The Vitality of the Ikema Dialect of Miyako Ryukyuan

by

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Abstract

This study investigated the current state of Ikema—a dialect of Miyako Ryukyuan language spoken on Ikema Island and two other small communities in southern Japan—among speakers aged between late 40s and late 60s in the Ikema Island community, by focusing on their proficiency levels and their past and current language use. Miyako Ryukyuan has been identified by UNESCO (2009) to be "definitely endangered." However, none of the Miyako Ryukyuan variety has been thoroughly examined on this aspect, and this assessment needs updating as some traits of Ikema that imply a weaker vitality level have since been reported (Iwasaki & Ono, 2011). Meanwhile, an increasing number of studies have recognized the need for more accurate assessments of a language's vitality than traditional measures, which largely depend on speaker's self-reported census data (e.g., Róse Labrada, 2017; Yang et al., 2017). In fact, the use of surveys and questionnaires seems to be the dominant method when assessing language vitality in the Ryukyus (e.g., Heinrich, 2007; Ishihara, 2014). Thus, in exploring the vitality of Ikema, the present study aimed to alleviate some of these shortcomings by employing different instruments including a proficiency assessment (developed by the author), language life interview, and participant observation. The data obtained showed signs of a declined level of vitality in Ikema Ryukyuan; it supported strong receptive skills in all speakers but limited productive skills in younger female speakers aged around 50. The close examination of the data also revealed that a variety of innovative usages of Ikema are actively produced by the speakers.

Preface

This thesis is an original work by Chiho Ogawa. The research project, of which this thesis is a part, received research ethics approval from the University of Alberta Research Ethics Board, Project Name “Assessing Language Vitality of Ikema dialect, Miyako Ryukyuan,” Study ID: Pro00089749, May 16, 2019.

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List of Abbreviations

ACC	accusative	NEG	negation
CAUS	causative	NM	nominative
COND	conditional	NOM	nominalizer
CONT	continuative	NPST	non-past
COP	copula	PS	passive
CSL	causal	PST	past
DAT	dative	PT	potential
DM	discourse marker	QUOT	quotative
FOC	focus	RES	resultative
FP	final particle	SEQ	sequential
FUT	future	TOP	topic marker
HON	honorific	VOL	volitional
IMP	imperative		

List of Transcription Symbols

@	laughter
<@ @>	laugh quality
..	short pause
...	long pause
-	truncated
=	lengthening

Chapter 1 Introduction

UNESCO (2003) acknowledged *language diversity* as a basic human value and autonomy in its statement, "Each and every language embodies the unique cultural wisdom of a people. The loss of any language is thus a loss for all humanity" (p. 1). Currently, the people in the Ryukyu Islands, the southernmost chain of the Japanese archipelago, are experiencing such a loss due to the language shift toward Japanese.

In 2009, the digital version of the 'UNESCO Atlas of the World's Languages in Danger'[1] first formally recognized six languages in the Ryukyu Islands, along with Ainu and Hachijō,[2] as *endangered* languages. This recognition confronted the long-established assumption of a monolingual Japanese state and called attention to the linguistic diversity in present Japan. This misconception has its roots in the linguistic assimilation policy promoted by the Japanese government in the mid nineteenth century which aimed at the nation's modernization and promotion of national identity. According to UNESCO (2009), of six Ryukyuan languages two (Yaeyama and Yonaguni) are classified as "critically endangered," and four (Amami, Kunigami, Okinawa, and Miyako) as "definitely endangered." The present study focuses on the Ikema dialect of Miyako Ryukyuan, and examines its current state, or *language vitality*.

[1] An interactive online map of the world's endangered languages first launched in 2005 and finalized in 2009. Print edition to which online edition was complementary, was published in 1996 and edited in 2001. http://www.unesco.org/languages-atlas/index.php?hl=en&page=atlasmap

[2] Ainu was spoken by the indigenous people of Hokkaido, Sakhalin, and the Kuril Islands, and had been completely supplanted by Japanese by the early 21st century. Hachijō is spoken on the southern Izu Islands south of Tokyo, as well as Daitō Islands southeast of mainland Okinawa. Based on the criterion of mutual intelligibility, Hachijō may be considered a distinct Japonic language.

This chapter discusses what is currently known about the Ikema dialect. Sections 1.1.-1.3. introduce the Ryukyus and Ryukyuan languages, the Ikema dialect, and the speakers of the Ikema dialect, respectively. Section 1.4. outlines the organization of the thesis.

1.1. What is the Ryukyus and Ryukyuan?

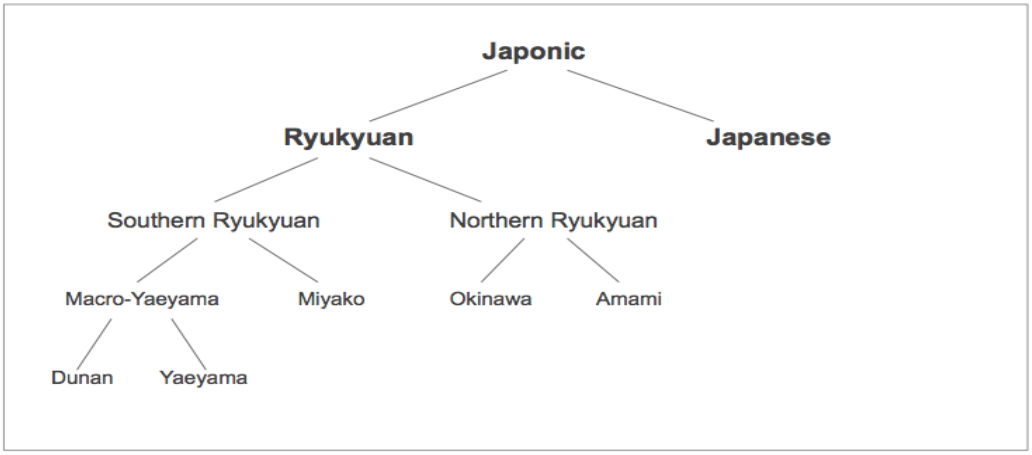
Ryukyu Islands, alternatively Okinawa Islands, extend some 700 miles southwestwardly from Kyushu (southernmost of the four main islands of Japan) to northeastern Taiwan. It consists of a few dozen small islands which are divided into four major groups: the Amami islands in the north; the Okinawa Islands, the Miyako Islands, and Yaeyama Islands in the south. Administratively, the Ryukyus are part of Japan, with the Amami islands constituting part of Kagoshima Prefecture of Kyushu, and the Okinawa, Miyako, and Yaeyama islands making up Okinawa Prefecture. The Ryukyus were originally an independent kingdom with a culture and history distinct from the rest of Japan. Before the kingdom was invaded by the Satsuma Domain, present day Kagoshima Prefecture in 1609, it was a semi-independent kingdom under the influence of China. During Satsuma's colonization from 1609 to 1872, the state of the Ryukyu Kingdom remained intact. In 1875, it was absorbed into Japan as part of Meiji Restoration.[3] During this period, the Meiji Japanese government promoted Japanese as *kokugo* 'national language,'[4] while suppressing other language varieties as a means to impose a shared identity on its people (Heinrich, 2005). One example related to this policy employed at schools is the use of *hoogen fuda* 'dialect placard.' At the time, students who spoke in the local language were forced to wear a wooden board that said *hoogen fuda* 'dialect placard' or *hoogen shiyoosha* 'dialect

[3] A period in Japan's history of major political, economic, and social change between 1868-1912 under Emperor Meiji that brought about the modernization and westernization of the country.
[4] For discussion on language ideology in Japan and spread of Japanese, see Heinrich 2005, 2015a and b.

user' as a punishment (Iwasaki & Ono, 2011; Nakayama & Ono, 2013). After the defeat of Japan in World War II in 1945, the United States took control of the Ryukyu Islands and its occupation lasted until 1972, when the islands reverted to Japan.

Concerning the genetic root of Ryukyuan languages, it is generally assumed that the Japonic language family has two branches, a Japanese branch and Ryukyuan branch. According to Pellard (2015), Ryukyuan varieties share a set of innovations absent from Japanese. The Ryukyuan branch is further divided into two sub-branches. The Northern branch consists of Amami, spoken on Amami Islands, and Kunigami and Okinawan, spoken on Okinawa mainland. The Southern branch consists of Miyako, spoken on Miyako Islands, and Yaeyama and Dunan (Yonaguni), spoken on Yaeyama Islands (Pellard, 2015). The Ikema dialect (hereby Ikema) is one of the dialects of Miyako, the Southern Ryukyuan.

Figure 1: Japonic Language Family (Pellard, 2015)[5]



1.2. Ikema, Miyako Ryukyuan

[5] Pellard (2015) does not seem to recognize Kunigami as an independent language.

The Miyako Islands, on which the Miyako Ryukyuan is spoken, lie approximately 170 miles southwest from the Okinawa mainland, and only 180 miles northeast of Taiwan. They are comprised of eight islands: Miyako Island, Ōgami Island, Ikema Island, Irabu Island, Shimoji Island, Kurima Island, Tarama Island, and Minna Island. Miyako Ryukyuan can be split into five major dialects: Mainland Miyako, Ōgami, Ikema, Irabu, and Tarama (Karimata, 1997). Of all the Miyako Ryukyuan varieties, Mainland Miyako, which is spoken in the socio-political centre of all Miyako Islands, is treated as the most prestigious variety, and thus, is regarded as the standard Miyako dialect (Aoi, 2015). It is also reported that Ikema is relatively distinct from other Miyako Ryukyuan varieties (Nakayama & Ono, 2013, p. 143).

1.3. Speakers of Ikema

Ikema is currently spoken in three main communities: Ikema Island, where Ikema was originated, Nishihara Village on main Miyako Island, and Sarahama Village on Irabu Island. The current populations[6]of the three communities are 568, 812, and 2,738, respectively (as of 2018). However, based on my observation and input from the community members, actual living population of the Ikema Island community was estimated to be 450 to 500 (as of 2019). In the present study, I focus on the Ikema Island community. Ikema Island is located north of the main Miyako Island, and it has a land area of 2.62 square miles. The two islands are connected by a 4675-foot bridge built in 1992. It has been reported by researchers such as Hayashi (2009) and Iwasaki & Ono (2011) that, while older generations still speak Ikema in everyday interactions, younger generations do not speak or comprehend Ikema nor are children growing up learning it

[6] Miyakojima City. (2018, December 31). *Statistics Miyakojima*. https://www.city.miyakojima.lg.jp/gyosei/toukei/2019-0527-1615-12.html

as Japanese is quickly taking over as their primary language. Hayashi (2009) reported that the number of fluent Ikema speakers was estimated at approximately 2,000, if everybody over 60 years old at the time of estimate was assumed to speak Ikema. However, the current figure could be much smaller due to the aging population.[7] According to Iwasaki & Ono (2011), some speakers over 90 years old are more comfortable speaking in Ikema than Japanese, but there are no monolingual Ikema speakers left. People between 70 and 90 years old are productive bilinguals of Ikema and Japanese. In other words, most people in this group can code-switch between the two languages smoothly depending on the social contexts (Iwasaki & Ono, 2011). People between 50 and 70 years old have diverse linguistic abilities, with the majority of them being able to understand Ikema, whereas people younger than 50 years old are much more proficient or monolingual in Japanese, as initially observed by Iwasaki & Ono (2011). This means, people between the ages of 50 to 70 are possibly *the last bilinguals*, and subsequent generations are more likely to be monolingual in Japanese. The present study focuses on the people aged in an approximate range of 50 to 70—the youngest speaker is 48 years old, while oldest is 68 years old—, and investigates the current vitality level of Ikema among this population.

1.4. Structure of the thesis

The organization of the thesis is as follows. Chapter 2 reviews the previous literature on language vitality. Chapter 3 introduces the type of data and methodology of the analysis adopted in this study. The detailed steps of how I developed an assessment tool are discussed in this

[7] In the Ikema Island community, the percentage of the population over 65 years old is extremely high (49.5% as of 2005) (Iwasaki & Ono, 2011).

chapter. Chapter 4 and 5 report on the results of the proficiency assessment test, and respectively discuss the results of the receptive tasks and the productive tasks. Chapter 6 presents the results of the language life interview. Lastly, Chapter 7 summarizes the findings and limitations of the study, as well as the implications for the future research.

Chapter 2 Backgrounds and Objectives of the Study

This chapter reviews the existing literature that discusses language vitality and related work such as language documentation and revitalization. Section 2.1. summarizes some of the most influential language vitality metrics, the Graded Intergenerational Disruption Scale (GIDS; Fishman, 1991), UNESCO's (2003) *nine factors*, and the Language Endangerment Index (LEI; Lee & Way, 2016). Sections 2.2. and 2.3. focus on two important areas to be addressed in endangered language discourse: the overreliance on survey and self-reported data (2.2.) in assessing language vitality, and the paradoxical nature of speakerhood and languagehood (2.3.). Section 2.4. discusses different barriers between researchers and speakers in linguistic fieldwork. Section 2.5. summarizes studies on language vitality in the Ryukyus. Finally, Section 2.6. outlines the objectives of the present study.

2.1. Language Vitality and Metrics for Language Vitality

According to UNESCO (2003), "A language is *endangered* when it is on a path toward extinction" (p. 2). That is, "when its speakers cease to use it, use it in an increasingly reduced number of communicative domains, and cease to pass it on from one generation to the next" (p. 2). Since the early 1990s, the awareness of the threat to language diversity has increased (Austin & Sallabank, 2011), and a number of metrics for assessing a language's degree of endangerment, or *language vitality*, have been developed as a result. Some of the most influential ones include the Graded Intergenerational Disruption Scale (GIDS; Fishman, 1991), UNESCO's (2003) nine factors (proposed by a panel of experts on endangered languages), the Extended Graded Intergenerational Disruption Scale (EGIDS; Simons & Lewis, 2010), and the Language

Endangerment Index (LEI; developed by the researchers of Catalogue of Endangered Languages; ELCat). The next section briefly discusses the following three metrics: Fishman's (1991) GIDS, UNESCO's (2003) nine factors, and ELCat researchers' LEI.

