.0   |               |



Table 2 shows that the sample of the retired principals consisted mostly of males (93.3 %), while 39.4% of the home residents were male and 60.6 % were female. Table 3 shows that the average age of the retired principals (73.9 years old) was younger than that of the home residents (77.0 years old). Table 3 also shows that the age identified most often by the respondents as the beginning of old age was 70 (for retired principals, 53.3 %; home residents, 37.9 %). Also, Figure 2 indicates that participants tended to answer with round numbers: that is, 65, 70, 75, and 80.

Table 4 shows that 98.3% of the retired principals were college graduates or higher (98.3%), whereas the educational level of the home residents was not as high (38.3% had finished junior high school or less, 48.9% were high school graduates, and 12.8% were college graduates or higher).

Table 5 shows that most of the retired principals were living with their spouses (53.6 %) or with their spouses and children (32.4 %), and that all of the home residents were living in private rooms in the home for the aged.

Table 6 shows that although most of those sampled did not have any occupation, 27.9 % of the retired principals had full or part-time jobs, while only 3.2 % of the home residents had full or part-time jobs. Table 7 shows the past job status was obviously school principals for all of the retired principals, but varied for the home residents.

Five additional variables were examined. These included relationship with family and friends, social activity, perceived health, learning participation (Table 8), and the level of *ikigai* (Table 9). The variables were generally perceived as positive among the two sample groups; however, these variables appeared to be higher among the retired principals

than among the home residents. The independent samples t-tests show that all of the four variables were significant, except for the learning participation variable (Table 10). The level of *ikigai* also was significant ( $t = 5.28, df = 125.36, p < .001$ ). These results indicate that the retired principals perceived themselves more positively than the home residents in relation to these five variables, except for the variable of learning participation.

Comparing the two samples, some unique features were observed among these five variables: retired principals were highly active in their relationships with family and friends and had high *ikigai*, whereas home residents were not so active in social activities. Table 11 shows that the most frequently chosen source of *ikigai* for all groups was doing hobbies or sports. For the retired principals, the second source of *ikigai* was working, while for the home residents, the second source was spending time with friends.

### **Results from the Pilot Study**

The pilot study was conducted for the purpose of selecting the best items for the *Ikigai* Scale, and to get a general sense of how participants responded to the questionnaire. The initial questionnaire for the pilot study included three parts. Part I contained 11 sociodemographic questions and two questions about *ikigai* (Current Status). Part II was composed of 60 items, 15 for each of the four elements of the *Ikigai* Scale. And Part III included items from four previously standardized scales: the 10 items of the Japanese version of the Rosenberg Self-Esteem Scale (Yamamoto, Matsui, & Yamanari, 1982), the 20 items of the Japanese version of the Purpose in Life Test (PIL-Kenkyukai, 1993), the four items of the "Energy for Living" factor in the Quality of Life Index (Ishihara, Naito, &

Nagashima, 1992), and the four items of the “Present Life Satisfaction” factor in the Quality of Life Index (Ishihara et al., 1992). The correlations between each of the four factors in the *Ikigai* Scale and its corresponding standardized scale were examined based on the item classifications from the main study. This analysis is described later in the section “Results from the Main Study.” A preliminary analysis of the relationship between all items categorized in each of the four elements in the *Ikigai* Scale and the four corresponding standardized scales was performed in the pilot study.

The actual number of participants used for the pilot study analysis was 63 (58 males; five females). Even though the questionnaire was long, participants seldom skipped items. Missing data in Parts II and III were scored using the mean from all other respondents (i.e., counted as three on a five-point scale), because the sample number was small and it was necessary to maximize the sample; however, data from those participants who skipped a minimum of five items in each of the three Parts or who skipped a whole page were not included in the analysis. Before the analysis, all of the negative (reversed) statements in the *Ikigai* Scale and in each of the four previously standardized scales were recorded in reverse (i.e., an original “1” response was recorded as “5”).

#### Tentative 49-Item *Ikigai* Scale for the Main Study

The following subsection describes the third step in the process of development of the *Ikigai* Scale: examination of the pilot study. This was undertaken in order to create the main study version of the *Ikigai* Scale.

Factor analysis of the *Ikigai* Scale. In the development of the *Ikigai* Scale, factor analysis of all 60 items was attempted. First, the number of factors in the *Ikigai* Scale was

examined. The scale was examined initially by using the Maximum Likelihood extraction method with Varimax rotation and resulted in 16 factors with the eigenvalues higher than one. A number of factor solutions, starting from two to six, were run in order to examine how each item fits with each other. Examination of these processes found that four factors worked best: in the four-factor solution, all items were generally arranged in one of the four factors (Appendix I). The cumulative variance for the four factors is 47.36 %. The variance of the factors is as follows: Factor 1 is 29.18 %; Factor 2 is 6.35 %; Factor 3 is 6.15 %; and Factor 4 is 5.68 %.

When the factor analysis (the Maximum Likelihood extraction method, Varimax rotation) for four factor numbers was examined, 13 factors were obtained. Some items were eliminated, for reasons such as weak loadings (generally less than .30) in each factor, and multiple loadings. After eliminating 11 unnecessary items from the original 60 items, 49 items were left as the tentative *Ikigai* Scale for the main study: With a forced four-factor solution, the first factor is made up of mostly initial Purpose in Life items and a mixture of items from the rest of the initial three categories; the second subscale contains mostly Self-Esteem items; the third subscale is a mixture of items from the Personal Energy, Purpose in Life, and Self-Esteem categories; and the fourth subscale is mostly Life Satisfaction items (Appendix J). The cumulative variance for the four factors is 50.36 %. The variance of Factor 1 is 31.68 %; the variance of Factor 2 is 6.77 %; the variance of Factor 3 is 6.46 %; and the variance of Factor 4 is 5.45 %. Some items loaded on unexpected factors; that is, some items in each of the four factors of the *Ikigai* Scale were not categorized exactly the same as they were in the initial arrangement. However, since

this was the pilot study stage, it was acceptable that the items were not exactly divided into the four factors expected by the researcher. Some of these items were considered for further elimination from the main study later. The Alpha of the total 49 items was very high ( $\alpha = .95$ ), meaning that the 49-item *Ikigai* Scale was reliable.

The correlation between the question of the level of *ikigai* ("Do you currently have any *ikigai*?") in Part I, Current Status, and the total mean score of the 49-item *Ikigai* Scale is significant ( $\rho = .52$ ;  $p < .001$ ). The result of the question of the level of *ikigai* was not distributed normally; that is, the distribution tended to be skewed toward a high level of *ikigai*. Thus, Spearman's rho correlation (2-tailed) was chosen.

Reliabilities of the four sub-scales. The four reliabilities (Cronbach's  $\alpha$ ) ranged from moderate to high: 13 Self-Esteem initial items ( $\alpha = .89$ ); 12 Purpose in Life initial items ( $\alpha = .78$ ); 12 Personal Energy initial items ( $\alpha = .84$ ); and 12 Life Satisfaction initial items ( $\alpha = .67$ ).

Relationship between the *Ikigai* Scale and standardized scales. Correlations between each of the four elements in the *Ikigai* Scale (Self-Esteem, Purpose in Life, Personal Energy, and Life Satisfaction) and each of the corresponding four previously-standardized scales were examined, so as to get a general sense of the relationships between the two sets of scales. It would have been most desirable to examine the correlations on the basis of responses made in the main study, because the sample was larger. However, if the four standardized tests were administered in the main study, the total number of items would be too large to administer to a large sample. On the other hand, if the correlations were examined in the pilot study, the sample numbers

would not be large enough for factor analysis. Therefore, as a compromise, the correlations were examined using the item classifications from the main study, but using the pilot study sample.

The reliabilities (Cronbach's  $\alpha$ ) of the four standardized scales were as follows: the Alpha of the Japanese version of the Rosenberg Self-Esteem Scale (Yamamoto et al., 1982) was .71; the Alpha of the Japanese version of the Purpose in Life Test (PIL-Kenkyukai, 1993) was .92; the Alpha of the Energy for Living factor (Ishihara et al., 1992) was .56; and the Alpha of the Present Life Satisfaction factor (Ishihara et al., 1992) was .85 (Table 12). All Alphas of the four standardized scales ranged from moderate to very high. In addition, 2-tailed Pearson correlations between each of the four elements of the *Ikigai* Scale and their corresponding elements of the four standardized scales were significant ( $p < .001$ , Table 13). The correlation between the author's 13 initial Self-Esteem items in the *Ikigai* Scale and the standardized 10 items of the Self-Esteem Scale was .58 ( $p < .001$ ). The correlation between the author's 12 initial Purpose in Life items and the 20 items of the standardized Purpose in Life Test was .74 ( $p < .001$ ). The

Table 12

Reliability Alphas of the Four Standardized Scales ( $n = 63$ )

| Scale/factor names               | Cronbach's $\alpha$ |
|----------------------------------|---------------------|
| Rosenberg Self-Esteem Scale      | .71                 |
| Purpose in Life Test             | .92                 |
| Energy for Living Factor         | .56                 |
| Present Life Satisfaction Factor | .85                 |

Table 13

Correlations Between Elements in the 49-Item *Ikigai* Scale and Standardized Scales/Factors( $n = 63$ )

| Elements in the <i>Ikigai</i> Scale | and | Standardized scales/factors | Pearson correlation ( $r$ ) |
|-------------------------------------|-----|-----------------------------|-----------------------------|
| Self-Esteem                         |     | Rosenberg Self-Esteem       | .58 ( $p < .001$ )          |
| Purpose in Life                     |     | Purpose in Life             | .74 ( $p < .001$ )          |
| Personal Energy                     |     | Energy for Living           | .47 ( $p < .001$ )          |
| Life Satisfaction                   |     | Present Life Satisfaction   | .60 ( $p < .001$ )          |

correlation between the author's 12 initial Personal Energy items and the four items of the standardized Energy for Living factor was .47 ( $p < .001$ ). And the correlation between the author's 12 initial Life Satisfaction items and the four items of the standardized Present Life Satisfaction factor was .60 ( $p < .001$ ). This analysis was intended as a preliminary analysis for the main study. However, in the stage of pilot study, a close relationship between the author's *Ikigai* Scale and the four standardized scales can be observed.

Since it was suggested from the pilot study that the Self-Esteem items are valid for the construction of the meaning of *ikigai*, the main study continued to use the Self-Esteem factor as one of the four factors in the *Ikigai* Scale. From these analyses, it is concluded that the 49-item *Ikigai* Scale is generally both valid and reliable. The scale has 13 Self-Esteem items, 12 Purpose in Life items, 12 Personal Energy, and 12 Life Satisfaction items. The scale was tested further for validity and reliability in the main study, in order to arrive at the final scale.

## Results from the Main Study

The main study was a planned comparison of two groups, retired principals and residents in the home for the aged, both of which were living in Tokyo. The purpose of the main study was to revise the *Ikigai* Scale by examining factor analysis, reliability, and the multivariate analyses of variance (MANOVAs) between the two groups. Also, Part I, Current Status, which is similar to Part I of the pilot study, was examined for both groups. For the retired principals, the number of usable questionnaires for analysis was 179 (167 males; 12 females). For the home residents, the questionnaires were distributed to 132 residents in the Higashimurayama Home for the Aged, and later collected. Finally, the number of usable questionnaires for analysis was 94 (37 males; 57 females). The analyses based on the six research questions are addressed in the following subsections.

### Construct Validity of the *Ikigai* Scale

This analysis was intended to answer research question #1: To what extent does the *Ikigai* Scale demonstrate construct validity? First, three factor analyses for the 49-item *Ikigai* Scale were done, one for the retired principals ( $n = 179$ ), one for the home residents ( $n = 94$ ), and one for both groups together ( $n = 273$ ). The factor analyses (the Maximum Likelihood extraction method, Varimax rotation) for the three groups were run in order to decide the number of factor solutions in the scale. Several factor analyses were attempted using the eigenvalues higher than one criterion, and by using the .35 level of item-to-factor loading criterion. Comparing the results of the factor analysis among the three groups, it was observed that most of the items for each group were roughly divided into the four factors as conceptualized. Although the four factors for both the retired principals and



home residents were not so clearly divided in this stage, the four factors in the total groups were generally well-organized. The result of the initial rotated factor matrix for the total groups (the Maximum Likelihood extraction method with Varimax rotation for four factor numbers) is shown in Appendix K. The cumulative variance for the four factors is 50.24 %. The first factor explains 37.59 % of the variance; the second factor explains 5.48 %; the third factor explains 3.29 %; and the fourth factor explains 3.25 %. This analysis shows that each item in the scale generally fit into one of the four categories, and the order of the factors was Self-Esteem, Purpose in Life, Life Satisfaction, and Personal Energy.

Second, as was done in the pilot study, several sets of factor analyses were examined to decide on the final version of the *Ikigai* Scale. The factor analysis (the Maximum Likelihood extraction method, Varimax rotation for four factor numbers) examined items to determine problems (e.g., weak loadings, such as less than .40 in each factor, and multiple factor loadings). As a result, 21 unnecessary items were eliminated from the 49-item *Ikigai* Scale, and the scale was completed (Table 14). Table 14 describes the final version of the 28-item *Ikigai* Scale. The cumulative variance for the four factors is 59.75 %. The Self-Esteem factor explains 44.45 % of the variance; the Purpose in Life factor explains 8.00 %; the Life Satisfaction factor explains 5.75 %; and the Personal Energy factor explains 4.57 % of variance.

In the process of eliminating unnecessary items, since the factor components of the groups of retired principals and home residents were different, and since the number of participants in the home resident group ( $n = 94$ ) was not large enough for the examination

Table 14

Final Rotated Factor Matrix From the Main Study: 28-Item *Ikigai* Scale ( $n = 273$ )

|                                                                      | Factor      |                 |                   |                 |
|----------------------------------------------------------------------|-------------|-----------------|-------------------|-----------------|
|                                                                      | Self-Esteem | Purpose in Life | Life Satisfaction | Personal Energy |
| 24. I am a useful person for other people.                           | .753        | .323            | .145              | .056            |
| 29. Others have frequently praised me.                               | .642        | .206            | .198              | .173            |
| 47. I am more capable of doing some things than other people are.    | .631        | .144            | .095              | .301            |
| 39. Everyone needs me.                                               | .626        | .239            | .254              | .224            |
| 19. I am a competent person.                                         | .610        | .263            | .144              | .240            |
| 26. I am proud of myself.                                            | .582        | .265            | .194              | .227            |
| 5. I believe I am an irreplaceable person for my family and friends. | .546        | .247            | .129              | .165            |
| 45. I have had an important goal throughout my life.                 | .539        | .489            | .113              | .063            |
| 6. I have a goal for every day.                                      | .231        | .793            | .136              | .220            |
| 23. I am attempting to fulfill goals.                                | .359        | .683            | .093              | .177            |
| 1. I have a lot of goals.                                            | .320        | .600            | .090              | .198            |
| 25. I have a plan for the rest of my life.                           | .479        | .597            | .120              | .103            |
| 42. I have a meaning in life.                                        | .464        | .539            | .318              | .174            |
| 14. I have already found my purpose in life.                         | .403        | .474            | .223              | .100            |
| 3. I am satisfied with my current life.                              | -.078       | .290            | .750              | -.001           |
| 30. I am happy.                                                      | .281        | .177            | .627              | .116            |
| 32. I feel secure about my future life.                              | .174        | -.060           | .615              | .160            |
| 16. I enjoy my life every day.                                       | .142        | .423            | .586              | .263            |
| 10. I feel a sense of fulfillment in my life.                        | .092        | .396            | .583              | .281            |
| 27. I feel comfortable with my social status.                        | .391        | .096            | .542              | .109            |
| 41. My current income is enough for me to live.                      | .256        | -.038           | .412              | .132            |
| 8. I tend to be very fast doing anything.                            | .274        | .195            | .091              | .630            |
| 49. I am an active person.                                           | .364        | .204            | .224              | .630            |
| 46. I am highly motivated.                                           | .543        | .352            | .211              | .448            |
| 4. I am energetic when working.                                      | .233        | .519            | .307              | .413            |
| 21. I am full of life energy.                                        | .490        | .275            | .273              | .409            |
| 38. I have achieved most of my interests.                            | .224        | .071            | .311              | .397            |
| 33. I lead a well-regulated life.                                    | .024        | .180            | .268              | .310            |

Note. Extraction Method: Maximum Likelihood. Rotation Method: Varimax with Kaiser Normalization.

of factor analysis, it was decided that the examination of factor analysis in the *Ikigai* Scale would be undertaken only for the total of the two groups ( $n = 273$ ). The following other analyses for answering the remaining five research questions were examined based on this total group version.

A 28-item *Ikigai* Scale was chosen for the following reasons. First, since it was observed at the home for the aged that some elders felt too tired to answer the long questionnaire, it was felt necessary to make a shorter, more user-friendly version of the *Ikigai* Scale. The scale was shortened as much as possible.

Second, several versions of the scale were examined, from 22- to 30-item versions, examining each of the low loaded items from the factors one by one while maintaining the high reliability Alphas for each of the four factors. In the 28-item version, each of the seven items generally fit well into in each of the designated four factors: the Self-Esteem factor had seven items, the Purpose in Life factor had seven items, the Life Satisfaction factor had seven items, and the Personal Energy factor had four items and borrowed three approximately equal loading items from other factors.

Third, in order to eliminate possible confusion when responding to the scale, two negative (reversed) items were eliminated. Since the factor loadings of negative items # 15 ("I feel lonely") and # 22 ("My life is meager") in the Life Satisfaction factor were not as high as the loadings of other items in the factor, these two items were removed.

Fourth, the balance in each of the four factors was considered in order to make the scale symmetrical. It was not absolutely necessarily to make the scale symmetrical. However, since the first, second, and third factors were approximately equal in every

version, and since future studies with more samples will reexamine the scale, it was decided to make the scale symmetrical. This 28-item version, however, had two problems in the fourth factor of Personal Energy. The first problem was the three double factor loadings with other factors: items #46 ("I am highly motivated"), #21 ("I am full of life energy"), and #4 ("I am energetic when working"). It was decided that these three items would remain in the fourth factor of Personal Energy for the following reasons: (1) the scores of these factor loadings were high; (2) the Alpha of the fourth factor was improved if these three items were included; and (3) these items were initially created for the category of Personal Energy. The second problem was the inclusion of item #33 ("I lead a well-regulated life"), which showed a factor loading that was not as high as others (.310). However, if item #33 was eliminated, which meant the scale had 27 items, a similar problem occurred in the fourth factor. Actually, the factor loading of #33 was not so decisively low. Thus, it was decided to include this item.

The *Ikigai* Scale was completed with 28 positive statement items and four factor structures (in English, see Appendix L; in Japanese, see Appendix M). The four factors were ordered as follows: Self-Esteem, Purpose in Life, Life Satisfaction, and Personal Energy. The order of the last two factors was the opposite of how the scale was originally conceptualized by the author. Compared to the three factors of Self-Esteem, Purpose in Life, and Life Satisfaction, the fourth factor of Personal Energy had two problems and did not contribute as strongly to the total *Ikigai* Scale as did the other three factors. Thus, for the remainder of this discussion, Personal Energy is placed at the end of the scale.

Finally, just as in the pilot study, the Spearman's rho correlation (2-tailed) in the main study between the level of *ikigai* question ("Do you currently have any *ikigai*?") and the total mean score of the 28-item *Ikigai* Scale was significant ( $\rho = .65; p < .001$ ).

#### Reliability of the Four Factors of the *Ikigai* Scale

This analysis was intended to answer research question #2: How reliable are the four sub-scales of Self-Esteem, Purpose in Life, Personal Energy, and Life Satisfaction? Each of the four factors of the *Ikigai* Scale, based on four categorizations from the factor analysis in the main study, has a reliability Alpha that ranges from merely acceptable to high: The reliability (Cronbach's  $\alpha$ ) of the seven items of the Self-Esteem factor is .88; the Alpha of the even items of the Purpose in Life factor is .90; the Alpha of the seven items of the Life Satisfaction factor is .83; and the Alpha of the seven items of the Personal Energy factor is .84 (Table 15).

#### Reliability of the Entire *Ikigai* Scale

This analysis was intended to answer research question #3: How reliable is the *Ikigai* Scale? In addition to the above mentioned high reliability in each of the four

Table 15

#### Reliability Alphas of the Four Factors in the *Ikigai* Scale ( $n = 273$ )

| Factor names      | Cronbach's $\alpha$ |
|-------------------|---------------------|
| Self-Esteem       | .88                 |
| Purpose in Life   | .90                 |
| Life Satisfaction | .83                 |
| Personal Energy   | .84                 |

factors, the reliability of the entire 28-item *Ikigai* Scale for the three groups (retired principals, home residents, and both groups together) was obtained. It was found that the 28-item *Ikigai* Scale showed high reliability ( $\alpha = .95$ ). From this result, as well as the high reliability in each of the four factors, it can be concluded that the 28-item *Ikigai* Scale is highly reliable.

#### Relationship Between the *Ikigai* Scale and Standardized Scales

The following analysis was attempted to answer research question #4: What is the relationship between the *Ikigai* Scale and the following previously-standardized scales: the Japanese version of the Rosenberg Self-Esteem Scale (Yamamoto, Matsui, & Yamanari, 1982), the Japanese version of the Purpose in Life Test (PIL-Kenkyukai, 1993), the “Energy for Living” factor in the Quality of Life Index (Ishihara, Naito, & Nagashima, 1992), and the “Present Life Satisfaction” factor in the Quality of Life Index (Ishihara et al., 1992)? The relationship between each of the four factors in the pilot study, based on categorization from the main study *Ikigai* Scale, and the corresponding four previously-standardized scales was examined. Pearson Correlations (2-tailed) between each of the four factors of the pilot study *Ikigai* Scale (using the item categorizations from the factor analysis in the main study) and each of the four standardized scales turned out to be significant (Table 16). The correlation between the author’s seven items in the Self-Esteem factor and the standardized 10 items of the Self-Esteem Scale was .45 ( $p < .001$ ). The correlation between the author’s seven items in the Purpose in Life factor and the 20 items of the standardized Purpose in Life Test was .72 ( $p < .001$ ). The correlation between the author’s seven items in the Life Satisfaction factor and the four items of the

Table 16

Correlations Between Factors in the 28-Item *Ikigai* Scale and Standardized Scales/Factors( $n = 63$ )

| Factors in the <i>Ikigai</i> Scale | and | Standardized scales/factors | Pearson correlation ( $r$ ) |
|------------------------------------|-----|-----------------------------|-----------------------------|
| Self-Esteem                        |     | Rosenberg Self-Esteem       | .45 ( $p < .001$ )          |
| Purpose in Life                    |     | Purpose in Life             | .72 ( $p < .001$ )          |
| Life Satisfaction                  |     | Present Life Satisfaction   | .60 ( $p < .001$ )          |
| Personal Energy                    |     | Energy for Living           | .36 ( $p < .005$ )          |

standardized Present Life Satisfaction factor was .60 ( $p < .001$ ). And the correlation between the author's seven items in the Personal Energy factor and the four items of the standardized Energy for Living factor was .36 ( $p < .005$ ). These results indicate that each of the four factors conceptualized by this author closely match the concept of each of the four previously-standardized scales.

Relationships Among the Four Factors of the *Ikigai* Scale

This analysis was made to answer research question #5: Are there significant relationships among the four factors comprising *ikigai*? First, the Pearson Correlation was performed for each of the four factors of the *Ikigai* Scale. Table 17 shows highly positive correlations among all four factors ( $p < .001$ ). This means that an increase in score on one factor is related to an increase in score on the other factors of the scale.

Table 17

Correlations Among the Four Factors of the 28-Item *Ikigai* Scale ( $n = 273$ )

|                   | Self-Esteem | Purpose in Life | Life Satisfaction | Personal Energy |
|-------------------|-------------|-----------------|-------------------|-----------------|
| Self-Esteem       | --          | .73             | .52               | .72             |
| Purpose in Life   |             | --              | .52               | .68             |
| Life Satisfaction |             |                 | --                | .61             |
| Personal Energy   |             |                 |                   | --              |

Note. Correlations are all significant at the .001 level (2-tailed).

Group Differences for the Four Factors

Finally, the following analysis was intended to answer research question #6: Are there significant differences between the two groups (retired principals and residents in a public home for the aged) on the four factors that comprise *ikigai*? First, MANOVA was used to examine the general relationships among each of the four factors in the 28-item *Ikigai* Scale for the two groups. Since Wilks' Lambda in the MANOVA was significant ( $F [4, 268] = 34.60, p < .001$ ), individual analyses of variance (ANOVAs) were run for each of the four factors for the two groups. ANOVAs (Table 18) revealed significant differences between the two groups for all four factors: Self-Esteem ( $p < .001$ ); Purpose in Life ( $p < .001$ ); Life Satisfaction ( $p = .002$ ); and Personal Energy ( $p < .001$ ). Both Tables (18, 19) and Figure 3 demonstrate these results and show that every factor was significant: the retired principals' group was higher in all four factors than the home residents. Even though all four factors showed significance between the two groups, there were differences. Compared to the residents in the home facility, the retired principals rated



Table 18

Individual Analyses of Variance for the Four Factors in the 28-Item *Ikigai* Scale ( $n = 273$ )

| Dependent Variable | Source          | Type III Sum of Squares | df  | Mean Square | F     | Sig.   |
|--------------------|-----------------|-------------------------|-----|-------------|-------|--------|
| Self-Esteem        | Corrected Model | 30.50 <sup>a</sup>      | 1   | 30.50       | 96.10 | < .001 |
|                    | Error           | 86.01                   | 271 | .32         |       |        |
| Purpose in Life    | Corrected Model | 31.03 <sup>b</sup>      | 1   | 31.03       | 78.82 | < .001 |
|                    | Error           | 106.69                  | 271 | .39         |       |        |
| Life Satisfaction  | Corrected Model | 2.74 <sup>c</sup>       | 1   | 2.74        | 9.80  | .002   |
|                    | Error           | 75.71                   | 271 | .28         |       |        |
| Personal Energy    | Corrected Model | 5.59 <sup>d</sup>       | 1   | 5.59        | 17.31 | < .001 |
|                    | Error           | 87.57                   | 271 | .32         |       |        |

a. R Squared = .262 (Adjusted R Squared = .259)

b. R Squared = .225 (Adjusted R Squared = .222)

c. R Squared = .035 (Adjusted R Squared = .031)

d. R Squared = .060 (Adjusted R Squared = .057)

Table 19

Descriptive Statistics for Retired Principals and Home Residents

|                   | Type               |      |                |                |      |                |
|-------------------|--------------------|------|----------------|----------------|------|----------------|
|                   | Retired principals |      |                | Home residents |      |                |
|                   | N                  | Mean | Std. Deviation | N              | Mean | Std. Deviation |
| Self-Esteem       | 179                | 3.58 | .50            | 94             | 2.88 | .66            |
| Purpose in Life   | 179                | 3.79 | .59            | 94             | 3.08 | .70            |
| Life Satisfaction | 179                | 3.72 | .52            | 94             | 3.51 | .55            |
| Personal Energy   | 179                | 3.74 | .54            | 94             | 3.44 | .63            |