Fishman (1991) proposed the first scale for a language's endangerment, namely the Graded Intergenerational Disruption Scale (GIDS), in an attempt to address the world's as of yet unsuccessful language revitalization efforts. The eight stages of a language proposed by Fishman (1991) were defined based on the extent of disruption to the language's intergenerational continuity and domains of language use. With GIDS, stage 8 indicates the most disruption, or near extinction, while stage 1 indicates the least disruption.

In comparison, UNESCO's (2003) nine factors took into account other important factors relevant to language endangerment that were not included in GIDS. Those factors include, for example, 'materials for language education,' 'community members' attitudes toward the language,' and 'the amount and quality of documentation.' UNESCO's nine factors are summarized in Table 1 below. Each factor, except for 'absolute number of speakers,' is graded on a scale of 0 to 5 based on the definition given for the characteristics of each level (0 to 5) of the factor in question. Finally, the grades are associated with a degree of endangerment:[8] (5) Safe, (4) Unsafe, (3) Definitely Endangered, (2) Severely Endangered, (1) Critically Endangered and (0) Extinct. According to 'UNESCO's Atlas of World Languages in Danger' (2009), Miyako Ryukyuan including Ikema, along with three other Ryukyuan Languages (Amami, Okinawa, and Kunigami) were graded as (3) Definitely Endangered. UNESCO (2003) defined 'the intergenerational transmission' at this level as:

[8] For some factors, the degrees of endangerment are worded differently. For example, factor 4 is graded as (5) Universal use, (4) Multilingual parity, (3) Dwindling Domains, (2) Limited of formal domains, (1) Highly limited domain, and (0) Extinct.

> The language is no longer being learned as the mother tongue by children in the home. The youngest speakers are thus of the *parental generation*.[9] At this stage, parents may still speak their language to their children, but their children do not typically respond in the language. (p. 8)

However, some of the characteristics of Ikema reported since by Iwasaki & Ono (2011), such as that people younger than 50 years old are much more proficient or monolingual in Japanese, indicate that the vitality of Ikema might already be weaker than level 3 "definitely endangered." One of the goals of the present study is, thus, to update this status of Miyako Ryukyuan reported by UNESCO (2009).

Table 1: UNESCO's nine factors (UNESCO, 2003)

Factor 1	Intergenerational Language Transmission
Factor 2	Absolute Number of Speakers
Factor 3	Proportion of Speakers within the Total Population
Factor 4	Trends in Existing Language Domains
Factor 5	Response to New Domains and Media
Factor 6	Materials for Language Education and Literacy
Factor 7	Governmental and Institutional Language Attitudes and Policies
Factor 8	Community Members' Attitudes toward Their Own Language
Factor 9	Amount and Quality of Documentation

While UNESCO's online atlas was complementary to its print edition, the Catalogue of Endangered Languages (ELCat; n.d.) generated by the Endangered Language Project (ELP; http://www.endangeredlanguages.com/) was developed primarily as a Google powered web

[9] Based on my observation made during the visits to the island, the age groups of parental generation in the Ikema Island community seem to range from 20 to 45 years old.

platform for sharing information and recourses on the world's endangered languages. Endangered Language Project, with its central feature Catalogue of Endangered Languages (ELCat), is a Google-powered website where users can not only access but also share information and resources on world's endangered languages in the form of text, audio, or video files. Language Endangerment Index (LEI) was generated by the researchers of ELCat[10] in an attempt to develop a more accessible assessing tool of a language's vitality than previous methods. LEI takes into account four factors: intergenerational transmission, absolute number of speakers, speaker number trends, and domains of use. The use of these four basic factors in LEI makes it possible for a broader range of population to analyze the state of an endangered language, even when there is limited information available about the language (Lee & Way, 2016).

These evaluative systems including the ones mentioned here have made it possible for the global audiences to gain a general overview on the state of the world's endangered languages, as well as compare the assessed vitality across languages in different contexts for a variety of purposes (e.g., for funding agencies to determine their urgency or likeliness of success). Furthermore, by providing tools that can assess the vitality of a language using a set of fundamental factors responsible for language endangerment, these metrics have enabled faster and greater progress in language vitality assessment. However, some limitations of both the use of these metrics and discussions about endangered language that centered around these metrics have since come to light. These include the dominance of quantitative representations (Moore et al., 2010), the overreliance on self-reporting data such as questionnaire and self-assessed proficiency (Róse Labrada, 2017; Yang et al., 2017), and the difficulty defining speakerhood and

[10] They were a group of experts from different research institutes including University of Hawai‘i Mānoa (UHM) and Eastern Michigan University (EMU) (University of Hawai‘i Mānoa).

languagehood (e.g., Leonard & Hayness, 2010). The following three sections review some of these limitations of the previous vitality assessments along with issues to be addressed in endangered language discourse.

2.2. Dominance of Self-Reported Data and Survey

Traditionally, the use of self-reported data and questionnaire surveys to determine speaker numbers, languages spoken and their domains, levels of proficiency, and so on has been dominant in assessing a language's vitality. This use of questionnaire surveys and numbers inevitably draws attention away from the internal dynamics of the community, and obscures "the complex pragmatic and metapragmatic dimensions of actual language-in-use" (Moore et al., 2010, p. 2). Researchers such as Róse Labrada (2017) and Yang et al. (2017) questioned the accuracy of vitality assessments that used these methods. For instance, assessing a speaker's level of proficiency based on self-reporting data could lead to highly subjective, hence unreliable results. This is, according to Yang et al. (2017), not only because what it means to speak a language can differ from one speaker to another, but also speakers might be tempted to overstate or choose to understate their proficiency, often depending on the language ideology in the community. However, studies that explored alternative methods of measuring speakers' level of proficiency are limited. These include Florey (2007) and Yang et al. (2017). In their case study on Jejueo, Yang et al. (2017) drew attention to the risk of solely depending on speakers' self-assessment of their level of proficiency and developed a more linguistically realistic model. Jejueo is an endangered language spoken in the Jeju Island, South Korea. It is mainly used in informal settings (e.g., in the home), largely by elderly speakers (Endangered Languages Project http://www.endangeredlanguages.com/), and it has no written form. In addition to their self-

assessing questionnaire on speaker's fluency in Jejueo, Yang et al. (2017) incorporated comprehension tasks in their instruments. The task was to listen to ten recorded Jejueo sentences and paraphrase them into Korean, their dominant language. By creating an opportunity where the speakers can judge their linguistic ability by drawing on how they did on those tasks, rather than simply imagining it, Yang et al. (2017) achieved more accurate self-assessments. While they demonstrated that a little modification could improve the accuracy of the assessment, the sentences presented in their task did not seem to reflect ordinary everyday spoken Jejueo. Many were fairly long sentences with numerous components perhaps similar to the written form, and thus, too complex to reflect everyday language-in-use. English translations of some sentences used in Yang et al.'s (2017) study are listed below:

> 'A small bird holding a big pumpkin seed in its mouth was flying around' (p.111).
> 'If the weather is fine, climb up a tree, pick fruit and throw it to the ground' (p.111).
> 'Father is patting his back with a thin stick to knock off the stuck sand' (p.112).

Due to this complexity, it is possible that the participants misjudged—perhaps underrated—their linguistic ability. In many communities, spoken language is still the only form of language used by the community members, and this is the case for Ikema and Jejueo. Researchers such as Laury & Ono (2019), Linnel (1982), and Schegloff (1996) emphasized on the primacy of *ordinary everyday spoken language* as a form "acquired first, exist[ed] in a language community before the written form of language is developed." (Laury & Ono, 2019, p. 3) According to Linnel (1982), despite this primacy of spoken language, linguists have traditionally and, as yet, dominantly explored and developed theories of language by fundamentally focusing on constructed data which largely resembles written language in nature. Such theories view language as a neatly-bounded, abstract grammatical system, and thus the sentence is seen as a

fundamental unit of language. When developing proficiency assessment in the endangered language context, it is crucial to be aware of this *written language bias* (Linnel, 1982), for otherwise one might fail to understand the true state of a language.

Another alternative tool for self-reported data is Linguistic Vitality Test (LVT) developed by Florey (2007) and members of the research team 'Endangered Moluccan languages: Eastern Indonesia and the Dutch diaspora.' Florey (2007) and her team took the initiative to develop a set of standardized assessing tools for testing speakers' linguistic ability based on more empirical data, which also allows comparability across languages. LVT consists of three tasks: a lexical recognition task, a sentence translation task, and a discourse task. In the lexical recognition task, participants are shown five sets of photos. With each set, they select a photo that matches the audio-recorded description read in the target language. The second task asks participants to translate three sets of sentences recorded in their dominant language Malay, with each set bearing 25 sentences increasing in complexity, into Alune, the target language. Finally in the discourse task, participants are shown six photos from the lexical recognition task and prompted to talk about or make up a story for each scene in the target language. LVT has been applied to four language sites in Maluku, eastern Indonesia, and Sri Lanka Malay.

Learning from the success of these previous tools for assessing speakers' level of proficiency, as well as from their limitations, I have developed a new set of proficiency assessment tools. The components and how I developed them are discussed in the methodology chapter. Next issue discussed is the problems surrounding speakerhood and languagehood in endangered language context.

2.3. Speakerhood and Languagehood

When it comes to calculating the number of speakers, speakerhood and languagehood unavoidably become problematic, since it is not easy to decide who counts as a speaker or what counts as a language. That is, do we count people who speak the language *sometimes*, or only people who use it *all the time*? Do we count only those who have spoken the language *all their lives*, or include those who are learning it *at a later age*? This countable notion of the speaker is interrelated with the instrumental practices and policy planning in Endangered Language discourse. For example, for a language that is already recognized as endangered, lower speaker numbers may often be more beneficial in seeking urgent support. However, as Moore et al. (2010) argued, the employment of numbers that is dominant in Endangered Language discourse "inevitably conjures up an image of the speaker as a stable—hence, countable—entity," and thus, "comes a package of suggested competences and skills that is presented as 'ideal' and 'complete'" (p. 11). Indeed, this has led to issues of language authority and authenticity in many endangered language communities. For example, O'Rourke & Ramallo (2013) illustrated the tensions between traditional native speakers of Galician[11] and emerging *new speakers* resulting from language revitalization policies, over questions of legitimacy and authenticity, that is, 'who is more legitimate speaker of Galician?' In contemporary Galicia, traditional native speakers are generally deemed more legitimate and authentic than new speakers, due to the language ideology that views nativeness—acquiring the language as a child without any special training and having spoken it all their lives—as local and static, and thus more valuable.

Language ideology that values the most traditional variety spoken in the community—what Woodbury (2011) called "ancestral code" (p. 177)—over other varieties also commonly

[11] A language spoken in the northwest part of Spain. Since the 1980s, the language policies in the region have extended its use into new domains including education and public administration, and generated new profiles of speakers.

exists in endangered language communities. “Ancestral code” is a speech variety which “selects as important from among all the speech in a community” and “gives evidence of a feature of the past which may not persist long into the future” (p. 178). It has often been asserted to be the purest form and “intrinsic to ethnic or spiritual identities” in academic work (Woodbury, 2011, p. 178). With this view, all the other variations are negatively evaluated as distracting from good use of the language, especially when the cause of the variation is thought to be due to contact with the dominant language (Abtahian & Quinn, 2017). Abtahian & Quinn (2017) indicated that this contributes to negative evaluations of young people’s speech by older speakers, while causing linguistic insecurity to young speakers, which can lead them to even further shift toward the dominant language. Additionally, Woodbury (2011) pointed out that language documentary efforts ubiquitously focus on this specific variety—ancestral code—despite the fact other varieties are commonly used in the community. He then proposed broader, more inclusive documentary practices including “documentation of contemporary communicative ecology”(p. 179) and “documentation of an emergent code” (p. 180). Such speech varieties were also observed among the speakers of Ikema in the present study. Acknowledging the importance of more inclusive documentary practice presented by Woodbury (2011), they were included and examined as the current speakers’ innovative language practice. This will be further discussed in Chapter 5.

2.4. Barriers between Researchers and Speakers in Linguistic Fieldwork

Another issue is the various barriers or gaps that exist between researchers and speakers in endangered language related work. Whether it is assessing speaker’s level of proficiency, eliciting stories for documentation purposes, or providing the community members with

linguistic training, there is almost always a gap between researcher's academic purposes and the speakers' interests.

Leonard & Haynes (2010) pointed out that researcher's views and criteria of what defines a language or a speaker is in an endangered language community often biased and framed according to their research goal. They warned against imposing those assumptions in linguistic fieldwork, stating:

> [T]he assertions of an outside researcher that somebody is a speaker without having come to understand what being a speaker means within the cultural context extends the historical colonialist practice of imposing Western ways of knowing without acknowledging that other ways of knowing exist. (p. 279)

One way to mitigate this problem is "collaborative consultation" (p. 279) proposed by Leonard & Haynes (2010). With this model, the ultimate emphasis when defining speakers and their proficiency levels is put on collaborative discussion and decision-making with the community members. They defined collaboration as "recursive open-interview in which the initial investigator's theoretical and other goals are explicit and continually reframed and revised by all research participants" (p. 280).