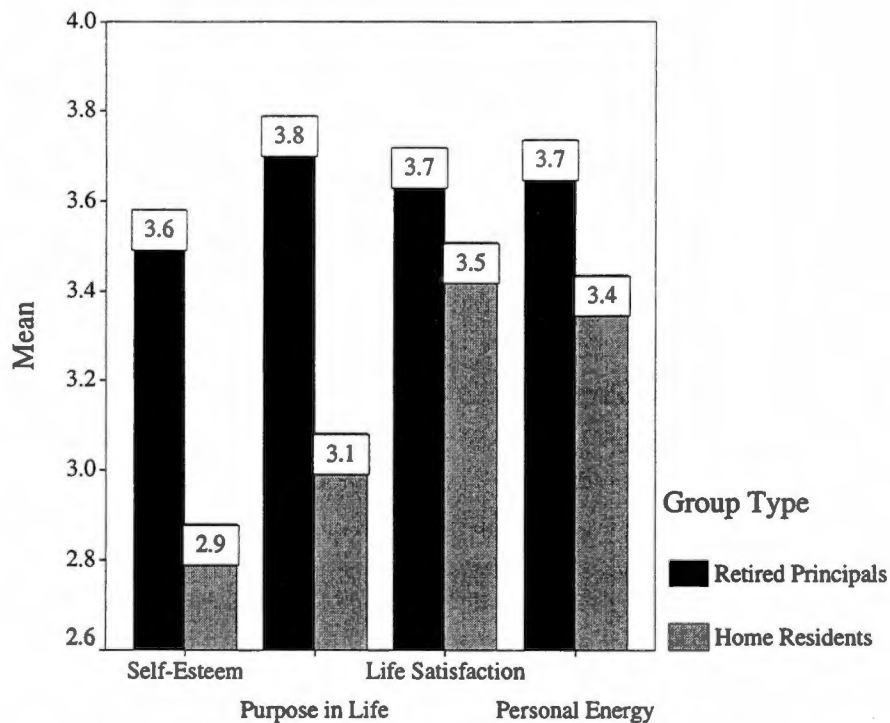


Figure 3. Mean scores for retired principals and home residents.

very high in both Self-Esteem and Purpose in Life, whereas both Life Satisfaction and Personal Energy were not so different. The group of retired principals scored very high on every factor in the scale, especially the factor of Purpose in Life. On the contrary, the group of the home residents scored not as highly as the retired principals for every factor. The home residents were especially low in Self-Esteem. This result suggests that, in general, retired principals have higher *ikigai* than home residents.

## Summary

This chapter examined both reliability and validity of the *Ikigai* Scale from both the pilot and main studies. The answers to all six research questions provide evidence that the 28-item *Ikigai* Scale is both valid and reliable. The completed 28-item scale had four factors, ordered Self-Esteem, Purpose in Life, Life Satisfaction, and Personal Energy. The scale demonstrated high reliability not only in the entire scale, but also in each of the four factors. Each of the four factors highly correlated with the four previously- standardized scales. In addition, the four factors highly correlated with each other, and each of the four factors in the scale scored significantly higher among the retired principals than among the home residents. Based on these results, the next chapter will interpret the results with a comparison of the two groups, discuss whether the conceptualization of the *Ikigai* Scale is reasonable, and suggest some improvements for future researchers.

## CHAPTER V

### CONCLUSIONS AND DISCUSSION

The purpose of this study was to develop a psychological measure of *ikigai* among elderly Japanese people. The *Ikigai* Scale was standardized among two groups of retired principals and residents in a public home for the aged. Both the pilot and main studies were conducted between August and October 1999. The questionnaire in the main study contained Part I (11 demographic questions and two direct questions about *ikigai*) and Part II (the *Ikigai* Scale). In the pilot study, 63 retired principals were used for the analysis, while in the main study, 173 retired principals and 93 residents in a home for the aged were used. As discussed in the previous chapter, "Results," the *Ikigai* Scale was demonstrated to be both reliable and valid. This chapter includes first, a summary of the study and the major findings; second, a discussion of these findings in relation to previous studies, as well as the appropriateness of the author's presentation of the four sub-concepts of *ikigai*; third, implications for future studies; and finally, the author's closing comments on the study.

#### Summary and Preliminary Discussion

In this section, both pilot and main studies are briefly summarized so that readers can review the general findings in preparation for the general discussion in the next section. This discussion revisits the purpose, procedure, and results of the study.

##### Purpose

The Japanese concept of *ikigai* is a popular topic among people, especially the elderly, and is a global concept as well, but a comprehensive psychological measurement

for *ikigai* has not been developed among researchers. The purpose of this quantitative study was to develop a psychological assessment, the *Ikigai* Scale, to measure *ikigai* among Japanese elderly. The four elements examined, Self-Esteem, Purpose in Life, Personal Energy, and Life Satisfaction, were conceptualized by this author.

### Procedure

The pilot and main studies were designed to develop the *Ikigai* Scale, by comparing two groups, to test its validity and reliability. The pilot study was conducted with retired public school principals, and the main study was conducted among retired public school principals and residents in a home for the aged. The pilot study questionnaire included Part I, 11 demographic questions and two questions about *ikigai*; Part II, the 60-item *Ikigai* Scale; and Part III, four previously-standardized scales, including the Japanese version of the Rosenberg Self-Esteem Scale (Yamamoto, Matsui, & Yamanari, 1982), the Japanese version of the Purpose in Life Test (PIL-Kenkyukai, 1993), the "Energy for Living" factor in the Quality of Life Index (Ishihara, Naito, & Nagashima, 1992), and the "Present Life Satisfaction" factor in the Quality of Life Index (Ishihara et al., 1992). The main study questionnaire included Part I, 11 demographic questions and two questions about *ikigai*; and Part II, the 49-item *Ikigai* Scale. The *Ikigai* Scale was developed through a four-step process involving (1) the initial creation of items, (2) experts' review of items, (3) implementation of the pilot study, and (4) final refinement of the scale in the main study.

## Results and Preliminary Discussion

For the pilot study, 63 retired principals were surveyed. For the main study, 173 retired principals and 93 residents in a home for the aged were used for the analysis. The results of the 13 questions from Part I were described in the section entitled "A Profile of the Sample" in Chapter IV. From the pilot study using the retired principals, the 60-item *Ikigai* Scale was reduced to 49 items. The scale has high reliability ( $\alpha = .95$ ), and correlations between the four elements of the *Ikigai* Scale and four corresponding previously-standardized scales were observed. From the main study, this 49-item scale was validated among the two group of retired principals and home residents. Eventually, the scale was finalized as the 28-item *Ikigai* Scale, which has the four factors of Self-Esteem, Purpose in Life, Life Satisfaction, and Personal Energy. Each of the four factors has high reliability, and the entire scale has very high reliability ( $\alpha = .95$ ). Each of the four factors in the scale was correlated with one of four previously-standardized scales, each of the four factors positively related with the others, and each of the four factors was significantly higher for the retired principals than the home residents. In the following subsections, results from Part II, the *Ikigai* Scale, are discussed according to the answers to the six research questions.

Research Question 1: To what extent does the *Ikigai* Scale demonstrate construct validity? From the factor analysis, the *Ikigai* Scale was reduced to 28 items that were divided into four factors. They were ordered as Self-Esteem, Purpose in Life, Life Satisfaction, and Personal Energy. In addition, the Spearman's rho correlation (2-tailed)

between the question of the level of *ikigai* in Part I (“Do you currently have any *ikigai*?”) and total mean score on the *Ikigai* Scale turned out to be high, both in the pilot study ( $\rho = .52; p < .001$ ) and main study ( $\rho = .65; p < .001$ ). The researcher attempted to make the scale shorter, so it would be more convenient for the elderly sample without sacrificing the symmetry of the four factors. Although the scale has the problem of weak contribution of Personal Energy to the total scale, the scale is well-organized, measuring the comprehensive concept of *ikigai*. The scale is arguably better than any of the other psychometric scales existing in Japan, which measure only one aspect of *ikigai*, such as life satisfaction.

Research Question 2: How reliable are the four sub-scales of Self-Esteem,

Purpose in Life, Personal Energy, and Life Satisfaction? It was found that each of the four factors in the *Ikigai* Scale is reliable. For the four factors in the 28-item *Ikigai* Scale in the main study, the reliability Alpha for Self-Esteem is .88; the Alpha for Purpose in Life is .90; the Alpha for Life Satisfaction is .83; and the Alpha for Personal Energy is .84. All reliability Alphas turned out to be high. Nunnally (1978) points out that .70 or higher will suffice for the early stage of a scale. Considering the small sample size and that this study involves the creation of new scale, these reliabilities can be seen as quite high.

Research Question 3: How reliable is the *Ikigai* Scale? The completed 28-item *Ikigai* Scale shows very high reliability ( $\alpha = .95$ ). In the development of a scale, high reliability is the most important criterion; otherwise all other examinations are meaningless. The very high reliability in the scale is the most important finding in this research.

Research Question 4: What is the relationship between the *Ikigai* Scale and the following previously-standardized scales: the Japanese version of the Rosenberg Self-Esteem Scale (Yamamoto, Matsui, & Yamanari, 1982), the Japanese version of the Purpose in Life Test (PIL-Kenkyukai, 1993), the “Energy for Living” factor in the Quality of Life Index (Ishihara, Naito, & Nagashima, 1992), and the “Present Life Satisfaction” factor in the Quality of Life Index (Ishihara et al., 1992)? From the Pearson correlation (2-tailed) in both the pilot and main studies, it turned out that there were highly significant correlations between each of the four factors in the *Ikigai* Scale and the four standardized scales. The correlation between the author’s Self-Esteem factor and the standardized Self-Esteem scale was .45 ( $p < .001$ ). The correlation between the author’s Purpose in Life factor and the standardized Purpose in Life Test was .72 ( $p < .001$ ). The author’s Life Satisfaction factor and the Present Life Satisfaction factor had a correlation of .60 ( $p < .001$ ). The correlation between the author’s Personal Energy factor and the Energy for Living factor was .36 ( $p < .005$ ). This examination, in relation to research question #1, indicated that each of the four factors in the *Ikigai* Scale were structurally well-conceptualized and matched with each of the four previously-standardized scales.

Research Question 5: Are there significant relationships among the four factors comprising *ikigai*? Results of the Pearson correlation among the four factors of the *Ikigai* Scale in the main study showed that all four factors are positively correlated with each other at the .001 level of significance. The fact that all of the four factors were highly related with each other meant that if one factor increased, all of the other factors also increased.



From this analysis, the appropriateness of the four-element conceptualization for *ikigai* was supported.

Research Question 6: Are there significant differences between the two groups (retired principals and residents in a public home for the aged) on the four factors that comprise *ikigai*? First, from the MANOVA, Wilks' Lambda was significant ( $F [4, 268] = 34.60, p < .001$ ). Then, individual ANOVAs showed that all four factors in the *Ikigai* Scale were significantly higher among the retired principals than for the residents in the home for the aged: Self-Esteem ( $p < .001$ ); Purpose in Life ( $p < .001$ ); Life Satisfaction ( $p = .002$ ); and Personal Energy ( $p < .001$ ). Although hypotheses were not stated in this research, a significant difference between the two groups was expected for each of the four factors. As discussed in Chapter II, being a school principal is considered a highly respected and prestigious occupation in Japan, whereas residents in a home for the aged are not respected as much, and are even negatively perceived in the society. The idea of research question #6, comparing the two groups on the *Ikigai* Scale, is similar to the examination of criterion-group validity. The result of retired principals being significantly higher in all four factors in the *Ikigai* Scale seems to support the validity of the scale.

### **General Discussion**

The above-mentioned preliminary discussion indicates that the completed 28-item *Ikigai* Scale is both valid and reliable. In this section, the meaning of the *Ikigai* Scale and the relationships between the factors of the *Ikigai* Scale and the two sample groups will be

discussed in order to verify the appropriateness of the author's initial conceptualization of the four elements of *ikigai*.

#### *Ikigai* Scale and Four Elements of *Ikigai*

In this subsection, the following four points are discussed: the problem of the fourth factor in the scale, life satisfaction in relation to previous studies, the impact of previous occupation on one's *ikigai*, and the interpretation of *ikigai* among both samples.

The completed 28-item *Ikigai* Scale has four factors: Self-Esteem, Purpose in Life, Life Satisfaction, and Personal Interests. The 28 items are clearly categorized into four factors, which is the same as the author's initial conceptualization. In addition, each of the four factors demonstrates high reliability (Reliability Alphas: Self-Esteem,  $\alpha = .88$ ; Purpose in Life,  $\alpha = .90$ ; Life Satisfaction,  $\alpha = .83$ ; and Personal Energy,  $\alpha = .84$ ). Each also shows a high level of positive correlation with each other (  $.001$  level of significance). However, as was pointed out in the discussion of construct validity in Chapter IV, the order of the last two factors was different from the initial conceptualization, when Life Satisfaction was the fourth element and Personal Energy was the third. Of course, the factor order itself is not definitive and can be changed. However, two problems exist in the fourth factor: double factor loadings of items #46 ("I am highly motivated"), #21 ("I am full of life energy"), and # 4 ("I am energetic when working"); and the inclusion of item #33 ("I lead a well-regulated life"), which had a factor loading (  $.310$ ) that was not as high as factor loading for other items. Considering the small number of total participants, the reliability is high ( $\alpha = .84$ ), so the fourth factor can be included in the *Ikigai* Scale. These results indicate that compared to the other three factors, the Personal Energy factor is a

weak contributor to the concept of *ikigai* as operationalized in the present study and needs further examination.