Other gaps can be seen between documentary linguists and speakers of the endangered language community when developing language revitalization projects. Shulist & Rice (2019) addressed this long-existing gap between linguist's documentary effort and revitalization work. That is, the former is in the end a linguistic challenge, while the latter is ultimately a social and political challenge. They pointed out the documentary linguist's failure to take into account different sociopolitical factors by stating:

> As the primary goal remains *documentation*, the types of observations that could contribute to better understanding linguistic sustainability and *revitalization* are not necessarily being written down, though good linguists are often making note of them. (p. 39)

In exploring ways to transform documentation effort into revitalization work, they proposed to incorporate ethnographic methodologies such as *participant observation*, as they are effective tools for understanding the community's dynamics that are relevant to its endangered language context. These dynamics include, for example, the speaker's language ideology and attitudes that often remain below the level of consciousness, and thus are difficult to discover through a series of direct questions.

In the Ikema Island community, this barrier exists in a culturally specific way. Nakayama & Ono (2013) illustrated how the very presence of a university professor—known as *shinshii* 'master' to locals—, which is regarded as one of the most honorable occupations in the community, kept the speakers from speaking Ikema, and encouraged the use of Japanese. Nakayama & Ono (2013) analyzed that this was due to the local people accommodating to the Japanese speaking context created naturally by the presence of the outside intellectuals (they called this contextualization).They also pointed out that linguists have a tendency to shift their attention to the form of language itself and easily forget about these "socio-cultural, interpersonal, or interactional factors" (p. 142), even though they are often highly conscious of these factors at the initial stage of the fieldwork. In the present study, therefore, I aimed to remain alert for the factors discussed in this section throughout the study process, and to obtain information about the community by incorporating participant observation in my methodology. The definition of participant observation is discussed with the methodology (Chapter 3).

2.5. Language Vitality Study of Ryukyuan

Like many other case studies, the use of surveys and questionnaires seems to dominate the exploration of language vitality in the Ryukyuan context (e.g., Motonaga, 1994; Heinrich, 2007; and Ishihara, 2014). Using survey data obtained in communities in Amami Islands and Yonaguni Islands, Nagata (1996) exemplified how the speaker's use of the local dialect and Japanese differed according to their age and gender, and domains of use. In particular, he focused on the lexical and phonological features, and the use of honorifics. He concluded that younger speakers as well as female speakers are shifting to Japanese more quickly than male speakers.

More recent studies include Heinrich (2007)'s large scale sociolinguistic survey study on Ryukyuan. He explored the shifts of language choice in five islands in Ryukyu—Amami, Okinawa, Miyako, Ishigaki, and Yonaguni. The analysis of the 448 surveys sent back (out of 2,000 distributed) revealed different patterns of language choice according to age, gender, and educational backgrounds. His findings supported the shift away from the local dialects to Japanese in all domains—public and private—which had first started in public domains in the 1980s. His study also shed light on the large variation in the transition pattern in each region. For example, in the Miyako Islands, the shift from the local dialect to Japanese or to mixed forms was not as radical as in other regions. It was even reported that the younger generation's (0-30 in age) use of the local dialect in the Miyako Islands was by far the highest. However, as Heinrich himself noted, simplified classification of the language varieties (he used three classifications: local Ryukyuan languages, Standard Japanese, and mixed or hybrid forms of local languages and Standard Japanese[12]), and language domains (he used six private domains: spouse, children,

[12] This is what Anderson (2015) called "Japanese with Ryukyuan substrate interference" (p. 481). According to Anderson (2015), this Japanese influenced by interference from a Ryukyuan language, or "broken Japanese" includes borrowing, hypercorrection, phonosyntactic interference, erroneous language use, vernacular derived neologisms and functionally altered vernacular lexemes.

parents, grandparents, neighbors, and colleagues) did not necessarily represent actual linguistic situations, which are often more diverse.

Even though I fully recognize the significance of those previous works, I would like to suggest that incorporating qualitative methods can bring to the language vitality assessment more depth and practical outcomes. An example of a qualitative study on the vitality of Ryukyuan is Anderson's dissertation (2009) on how *Uchinaaguchi* 'Okinawan,' a Ryukyuan variety spoken by the largest number of people in Okinawa main island,[13] is used by its last speakers. Using audio recordings of Okinawan's everyday interactions, Anderson (2009) investigated speech behavior of individuals, and allocated each speaker to four subgroups (Full speakers, Rusty speakers, Semi-speakers, and Non-speakers) based on the extent to and ways in which they use Uchinaaguchi along with Japanese. In an attempt to document the detailed characteristics of speaker's individual language use, which traditional large-scale statistical analyses could not reveal, he predominantly focused on the perspectives that are speaker-oriented as opposed to language-oriented. That is, it emphasized the speaker's role in driving language shift through their language choices, rather than focusing solely on the state and structure of the language itself— "end result" (Anderson, 2009, p. 14). His research was significant as it revealed which age groups the speakers of each subcategory belonged to in 2003 and he did so by observing speaker's actual use of language.[14] Due to the limited scope of the study, the present study was

[13] The centre of the former Ryukyu Kingdom. It is by far the largest and most populous island in the entire Ryukyu, or Okinawa prefecture, and the regional transportation hub.

[14] Anderson's (2009) distribution of Uchinaaguchi speakers

Full speakers	• Productive bilinguals • Born in/prior to early 1930s • Well respected by younger generations for their superior vocabulary and proficiency in polite registers, including honorific and humble forms of speech
Rusty speakers	• Productive bilinguals • Born between mid-1930s to mid-1950s • Lack confidence in their range of vocabulary and ability to converse with their elders using honorific and humble language in Uchinaaguchi

not able to use naturally-occurring conversations as a data as Anderson (2009) did, and thus did not draw on either his methodology or the speaker categories he adopted. Instead, the speakers were classified using Florey (2007)'s description of speaker groups identification based on their proficiency assessment results. This was because, as the analysis progressed, speakers' innovative uses in the target language, which Florey (2007)'s speaker groups identification takes into account as one of the key characteristics, became relevant to the situation of the speakers of this study. Florey (2007)'s description of speaker groups identification will be further discussed in the results section.

Overall, it appears that a relatively large amount of effort has been put into the study of language vitality of Uchinaaguchi, however, none of the other Ryukyuan languages, including Miyako, has been examined for this aspect in-depth. Thus, the present study intended to fill this gap by focusing on Ikema, one variety of Miyako Ryukyuan, and make a broader picture of the language vitality situation in the Ryukyus available to the world.

2.6. Objectives of the study

The previous sections summarized areas of improvement and critical points to keep in mind when working with an endangered language. Although the language vitality metrics have been successfully adopted to numerous case studies and proven their usefulness, certain limitations

Semi-speakers	• Japanese speaker with very limited productive skills in Uchinaaguchi • Born between1950 and mid-1980s • Understand spoken Uchinaaguchi (= receptive) to a degree as they acquired it by hearing it spoken in the community
Non-speakers	• Japanese speakers with extremely limited receptive and productive skills in Uchinaaguchi • May be able to use some set expressions and newly coined words and phrases that resemble Uchinaaguchi

have become known. Those include the dominance of quantitative representation, overreliance on survey and self-assessment, the paradoxical nature of speakerhood and languagehood, and the different barriers between the linguists and speakers. In the Ryukyuan context, there is limited research on languages other than Uchinaaguchi, thus it is necessary to examine these varieties in order to clarify their reported endangered status.

The present study aimed to achieve the following two goals. Firstly, I sought to investigate the current vitality level of Ikema by focusing on the level of proficiency and past/current language practice, and update the reported status of Miyako Ryukyuan, which seems to be out of date. By doing so, I intended to contribute to the better representation of the linguistic diversity of Japan and Ryukyu, which is currently poorly represented. Secondly, in examining the vitality of Ikema, I intended to alleviate some of the above-mentioned limitations of data collection by employing a variety of instruments including a proficiency assessment, an individual interview, and participant observation, and to suggest an alternative method to the traditional surveys and self-assessments to help determine speakers' level of proficiency. This is crucial as understanding the most accurate state of a language is essential to potential documentation or revitalization practice. The present study will answer the following research questions:

1. Can we identify different proficiency levels in different age and gender groups?
   If there are differences, can we identify the declining trends based on these groups?
2. What are the past and current language practice and attitudes among the speakers?
   Can we find the connections between their assessed proficiency levels and language practice?

Chapter 3 Methodology and Participants

This chapter outlines the methodology and participants of the study. Section 3.1. introduces the two main instruments employed—a proficiency assessment and a language life interview—and the data collection procedure. Section 3.2. presents the methods of data analysis. The participants of the study are introduced in Section 3.3.

3.0. Consultant

Throughout the study process, I consulted a local who has lived in the Ikema Island community for much of his life. He is a retired, 64-year-old male, and has been helping out with different projects and workshops related to the Ikema dialect for more than 10 years. He is a friendly, approachable individual who is trusted by the locals, but does not appear to be one who plays a leader role in the community perhaps due to his casual demeanor, non-political attitude, and relatively young age. Due to his experience of working on mainland Japan for 16 years, he is fluent in both Ikema and Japanese.

3.1. Instruments

In order to answer the research questions, I employed a proficiency assessment and a language life interview as the two main instruments. Each instrument is outlined in the separate sub-sections (Section 3.1.1. and 3.1.2.).

3.1.1. Proficiency Assessment

Although there have been some attempts to develop a tool for assessing speakers' level of proficiency in the endangered language context more accurately than traditional self-assessment (Florey, 2007; Yang et al., 2017), there doesn't seem to be one which has been conformed to a standard. In the present study, therefore, I developed my own set of assessment tools as one approach to address this issue.[15] The proficiency assessment I designed consisted of three sets of tasks. Tasks 1 and 2 are receptive tasks which aimed to measure receptive skills, and Task 3 was productive tasks which aimed to measure the productive skills of the speakers. Each task was reviewed and revised by the consultant numerous times before it was finalized. I also conducted several pilot interviews with various people to ensure that the duration of the assessment was appropriate, and that the procedure of the assessment was easily understandable. The following sections explain each task in more detail and how I developed them. A copy of the assessment is given in Appendix A. The duration of the assessment was approximately 15 minutes, thus a total of 210 minutes of data was collected. The data was audio-recorded and relevant parts were transcribed. The two receptive tasks (Task 1 and 2) of the assessment are first presented in the next section.

3.1.1.1. Receptive Tasks

In Task 1 and 2, the participants were asked to orally translate Ikema words and sentences read by the local consultant into Japanese. The two tasks differed in terms of contextuality of the materials; In Task 1, the participants were only given a single word which they needed to translate, while in Task 2, they were presented with sentences which consisted of 3 to 5 phrases.

[15] I did not draw on Florey's (2007) Linguistic Vitality Test when developing an assessment tool for the present study as I was not aware of it.

Task 1 consisted of twenty basic Ikema words including eight nouns, seven verbs, and five adjectives. In order to assess speaker's levels of proficiency as accurately as possible without the influence of their knowledge of Japanese, several factors were taken into account with regard to word selection. Firstly, I avoided the words that are shared between Japanese and Ikema.[16] Secondly, I selected the words with only one distinct meaning, and not several different meanings to avoid confusion. Thirdly, I included lexical items that are different in terms of their frequency of use and familiarity, as some words are more widely used than others, in order to pin-down different proficiency levels. Finally, I chose to present the verbs in what Hayashi (2009) called *keiki* 'sequential (form)' as this is used most frequently in everyday language use, and for that reason, the speakers perhaps often consider it as a standard form of verbs (Nakayama & Ono, 2013). One point was assigned for each word that was correctly translated.

Task 2 consisted of 15 short Ikema sentences whose topics were about everyday life matters. In an attempt to develop sentences that are likely heard in everyday interactions in the Ikema Island community, the topics were selected based on their relevance to the local culture. Also, revisions of the sentences were made based on grammaticality, naturality, and the length appropriate to everyday language in use. Due to this process, the final sentences ended up bearing varying constructions, complexities and lengths. Essentially, however, each sentence can be divided into three to five phrases that each contained a core category—noun, verb, and adjectives,[17] along with affixes, clitics, and particles. For example, the following is a sentence used in the study:[18]

nnamakara hainkai ikii uiyu tuikuudi

[16] A number of vocabularies are shared between Ikema and Japanese lexicon.
[17] The status of the adjective category has been questioned. See Hayashi (2009) for detail.
[18] Glossing of examples in this thesis is roughly based on Hayashi (2009). For the purpose of this thesis, morpheme breaks are not given in the examples.

now:from garden:to go:SEQ watermelon:ACC get:come:VOL

‘(I) will to (the) garden and fetch (a) watermelon.’

It comprises five separate phrases:

(1) a noun *nnama* ‘now’ and *kara* ‘from’
(2) *hai* ‘garden’ and *nkai* ‘to’
(3) sequential form of *iki* ‘go’
(4) *ui* ‘watermelon’ and accusative *yu* ‘of’
(5) *tuikuu* ‘get and come’ and final particle *di* ‘VOL’

One point has been assigned for each phrase that was correctly rendered (in this case, maximum 5 points are given). I did not choose morphemes as a unit of evaluation because it became clear that speakers do not translate all the morphemes one by one, and therefore elements such as particles are frequently omitted. Before being finalized, both Task 1 and 2 were reviewed several times by the consultant and appropriate revisions were made based on his inputs. The following section discusses the productive task (Task 3) of the proficiency assessment.

3.1.1.2. Productive Tasks

In Task 3, the participants verbally answered eight everyday life questions in Ikema. The questions pertained to topics that were selected based on their relevance to the ordinary lives of the participants and the domains in which Ikema is used. For example, in the present day Ikema Island community, it is reported that Japanese is used in formal situations, while Ikema is mostly used in ordinary interactions between the local people (Nakayama & Ono, 2013). Therefore, questions such as “Could you introduce yourself in Ikema?” were avoided, since self-introduction is most likely made in formal situations, hence in Japanese. Topics that were more likely to elicit longer answers were selected. For example, I avoided questions such as “What did

you eat this morning?" as this can be answered by a few words, especially using Japanese (e.g., eggs and sausages). Meanwhile, topics that would require a significant amount of recollection, explanation or any kind of special knowledge were avoided. Once topics had been selected, the question sentences were constructed and repeatedly revised by the consultant so that they were as close to everyday interactions in the Ikema Island community as possible. For example, the following is a set of questions from the productive task.