There are several possible explanations for the relatively low contribution of the fourth factor. First, it could be thought that the factor of Personal Energy is not as important a sub-concept of *ikigai* as are the other three sub-concepts. Second, the other three factors are based on previous studies, in which each factor concept has been clearly conceptualized by many researchers, and each has been evaluated frequently by both Western and Japanese researchers. On the other hand, the fourth factor was uniquely conceptualized by this author based on the questions of Ishihara, Naito, and Nagashima's (1992) Energy for Living factor in the QOL Index and has not yet been evaluated by other researchers. Thus, it might be understandable that the fourth factor shows weakness to some extent, as compared with the other three factors. Finally, it might even be thought that the initial creation of the items in the fourth factor was insufficient to begin with. It will be profitable to reexamine the items in this factor in the future. For example, creating another four items in the factor, so that each of the four factors can have seven symmetrical items, might be useful.

Another point to discuss is about the findings from the Life Satisfaction factor in the *Ikigai* Scale and Diener and Diener's (1996) finding on life satisfaction. In the Life Satisfaction factor in the *Ikigai* Scale, both groups showed moderately positive results: the average mean score in the Life Satisfaction factor for the retired principals was 3.72 and that for the home residents was 3.51. The result of the positive score of both groups on life satisfaction in this study supports Diener and Diener's conclusion that, in general, most

elders consider their lives to be happy. This conclusion was based on a review of several studies on subjective well-being, where it was found that people who vary on demographic features, such as income, education, health, and employment, report similar high or at least above average levels of subjective well-being.

From Part I of the questionnaire, it was found out that most of the participants answered positively the question regarding level of *ikigai* ("Do you currently have any *ikigai*?"); that is, the average score for the retired principals was 4.24, for the home residents was 3.54, and for the combined groups was 4.00. In addition, from Part II of the *Ikigai* Scale, it was found that most of both samples scored positively, especially the retired principals. In general, both samples responded positively on each of the four factors in the *Ikigai* Scale. From the results of MANOVA and individual ANOVAs, which examined the significance among each of the four factors in the *Ikigai* Scale between the two groups, it was found out that the retired principals scored higher in all four factors than the home residents. Even though this research did not hypothesize about the two groups' differences on the *Ikigai* Scale, the researcher suspected that the retired principals would have a higher score on *ikigai* than the home residents. As was explained in the literature review, teachers, especially school principals, are considered in Japan to have a prestigious occupation and are highly respected in society, while home residents are sometimes considered negatively because of people's negative image of home facilities.

The following discussion is about the impact of previous occupation on one's *ikigai*. This discussion is important because one of the most different characteristics between the two sample groups is their previous occupation, and because previous occupation could

highly influence one's *ikigai*. Kuroi (1990) treats work as self-actualization for men and points out the significance of the work role in contributing to men's *ikigai*. Current social and life status among people, especially men, is highly influenced by how they have previously spent their lives – that is, what they did in their occupations. It could be thought that elderly men who had satisfying jobs during their lives (sometimes recognized as socially valued jobs) would also have high *ikigai*. On the contrary, an elderly man who had an unsatisfying job or who did not have any job at all may not have high *ikigai*. Although it is difficult to say for sure, residents in the home facility were probably not as socially successful as the retired principals, especially in regard to their previous job status, which may indicate why they have lower *ikigai* than the retired principals. Hence, it may be a natural phenomenon that, in the study, the retired principals achieved higher total scores on the *Ikigai* Scale than home residents.

Finally, the meanings of *ikigai* among both samples are discussed. The reason for the retired principals' high scores on all four factors can be attributed to the fact that they have already achieved occupational promotion and high social status with enough lifetime income for their retired lives. Home residents generally scored lower on all four factors, especially on the first two factors of Self-Esteem and Purpose in Life. It may be interpreted that the home residents do not have as high a level of self-esteem nor lead as purposeful lives. Instead, they accept their lives as a matter of fact, and are satisfied with their lives and activities in the home for the aged. Although this study was not intended to be constructed qualitatively, this researcher had the chance to observe elders living in a home for the aged while conducting the questionnaire. The interpretation that home

residents are satisfied with their lives is especially supported by conversations with many participants who said that they had no worries about the rest of their lives in this home, as well as by observations of some of the elders participating in many clubs and learning activities in the home.

### *Ikigai* Scale and Sample Features

The *Ikigai* Scale was developed through two unique samples: retired principals and residents in a home for the aged. As the *Ikigai* Scale has been shown to be both valid and reliable, the features of the two samples in relation to the scale will be discussed in the following subsection. The relationship between Part I, the demographic questionnaire, and Part II, the *Ikigai* Scale, is discussed below. This examination will give further support for the validity and reliability of the scale.

The results of the question about the source of *ikigai*, which asked respondents to choose the tangible sources of *ikigai* from 13 possible items on a list, turned out to be similar to other research findings (e.g., Hamana, 1993; Takahagi & Natori, 1993), which report that family relationships, interests and hobbies, and work are most frequently chosen as the source of *ikigai*. In this study, the most important source of *ikigai* for both retired principals and residents in the home came from their hobbies or sports activities. These hobbies and sports were chosen as the most important source: for the retired principals, 29.1 %; for the home residents, 29.8 %. From the results of the total two groups, the second most important source of *ikigai* was work (16.8 %), while the third was spending time with family or spouse (11.7 %). For the retired principals, work was chosen as the second most important source (23.5 %), while for the home residents, it was ranked as the

seventh (4.3 %). In addition, 27.8 % of retired principals were still pursuing a part-time or full-time job, while only 3.2 % of home residents had jobs. Among the retired principals, the fourth most important source was studying or reading. These results suggest that since the retired principals have a higher level of education and cultural experience, in that they had once worked as teachers and are familiar with many opportunities for learning, some of them remain motivated to learn.

Comparing the two groups, the source of *ikigai* in each group seems different. The retired principals chose more cultural and productive preferences such as working and studying as the source of their *ikigai*. On the contrary, the home residents showed rather passive sources, such as watching TV or listening to music (6.4 %), or did not even select any source of *ikigai*. Actually, as many as 20.2 % of the home residents did not answer this question, which was treated as missing data, while only 2.2 % of the retired principals failed to answer. This particular result was close to Takahagi and Natori's (1993) finding that not answering the question about the source of *ikigai* was the third most common response. This large number of blank responses to the question by the home residents may indicate that there were some home residents who could not understand the question, or that they were indifferent to the topic of *ikigai*, or that they lacked of *ikigai* itself.

From the results of the four variables, including relationship with family and friends, social activity, perceived health, and learning participation, it was found that both samples scored positively on these variables, and the retired principals scored significantly higher than the home residents on each of these four variables, except for learning participation. In addition, both samples scored significantly high on the level of *ikigai* ( $p < .001$ ). These

facts may indicate that the people in both samples were on good terms with their families and friends, perceived their health to be generally good, were actively committed to their social activities, were actively participating in their learning, and perceived their *ikigai* to be high. These findings are similar to Iwasaki et al.'s (1989) finding that the more the elders participated in social/learning activities, the better their health was. Also, these findings relate to the Okuyama's (1990) explanation that the various types of social support among elderly people, including family support, contribute to their sense of well-being.

From the comparison between the two groups on each of the four factors in the *Ikigai* Scale, a unique finding emerged. Although each factor is higher among the retired principals than among the home residents, the retired principals rated both Self-Esteem and Purpose in Life especially high as compared to the residents in the home facility, whereas scores for both Life Satisfaction and Personal Energy were not very different between the two groups. In addition, although the retired principals scored higher than the home residents on all four variables, both samples were thought to be generally active and high in their *ikigai*. These different characteristics in each of the four factors between the two samples indicate that the perception of *ikigai* is different between the two. What might account for this difference is discussed below.

It is apparent that the retired principals scored high (positive) on these variables as well as on the *Ikigai* Scale. As described in the literature review, principals are generally considered to be successful people who are highly respected. Thus, it is natural for them to have a positive perception of their lives and higher *ikigai*.



On the other hand, based on some literature about people's negative perception toward elders in home facilities, it was expected that the home residents would not perceive themselves so positively and that they would have lower *ikigai*. From the study results, however, even though the home residents scored significantly lower in each of the four factors of the scale than the retired principals, the four variables of relationship with family and friends, social activity, perceived health, and learning participation, as well as the question about the level of *ikigai*, were not as low as the author had expected. It is easily understandable that the residents in this home for the aged were satisfied with living in the facility, because this public home for the aged provides the residents with various free club activities and learning sessions with professional instructors, various activities such as bus trips, and general medical services linked closely with the nearby general hospital. (This public home for the aged is financially run by Tokyo, where concern for social welfare is very high as compared with the other prefectures in Japan). It is expected that the home residents can find their life direction in the home and can pursue self-actualization by participating in these activities. For example, when the author visited the participants' rooms to collect the questionnaires, there were many participants who proudly showed the author pictures describing what they had learned in the home. When the author observed participants in the *Taiseikan* recreation center, they were not only joyfully participating in the activities, but they also seemed to enjoy talking with friends after the activities. Compared to expectations based on other samples, these individuals to some extent were not only living in a good environment by making friends and leading well-regulated lives with diet-controlled meals, but they also were leading meaningful lives by participating in

social and learning activities.

To be sure, the participants in the home were volunteers who showed interest in this study, and some participants were recruited in the recreation center, where most people were coming to participate in their club and learning activities. So, it should be taken into consideration that the participants recruited in the recreation center most likely already led active lives and had high *ikigai* in the first place. Nevertheless, the results could be interpreted to mean that the residents in the home for the aged showed rather high *ikigai*, an interpretation different from the common negative image toward people in home facilities in Japan. Also, because the home residents were provided with various club activities and learning sessions, where they had many chances to make friends and support each other and had no worries about financial problems for the rest of their lives, they could lead satisfactory lives in the home for the aged. Thus, it seems reasonable that the scores on the Life Satisfaction and Personal Energy factors among the home residents were close to the scores on these factors among the retired principals.

Based on the above discussion, it is known that the validity and reliability of the *Ikigai* Scale are high, and the conceptualization of the scale in relation to the characteristics between the two groups is clearly understandable. Except for the weak existence of the fourth factor, Personal Energy, the four-factor *Ikigai* Scale could measure the comprehensive concept of *ikigai* among Japanese elderly. Thus, the scale was completed in this study and named as the Four-Factor *Ikigai* Scale.

## Implications

This study offers a starting point for a quantitative assessment of *ikigai*. However, this investigation is only a beginning; future research could help to further refine and clarify how the concept of *ikigai* is understood. Such refinement is crucial to a future research agenda that seeks to understanding *ikigai* among Japanese elderly. As a way of bringing closure to this discussion, six implications for future research in this area are presented.

### Examine Demographic Data

In this study, 13 questions were included on the Part I questionnaire (11 demographic questions, such as previous education, and two direct questions about the level of *ikigai* and source of *ikigai*). Since the examination of the data in Part I in relation to the *Ikigai* Scale itself would be considered a large research topic, this examination was not performed in this study, but was used only for descriptive purposes. Future research could provide a greater understanding of the link between *ikigai* and these factors.

It is especially important to examine gender differences in relation to *ikigai*. Tanaka (1990) mentions women's active quest for *ikigai*: many women (mostly part-time housewives) actively participate in lifelong learning, starting some hobbies and traveling with friends, not just to get satisfaction from this recreation but also to seek *ikigai*. Based on this author's observations in the home for the aged, this active search for *ikigai* may also apply to elderly women. Although making observations in the home for the aged was not intended as the study's purpose, it was noticed that the examination of the relationship between the *ikigai* and gender difference, especially social activeness, seemed meaningful. Considering the small sample of home residents in this study, it was observed that

compared to elderly men, a larger number of women elders are attending many club activities, such as social dances and walking clubs in the activity building. Actually, some of those who participated in this study in the *Taiseikan* Recreation Center in the home hurried to complete their questionnaires because of participating in two or more club activities. Since men comprised the majority of the sample of the retired principals for both pilot and main studies, further examination of the gender issue should be made. Levenson, Carstensen, and Gottman (1993) introduced several studies on gender difference in life satisfaction and health among the elderly, and the gender difference for *ikigai* in relation to educational level, previous occupation, social status, perceived health and so on needs to be further examined by future researchers.

#### Test Other Samples

In this study, two homogeneous groups were used for the development of the *Ikigai* Scale. The sample of retired principals was quite homogeneous due to their common previous occupation, common high level of education (level of both B.A. and graduate degree), and similar life-time incomes as “public” teachers. In addition, most of them were male. On the other hand, the home residents had very different previous occupations, education levels, and social status. Since this study did not cover larger populations, it is necessary to administer the completed *Ikigai* Scale to a variety of samples, preferably to a random-sampled larger population, so as to verify the accuracy of the scale. This study found that both groups have relatively high *ikigai*. However, since the study did not compare other kinds of samples, it is necessary to study a variety of other samples, preferably at a national level, in order to get a wider response.

### Test Validity and Reliability

In the development of the Four-Factor *Ikigai* Scale in this study, reliability and validity were examined. However, there are other ways to examine this reliability and validity. Another way to examine reliability includes test-retest reliability. Lepper (1998) examined global subjective well-being among elders, in which five previously-standardized measures of well-being were utilized by comparing the agreement between self- and other-reports within two waves of time spans (nine month duration). As in Lepper's examination, a further way to increase the reliability would be by examining test-retest reliability of the *Ikigai* Scale. Concerning test validity, George (1981) pointed out that the examination of validity is the most important as well as the most difficult to evaluate in the development of a scale and that it is important to combine as many types of validity as possible. This author examines the convergent validity and discriminant (content) validity in the *Ikigai* Scale. There are other ways to examine validity. Predictive validity could be examined by comparing the total *Ikigai* Scale and standardized comprehensive scales, such as the Japanese version of the PGC Morale Scale (Sugiyama et al., 1981a). Also, criterion-group validity could be examined by administering the *Ikigai* Scale to both unhealthy and healthy samples, such as depressive or psychiatric patients and normal subjects.