1-A nnamakara njankai ifugamataga
now:from where:to go:FUT:FP
'Where (are you) going from now?'

1-B (PLACE) nna nauyu aslgamataga
DAT:TOP what:ACC do:FUT:FP
'What (are you) doing there (PLACE)?'

In 1-B, the speakers were asked what they were going to do in the place which they answered they would go to in 1-A. This type of interaction in which people ask one another where they are heading when they encounter each other appears to be very common in the Ikema Island community. Other topics include talking about future plans, giving directions, describing events and places, and giving simple cooking instructions. The next section reviews the procedure of administrating the proficiency assessment.

3.1.1.3. Procedure

There were three attendees in each proficiency assessment setting: the participant, consultant, and author. Most of the assessments took place at the local multipurpose community centre.[19]

[19] Also, in participants' home and outdoor gathering places in some cases.

The participants were first given instructions in Japanese. Before each task began, the consultant and I demonstrated an example question-answer sequence to clarify what exactly was expected. In the word translation task (Task 1) and the sentence translation task (Task 2), the materials were pronounced by the consultant a maximum of two times depending on the participant's need. Then, the participants verbally translated the material into Japanese. Regardless of their performance in Task 1, the participants all proceeded to Task 2. After completing all the receptive tasks, the participants moved on to the productive task (Task 3). In Task 3, each question was read out by the consultant and answered by the participant. In the case that the participant was mainly using Japanese while answering the question, they were reminded to use Ikema by the author. On the other hand, when the participant seemed lost or to be stalling because of the restriction assigned, I encouraged them to use Ikema wherever possible. The productive task was audio-recorded[20] and transcribed. The entire assessment process, consisting of Task 1, 2, and 3, took approximately 15 minutes.

So far, I outlined how I developed and conducted the proficiency assessment. The following section presents the second instrument employed in the study, the language life interview.

3.1.2. Language Life Interview

In order to investigate participant's past and current language use as well as attitudes toward the target language (Ikema, in this study), which may have contributed to speaker's current level of proficiency, I decided to conduct a language life interview where a participant's *linguistic*

[20] For recording equipment, Olympus Linear PCM Recorder LS-11 was used, and recordings were made in 44.1 kHz 16-bit WAV files.

autobiography (e.g., Eakin, 1985; Pousada, 2017) is obtained. A linguistic autobiography is a personal history in which language is the central feature. The narrative begins with childhood and goes on until the time of recording. The topics of the questions used to trigger this narrative were developed by drawing on studies such as Iwasaki & Ono (2011), Lam (2019, p.c.), and Rośes Labrada (2017). They include family structure, primary caregiver, schooling, experience living outside the community, and meta-linguistic realizations, all of which center around the language use of the speakers. The complete list of the language life interview questions can be found in Appendix B. For the type of interview, I chose a semi-structured interview using the Life Narrative Approach used by Iwasaki & Ono (2011) as this was proven effective in their study. According to Iwasaki & Ono (2011), in the Life Narrative Approach, the interviewer tries to elicit answers to questions by engaging the participants in a conversation where they talk about their life stories in the form of life narratives. Thus, the interviewer plays a role of a conversational partner, rather than firing off a long list of questions. Following the Life Narrative Approach, I allowed the participants to take the floor when they seemed to start a narrative and tried to elicit answers to the prepared questions whenever it seemed appropriate.

Unlike the proficiency assessment, the consultant was not present in this interview; thus, the participants included the speaker and the author only. The entire interview was conducted in Japanese. The duration of each interview was approximately 20 minutes and it was recorded in the author's field notes in order to create a more casual atmosphere for the speakers in the absence of recording equipment.

The author's participant observation made during these interviews as well as outside the interviews, while I was living in the community, was also taken into account to complement the interview data. DeWalt & DeWalt (2011) defined participant observation as “a way to collect

data in naturalistic settings by ethnographers who observe and/or take part in the common and uncommon activities of the people being studied (as cited in Róses Labrada, 2017, p. 36). Róses Labrada (2017) noted the importance of including participant observation in the methodology when analyzing a language's vitality, as it allows the researchers to collect both participant's explicit knowledge (what they say about themselves) and tacit knowledge (what is below their conscious, for example, language attitude), which cannot be obtained through questionnaires or interviews. For example, the participant observation allows the author to verify whether the language use reported in the interview (e.g., when speaking Ikema in community gatherings, speaking Japanese to outsiders) corresponds to the participant's actual language practice. The participant observation data were also recorded in the author's fieldnotes.

3.2. Participants

Participants were people aged between 48 and 68 who had lived on Ikema island as children for at least 10 years.[21] This included those who had lived on the island throughout their lives, returnees, and those temporarily visiting the island (e.g., to see their family) at the time of interview. Based on my observation while living in the community as well as through personal conversations, most of the people who currently live on Ikema Island grew up on the island; the number of immigrants from outside is very limited. Participants were recruited through one of the following methods: "friend of a friend" method (Schilling-Estes, 2007), personal connections made while I was participating in the Language Documentation Workshop[22] on the island in

[21] It turned out later in study process that speaker F65A moved from Ikema Island to the main Miyako Island at the age of 6 before she entered elementary school. However, considering the fact that she frequently visited her relatives on Ikema Island even after she moved, and that she had been working on Ikema Island for about 10 years, I decided to include her in the study as a participant.

[22] Miyako Language Documentation Training Workshop on Ikema Island (December 16, 2018-December 22, 2018), organized and funded by Tokyo University of Foreign Studies (TUFS).

2018, and via the consultant's connections. A total of 14 participants, of which 8 were females and 6 were males, were interviewed during the two field trips conducted in 2019, spanning from May 20 to June 9 and from December 8 to 26. Participants' occupations included social worker, restaurant owner, community fire fighter, construction worker, and so on. Some older participants were retired, but many of them were actively involved in the community as, for example, an election administration committee or organizer of elder's monthly gathering.

Due to the limited number of people in the target age range living on the island and available for this study[23], as well as the limited time frame, I ended up with a rather small number of participants. However, considering the current living population of the Ikema Island community is approximately 450, 14 speakers represent 3% of the entire population, or probably even more if only the target age population is considered.[24] The participants were then grouped together based on the age and gender into the following four speaker groups:

- four female speakers around 50 years old (hereby, F50)
- three male speakers around 50 years old (hereby, M50)
- four female speakers around 65 years old (hereby, F65)
- three male speakers around 65 years old (hereby, M65)

3.3. Analytical Steps

The receptive tasks (Task 1 and 2) of the Proficiency Assessment were scored by awarding one point for each correctly translated word (Task 1) and phrase (Task 2) with maximum scores of 20 and 56 respectively, and the percentage of correct answers for each speaker as well as speaker

[23] Most of the participants were still working during the day.
[24] Iwasaki & Ono (2011) reported that the percentage of the population over 65 years old in the Ikema Island community based on 2005 census was 37.2%.

group were obtained for comparison. Partial points were given to the answers that were partially correct.

The productive task (Task 3) results were analyzed by examining several different aspects of the transcribed discourse data of each speaker. Those aspects were roughly divided into two types of skills: traditional skills and innovative uses of Ikema. In order to examine traditional skills, the following factors were looked at either quantitatively or qualitatively: (a) amount and ratio of Ikema produced based on the number of Japanese syllable-like unit called moras,[25] (b) speaking only in Ikema and code-switching, (c) use of Ikema discourse markers, (d) lexical knowledge based on the use of various verbs, and (e) discourse completeness and detailedness. Then, general trends of each speaker group were obtained for those factors for comparison. Lastly, the study suggested potential speaker categories each speaker group can be classified into according to Florey (2007)' s speaker groups description. Among many other types and categories of endangered language speakers (the typology of speakers of endangered languages is summarized in Grinevald & Bert, 2011), I chose Florey's (2007) description as it takes into account the extent of speakers' grammatical innovation as a measurement. Florey (2007)'s speaker categories are summarized below:

Table 2: Florey's (2007) Speaker Group Description

Fluent speaker	Fluent productive ability Ability to speak over a range of topics, genres Little use of loan words
Fluent Innovative Speakers	Fluent productive ability Restricted range of topics, genres Some grammatical changes in comparison to fluent speaker norm Some code-switching/use of loanwords

[25] Further information on mora is given in Tsujimura (1996) and Vance (1987).

Semi-Speakers	Limited productive ability Very restricted range of topics, genres Frequent code-switching/extensive use of loanwords Grater grammatical changes in comparison to fluent innovative speakers Word order changes
Passive Bilinguals	No productive ability in target language Receptive ability only
Non-Speakers	Neither receptive nor productive ability in target language

Examination of the production data revealed that some forms of Ikema that had not traditionally been used are being used by the speakers in this study (hereby, innovative uses of Ikema). I examined the cases in which those forms occurred and identified specific patterns of use among the speakers of the study. The present study introduces the three commonly observed types: innovative verb inflection, innovative case-marking, and innovative phonetic feature.

Data obtained through the language life interviews was also grouped according to the speaker groups and analyzed. First, features shared in the same speaker group in terms of their past and current language use and attitudes toward the target language were identified. These included languages the speakers grew up speaking, languages spoken by their primary caregiver/siblings/teachers/peers, meta-linguistic realization, places of work, languages spoken at the workplaces, and so forth. Then, several factors that appeared to be the most distinctive were presented. In the chapter that follows, the results from the receptive tasks of the proficiency assessment are presented.

Chapter 4 Results: Receptive Tasks

The next two chapters (Chapter 4 and 5) present the results obtained through the proficiency assessment in order to answer research question 1. This chapter provides the receptive task's results, and Chapter 5 gives productive task's results.

Quantitative examination of the resulting scores from receptive tasks indicated that all the speaker groups have fairly strong receptive skills, and only revealed minor differences among the speaker groups. Section 4.1. is designated to discuss the results of word translation task (Task 1), and Section 4.2. to provide the results of sentence translation task (Task 2). Section 4.3. summarizes the results of the receptive tasks and assesses the receptive skills of each speaker group.

4.1. Word Translation

The scores shown in the following table are percentage corrects from word translation task (Task 1) of the proficiency assessment. Rows in the table indicate the speaker groups, and the columns indicate the median and mean scores, the highest scores, and the lowest scores of each group. The total row shows the median, mean, highest, and lowest scores of the entire groups. The results show fairly high percent-correct scores for all speaker groups, with each of the group means falling above 80%. The scores range from a low of 77.5% to a high of 95%, indicating that every speaker correctly recognized 15 to 19 lexical items out of 20.[26]

[26] For further comparison, the following is the number of lexical items from the exact same task recognized by four females under 50 years old, whom the author met while being in the Ikema Island community: speaker a (32 years old) = 7 (35%), speaker b (17 years old) = 3 (15%), speaker c (14 years old) = 0 (0%), and speaker d (12 years old) = 1.5 (7.5%).

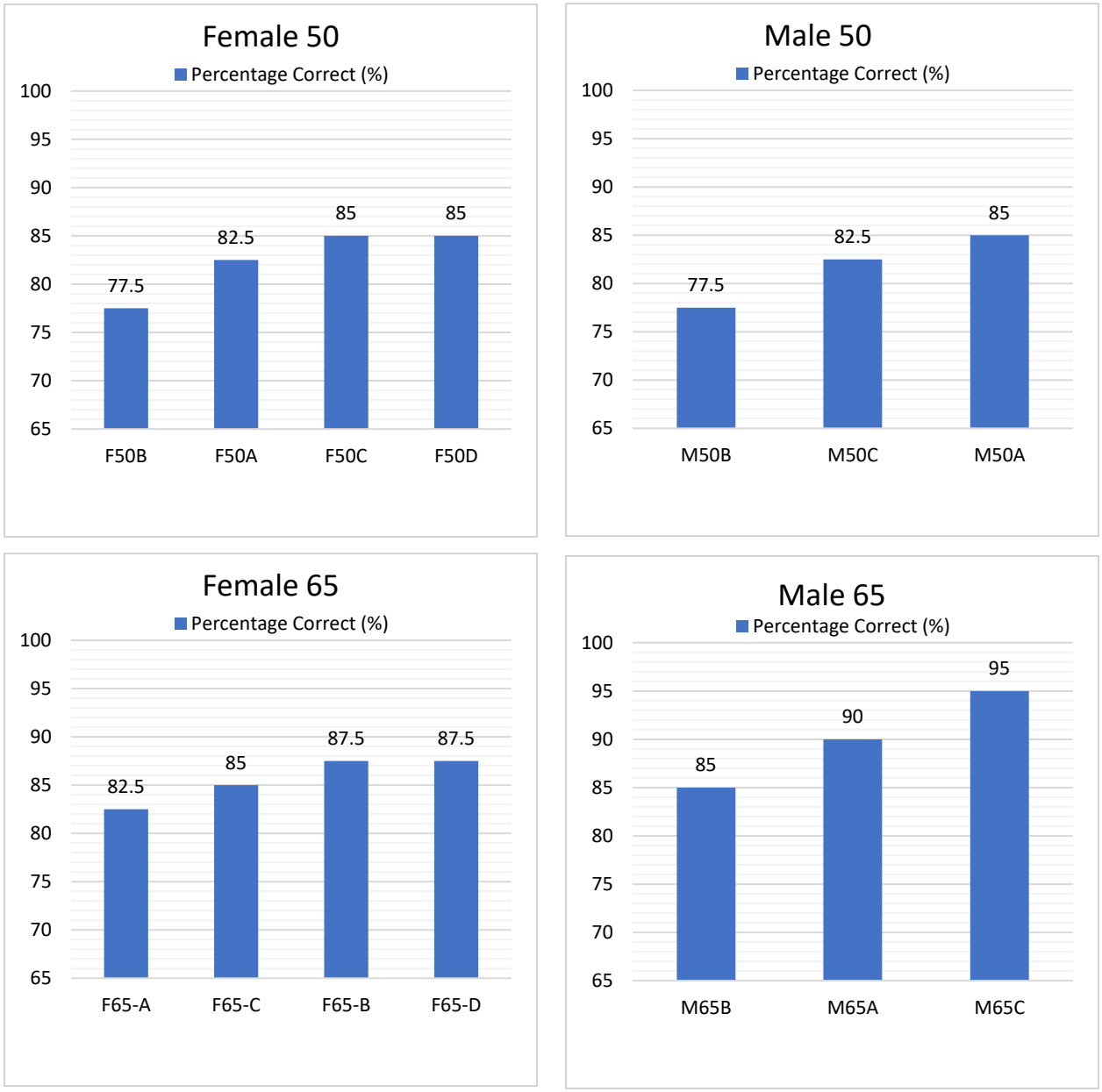
Table 3: Percentage Correct of Word Paraphrase Task (Group)

	Median Score	Mean Score	Highest Score	Lowest Score
F50	83.75	82.5	85	77.5
M50	82.5	81.66	85	77.5
F65	86.25	85.62	87.5	82.5
M65	90	90	95	85
All Groups	85	84.94	95	77.5

The comparison between groups revealed no clear difference between F50 (female speakers around 50 years old) and M50 (male speakers around 50 years old). On the other hand, both female and male older groups scored slightly, though consistently, higher than their respective younger groups in all four score types—median, mean, highest and lowest. When the two older groups were compared, M65 (male speakers around 65 years old) slightly outperformed F65 (female speakers around 65 years old) by 2.5% (between the lowest scores) to 7.5% (between the highest score) in range. Taking the median and mean scores as an example, F65 showed approximately a 3% increase, while M65 showed an even greater gap with about an 8% increase from their respective younger speaker groups.

Next, comparisons among individual scores also supported the older speakers' higher performance. As shown in Figure 2 which follows, while less than half of the speakers of F50 and M50 scored above 85%, six out of seven speakers of F65 and M65 scored above 85%. Between the two older groups, M65 did slightly better than F65; whereas two out of three speakers (M65B and M65C) of M65 scored 90% and over, none of the four speakers of F65 scored over 90%.

Figure 2: Percentage Correct of Word Paraphrase Task (Individual)



While this may simply suggest the older groups had a greater knowledge of the Ikema vocabulary than the younger groups, other factors also seem to be involved. During the word translation task, the majority of the speakers expressed a difficulty recognizing the questioned word when there was no context given. This was most likely because, in this task, the speakers weren't able to rely on anything else that could help them reach the correct meaning (e.g.,

context) other than the presented word itself. This observation was further supported by the fact that the speakers seemed to recognize the words that indicate concrete objects (e.g., *manjuu* 'papaya') more easily than abstract ideas (e.g., *aigashii* 'support'). Taking these observations into account, the results perhaps suggest that the older speakers have a somewhat greater knowledge of the Ikema lexicon than the younger speakers, with which they could recognize more lexical items simply by the form with no other clues. Especially M65, who scored with an average accuracy of 90%, tend to possess the greatest word-level knowledge of all in Ikema.

Overall, all the speaker groups scored over 80% on average in the word translation task of the proficiency assessment, and the older groups, particularly M65 and to some extent F65, performed slightly better than the younger groups. The next section discusses the results of sentence translation task (Task 2).

4.2. Sentence Translation

This section presents the results of the sentence translation task (Task 2). The results indicated high receptive skills in all four speaker groups, with no clear difference in scores among the groups. The following table shows the resulting percentage-correct scores of each speaker group. Rows in the table indicate the speaker groups, and the columns indicate the median and mean scores, highest scores, and lowest scores. The total row shows the median and mean scores, highest scores, and lowest scores of the entire groups. During the analysis, it became obvious that speaker F65B mistook the instructions for this task.[27] For this reason, she was excluded from the following discussion or the group statistics.

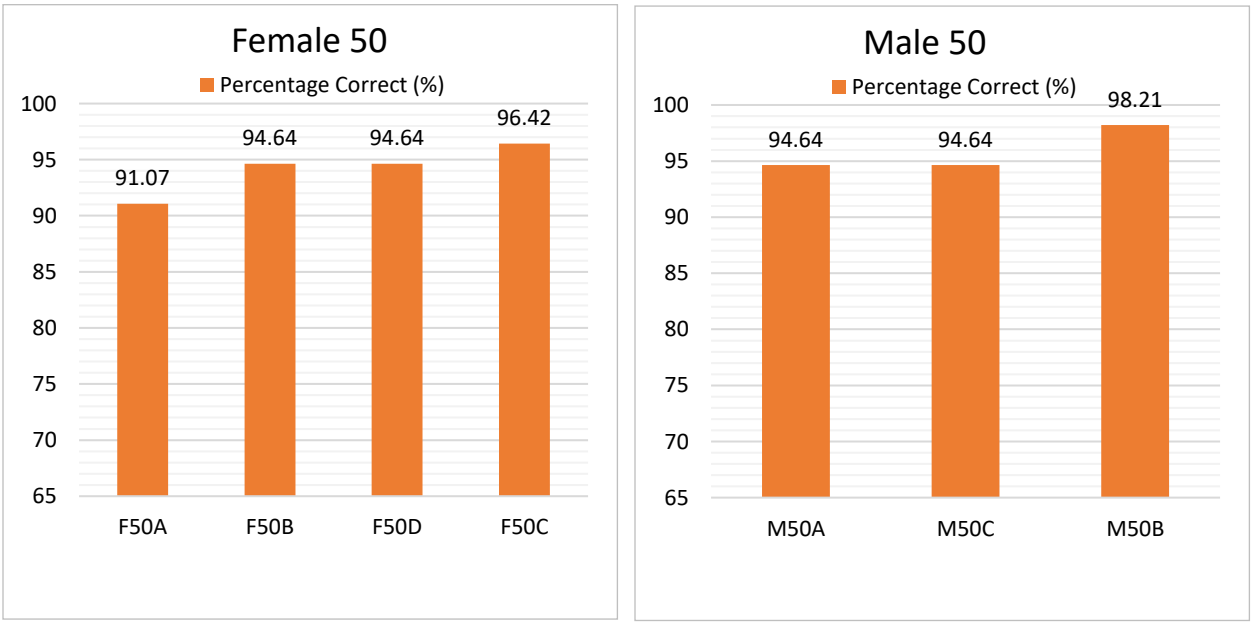
[27] Sentence translation task caused some speakers to drop some elements from the sentence to be translated. In particular, speaker F65B frequently missed elements from the task sentences when translating and ended up with a considerably lower score (85.71%) than other speakers (all above 91%).

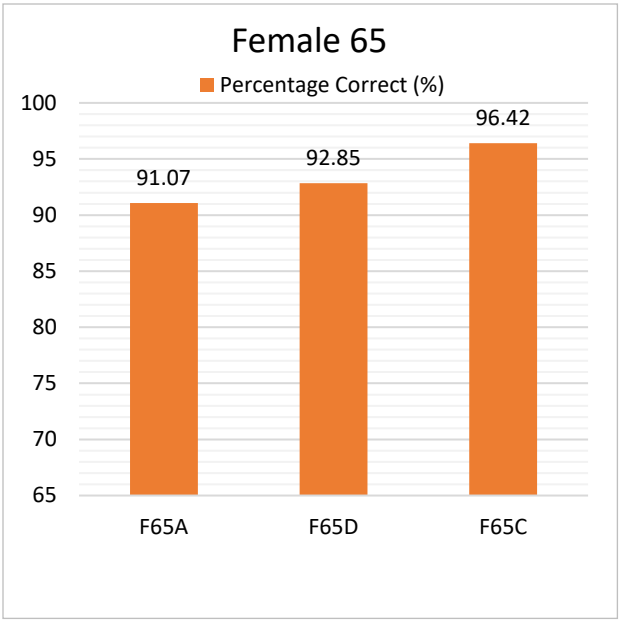
Table 4: Percentage Correct of Sentence Translation Task (Group)

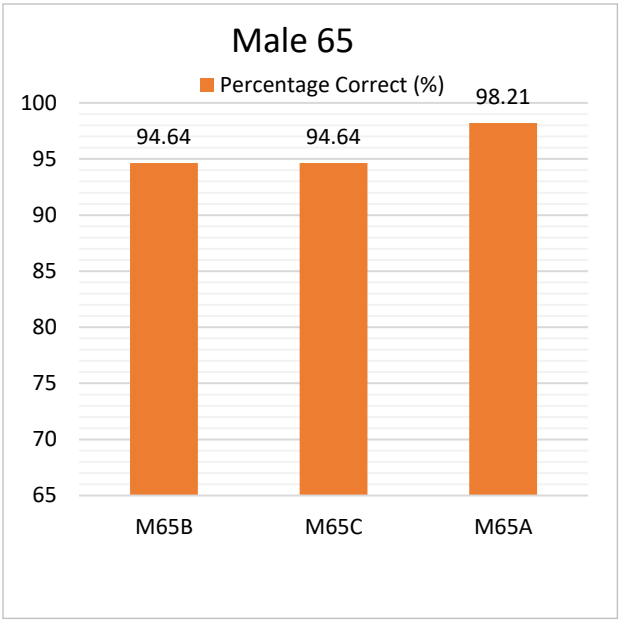
	Median Score	Mean Score	Highest Score	Lowest Score
F50	94.64	94.19	96.42	91.07
M50	94.64	95.83	98.21	94.64
F65	92.85	93.44	96.42	91.07
M65	94.64	95.83	98.21	94.64
All Groups	94.19	94.82	97.31	92.85

As shown in the table, in almost all the four score types—mean, highest, and lowest—male speakers did better than female speakers in each age group. However, the difference was rather small. The following figure presents the individual percentage-correct scores. It shows that each speaker scored with above 90% accuracy, which indicates strong receptive skills in all the speakers.

Figure 3: Percentage Correct of Sentence Translation Task (Individual)







A noteworthy result is that, compared to the word translation task, in the sentence translation task the mean overall accuracy of each group increased by 5 to 14 %. In particular, younger speakers did significantly better in the present task than the previous word translation task, showing an 11% (F50) to 14% (M50) increase. An interpretation is that having access to other factors (e.g., context, collocated words) helped them reach the correct meanings of each element in the sentence more easily than when no contexts were given. This is because we are more likely to remember words in relation to other words they frequently occur together with. For example, the following is a sentence from the task:

dinnu	*mautslga*	*yamatunkai*	*ikadi*
money:ACC	earn:GOAL	Japan:to	go:VOL

‘(I) will go to (the) mainland Japan to make money.’

One might be able to recognize the meaning of *din* ‘money’ by narrowing down possible nouns which could precede the immediately following verb *mautslga* ‘earn:GOAL’, as *matutsll* ‘earn’

usually only occurs with certain words such as *din* ‘money.’ The next section summarizes the results from the receptive tasks of the proficiency assessment and their implications.

4.3. Summary and Discussion

Overall, the word translation task and sentence translation task revealed that speakers of all genders and ages have fairly high receptive skills, with older speaker groups (F65 and M65) having slightly greater knowledge of the Ikema vocabulary and/or skills to recognize more words by their forms without contexts than younger speaker groups.

In terms of the designs of the two receptive tasks, administrating the test shed light on some limitations: the word translation task might not be suitable to assess the speakers’ word level receptive skills as it does not resemble the ordinary context where one uses language, which involves more factors (e.g., context, frequently collocated words) than just a single word. In addition, despite the author’s effort to make the materials as close to ordinary interactions as possible, it turned out that some uncommon expressions were included. For example, *hukajja* ‘typhoon’ was only recognized by two speakers out of 14. This is perhaps because, in the current Ikema Island community, the Japanese equivalent *taifuu* ‘typhoon’ is more widely used. While this can be a great measure of to what extent or in what areas Japanese is more dominant, it might not measure the proficiency level of the current speakers of Ikema accurately. On the other hand, due to the above mentioned effort, the materials only covered certain grammatical aspects that were identified by the author to be used frequently in everyday interactions. Thus, speaker’s skills in those aspects of grammar that were not included in the task have not been assessed. Hopefully, this reflection will contribute to the development of a standardized tool to assess speaker’s receptive skills in the future.

We have so far analyzed the speakers' receptive skills. The next chapter will outline the productive skills to complete the assessment of the speakers' level of proficiency in Ikema.

Chapter 5 Results: Productive Tasks

In this section, the productive task (Task 3) results are analyzed in order to further investigate the different proficiency levels among the speaker groups. In the productive task, the speakers were asked to verbally answer eight questions on everyday-life topics in Ikema. From among many measures of speaking proficiency, this study chose the following aspects to examine which are partly based on Florey's (2007) proposed standard for speaker group identification in the language vitality assessment context. Some factors such as (1b) and (1d) have been added by the author to be taken into account.