### Qualitative Approaches

In addition to quantitatively measuring *ikigai*, it is possible to examine *ikigai* from a qualitative perspective. The importance of conducting qualitative research for *ikigai* was also pointed out by two retired principals in response to their questionnaires. In addition,

while collecting questionnaires in the home for the aged, this author observed that some participants eagerly told about their lives and family matters that were quite important to the understanding of *ikigai*. Since the current study was not intended to collect qualitative data and since the author's time for talking with participants was limited, the author did not spend enough time listening to their conversations. Conducting both qualitative and quantitative studies would be meaningful for examining certain phenomena or concepts. Qualitative research (e.g., interviews, case studies, or ethnographies) could be conducted along with this quantitative study. For example, based on the total score of the *Ikigai* Scale, some high or low score samples could be selected. Then, the researcher could conduct structured individual interviews for each subject to obtain more detailed information about *ikigai*. This examination would tell whether or not the scale truly selects people with high or low *ikigai*.

#### Applications of the *Ikigai* Scale

The *Ikigai* Scale could be applied in various settings in Japan. Since the final version of the 28-item *Ikigai* Scale is short and understandable for most elders, it could be used easily for elder samples. For example, just as the scale was administered in the home for the aged in this study, it can be used for elders in other home facilities in Japan to test their degree of *ikigai* and satisfaction in their living facilities. Or it might be utilized as an educational tool for visiting elders in the lifelong learning center or city public center to give them a chance to think about their *ikigai*. Also, it could be applicable for counseling purposes. Based on the client's score on the *Ikigai* scale, counselors could tell which element among the client's four in the scale is high or low and proceed appropriately with

counseling. Although further examination of the scale linked with qualitative research is needed, it may even be applied to clinical methods, especially when screening those elders with lower *ikigai* than the normal range of people, for those with lower *ikigai* may have depressive problems. Finally, Dr. Shoji Yamaguchi, one of the panelists reviewing the items in the scale, suggested that the scale might be applicable not only among the elders in the sample in this study, but also to evaluate the *ikigai* of other samples, such as university students or middle-aged people.

When administering the scale in various settings, it would be helpful for staff in those facilities to be supported by psychologists or researchers. Since staff tend to be occupied by their own duties in the facility and since the scale requires basic psychometric interpretations, such specialists may help with analysis and interpretation. However, just as PIL-Kenkyukai (1993) set up high, middle, or low standard values in the Japanese version of the PIL Test, the *Ikigai* Scale can be used after conducting a wider sample. By setting up the three categories, it would be easy for people to evaluate their level of *ikigai*. The participants would only need to add up the 28 scores, the total of which would automatically categorize their level of *ikigai* as high, middle, or low.

#### Cross-Cultural Studies

Finally, Cusumano and Uzuki (1994) suggested the necessity of Japanese researchers' active roles in world counseling, which includes applying unique Japanese concepts to Western people by developing scales. It would be interesting to conduct a cross-cultural study by using the *Ikigai* Scale for people in Western and Eastern countries in order to compare the concept of well-being and *ikigai*. In that case, the scale is mostly

applicable to *Nikkei* people, Japanese-Americans. Even the developed 28-item *Ikigai* Scale could compare results from Japanese-American or American residents to the results of this study, so as to examine the concept of both Japanese *ikigai* and Westerners' well-being. It would also be profitable to compare the English version of the *Ikigai* Scale with other comprehensive scales about well-being, such as the six structured self-report scales (Ryff, 1989b) and the PGC Morale Scale (Lawton, 1975). For example, the study could be conducted to see the correlation between the *Ikigai* Scale and one of these scales using the same sample.

Even though the translations for each item and question in the questionnaire were checked by four Japanese psychology professors and the English wordings were also examined by the committee members and an English teacher, the researcher has not attempted backward translations of the English versions of Part I, Current Status, and Part II, the *Ikigai* Scale. This examination of backward translations may affirm the appropriateness of the wording in both Japanese and English in the questionnaire. In addition, as was pointed out previously, the total sample number was not large enough in this study. If the study was conducted for English-speaking people, it would be better to begin by using the pilot study version 49-item *Ikigai* Scale instead of using the completed 28-item *Ikigai* Scale, because that 49-item version would allow the researcher to examine (reduce) enough items for a final version.

Thus, the scale has various future possibilities: examining the *Ikigai* Scale in relation to Part I of the demographic questionnaire, especially the gender issue; testing the *Ikigai* Scale for wider samples; further qualitative examination of the scale validity and



reliability; evaluating the scale with qualitative approaches, such as interviews or case studies; application of practical purposes in education and counseling; and utilization in cross-cultural studies. These future research opportunities may be redundant in some parts, as stated in "the limitations to the study." Since the examination of *ikigai* is itself a huge research topic that is difficult to assess, the possibilities for further examination of the concept of *ikigai* and more refinements of the *Ikigai* Scale seem endless.

### **A Closing Comment**

This study was initially motivated by the author's quest for *ikigai*. First, looking back, the author recalled a previous observation that some co-workers, educational advisors who were retired principals, all had a strong sense of *ikigai*. Second, during a period of personal stress from the pressure of graduate study and the loss of job-identity, the author encountered two insightful books about *ikigai* written by Mieko Kamiya (1914-1979), a famous multi-linguist and psychiatrist who dedicated her life to helping patients with Hansen's disease (leprosy) after World War II in Japan. From her description, *ikigai* is such a unique concept that it is hard to translate to other languages. She observed that surprisingly, some of the patients had strong *ikigai*, concentrating on studying French, making ceramics, or spontaneously taking care of serious patients, even though they were segregated from society and many of them faced imminent death. The author came to notice that satisfactory living conditions or physical health might not necessarily contribute to *ikigai*. Finally, Shoko Sakuma of the Tokyo Metropolitan Institute of Gerontology said that research on the elderly had been limited in Japan. Thus, the author decided to

examine the research topic of *ikigai* and planned to develop an assessment of *ikigai*.

With the advent of an aging society in the world for the 21st century, researchers need to more pay attention to elders' well-being. Cross-cultural study of well-being for the elderly should be widely conducted across nations. The author would be happy to assist with any studies on the application of the Four-Factor *Ikigai* Scale to people from different cultures. The author believes that this study should contribute to the promotion of human well-being.

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## **APPENDICES**

## Appendix A

### A List of Major Facilities for the Aged in Japan

1. *Yogo rojin hoomu*: “home for the elderly—One of three categories of government recognized and controlled residential care for the elderly, this category provides care for persons over 65 with limited financial resources who are basically in good health and who are unable to live in their own homes” (Nakamura, Kojima, & Thompson, 1981, p. Commentaries-28). (This was the setting for the study.)
2. *Tokubetsu yogo rojin hoomu*: “accredited nursing home for the elderly—One of three categories of government recognized and controlled residential care for the elderly. This category of service provides nursing care to bedfast persons over 65 years of age” (Nakamura et al., p. Commentaries-23).
3. *Keihi rojin hoomu*: “low fee home for the elderly—The official designation for any of several kinds of residential care facility for low income persons over 60 years of age in which the amount to be paid by the individual for care is limited by government regulation” (p. Commentaries-7).
4. *Rojin ikoi no ie*: “resthouse for the elderly—A Japanese inn-like facility, usually administered by a local authority, where elderly individuals and groups of the elderly, especially in provincial areas, may go for recreation and relaxation at minimal cost. Featured activities are group bathing, folk dancing, singing and group meals” (p. Commentaries-29).
5. *Rojin fukushi sentaa*: “welfare centers for the elderly—A category of institution provided for in Article 14 of the Law for the Welfare of the Aged. The institution may be administered by either a local authority or as *shakai fukushi hojin* and may offer counseling, employment services, club meeting facilities, recreation facilities, etc., at little or no cost to the elderly” (p. Commentaries-29).

## Appendix B

### The Initial 60-Item *Ikigai* Scale

In the following list, English translation items are shown first, and Japanese items are in parentheses. “R” scores indicate the Flesch Reading Ease in English, and “G” scores indicate the Flesch-Kincaid Grade Level in the United States. Both scores are from the Microsoft Word computer software.

1. I have a lot of goals. (R100.0/G0.0)  
(私には、目標がたくさんある。)
2. I have some sense of myself that others admire. (R84.9/G3.6)  
(私には、他人に自慢できることがある。)
3. I am satisfied with my current life. (R78.8/G3.9)  
(私は、今の生活に満足している。)
4. I am energetic when working. (R49.4/G7.6)  
(私は、なにかするときに、いきいきと活動している。)
5. I believe I am an irreplaceable person for my family and friends. (R53.6/G8.7)  
(私は、家族や友達にとってかけがえのない存在だと思う。)
6. I have a goal for every day. (R90.9/G2.3)  
(私は、毎日、目的意識[もくてきいしき]をもっている。)
7. All in all, I am in a good economic situation. (R67.7/G6.0)  
(私は、総じて、金銭的にはめぐまれた方だ。)

8. I tend to be very fast doing anything. (R82.3/G3.7)

(私は、ものごとを始めるのがとても早い。)

9. I have recently experienced an empty feeling. (R42.6/G9.0) Reversed item

(私は、最近、空虚感[くうきょかん]を感じている。)

10. I am learning things. (R97.0/G0.7)

(私は、ならいごとをしている。)

11. I have a special companion (lover). (R49.4 [45.6]/G7.6 [8.3])

(私には、大切な[愛する]人がいる。)

12. I feel a sense of fulfillment in my life. (R94.3/G2.3)

(私の毎日の生活は、充実[じゅうじつ]している。)

13. I have at least one special ability. (R66.7/G5.6)

(私には、少なくとも1つの特技[とくぎ]がある。)

14. I enjoy taking meals. (R75.8/G3.6)

(私は、食事がおいしい。)

15. I like my personality. (R33.5/G9.5)

(私は、自分の性格が好きだ。)

16. I have already found my purpose in life. (R82.3/G3.7)

(私の人生の目的は、すでに見出している。)

17. I feel lonely. (R90.9/G1.3) Reversed item

(私は、孤独[こどく]だ。)

18. I enjoy my life every day. (R73.8/G4.4)

(私は、毎日が楽しい。)

19. I am emotionally independent. (R0.0/G12.0)

(私は、精神面[せいしんめん]で自立している。)

20. I am on good terms with other people. (R29.9/G2.2)

(私は、他人との人間関係がうまくいっている。)

21. I am a competent person. (R66.4/G5.2)

(私は、有能[ゆうのう]な人間だ。)

22. I am glad that I was born. (R100.0/G0.0)

(私は、生まれてきてよかったと思う。)

23. I am full of life energy. (R87.9/G2.4)

(私は、はつらつとしている。)

24. My life is meager. (R97.0/G0.7) Reversed item

(私の生活は、みじめだ。)

25. I am attempting to fulfill goals. (R73.8/G4.4)

(私は、目標の実現[じつげん]のために努力している。)

26. I am a useful person for other people. (R61.2/G6.7)

(私は、人のために役に立っている人間だ。)

27. I have a plan for the rest of my life. (R100.0/G0.1)

(私には、これからさきの計画がある。)

28. I am proud of myself. (R100.0/G0.5)

(私は、自分のことを誇[ほこ]りに思う。)

29. I feel comfortable with my social status. (R54.7/G7.3)

(私は、今の社会的地位に満足している。)

30. My friends usually consider me as a person with much vitality. (R49.5/G9.0)

(私は、友達からとても元気がいいとよくいわれる。)

31. I have lost my hope for life. (R100.0/G0.0) Reversed item

(私には、生きる望みがない。)

32. Others have frequently praised me. (R66.4/G5.2)

(私は、よく人からほめられる。)

33. I am happy. (R90.9/G1.3)

(私は、幸せだ。)

34. I like the way I am now. (R100.0/G0.0)

(私は、今のままの自分が好きだ。)

35. I feel secure about my future life. (R78.8/G3.9)

(私のこれからさきの生活は、安心だ。)

36. I lead a well-regulated life. (R49.4/G7.6)

(私は、規則正しい生活をしている。)

37. I am good at anything I do. (R90.9/G2.3)

(私は、なにごともうまくこなしてしまう方だ。)

38. I sometimes even think of suicide. (R59.7/G6.4) Reversed item

(私は、時々、死にたいと思うことがある。)

39. I frequently go out. (R75.8/G3.6)

(私は、外に出かけるきが多い。)

40. I have many good memories. (R66.4/G5.2)

(私には、楽しい思い出がたくさんある。)

41. I can accept myself at this time. (R90.9/G2.3)

(私は、今の自分がうけ入れられる。)

42. I play an important role in my family, workplace, community, or home for the aged.

(R61.8/G8.3)

(私は、家族、仕事、町内、老人ホームなどで大切なやくわりをはたしている。)

43. I have achieved most of my interests. (R78.8/G3.9)

(私は、自分のやりたいことは、ほとんどやってきた。)

44. I regret many things. (R75.8/G3.6) Reversed item

(私には、後悔[こうかい]することがたくさんある。)

45. Everyone needs me. (R62.7/G5.2)

(私のことを、必要としている人はたくさんいる。)

46. I am idling away my time. (R87.9/G2.4) Reversed item

(私は、時間をだらだらとすごしている。)

47. I have a hobby to which I have devoted myself. (R78.2/G4.8)

(私には、うちこんでいる趣味[しゅみ]を持っている。)

48. My current income is enough for me to live. (R84.9/G3.6)

(私の今のしゅう入で、日々の生活は十分だ。)

49. I have a meaning in life. (R100.0/G0.5)

(私は、生きがいをもっている。)

50. I am always spending my time watching TV. (R82.3/G3.7) Reversed item

(私は、テレビばかりみている。)

51. I have a daily living schedule. (R73.8/G4.4)

(私には、なにか日々の日課[につか]がある。)

52. I like my face and features. (R100.0/G0.5)

(私は自分の容姿が気にいっている。)

53. I have recently felt moved by something. (R66.7/G5.6)

(私は、最近、感動する体験[たいけん]をした。)

54. I have had an important goal throughout my life. (R84.9/G3.6)

(私には、人生をとおした大きな目標がある。)

55. I am highly motivated. (R33.5/G9.5)

(私は、意欲的[いよくてき]にものごとにとりかかる方だ。)

56. I am more capable of doing some things than other people are. (R81.8/G4.8)

(私は、ものごとを人並み以上にうまくこなせる。)



57. I like to take care of my grandchild, pet, or plant very much. (R96.0/G3.0)

(私は、孫、ペット、植物などの世話がとても好きだ。)

58. I like the environment of my house or facility. (R56.7/G7.5)

(私は、今住んでいる家、または施設[しせつ]の環境[かんきょう]が気にいっている。)

59. I feel I have a place where I belong. (R100.0/G1.0)

(私には、自分のよりどころがある。)

60. I am an active person. (R83.3/G2.8)

(私は、積極的[せっきょくてき]な性格だ。)

## Appendix C

### English Version of Part I of the Questionnaire

The following questionnaire consists of two parts. Questions are printed on front and back of each page.