(1) Traditional Skills
    (1a) Amount and Ratio of Ikema Produced
    (1b) Speaking Only in Ikema and Code-Switching
    (1c) Use of Ikema Discourse Markers (DMs)
    (1d) Lexical Knowledge (Use of a Variety of Verbs)
    (1e) Discourse Completeness and Detailedness
(2) Innovative Use
    (2a) Innovative Verb Inflection
    (2b) Innovative Case-Marking
    (2c) Innovative Phonetic Feature

Traditional skills measure a speaker's basic grammatical knowledge in the target language (Ikema, in this study). (1a) 'The amount and ratio of Ikema produced' allowed to see how much Ikema the speakers can produce in real time. This was measured based on the ratio of Ikema mora out of the total number of mora in the entire response. (1b) 'Speaking only in Ikema and code-switching' was aimed to see to what extent and how the speakers mixed the dominant language (Japanese) in their response. (1c) 'Use of Ikema discourse markers (DMs)' is how the speakers are different in terms of the repertoire and frequency of use of Ikema DMs. With

respect to (1d) ‘Lexical knowledge’ I focused on the types of verb the speakers produced in their responses. (1e) ‘Completion and detailedness’ is how well the speakers did in terms of completing questions on different topics and giving detailed descriptions. The data was analyzed either quantitatively or qualitatively depending on the factor being examined.

Examination of the discourse produced by the speakers in this study revealed some previously undocumented usages of Ikema. These speakers’ new ways of using Ikema are discussed in the aspect (2) ‘Innovative use.’ The present study highlighted the three common types of these usages: (2a) ‘Innovative verb inflection,’ (2b) ‘Innovative case-marking,’ and (2c) ‘Innovative phonetic feature.’

The examination of those factors identified some trends and produced some evidence that some groups are more proficient than others. Firstly, the productive skills of the majority of F50 (female speakers around 50) seem to be much more restricted than other speaker groups. Secondly, it appears that M65 (male speakers around 65) is more proficient than the other three groups in most aspects, including (1a) amount and ratio of Ikema produced, (1d) lexical knowledge, and (1e) discourse completeness and detailedness. Lastly, the aforementioned newly emerging forms of Ikema were used by each speaker of the study and no clear difference in the patterns of use of these forms among the speaker groups was found.

Aspect (1) and (2) are discussed in Sections 5.1. and 5.2., respectively. Section 5.1. is further divided into five sub-sections to discuss factors (1a)-(1e). Finally, Section 5.3. summarizes the results of productive tasks and assesses the productive skills of each speaker group.

5.1. Traditional Skills

In this section, each speaker group's traditional skills in the target language are investigated by examining the aforementioned five factors (1a)-(1e). Due to the exploratory nature of the study, I intended to provide an overview of each speaker group's productive skills by focusing on what I considered to be the most distinctive characteristics of each factor. The first factor examined is the amount and ratio of Ikema produced in each speaker group's productive task.

5.1.1. Amount of Ikema and Ratio Produced

The following table shows how many Ikema elements each speaker group's response contained on average based on the total number of moras in each response. The rows show the speaker group, and the columns give the total number of moras contained in the entire response[28] (hereby Total), the number of moras produced using Ikema (hereby Ikema moras), and the percentage of Ikema moras in the Total. Elements included in total moras are Ikema mora, moras contained in Japanese elements (hereby Japanese mora), and other (e.g., unknown), although only a few moras were observed in the other category. I will first go over the general trend shown by each speaker group, and then discuss differences among individual speakers.

Table 5: Average Discourse Length and Percentage of Ikema Elements in Productive Task Results Based on the Number of Moras (Group)

Speaker Group	Total Mora Average (#)	Ikema Mora (#)	Ikema Mora (%)
F50	233.5	69.75	26.59
M50	206.16	151.66	76.71
F65	374.5	259.75	70.25
M65	460.16	325.66	71.88
All Groups	318.58	201.7	61.35

[28] Discourse markers are analyzed separately in Section 5.1.3., and, thus, they are not included in the mora count at this point.

The average number of total moras in each speaker group's responses were 233.5 (F50), 206.16 (M50), 374.5 (F65), and 460.16 (M65), which suggests that speakers from younger groups, both female and male, tend to produce shorter Ikema responses compared to the speakers from older groups. As for the percentage of Ikema elements in the responses, F50 had a much lower proportion of Ikema than M50, F65, and M65; the average ratios of Ikema elements were 26.59% (F50), 76.71% (M50), 70.25% (F65), and 71.88% (M65). This suggests that the productive skills of F50 in Ikema are much more limited than the rest of the groups. M50, F65, and M65, with their more competent productive skills, can produce discourse primarily in Ikema (over 70% average).

It is noteworthy that the productive results of all speaker groups contained a minimum of 24% (obtained by 100%—Ikema mora %) Japanese elements in their discourse, despite the restriction that speakers were only allowed to use Ikema during the task. These Japanese elements are mostly nouns, but also verbs, adjectives, adverbs, discourse markers, and final particles, though the patterns of use vary from one speaker to another. This is perhaps because it is so common for the speakers in the study to switch between the two language varieties, Japanese and Ikema, in their everyday life discourse that it was difficult for them to produce discourse solely in Ikema. This observation verifies the account of Nakayama & Ono (2013) that switching between the two languages is the natural ways of speaking in everyday life in the Ikema Island community.

However, when I looked at individual speakers' results, the boundaries between the speaker groups became less obvious. The following table shows the individual speakers' amount and percentage of Ikema elements. As shown in the table, not all the speakers shared the trends discussed above (e.g., F50C, M50C, F65C, and M65B). For example, F50C produced notably

longer responses than the other three speakers of the same group with approximately twice as high an Ikema percentage (44.98%). M50C also stood out in the same group with approximately twice as many total number of moras in his responses as the rest of the speakers in the group. The next section looks more closely at some of these cases.

Table 6: Discourse Length and Percentage of Ikema Elements in Productive Task Results Based on the Number of Moras (Individual)

Speaker	Total Mora (#)	Ikema Mora (#)	Ikema Mora (%)
F50A	149	26	17.44
F50B	240	36	15
F50C	369	166	44.98
F50D	176	51	28.97
M50A	114	88	77.19
M50B	179	159	88.82
M50C	325.5	208	63.9
F65A	575	416	72.34
F65B	353	219	62.03
F65C	241	215	89.21
F65D	329	189	57.44
M65A	601.5	375.5	62.42
M65B	277	206.5	74.54
M65C	502	395	78.68

I have so far examined the general trends of each speaker group in terms of the amount and the ratio of the target language (Ikema). Next section more closely examines how each speaker group used the dominant language (Japanese) in their Ikema discourse by looking at the discourse data case by case.

5.1.2. Speaking Only in Ikema and Code-Switching

The previous section reported that all speakers used Japanese—the dominant language—to some extent in their response, when instructed to use only Ikema—the target language. This section examines the patterns of code-switching in speakers' responses, in order to identify some differences among the speaker groups indicating their differing levels of productive skills in Ikema. The results revealed general patterns of code-switching for each speaker group but did not show significant differences between the groups. The data were qualitatively analyzed by adopting Poplack's (1980) three types of code-switching—tag-switching, inter-sentential code-switching, and intra-sentential code-switching—as a form of measurement. Researchers have argued over the functions of code-switching; while it is generally considered as a sign of bilingual speakers' insufficient linguistic knowledge of the weaker languages, many researchers (e.g., Auer, 2013) see it as bilingual speakers' means of accomplishing different social, linguistic, and psychological intentions when in conversations (e.g., to negotiate social distance). In the endangered language context, the presence of the dominant language in discourse can be seen as an indicator of the weaker vitality of the target language, as it can be interpreted as the speaker having limited linguistic knowledge of the target language (Florey, 2007; Nakayama & Ono, 2013). Given that code-switching is already found to be common practice among the speakers of this study, the goal in this section is mainly to understand the different code-switching behaviors of each speaker group.

Poplack (1980) identified three types of code-switching types. Tag-switching, the simplest type, involves inserting a tag or a short phrase (e.g., "you know," "I mean") in one language into an utterance that is otherwise entirely in another language. Inter-sentential code-switching involves switching at sentential boundaries where one clause or sentence is in one language and the next clause or sentence is in the other. Intra-sentential code-switching occurs at

clausal, sentential, or word levels, and, thus, is identified by Poplack (1980) to be possibly the most complex type among the three. Examination of the data revealed that F50's responses contained tag code-switching and intra-sentential code-switching, while the responses of M50, F65, and M65 contained all three types of code-switching.

As discussed in the previous section, responses of F50 primarily consisting of only Japanese or Ikema elements were limited to less than 30% on average. Based on this finding, as well as my observations during the assessment, the code-switchings observed in F50 responses, especially those to Ikema, were most likely conscious decisions prompted by the situation (i.e. the proficiency assessment), rather than what might naturally occur in everyday life. Thus, it is to be noted that the nature of code-switching observed in the speakers of F50 is different from other three speaker groups, which seem to be their natural ways of speaking. When F50 did code-switch between Ikema and Japanese, however, they did so using tag code-switching and intra-sentential code-switching. Let's take a look at some examples. In the following excerpt from speaker F50D's interview, speaker F50D is talking about her plans for after the interview. In the excerpts presented in this section, the parts produced in Ikema are bolded, while the parts produced in Japanese are underlined.

Excerpt (1): F50D

1 Cnslt:	**nnamakara**	**njankai**	**ifugamataga**.		
	now:from	where:to	go:FUT:FP		
	'Where are (you) going from now?'				
2 F50D:	imakara	dokoni	ikukada	yo	ne.
	now:from	where:to	go:FP:COP	FP	FP
	'(It is) "where (I'm) going now," isn't it?'				
3	etto … **kyuuya**	**yaa**ni	iru @		
	umm today:TOP	house:to	be		
	'Umm, (I will) be at home today.'				

4 Cnslt:	**yaanna**		**nauyu**		**asIgamataga**.		
	house:DAT:TOP		what:ACC		do:FUT:FP		
	'What will (you) do at home?'						
5 F50D:	eettone	… sl- **slkama**o		sl- **slkama**o	suru	**slkamaa**	suru @
	umm	work:ACC		work:ACC	do	work:TOP	do
	'Umm, (I) will work.'						

In line 1, the consultant asked in Ikema where speaker F50D is heading after the interview. In line 2-3, speaker F50D confirmed the question by repeating it in Japanese, saying '(It is) "where (I'm) going now," isn't it?' then answered by starting the sentence in Ikema with *kyuuya yaa* 'today, home' and switching to Japanese when using the predicate *niiru* '(I) will be at'(intra-sentential code-switching). In line 5, she was able to produce an Ikema word for 'work' and its topical form *slkamaa* 'work:TOP,' yet she switched back to Japanese to finish the sentence with a predicate *suru* '(will) do' (intra-sentencial code-switching).

Let's now look at how speaker F50C code-switched in her response. In the previous section, it was found that she produced a remarkably larger amount of Ikema than other speakers in the same group. Prior to this excerpt, speaker F50C said that she used to play *kaarakeri* 'tile kicking' and *gomutobi* 'jumping rope' as a child. In the following excerpt, in replying to the consultant's question "how do you play tile-kicking?" she is providing explanation as to how to play the game:

Excerpt (2): F50C

1	@ do- @	**ntslnkai** … an-	nani	…	nanka	shikaku hen-	nantoyuuka @@@
		road:to	well		well	square	how.do.I.say
2	<@ sen**yu**	**hikii** @> …	**kaarayu**			**barii**	
	line:ACC	draw:SEQ	brick:ACC			break:SEQ	
3	**kaarayu**	**kiraahii**	**asubiiutai**.				
	brick:ACC	kick	play:SEQ:CONT:PST				

‘On (the) road, well, how do I say, (I was) playing (by) drawing lines, breaking bricks, and kicking the (broken) bricks.’

In line 1, after she started explaining in Ikema, saying *ntslnkai* ‘on the road,’ speaker F50C repeatedly used Japanese discourse markers which denote thinking processes such as *nani* ‘what’ and *nanka* ‘what’ (tag code-switching). In line 2-3, she switched to Ikema and provided three different steps involved in the play: *senyu hikii* ‘draw line,’ *kaarayu barii* ‘break tiles,’ and *kaarayu kiraahii* ‘kick (the) tiles,’ and finished the sentence in Ikema with *asubiiutai* ‘(I was) playing.’ Here, she did intra-sentential code-switching by using a Japanese noun *sen* ‘line’ (line 2) in her otherwise wholly Ikema sentence.

Let’s now look at how speakers from other speaker groups code-switched in their discourse. The data revealed all three types of code-switching in the responses of M50, F65, and M65. The following two excerpts from the data show some examples of each type of code-switching observed in these groups. In the following segment the speaker M65C is giving directions to a local shrine:

Excerpt (3): M65C

1	**umakara**	**attaa** …	nn=		
	here:from	COP:COND	umm		
2	**mijumma=n** …	**mijummanu**	hirobaga	**aruuiba**	
	Mizuhama:DAT	Mizuhama:of	square:NOM	exist:SEQ:CONT:CSL	
3	**umataahii**	**idii**	**ifubadu**,		
	here:up.to	exit:SEQ	go:COND:FOC		
4	**uikara**	**mijummakara**	**agaiyatamii**,		
	it:from	Muzuhama:from	East:TOP:head:SEQ		
5	nn=	daitai …	**uharuzlyai**	hyakumeetaa**bakaai** …	**ifuttaa**
	umm	approximately	Uharuzu:COP	100.metre:about	go:COND

6	hidarigawa**nkai**	**ai**.
	leftside:to	be

'If (it's) from here, well, (there) is the Mizuhama square, so go there. From Mizuhama, you head to the East. When you go about 100 metre, Uharuzu (will) be on (your) left.'

Four cases of intra-sentential code-switching are observed here. In line 1, speaker M65C introduced the Mizuhama square by the beach as the first destination from his current location. When he referred to Mizuhama square, he switched from Ikema to Japanese in the middle of the clause, as *mijumma nu hirobaga aruuiba* '(there) is (the) square of Mizuhama.' Also, in line 5-6, he used three Japanese words *daitai* 'approximately,' *hyaku meetaa* '100 metre,' and *hidarigawa* 'left side' in his otherwise wholly Ikema utterance when giving the directions and approximate distance from Mizuhama square. In the next excerpt, speaker M65A is talking about the current situation of the ocean around Ikema. Prior to this excerpt, he explained in Ikema how the ecological diversity in the ocean has declined since his childhood.

Excerpt (4): M65A

1	imawa	hora	kikenna	seebutsumo	irukara,
	now:TOP	you.see	dangerous	creature:also	exist:because
2	ano ..	**unu**onihitode**ii** ..		**kuin**	**sasaittaa**
	umm	that:crown-of-thorns.starfish:FP		this:DAT	sting:PS:COND
3	abunai**yaiba** …		yappari … @		
	dangerous:COP:COND		of.course		
4	**uraa**	chuui**hudakaa**		**naranii**.	
	this:TOP	caution:do:NEG:COND		become:NEG:FP	

'You see, there are dangerous creatures too now. It is dangerous if you get stung by this crown-of-thorns starfish. You have to be careful with this one.'

In addition to intra-sentential code-switchings observed in line 3 (*abunaiyaiba* 'dangerous:COP:because') and line 4 (*chuuihudakaa* 'caution:do:NEG:COND'), inter-sentential and tag code-switching are also observed here. Despite the fact that the preceding utterance was made in Ikema, he produced an entire clause in line 1 in Japanese, stating that there are dangerous species living in the ocean these days. Then he continued in Ikema in line 2-4 and stated that it is dangerous to be stung by *onihitode* 'crown-of-thorns starfish.' An example of tag code-switching is in line 3 when he inserted a Japanese discourse marker *yappari* 'of course.'

This section gave an overview of how each speaker group code-switched between Ikema and Japanese in their responses. In the responses of F50, tag code-switching and intra-sentential code-switching were observed when speakers switched from using primarily Japanese to using some Ikema. In contrast, in the responses of M50, F65, and M65, all three types of code-switching were observed. However, I was not able to find any differences in patterns of code-switching among these three speaker groups within my data. Thus, further examination with more data is necessary to fully understand these behaviours of current Ikema speakers. The next section discusses how each speaker and speaker group used Ikema discourse markers in their productive task results.

5.1.3. Use of Ikema Discourse Markers (DMs)

Quantitative examination of the use of discourse markers (DMs) in speakers' productive task results revealed different trends among the speaker groups, especially between the younger groups (F50 and M50) and the older groups (F65 and M65). First, the data showed that Japanese DMs were used by most speakers[29] regardless of the age and gender, in a range of 2 to 9. Some

[29] Not all speakers used DMs in their response to the productive task.

exceptions are speaker F50D who used 23 Japanese DMs such as *eeto* 'Uh' and *nandaroo* '(I) wonder what,' and speaker M50B who used none. Secondly, however, speakers differed in terms of their use of Ikema DMs. The following table shows the number and percentage of the speakers in each group who used Ikema DMs in their responses. It shows that majority of the speakers of older groups (F65 = 2 out of 4 speakers; 50%, M65 = 3 out of 3 speakers; 100%) used Ikema DMs, while only a few speakers of younger groups (F50 = 1 out of 4 speakers; 25%, M50 = 1 out of 3 speakers; 33.33%) used them in their discourse.

Table 7: Number and Percentage of Speakers Who Used Ikema DMs in Productive Task Results (Group)

Speaker Group	Number of speakers who used Ikema DMs	Total number of speakers in the group	Percentage of the speaker who used Ikema DMs
F50	1	4	25%
M50	1	3	33.33%
F65	2	4	50%
M65	3	3	100%

Next, the following table presents the type frequency and token frequency of Ikema DMs of each speaker group.[30] It shows a relatively low token and type frequency in younger speaker

[30] The following table presents type and number of discourse markers used. The rows show the speaker numbers, and the columns indicate the number and types of Ikema DMs, Japanese DMs, total number of uses, and the percentage of use of Ikema DMs as part of the total.

Speaker	Ikema DM (#)	Type	Japanese DM (#)	Type	Total DM (#)	Ikema DM (%)
F50B	1	*nndi*	2	*nanka*, *uun*	3	33.33
F50C	0	–	6	*ee*, *eeto*, *nani*, *nanka*, *un*,*uun*,	6	0
F50D	0	–	23	*chotto* (2), *ee* (2), *eeto* (9), *koo* (1), *nandaroo* (6), *uun* (3)	23	0
M50B	2	*mmya*, *unu*	0	–	2	100
F65A	5	*mmya*, *nndi* (2), *uitu*, *unu*	3	*de*, *ee*, *eeto*	8	62.5
F65B	0	–	7	*chotto* (3), *ee* (3), *eeto*	7	0

groups (in a range of 1 to 2 for both token and type frequency) compared to older speaker groups (in a range of 6 to 27 for token frequency, 4 to 7 for type frequency). This indicates the limited use of Ikema DMs in younger speaker groups. When the two older groups are compared, while the difference in type frequency was not significant (F65 = 4, M65 = 7), the token frequency showed a large difference between F65 (= 6) and M65 (= 27).

Table 8: Type and Token Frequency of Ikema DMs by Speaker Group

Speaker Group	Token Frequency	Type Frequency
F50	1	1
M50	2	2
F65	6	4
M65	27	7

Overall, M65 used a highest number of Ikema DMs and showed more variety in type compared to the other speaker groups. According to Sundquist's (2014) observation that the rate and repertoire of pragmatic markers in ESL learners' discourse increases gradually as proficiency level increases this could suggest M65's higher proficiency level. However, some factors which might have contributed to the results of this section, such as the discourse length and differences in personal styles, were not taken into account in this study. Taking discourse

F65D	1	*mmya*	2	*ano*, *nandatta*	3	33.33
M65A	14	*ai*, *mma*, *mmyaa* (2), *nautii* (2), *unu* (7), *uya*	9	*ano* (5), *ee* (2), *hora*, *maa*	24	58.33
M65B	9	*mmE* (2), *mmya*, *unu* (6)	5	*ano* (3), *ee*, *uun*	14	64.28
M65C	4	*mmya* (3), *unuu*	3	*maa*, *un*, *uun*	7	57.14

The meanings of the Ikema DMs in the table above are as follows: *ai* 'yeah,' *mma*/*mmE*/*mmya* 'you know,' *nauti*/*nautii* 'well,' *uitu* 'and/additionally,' *unu*/*unuu* 'umm/ah,' and *uya* 'you see.' The meanings of the Japanese DMs in the table above are as follows: *ano* 'umm/ah,' *chotto* 'a little,' *de* 'then,' *ee* 'umm/ah,' *eeto* 'umm/ah,' *hora* 'you see,' *koo* 'it's like/sort of,' *maa* 'I mean,' *nandatta* 'well,' *nandaroo* 'well,' *nani* 'well,' *nanka* 'well,' *uun* 'umm/ah,' and *un* 'yeah.'

length as an example, we can expect that the longer one's discourse gets, the more one needs to use DMs, as there will be more opportunities to, for instance, mark a sequence, claim attention, hold the floor, and so on. Thus, further examination is necessary. So far, I've discussed the factors (1a)-(1c), the next section examines how each speaker and speaker group differs in terms of the lexical knowledge (factor 1d).

5.1.4. Lexical Knowledge (Use of a Variety of Verbs)

This section investigates the productive task results in order to reveal the different levels of lexical knowledge between the speakers and speaker groups. From among many, I decided to focus on the speakers' use of different verbs in the productive task results as a measure
The results also supported M65's prominence, just like other factors examined in earlier sections.

The following table summarizes the group median and mean type frequencies of the verbs under observation. As expected, F50 used by far the fewest types of verbs among the speaker groups. While M50 and F65 recorded a similar type frequency, M65 stood out by four in the group median and three in the group mean. Meanwhile, in both ages, male groups outperformed their female counterparts (F50 = 3.5; M50 = 9; F65 = 10; M65 = 14 in group median, F50 = 3.75; M50 = 9.33; F65 = 11; M65 = 14.33 in group mean).

Table 9: Type Frequency of Verbs Used in Productive Task Results (Group)

	Type Freq. Group Median	Type Freq. Group Mean
F50	3.5	3.75
M50	9	9.33
F65	10	11
M65	14	14.33

As can be seen from the following figures, when looking at each speaker's type frequency individually, the boundaries between the groups are not as clear. For example, speaker F50C (= 7 types) is more comparable to speakers of M50 whose type frequency ranges between 8 and 11 than to F50 speakers whose type frequency was 4 and under. Also, speaker F65A (= 16) used almost as many verb types as speaker M65C (= 17), while M65B's figure (= 12) is more similar to the figures of F65 speakers than to the other M65 speakers.

Figure 4: Type Frequency of Verbs Used in Productive Task Results (Individual)

Overall, a quantitative examination of the use of verbs in the responses revealed that F50 used the least varieties, indicating that they had the least lexical knowledge of all the speaker groups. In contrast, M65 tended to use the most varieties which suggests they had the greatest lexical knowledge in the productive context, while M50 and F65 were more or less comparable to each other. The next section summarizes how each speaker group was different in terms of the discourse completeness and detailedness (factor 1e).

5.1.5. Discourse Completeness and Detailedness

This section examines the speakers' overall response completeness and the level of detail provided in their productive tasks. Response completeness was mainly assessed by the speaker's ability to fully answer a question. However, any difficulty expressed directly or indirectly by the speaker, such as pauses, use of DMs, and meta-linguistic comments, was also taken into account. More detailed answers included, for instance, the time and place of the event (e.g., after school, at the beach), background information (e.g., reasons), and different steps of the activity (e.g., break a brick into small pieces before kicking them far away). The data revealed very limited skills in F50 and the greatest skills of all in M65, with M50 and F65 in between.

Like in results from previous tasks, F50 were unable to answer most of the questions. Meta-linguistic comments about their inability or discomfort when answering questions in Ikema, such as "*kikitorerukedo shaberenai*" '(I can) understand (Ikema), but can't speak (it),' or "*dekinai*" '(I) can't do (it)' were also commonly observed in all speakers of F50. M50 were able to answer all the questions without signs of difficulty but tended to lack specificity in most of the topics as their responses tend be short. In fact, the responses of speakers M50A and M50B generally contained the least information. For example, when answering an open question "what

is Miyako-city like?" M50A replied *hiicha gabaa tukuma* "(it's a) a little big place." F65, who produced longer discourse than M50, generally included more details. Although they were able to answer the majority of the questions, some of the speakers (e.g., F65B, F65D) expressed difficulty on the topics which required descriptions of multiple steps or some recollection, such as when talking about a specific activity or a game they played as a child. It is not clear from the data whether these difficulties resulted from a lack of linguistic skills or from an inability to recall the memory. In contrast, M65 tended to provide more detailed descriptions on each topic than any other groups, which perhaps resulted in their longer responses. The signs of difficulty were hardly observed in M65's discourse.

Overall, it appears that M65 performed the best of all the speaker groups in terms of response completeness and providing detailed description, while F50 showed the lowest performance. M50 and F65, on the other hand, were able to answer the questions about most topics, but some limitations such as lack of details and display of difficulty were observed in their responses. Considering the variety of topics and genres the questions covered (see Chapter 3) such as giving directions, describing events and places, or giving instructions to a simple recipe, these results may indicate M65's greater ability to talk about a range of topics than other speaker groups. It should be pointed out, however, that other factors such as the skill to clearly express oneself, the ability to recall memories, or the amount of relevant experience each speaker had may have been at play. Thus, the findings should be only taken as preliminary. Having examined all the factors that comprise the speakers' traditional skills, the next section discusses speakers' innovative uses of the target language.

5.2. Innovative Use

Examination of the productive task results revealed that some forms of Ikema that had not traditionally been observed or documented are being used by the speakers in this study. This section introduces innovative uses of the target language observed in the data and examines how they are used differently by each speaker group. From this point on, these newly developed forms of Ikema are referred to as 'innovative Ikema.' Linguistic innovations, including the ones discussed here, can be a sign of high proficiency as they require extensive knowledge of the language in order to be able to create new forms of it. In this study, the presense of innovative uses in the discourse is instead considered as a characteristic of lower fluency (Florey, 2007) as it can also be viewed as deviation from traditional forms that are free from Japanese influence. However, future studies may need to think of more appropriate standards of comparison than 'traditional speakers (who were monolingual)' when determining fluency considering that it is a norm to switch between Japanese and Ikema among the current speakers of Ikema.

Innovative Ikema were observed in a variety of grammatical features, but many of them seem to share a common characteristic; 'innovative Ikema' often bear both Japanese and Ikema elements. They can be roughly divided into the following three categories based on the type of grammatical feature: (1) innovative verb inflection, (2) innovative case-marking and (3) innovative phonetic features. Each of these categories is discussed in separate sub-sections that follow (Section 5.2.1., 5.2.2., and 5.3.3.).

5.2.1. Innovative Verb Inflection

The following table summarizes examples of (1) innovative verb inflection, the most common type observed in the data, along with their traditional forms. Square brackets next to each

innovative item indicate the speakers who used it, and the part distinctive from its conventional equivalent is underlined.

Table 10: Innovative Verb Inflection

Traditional Form		Innovative Form	
ifugamata, *itslgamata*	'go:FTU'	*ikigamata*	[F50B, F50C, F65B]
ifuttaa, *itslttaa*	'go:COND'	*ikittaa*	[F50C, F65B, F65D, M65A]
ifuba, *itslba*	'go:COND'	*ikiba*	[M65B]
tuurii	'pass:SEQ'	*toorii*	[F50C, F65B]
nii	'cook:SEQ'	*itamii*	[F50C, F65A, F65B, M65C]
nii	'cook:SEQ'	*atatamii*	[F65C]

The most used was the verb 'go' and its inflections. For instance, the traditional future form of the verb 'go' in Ikema is either *ifugamata* or *itslgamata* 'go:FTU,' but three speakers (F50B, F50C, F65B) instead used a form *ikigamata* in their answers. The following is a short excerpt from speaker F50C's interview, where she is talking about where she was heading after the interview.