Part I: Please respond to the following questions.

(1) **Sex:** (Circle one)

1. Male
2. Female

(2) **Age:** \_\_\_\_\_ years old

(3) **What do you consider the beginning of "old age" in human life?**

It starts at \_\_\_\_\_ years old.

(4) **Your highest education:** (Circle one)

1. Finished less than junior high school.
2. Finished high school.
3. Finished more than a junior or 4-year college.
4. Other: Please specify: \_\_\_\_\_.

(5) **Who do you live with?** (Circle one)

1. Alone.
2. Only with my spouse.
3. Only with my child(ren).
4. With my spouse and child(ren).
5. Other: Please specify: \_\_\_\_\_.

**(6) What is your current job status?** (Circle one)

1. Doing any job (full- or part-time).
2. Doing household work (unpaid).
3. Without an occupation.
4. Other: Please specify \_\_\_\_\_.

**(7) What was your main position just before you retired (or at age 60)?**

(Circle one, and describe your position)

1. Business or office worker (Position: \_\_\_\_\_).
2. Professional (Position: \_\_\_\_\_).
3. Private business (Position: \_\_\_\_\_).
4. Farmer or Fisherman (Position: \_\_\_\_\_).
5. Housewife/husband (unpaid).
6. Other: Please specify: \_\_\_\_\_ (Position: \_\_\_\_\_).

**(8) How are your relationships with your family or friends?** (Circle one)

1. Very good. 2. Good. 3. In between good or bad. 4. Bad. 5. Very Bad.

**(9) Are you participating in any social activities?** (Circle one)

1. Quite often. 2. Often. 3. Sometimes. 4. Seldom. 5. Never.

**(10) What is your current condition of health?** (Circle one)

1. Very good. 2. Good. 3. In between good or bad. 4. Bad. 5. Very bad.

**(11) Have you recently participated in any learning activities?**

(This includes not only formal learning such as in a university, but also informal learning such as practicing art and sports lessons).

(Circle one)

1. Quite often.    2. Often.    3. Sometimes.    4. Seldom.    5. Never.

**(12) Do you currently have any *ikigai* ?**    (Circle one)

1. Quite often.    2. Often.    3. Sometimes.    4. Seldom.    5. Never.

**(13) Can you list three sources of your *ikigai* ranked from first (most important) to third?**    You can choose the source of *ikigai* from the following lists.

First: (                      )

Second: (                      )

Third: (                      )

- |                                      |                                        |
|--------------------------------------|----------------------------------------|
| 1. Spending time with friends        | 2. Spending time with family or spouse |
| 3. Working                           | 4. Doing household duties              |
| 5. Doing volunteer activities        | 6. Doing religious activities          |
| 7. Doing hobbies or sports           | 8. Traveling                           |
| 9. Watching TV or listening to music | 10. Studying or reading                |
| 11. Sleeping                         | 12. Drinking                           |
| 13. Other (please specify): _____.   |                                        |

## Appendix D

### Japanese Version of Part I of the Questionnaire

以下の質問紙は、2部から成っております。うらにもいんさつされております。

第1部 次の質問にお答えください。

(1) 性別 (1つだけ○印をしてください。)

1. 男

2. 女

(2) 年は、満 ( ) 才です。

(3) あなたは、「老人」とは、人生の中でなん才からはじまると考えますか。

私は、「老人」とは、( ) 才からはじまると考えます。

(4) あなたの最終学歴(さいしゅうがくれき)を教えてください。

(1つだけ○印をしてください。)

1. 義務教育(ぎむきょういく)を卒業、またはそれ以下。

2. 高等学校(旧制中学、旧制高等女学院)を卒業。

3. 高専、短大、四年制大学卒、またはそれ以上。

4. その他。ぐたいてきに書いてください。( )

(5) あなたは、だれと同居されていますか。(1つだけ○印をしてください。)

1. 私のみ。

2. 私のはんりょ(夫や妻)と同居。

3. 私の子どもと同居。

4. 私のはんりょや子どもと同居。

5. その他。ぐたいてきに書いてください。( )

(6) あなたの、現在の職業（しょくぎょう）について教えてください。

(1つだけ○印をしてください。)

1. 常勤職やパート職など仕事をしている。
2. 家事をしている。
3. 無職。
4. その他。ぐたいてきに書いてください。( )

(7) あなたの退職時または60才位の時の仕事と、その時の最終の役職を教えてください。

(1つだけ○印をしてください。)

1. 営業・事務職 (役職: )
2. 専門職 (役職: )
3. 自営業 (役職: )
4. 農業・漁業 (役職: )
5. 主婦(夫)
6. その他。ぐたいてきに書いてください。( ) (役職: )

(8) あなたは、家族や友達との関係はいかがですか。 (1つだけ○印をしてください。)

1. たいへんよい
2. よい
3. どちらともいえない
4. わるい
5. とてもわるい

(9) なにか団体や部活動など、社交的な活動をしていますか。

(1つだけ○印をしてください。)

1. とてもひんばんにしている
2. ひんばんにしている
3. 時々している
4. ほとんどしていない
5. まったくしていない

(10) あなたの現在の健康じょうたいはいかがですか。(1つだけ○印をしてください。)

1. たいへんよい
2. よい
3. どちらともいえない
4. わるい
5. とてもわるい

(11) あなたは、最近、なにか習いごとをされていますか。(これは大学での学習ばかりではなく、芸術やスポーツなどけいこごとともふくみます。1つだけ○印をしてください。)

1. とてもひんぱんにしている
2. ひんぱんにしている
3. 時々している
4. ほとんどしていない
5. まったくしていない

(12) あなたは、現在、なにか生きがいを持っていますか。

(1つだけ○印をしてください。)

1. いつも持っている
2. 持っている
3. 時々持つことがある
4. ほとんど持っていない
5. まったく持っていない

(13) あなたの生きがいになるものを、1番目から3番目まで、( )の中に入れてください。

生きがいになるものにつきましては、下のわくの中のア.からス.までからえらんで、( )の中に入れてください。なお、ス.をえらんだ人は、それはなにかぐたいてきに書いてください。

1番目の生きがいは、( )

2番目の生きがいは、( )

3番目の生きがいは、( )

|                          |                       |
|--------------------------|-----------------------|
| ア. 友達といっしょにすごすこと         | イ. 家族やはんりょといっしょにすごすこと |
| ウ. 仕事をする事                | エ. 家事をする事             |
| オ. ほうし (ボランティア) 活動をする事   | カ. 宗教活動をする事           |
| キ. 趣味 (しゅみ) やスポーツをする事    | ク. 旅行をする事             |
| ケ. テレビをみたり、音楽をきく事        | コ. 勉強をしたり、本を読む事       |
| サ. 寝ている事                 | シ. 酒をのむ事              |
| ス. その他。ぐたいてきに書いてください。( ) |                       |



## Appendix E

### English Version of the 49-Item *Ikigai* Scale

Part II: Please frankly answer the following statements about how you think of yourself. Please circle only one answer from the five selections of 1, "Strongly Disagree" to 5, "Strongly Agree."

1. I have a lot of goals.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

2. I have some sense of myself that others admire.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

3. I am satisfied with my current life.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

4. I am energetic when working.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

5. I believe I am an irreplaceable person for my family and friends.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

6. I have a goal for every day.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

7. All in all, I am in a good economic situation.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

8. I tend to be very fast doing anything.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

9. I have a special companion (lover).

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

10. I feel a sense of fulfillment in my life.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

11. I have at least one special ability.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

12. I enjoy taking meals.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

13. I like my personality.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

14. I have already found my purpose in life.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

15. I feel lonely.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

16. I enjoy my life every day.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

17. I am emotionally independent.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

18. I am on good terms with other people.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

19. I am a competent person.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

20. I am glad that I was born..

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

21. I am full of life energy.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

22. My life is meager.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

23. I am attempting to fulfill goals.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

24. I am a useful person for other people.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

25. I have a plan for the rest of my life.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

26. I am proud of myself.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

27. I feel comfortable with my social status.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

28. My friends usually consider me as a person with much vitality.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

29. Others have frequently praised me.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

30. I am happy.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

31. I like the way I am now.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

32. I feel secure about my future life.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

33. I lead a well-regulated life.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

34. I sometimes even think of suicide.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

35. I frequently go out.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

36. I can accept myself at this time.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

37. I play an important role in my family, workplace, community, or home for the aged.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

38. I have achieved most of my interests.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

39. Everyone needs me.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

40. I have a hobby to which I have devoted myself.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

41. My current income is enough for me to live.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

42. I have a meaning in life.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

43. I have a daily living schedule.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

44. I have recently felt moved by something.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

45. I have had an important goal throughout my life.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

46. I am highly motivated.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

47. I am more capable of doing some things than other people are.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

48. I feel I have a place where I belong.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

49. I am an active person.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

Thank you for your cooperation.

## Appendix F

### Japanese Version of the 49-Item Ikigai Scale

第2部 以下の文章（ぶんしょう）について、あなたが自分自身のことをどう思っているのか、ありのままにお答えください。なお答えは、1. 「ぜんぜんそう思わない」、から、5. 「まったくそう思う」まで、5つの中から1つだけえらんで、番号に○印をつけてください。

1. 私には、目標（もくひょう）がたくさんある。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

2. 私には、他人に自慢（じまん）できることがある。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

3. 私は、今の生活に満足（まんぞく）している。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

4. 私は、なにかをするとき、いきいきと活動（かつどう）している。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

5. 私は、家族や友達にとって、かけがえのない存在（そんざい）だと思う。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

6. 私は、毎日、目的意識（もくてきいしき）をもっている。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

7. 私は、総じて、金銭的にはめぐまれた方だ。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

8. 私は、ものごとを始めるのがとても早い。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

9. 私には、大切な（愛する）人がいる。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

10. 私の毎日の生活は、充実（じゅうじつ）している。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

11. 私には、少なくとも1つの特技（とくぎ）がある。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

12. 私は、食事がおいしい。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

13. 私は、自分の性格（せいかく）が好きだ。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

14. 私の人生の目的は、すでに見出している。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

15. 私は、孤独（こどく）だ。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

16. 私は、毎日が楽しい。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

17. 私は、精神面（せいしんめん）で自立している。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

18. 私は、他人との人間関係がうまくいっている。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

19. 私は、有能（ゆうのう）な人間だ。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う



20. 私は、生まれてきてよかったと思う。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

21. 私は、はつらつとしている。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

22. 私の生活は、みじめだ。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

23. 私は、目標の実現（じつげん）のために努力している。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

24. 私は、人のために役に立っている人間だ。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

25. 私には、これからさきの計画（けいかく）がある。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

26. 私は、自分のことを誇（ほこ）りに思う。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

27. 私は、今の社会的地位に満足している。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

28. 私は、友達からとても元気がいいとよくいわれる。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

29. 私は、よく人からほめられる。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

30. 私は、幸せだ。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

31. 私は、今のままの自分が好きだ。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

32. 私のこれからさきの生活は、安心だ。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

33. 私は、規則（きそく）正しい生活をしている。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

34. 私は、時々、死にたいと思うことがある。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

35. 私は、外に出かけるきが多い。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

36. 私は、今の自分がうけ入れられる。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

37. 私は、家族、仕事、町内、老人ホームなどで大切なやくわりをはたしている。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

38. 私は、自分のやりたいことは、ほとんどやってきた。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

39. 私のことを必要としている人は、たくさんいる。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

40. 私には、うちこんでいる趣味（しゅみ）がある。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

41. 私の今のしゅう入で、日々の生活は十分だ。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

42. 私は、生きがいをもっている。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

43. 私には、なにか日々の日課（にっか）がある。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

44. 私は、最近、感動する体験（たいけん）をした。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

45. 私には、人生をとおした大きな目標がある。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

46. 私は、意欲的（いよくてき）にものごとにとりかかる方だ。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

47. 私は、ものごとを人並み以上にうまくこなせる。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

48. 私には、自分のよりどころがある。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

49. 私は、積極的（せっきよくてき）な性格だ。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

ご協力ありがとうございました。

## Appendix G

### English Translation of the Study Information Sheet

#### **Study Information Sheet\***

(\*This sheet is a translation of the information given to the retired principals in the pilot study.)

#### Meaning in Life Among Japanese Elders:

#### Development and Validation of a Four-Element *Ikigai* Scale

#### **Investigator**

Akenori Takeda, Doctoral Student, University of Tennessee, Psychoeducational Studies

#### **Introduction**

This questionnaire is sent to you introduced by the following three retired principals whom I worked with in the Southern Educational Counseling Center in Sumida-ward, Tokyo: Mr. Sumitoshi Sakai, Mr. Hiroshi Takeshita, and Mr. Sozaburo Usui.

This research is being conducted for a doctoral dissertation. The purpose of this study is to develop the *Ikigai* Scale, so as to understand the meaning in life among elders.

I expect that this research will give you a chance to think about your *ikigai*. Also, I think that the research results will contribute to other research about elders' *ikigai*. I beg your cooperation for this study.

#### **Procedure**

This questionnaire consists of three parts: your current status, the *Ikigai* Scale, and previously-standardized scales. Please read instructions in each section. The questionnaire will take from 20 to 40 minutes to complete. You can skip a question, if you think it is very difficult to answer; however, please try to answer all of the questions.

After finishing your questionnaire, please make sure that you have not overlooked a question. Finally, please put your questionnaire into the return envelope, and post it if possible by August 31. Please do not write your name or address on the envelop.

### **Important Considerations**

1. If you have difficulty answering the questionnaire by yourself for physical or mental reasons, please do not participate in the research.
2. Please answer the questionnaire on your own: please do not ask others' opinions.
3. Since the questionnaire has many items, some of you may feel tired while answering them. In that case, you can take a rest at your convenience.
4. Your participation in this study is voluntary. You may withdraw participation at any time without penalty.
5. If you think that you do not want to send the questionnaire after finishing it, you can destroy it.

### **Confidentiality**

This research is anonymous. After collection, all of the questionnaires will be kept safely, where only I have access to the questionnaires. They will be destroyed, by using a shredder after completion of the dissertation study. Also, no reference to your name will be made in the dissertation.

### **Contact**

If you have questions about the study or the procedures, you may contact the researcher, Akenori Takeda, at 584-11 Kaizuka, Wakaba-ward, Chiba-city, Chiba-prefecture 264-0023 Japan, or 043-231-9162 (also, at the US address: University of Tennessee, Knoxville Psychoeducational Studies 439 Claxton Addition Knoxville, TN 37996-3400 USA; phone: +1-423-974-2227).

If you have questions about your rights as a participant, contact the University of Tennessee, Compliance Section at +1-423-974-3466.

Return of the completed questionnaire constitutes your consent to participate.

Whether or not you participate in this study, the phone card is a gift.

## Appendix H

### Japanese Version of the Study Information Sheet

#### 調査のお願い

「日本の高齢者の生きがい：4 要素の生きがい尺度の作成」

依頼者：武田 明典    テネシー大学大学院 博士課程 心理教育研究科

#### はじめに

この調査は、私の以前勤務しておりました墨田区立南部教育相談室で、お世話になりました先生方（元校長）のご推薦によりまして、発送させていただきました。先生方のお名前は、酒井澄利先生、竹下宏先生、碓井莊三郎先生でございます。

この調査は博士論文作成のためのものです。調査の目的は、高齢者の方々の生きがいについて理解を深めるための、生きがい尺度を作成するためのものです。

この調査をつうじ、貴方の生きがいにつきまして一つの考える機会となりますと幸いです。また、この調査の結果が、高齢者の方々の生きがいに関する研究に役立てられますことを望んでおります。この調査に協力していただけますよう、宜しく願い申し上げます。

#### 調査の手順につきまして

この調査は、生活状況、生きがい尺度、そしてすでに市販されている尺度の引用など、3つの調査からなっております。調査の説明をよく読んで各質問にお答えください。記入の時間は、約 20 分から 40 分くらいかかります。お答えにくいところは飛ばしてもかまいませんが、できるだけ全ての質問にお答えください。

終了されましたら最後に記入もれがないかどうか確かめてください。そして、返信用の封筒に入れ、なるべく 8 月 31 日までに投函していただきますよう、お願い申し上げます。なお、封筒には貴方の名前や住所は記入しないでください。

#### 注意点につきまして

1. 身体面や精神面で一人で質問にお答えいただくのが難しい場合は、この調査は行わないでください。
2. 他人と相談したりせずに、一人でお答えください。

3. 質問の数が多いのでお疲れになることが予想されますが、その際は休憩を入れてお答えください。
4. この調査に協力していただけますかどうかは、皆様方の意志で決められてください。
5. 質問用紙を記入している最中に、また終えられた後で、返却したくないとお考えになりましたら、処分していただいてもかまいません。

#### 秘密保持につきまして

この調査では、名前を書く必要がありません。質問用紙は私のみが知る場所に保管され、調査後には裁断処理されます。また論文には、協力していただきました方々の名前はのりませんのでご安心ください。

#### 連絡先

この調査や手続きに関しましてご質問がございましたら、下記の武田あてにご連絡ください。

#### 記

武田 明典

住所：〒264-0023

千葉市若葉区貝塚町 584-11

電話：043-231-9162

(または、米国の住所：Akenori Takeda

University of Tennessee, Knoxville Psychoeducational Studies

439 Claxton Addition Knoxville, TN 37996-3400 USA

電話：+1-423-974-2227)

また、調査の人権問題などに関しますお問い合わせは、テネシー大学、調査承諾係り（電話：+1-423-974-3466）まで直接お願い申し上げます。

質問用紙の返却をもちまして、調査の同意とさせていただきます。

調査のご協力・否かに関わりなく、テレフォンカードを贈呈させていただきます。

## Appendix I

### Initial Rotated Factor Matrix from the Pilot Study: 60-Item *Ikigai* Scale (n = 63)

|                                                                      | Factor |       |       |       |
|----------------------------------------------------------------------|--------|-------|-------|-------|
|                                                                      | 1      | 2     | 3     | 4     |
| PE55. I am highly motivated.                                         | .756   | .118  | .205  | .091  |
| PL6. I have a goal for every day.                                    | .748   | .086  | .400  | -.028 |
| PE23. I am full of life energy.                                      | .686   | .285  | .286  | .144  |
| PE4. I am energetic when working.                                    | .648   | .143  | -.053 | .309  |
| PL9. I have recently experienced an empty feeling. (R)               | .631   | .435  | .154  | -.066 |
| PE8. I tend to be very fast doing anything.                          | .627   | .036  | .062  | .362  |
| PE60. I am an active person.                                         | .620   | .256  | .176  | .222  |
| LS18. I enjoy my life every day.                                     | .618   | .384  | .160  | .245  |
| PL46. I am idling away my time. (R)                                  | .609   | .011  | .365  | .076  |
| PE30. My friends usually consider me as a person with much vitality. | .605   | .296  | .223  | .134  |
| PL49. I have a meaning in life.                                      | .579   | .240  | .374  | .152  |
| PL51. I have a daily living schedule.                                | .559   | -.084 | .319  | -.088 |
| LS12. I feel a sense of fulfillment in my life.                      | .531   | .445  | .117  | .223  |
| SE2. I have some sense of myself that others admire.                 | .482   | .227  | .350  | .221  |
| PL25. I am attempting to fulfill goals.                              | .475   | .043  | .403  | .184  |
| PE36. I lead a well-regulated life.                                  | .442   | .129  | -.031 | .179  |
| SE19. I am emotionally independent.                                  | .422   | .349  | .062  | .270  |
| PL1. I have a lot of goals.                                          | .402   | .256  | .290  | -.047 |
| LS14. I enjoy taking meals.                                          | .378   | .227  | -.091 | .167  |
| PL31. I have lost my hope for life. (R)                              | .331   | .230  | .054  | -.300 |
| PE50. I am always spending my time watching TV. (R)                  | .306   | -.236 | .155  | -.257 |
| PE11. I have a special companion (lover).                            | .296   | .248  | .122  | .009  |
| LS33. I am happy.                                                    | .324   | .687  | .037  | .315  |
| LS3. I am satisfied with my current life.                            | .106   | .657  | .055  | .166  |
| LS24. My life is meager. (R)                                         | .212   | .609  | .059  | -.109 |
| LS35. I feel secure about my future life.                            | .127   | .596  | .070  | .295  |
| LS48. My current income is enough for me to live.                    | .050   | .529  | .192  | .056  |
| PL22. I am glad that I was born.                                     | .335   | .515  | .289  | .027  |
| LS7. All in all, I am in a good economic situation.                  | .153   | .508  | -.028 | .083  |
| LS17. I feel lonely. (R)                                             | .389   | .502  | .173  | -.022 |
| PL16. I have already found my purpose in life.                       | .195   | .499  | .432  | .108  |
| PL38. I sometimes even think of suicide. (R)                         | .280   | .469  | .259  | -.422 |
| SE41. I can accept myself at this time.                              | .179   | .451  | .039  | .333  |
| PE43. I have achieved most of my interests.                          | .187   | .408  | .287  | .140  |
| LS58. I like the environment of my house or facility.                | -.176  | .406  | .234  | .192  |

Note. Extraction Method: Maximum Likelihood. Rotation Method: Varimax with Kaiser Normalization. Abbreviations of the initial four elements of *ikigai* are as follows: SE (Self-Esteem); PL (Purpose in Life); PE (Personal Energy); and LS (Life Satisfaction). (R) represents reversed items.



# Appendix I. (Continued)

|                                                                                          | Factor |       |      |       |
|------------------------------------------------------------------------------------------|--------|-------|------|-------|
|                                                                                          | 1      | 2     | 3    | 4     |
| PE53. I have recently felt moved by something.                                           | .204   | -.020 | .696 | .137  |
| PL54. I have had an important goal throughout my life.                                   | .157   | .080  | .615 | .132  |
| SE13. I have at least one special ability.                                               | .264   | .071  | .611 | .267  |
| SE26. I am a useful person for other people.                                             | .352   | -.058 | .587 | .318  |
| PE47. I have a hobby to which I have devoted myself.                                     | .178   | .307  | .580 | -.163 |
| PL27. I have a plan for the rest of my life.                                             | .145   | .293  | .577 | -.378 |
| SE52. I like my face and features.                                                       | -.030  | .347  | .521 | .190  |
| PE39. I frequently go out.                                                               | .311   | -.015 | .513 | .072  |
| PL59. I feel I have a place where I belong.                                              | .250   | .361  | .483 | .137  |
| LS40. I have many good memories.                                                         | -.108  | .323  | .436 | .161  |
| LS29. I feel comfortable with my social status.                                          | .086   | .395  | .436 | .169  |
| SE37. I am good at anything I do.                                                        | .344   | .118  | .426 | .399  |
| LS44. I regret many things. (R)                                                          | .185   | .333  | .349 | .046  |
| PE57. I like to take care of my grandchild, pet, or plant very much.                     | .034   | .069  | .304 | .096  |
| SE56. I am more capable of doing some things than other people are.                      | .167   | .186  | .210 | .667  |
| SE45. Everyone needs me.                                                                 | .255   | -.042 | .483 | .565  |
| SE21. I am a competent person.                                                           | .112   | .202  | .245 | .540  |
| SE15. I like my personality.                                                             | .354   | .292  | .064 | .531  |
| SE5. I believe I am an irreplaceable person for my family and friends.                   | .142   | .143  | .174 | .511  |
| LS20. I am on good terms with other people.                                              | .293   | .344  | .210 | .478  |
| SE34. I like the way I am now.                                                           | .258   | .389  | .236 | .443  |
| SE32. Others have frequently praised me.                                                 | .216   | .141  | .183 | .439  |
| SE28. I am proud of myself.                                                              | .087   | .199  | .366 | .400  |
| PL42. I play an important role in my family, workplace, community, or home for the aged. | .292   | .062  | .335 | .386  |
| PE10. I am learning things.                                                              | .125   | .261  | .277 | .333  |

Note. Extraction Method: Maximum Likelihood. Rotation Method: Varimax with Kaiser Normalization. Abbreviations of the initial four elements of *ikigai* are as follows: SE (Self-Esteem); PL (Purpose in Life); PE (Personal Energy); and LS (Life Satisfaction). (R) represents reversed items.

## Appendix J

### Final Rotated Factor Matrix from the Pilot Study: 49-Item *Ikigai* Scale ( $n = 63$ )

|                                                                                          | Factor |       |       |       |
|------------------------------------------------------------------------------------------|--------|-------|-------|-------|
|                                                                                          | 1      | 2     | 3     | 4     |
| PL6. I have a goal for every day. (PL#6)                                                 | .763   | .140  | .387  | -.002 |
| EP23. I am full of life energy. (PE#21)                                                  | .711   | .368  | .191  | .134  |
| EP55. I am highly motivated. (PE#46)                                                     | .647   | .257  | .275  | .061  |
| PL49. I have a meaning in life. (PL#42)                                                  | .560   | .318  | .340  | .158  |
| EP30. My friends usually consider me as a person with much vitality.                     | .559   | .249  | .273  | .276  |
| LS18. I enjoy my life every day. (LS#16)                                                 | .556   | .424  | .201  | .271  |
| PL38. I sometimes even think of suicide. (R)                                             | .536   | -.216 | .023  | .356  |
| PL51. I have a daily living schedule.                                                    | .534   | -.007 | .336  | -.064 |
| PL22. I am glad that I was born.                                                         | .525   | .204  | .099  | .300  |
| LS12. I feel a sense of fulfillment in my life. (LS#10)                                  | .516   | .423  | .081  | .310  |
| LS17. I feel lonely. (R)                                                                 | .513   | .203  | .015  | .342  |
| EP60. I am an active person. (PE#49)                                                     | .485   | .411  | .239  | .185  |
| EP4. I am energetic when working. (PE#4)                                                 | .477   | .437  | .086  | .057  |
| SE2. I have some sense of myself that others admire.                                     | .458   | .301  | .385  | .176  |
| PL1. I have a lot of goals. (PL#1)                                                       | .454   | .089  | .237  | .192  |
| SE19. I am emotionally independent.                                                      | .454   | .443  | .005  | .143  |
| EP47. I have a hobby to which I have devoted myself.                                     | .424   | -.052 | .337  | .199  |
| PL59. I feel I have a place where I belong.                                              | .398   | .226  | .309  | .241  |
| PL27. I have a plan for the rest of my life. (PL#25)                                     | .380   | -.276 | .370  | .266  |
| LS14. I enjoy taking meals.                                                              | .332   | .274  | -.036 | .121  |
| EP36. I lead a well-regulated life. (PE#33)                                              | .259   | .195  | .133  | .227  |
| EP11. I have a special companion (lover).                                                | .254   | .024  | .239  | .243  |
| SE56. I am more capable of doing some things than other people are. (SE#47)              | .030   | .721  | .197  | .087  |
| SE15. I like my personality.                                                             | .248   | .694  | .026  | .174  |
| SE21. I am a competent person. (SE#19)                                                   | .064   | .643  | .151  | .082  |
| LS20. I am on good terms with other people.                                              | .221   | .568  | .190  | .288  |
| SE34. I like the way I am now.                                                           | .267   | .562  | .117  | .251  |
| EP8. I tend to be very fast doing anything. (PE#8)                                       | .398   | .502  | .192  | -.028 |
| SE32. Others have frequently praised me. (SE#29)                                         | .154   | .480  | .197  | .070  |
| SE5. I believe I am an irreplaceable person for my family and friends. (SE#5)            | .021   | .675  | .284  | .125  |
| SE28. I am proud of myself. (SE#26)                                                      | .119   | .409  | .308  | .105  |
| SE41. I can accept myself at this time.                                                  | .174   | .395  | .041  | .375  |
| EP53. I have recently felt moved by something.                                           | .153   | .030  | .774  | .096  |
| SE26. I am a useful person for other people. (SE#24)                                     | .197   | .268  | .720  | .034  |
| SE45. Everyone needs me. (SE#39)                                                         | .033   | .514  | .637  | .007  |
| PL25. I am attempting to fulfill goals. (PL#23)                                          | .303   | .201  | .578  | .109  |
| PL42. I play an important role in my family, workplace, community, or home for the aged. | .052   | .284  | .569  | .210  |
| PL54. I have had an important goal throughout my life. (PL#45)                           | .179   | .130  | .554  | .100  |
| SE13. I have at least one special ability.                                               | .284   | .292  | .537  | .031  |
| EP39. I frequently go out.                                                               | .281   | .086  | .511  | -.002 |
| LS48. My current income is enough for me to live. (LS#41)                                | .015   | .013  | .243  | .722  |
| LS7. All in all, I am in a good economic situation.                                      | .085   | .135  | -.011 | .649  |
| LS3. I am satisfied with my current life. (LS#3)                                         | .180   | .217  | -.001 | .635  |
| LS35. I feel secure about my future life. (LS#32)                                        | .088   | .366  | .045  | .629  |
| LS24. My life is meager. (R)                                                             | .296   | -.025 | .015  | .627  |
| LS33. I am happy. (LS#30)                                                                | .322   | .422  | .047  | .585  |
| LS29. I feel comfortable with my social status. (LS#27)                                  | .026   | .094  | .534  | .562  |
| EP43. I have achieved most of my interests. (PE#38)                                      | .170   | .157  | .280  | .471  |
| PL16. I have already found my purpose in life. (PL#14)                                   | .288   | .194  | .333  | .457  |

**Note.** Extraction Method: Maximum Likelihood. Rotation: Varimax with Kaiser Normalization. Abbreviations of the initial four elements of *ikigai* are as follows: SE (Self-Esteem); PL (Purpose in Life); PE (Personal Energy); and LS (Life Satisfaction). (R) represents reversed items. Items followed by parenthetical labels, such as (PL#6), are those which remained in the final version of the *Ikigai* Scale.

## Appendix K

### Initial Rotated Factor Matrix from the Main Study: 49-Item *Ikigai* Scale ( $n = 273$ )

|                                                                                          | Factor |       |      |       |
|------------------------------------------------------------------------------------------|--------|-------|------|-------|
|                                                                                          | 1      | 2     | 3    | 4     |
| SE24. I am a useful person for other people.                                             | .660   | .431  | .238 | -.007 |
| SE47. I am more capable of doing some things than other people are.                      | .641   | .182  | .148 | .225  |
| SE29. Others have frequently praised me.                                                 | .610   | .255  | .239 | .163  |
| SE39. Everyone needs me.                                                                 | .609   | .298  | .326 | .139  |
| SE19. I am a competent person.                                                           | .580   | .313  | .157 | .211  |
| PE46. I am highly motivated.                                                             | .553   | .377  | .235 | .380  |
| SE26. I am proud of myself.                                                              | .544   | .316  | .215 | .233  |
| SE5. I believe I am an irreplaceable person for my family and friends.                   | .521   | .313  | .175 | .115  |
| PE21. I am full of life energy.                                                          | .521   | .271  | .261 | .453  |
| PE28. My friends usually consider me as a person with much vitality.                     | .473   | .125  | .330 | .303  |
| SE11. I have at least one special ability.                                               | .464   | .404  | .110 | .223  |
| PL37. I play an important role in my family, workplace, community, or home for the aged. | .462   | .419  | .354 | -.009 |
| PE9. I have a special companion (lover).                                                 | .459   | .328  | .197 | .058  |
| PE35. I frequently go out.                                                               | .365   | .206  | .264 | .154  |
| PL48. I feel I have a place where I belong.                                              | .362   | .357  | .282 | .281  |
| PE44. I have recently felt moved by something.                                           | .337   | .249  | .292 | .155  |
| SE13. I like my personality.                                                             | .336   | .108  | .295 | .285  |
| PL6. I have a goal for every day.                                                        | .158   | .786  | .101 | .308  |
| PL23. I am attempting to fulfill goals.                                                  | .285   | .714  | .117 | .192  |
| PL25. I have a plan for the rest of my life.                                             | .377   | .664  | .191 | .072  |
| PL1. I have a lot of goals.                                                              | .276   | .611  | .101 | .202  |
| PL42. I have a meaning in life.                                                          | .393   | .579  | .395 | .161  |
| PL45. I have had an important goal throughout my life.                                   | .453   | .527  | .148 | .096  |
| PL14. I have already found my purpose in life.                                           | .321   | .512  | .243 | .136  |
| PE4. I am energetic when working.                                                        | .238   | .481  | .272 | .477  |
| SE2. I have some sense of myself that others admire.                                     | .404   | .436  | .073 | .197  |
| PL43. I have a daily living schedule.                                                    | .317   | .416  | .259 | .271  |
| LS12. I enjoy taking meals.                                                              | .133   | .391  | .342 | .020  |
| PE40. I have a hobby to which I have devoted myself.                                     | .351   | .353  | .256 | .247  |
| LS30. I am happy.                                                                        | .179   | .202  | .689 | .160  |
| LS3. I am satisfied with my current life.                                                | -.193  | .246  | .639 | .239  |
| SE36. I can accept myself at this time.                                                  | .370   | .143  | .574 | .143  |
| LS32. I feel secure about my future life.                                                | .115   | -.047 | .570 | .230  |
| LS16. I enjoy my life every day.                                                         | .054   | .398  | .549 | .422  |
| LS27. I feel comfortable with my social status.                                          | .310   | .143  | .548 | .142  |
| SE31. I like the way I am now.                                                           | .281   | .166  | .505 | .285  |
| LS22. My life is meager. (R)                                                             | .226   | .238  | .493 | .024  |
| LS10. I feel a sense of fulfillment in my life.                                          | .028   | .363  | .479 | .462  |
| LS41. My current income is enough for me to live.                                        | .238   | -.001 | .465 | .047  |
| LS15. I feel lonely. (R)                                                                 | .232   | .232  | .437 | .161  |
| LS18. I am on good terms with other people.                                              | .399   | .101  | .430 | .041  |
| PL20. I am glad that I was born.                                                         | .240   | .350  | .415 | .194  |
| LS7. All in all, I am in a good economic situation.                                      | .364   | .133  | .415 | .102  |
| PL34. I sometimes even think of suicide. (R)                                             | .169   | .301  | .392 | .113  |
| SE17. I am emotionally independent.                                                      | .308   | .262  | .335 | .280  |
| PE49. I am an active person.                                                             | .410   | .212  | .194 | .549  |
| PE8. I tend to be very fast doing anything.                                              | .370   | .177  | .083 | .509  |
| PE33. I lead a well-regulated life.                                                      | .036   | .138  | .198 | .400  |
| PE38. I have achieved most of my interests.                                              | .264   | .053  | .298 | .372  |

**Note.** Extraction Method: Maximum Likelihood. Rotation: Varimax with Kaiser Normalization. Abbreviations of the initial four elements of *ikigai* are as follows: SE (Self-Esteem); PL (Purpose in Life); PE (Personal Energy); and LS (Life Satisfaction). (R) represents reversed items.

## Appendix L

### English Version of the Four-Factor *Ikigai* Scale (28 items)

Please frankly answer the following statements about how you think of yourself. Please circle only one answer from the five selections of 1, "Strongly Disagree" to 5, "Strongly Agree."

1. I have a lot of goals.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

2. I am satisfied with my current life.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

3. I believe I am an irreplaceable person for my family and friends.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

4. I am energetic when working.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

5. I have a goal for every day.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

6. I tend to be very fast doing anything.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

7. I feel a sense of fulfillment in my life.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

8. I have already found my purpose in life.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

9. I enjoy my life every day.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

10. I am a competent person.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

11. I am full of life energy.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

12. I am attempting to fulfill goals.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

13. I am a useful person for other people.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

14. I have a plan for the rest of my life.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

15. I am proud of myself.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

16. I feel comfortable with my social status.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

17. Others have frequently praised me.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

18. I lead a well-regulated life.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

19. I am happy.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

20. I feel secure about my future life.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

21. I have achieved most of my interests.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

22. Everyone needs me.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

23. My current income is enough for me to live.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

24. I have a meaning in life.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

25. I am highly motivated.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

26. I have had an important goal throughout my life.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

27. I am more capable of doing some things than other people are.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

28. I am an active person.

1. Strongly Disagree    2. Disagree    3. In Between    4. Agree    5. Strongly Agree

**Thank you for your cooperation.**

## Appendix M

### Japanese Version of the Four-Factor Ikigai Scale (28 items)

以下の文章（ぶんしょう）について、あなたが自分自身のことをどう思っているのか、ありのままにお答えください。なお答えは、1. 「ぜんぜんそう思わない」、から、5. 「まったくそう思う」まで、5つの中から1つだけえらんで、番号に○印をつけてください。

1. 私には、目標（もくひょう）がたくさんある。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

2. 私は、今の生活に満足（まんぞく）している。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

3. 私は、家族や友達にとって、かけがえのない存在（そんざい）だと思う。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

4. 私は、なにかするときに、いきいきと活動している。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

5. 私は、毎日、目的意識（もくてきいしき）をもっている。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

6. 私は、ものごとを始めるのがとても早い。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

7. 私の毎日の生活は、充実（じゅうじつ）している。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う



8. 私の人生の目的は、すでに見出している。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

9. 私は、毎日が楽しい。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

10. 私は、有能（ゆうのう）な人間だ。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

11. 私は、はつらつとしている。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

12. 私は、目標の実現（じつげん）のために努力している。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

13. 私は、人のために役に立っている人間だ。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

14. 私には、これからさきの計画（けいかく）がある。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

15. 私は、自分のことを誇（ほこ）りに思う。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

16. 私は、今の社会的地位に満足している。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

17. 私は、よく人からほめられる。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

18. 私は、規則正しい生活をしている。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

19. 私は、幸せだ。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

20. 私のこれからさきの生活は、安心だ。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

21. 私は、自分のやりたいことは、ほとんどやってきた。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

22. 私のことを必要としている人は、たくさんいる。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

23. 私の今のしゅう入で、日々の生活は十分だ。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

24. 私は、生きがいをもっている。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

25. 私は、意欲的（いよくてき）にものごとにとりかかる方だ。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

26. 私には、人生をとおした大きな目標がある。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

27. 私は、ものごとを人並み以上にこなせる。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

28. 私は、積極的（せっきよくてき）な性格だ。

1 ぜんぜんそう思わない      2 そう思わない      3 どちらともいえない      4 そう思う      5 まったくそう思う

ご協力ありがとうございました。

## VITA

Akenori Takeda was born in Chiba-city, Chiba-prefecture, Japan. He earned a BA (Psychology) from Gakushuin University in March 1989 and an MA (Education) from the graduate school of the University of Tsukuba in March 1991. He worked as a counselor from April 1991 to August 1995 at the Southern Educational Counseling Center in Sumida-ward, Tokyo. He received the Clinical Psychologist certification from the Japanese Certification Board for Clinical Psychologists in March 1994. He also has social studies and career guidance teaching licenses for both junior and senior high schools.

In August 1995, he was accepted for graduate study at the University of Tennessee to pursue the Doctorate of Philosophy Degree in Education, specializing in Educational Psychology. In May 2000, he received the Ph.D. degree.