Excerpt (6)

1 Cnslt:	nnamakara	njankai	ifugamataga
	now:from	where:to	go:FUT:FP
	'Where (are you) going from now?'		
2 F50C:	yaan	ikigamata	
	house:DAT	go:FUT	
	'(I'm) going home.'		

Despite the fact that the consultant used a traditional form *ifugamata* 'go:FTU' in his question in line 1, speaker F50C answered with the innovative form *ikigamata* in line 2. Similarly, *ikittaa* and *ikiba* were used to replace *ifuttaa*/*itslttaa* and *ifuba*/*itsIba* 'go:CON.' Given that the Japanese verb stem for 'go' is *iki*-, it is most likely that Ikema speakers are inflecting the Japanese cognate

form *iki* using Ikema suffixes *-gamata*, *-ttaa*, and *-ba*. Other common examples of the innovative verb inflection include *itamii* 'cook:NPST' used instead of *nii* 'cook:NPST,' which can be thought as the Japanese verb stem *itame-* 'fry:NPST' ending with the non-past Ikema suffix *ii*. Based on preliminary observations, there seem to be two potential scenarios as to how these forms emerged: (1) speaker's applying Ikema inflection to Japanese verbs, and (2) speaker's changing the phonetic feature of the stem of Ikema verbs into more Japanese-like sounds. In some cases, however, it is not clear from the form which of the two scenarios is the real cause. For example, in the case of *itamii* 'cook:NPST,' it is clearly the first scenario as *itam-* is a Japanese verb stem which does not exist in Ikema (the Ikema equivalent is *nii* 'cook:NPST'). On the other hand, in the case of *ikigamata* 'go:FUT,' the verb stem *iki-* could be taken as (1) a Japanese verb stem or (2) the Ikema verb stem *ifu-* which has been phonetically altered so that it is close to the Japanese equivalent *iki-*'go.' The next section outlines how current Ikema speakers are marking cases differently.

5.2.2. Innovative Case-Marking

In Ikema, the case of a noun phrase (NP) is marked by postpositions, and some cases require morphological alternation according to the last vowel of the preceding NP (Hayashi, 2011). Interestingly, I found evidence that two case markers, *-ya* 'TOP' and *-yu* 'ACC' are being used as general case markers, despite the fact that both topic and accusative case markings require the morphological alternation mentioned above. The following are examples of the use of *-ya* as a general topic marker:

myaakuya	'Miyako:TOP'	(Traditionally, *myaakuu*)
slmaya	'island:TOP'	(Traditionally, *slmaa*)

Traditionally, when the postposition *-a* 'TOP' marks NPs ending with -Cu (e.g., *myaaku* 'Miyako'), it changes its form to *-uu* as in *myaakuu* 'Miyako:TOP'. Similarly, when following NPs ending with -Ca (e.g., *slma* 'island'), *-a* 'TOP' changes to *-aa* as in *slmaa* 'island:TOP.' However, with non-traditional marking, both cases are marked with *-ya* 'TOP' as in *myaakuya* and *slmaya*.

Accusative case markings seem to be treated in a similar manner. The following are examples of the use of *-yu* as a general accusative marker:

senyu	'line:ACC'	(Traditionally, *sennu*)
tunukayu	'egg:ACC'	(Traditionally, *tunukau*)
tamagoyu	'egg:ACC?'	(–)

The accusative marker *-u* changes its form to *-nu* when marking NPs with the ending sound of -n, as in *sennu* 'line:ACC,' and to *-u* when marking NPs with the ending sound of -Ca, as in *tunukau* 'egg:ACC.' However, both cases are marked with *-yu*, as in *senyu* and *tunukayu*. Interestingly, this general accusative marker -yu is also used to mark Japanese loan words such as *tamago* 'egg.' Finally, in the following section, I examine how the speakers are making changes to the phonetic features of Ikema.

5.2.3. Innovative Phonetic Features

The following are a few examples of innovative phonetic features found in the data. They seem to be examples of Japanese words with some sounds replaced with their Ikema equivalent.

anu 'umm' original form: *ano*

atu ‘also’ original form: *ato*
tuki ‘when’ original form: *toki*

For example, *anu* ‘well’ was probably a result of the last vowel *o* of the Japanese discourse marker *ano* ‘well’ being replaced by *u* in the Ikema context as there is no vowel *o* in Ikema.

These innovative uses of Ikema were observed in the discourse of all types of speakers, but the study did not find clear differences among the speaker groups in terms of the frequency of use and types used. It is, therefore, important to carry out more studies on this issue in the future.

5.3. Summary and Discussion

Productive task results make it evident that majority of the speakers of F50 have highly restricted productive skills, which means they can use Ikema mostly on a word or phrase level. In contrast, the rest of the speaker groups (M50, F65, and M65) have been shown to be fluent speakers of Ikema. Taking into account different dimensions examined in this section, productive skills in the target language seem to be slightly greater in speakers of older groups, especially M65. The productive task results also revealed that innovative forms of Ikema are being produced by all types of speakers in this study.

Combining the findings from the receptive and productive tasks, I would like to suggest a range of potential speaker categories each speaker group can be classified into, based on Florey (2007)’ s speaker groups description (see Table 2). The results support strong receptive skills in speakers of all groups. However, despite there being little difference in F50’s receptive skills and those of the other speaker groups, F50 speakers had highly restricted productive skills compared to the others. An exception is speaker F50C whose productive skills were less limited. Therefore,

the study identifies F50 speakers as somewhere between *passible bilinguals* and *semi-speakers* (see Table 2). M50 speakers were highly productive but showed some signs that their productive skills may be less proficient than older speakers (e.g., amount of Ikema produced, lexical knowledge, and discourse completeness and detailedness). F65 speakers fell between M50 and M65 in terms of the amount of Ikema produced, use of Ikema DMs, and lexical knowledge. On the other hand, it appears that M65 speakers were somewhat more competent than the rest of the speaker groups in all areas examined. The study also verified that the use of the dominant language (Japanese) in discourse produced in Ikema was highly prevalent among the speakers of the study. Furthermore, it revealed that innovative forms of Ikema are actively being produced by all types of speakers. Altogether, the study identifies the speakers of M50, F65, and M65 as *fluent innovative speakers* (see Table 2).

In terms of the vitality of Ikema, based on the assessed proficiency levels, I suggest that UNESCO's reported status identifying Miyako Ryukyuan as "level 3: definitely endangered" may have to be downgraded, as the description of intergenerational transmission of this level does not accurately describe the current situation, particularly with respect to the female speakers. For example, considering that majority of F50 speakers in this study are parental generations (and some are grandparental generation), the description of the "level 2: severely endangered" seems to describe the current state of Ikema in Ikema Island community more accurately; it states, "language is spoken by grandparents and older generations; while the parent generation may understand it, they do not speak it to children or among themselves" (UNESCO, 2009). Furthermore, the findings of the study support the observation of Iwasaki &Ono (2011) that female speakers are switching to Japanese from Ikema more quickly than male speakers.

Despite the limitations of the current study, I hope that trends that were found here offer some insights that might be further examined in future studies, and also hope to contribute to more inclusive language documentary practices that include not only the traditional varieties, but also emerging innovative varieties, like those found in the present study. The next chapter presents results of the language life interviews.

Chapter 6 Results: Language Life Interview

This chapter provides the results for research question 2 by presenting the findings from the language life interviews. The language life interviews aimed to obtain a greater understanding of the vitality of Ikema by focusing on speakers' past and current language practices as well as their language attitudes, which may have contributed to the speakers' current level of proficiency. Because this was a semi-structured interview, which asked the speakers open-ended questions rather than a set of fixed questions for specific pieces of information, and also because the nature of the questions required recollection of speakers' memories (some which went back about sixty years), I was not able to obtain clear-cut answers for every question prepared. Also, the highly individualized answers made it difficult to identify distinct trends that are shared within a speaker group. Instead, the current study presents several factors that were identified as most representative of each group by the author. It is hoped that future studies will be conducted to further investigate this matter. As I analyzed the data, however, some factors that were shared by speakers of all the groups were identified. Firstly, they shared similar experiences in terms of schooling. For example, all the eleven speakers I interviewed went to the same elementary and middle schools located on Ikema Island, except for speaker F50A who had moved to the main Miyako Island before entering elementary school. After graduating middle school, almost all the speakers went to a high school on the main Miyako Island, as there is no higher education beyond middle school available on Ikema Island. Secondly, all speakers in this study had once left Ikema Island to travel to different places on mainland Japan or to other parts of Okinawa for work and had come back to the island after a duration of between 10 to 40 years. The results are presented according to the speaker group in the following sub-sections: Section 5.1. Female

speakers around the age of 50 (F50), Section 5.2. Male speakers around the age of 50 (M50), Section 5.3. Female speakers around the age of 65 (F65), and Section 5.4. Male speakers around the age of 65(M65). Section 5.5. will provide the summary and discussion.

6.1. F50

Unlike other speaker groups, speakers of this group appeared not to have spoken Ikema growing up, except for commonly used expressions such as *baa* 'I' and *achankai* '(See you) tomorrow.' This is perhaps, to a large extent, due to the linguistic situation at the time of their childhood. It appears that by around 1970, when they were born, Japanese had become much more dominant than a decade before. Iwasaki & Ono (2011) identified that the 1960s were a critical period for the language shift. According to Iwasaki & Ono (2011), the aforementioned *hoogen fuda* 'dialect placard' seemed to have been withdrawn after the early to mid-1960s as the strict language controls at schools prior to this period had already forced children to gradually adjust to speaking Japanese.

The loss of intergenerational transmission seems to be another common factor. All three speakers reported that their mother, who they described as the primary caregiver, didn't speak Ikema to them but Japanese or 'Japanese-mixed Ikema (in their words, *mazattayoonano* 'mixed-like thing')."[31] This was also the case for their grandmothers. They also recalled that the primary language spoken at schools by teachers and among peers was Japanese, from elementary through high school.[32] However, their high receptive ability suggests that they had been exposed to

[31] This may include code-switching between Ikema and Japanese and what Anderson (2015) called "Miyako-substrate Japanese (p. 482)." The study on Miyako-substrate Japanese, or other Ryukyuan substratum is little developed (Anderson, 2015).

[32] Iwasaki & Ono (2011) reported that the local kindergartens were already being operated during the WWII with Japanese-speaking teachers. Based on this account, it is possible to affirm that the speakers of this study who went to kindergarten also started being exposed to Japanese regularly even before they entered elementary schools.

Ikema through growing up in the community, even though they themselves didn't actively speak it. Speaker F50A's meta-linguistic awareness that she developed as a child also supports the implication that the speakers were highly exposed to Ikema and conversations in Ikema during critical periods of language acquisition. She recalled that when she visited her relatives on Ikema Island, she felt that the language spoken in the Ikema Island community and the Miyako variety spoken in a city on main Miyako Island, where she had moved before elementary school, were quite different from each other. Speaker F50B also recollected that she used to listen to her parents talking to each other in Ikema. In the previous chapter, productive skills of speaker F50C were found to be higher than the rest of the speakers in the same group. This may be related to the fact that she had lived on Ikema Island for the longest period of time within the group and had also married a local, and thus, perhaps had more exposure to an Ikema-speaking environment (e.g., family gatherings). This may be related to the fact that she had lived on Ikema Island for the longest period of time within the group, as well as she married to a local, and thus, perhaps has had more opportunities to be in an Ikema-speaking environment (e.g., family gathering).

It came to light that the current language use of these speakers also had some characteristics in common. All three speakers reported that they do not speak Ikema at home, to their husbands or to their children, including speaker F50C, whose husband is from the Ikema Island. Interestingly, however, it appears that they speak *some* Ikema to the elders at work. Speakers F50A, F50B, and F50C happened to work at the local nursing home caretakers. This nursing home has a policy to encourage the caretakers to communicate with elder clients in Ikema, which some of the elders feel more comfortable being addressed in. For instance, speaker F50A, who has worked there for 9 years, reported she uses *yaa* to refer to 'home' instead of its

Japanese equivalent *ie*. Also, speaker F50C, who has worked there for 11 years, excitedly said that working in the nursing home has given her the best opportunity/environment to learn Ikema. In fact, she reported that some of the phrases she recognized during the receptive tasks were vocabularies she learned at work.

With regards to attitudes toward Ikema, I observed both negative and positive attitudes among the speakers of this group. An example of a positive attitude could be when speaker F50C described Ikema words coming out of her grandchildren's mouth as *kawaii* 'cute.' She said her grandchildren know some Ikema expressions such as *shuputai* 'dirty' or *handai* 'running nose,' because those words are naturally mixed in her utterances towards them when she is taking care of them. Her finding her grandchildren's usage of Ikema adorable can be interpreted as her having a special attachment to her own dialect. In contrast, speaker F50A stated that it is natural for them (people on Ikema Island), especially the girls, to hesitate or stop speaking in Ikema as it sounds a little "strong/rough." In fact, this view that Ikema is somewhat lacking sophistication, and thus, not suitable for women seems to be a stereotypical view, considering that similar comments have been reported (Iwasaki & Ono, 2011), and also noted by the author during personal conversations. Even though all of them were aware that use of Ikema is declining, their views on the future of Ikema seem to incite mixed feelings. Speaker F50A stated that they would, after all, need to speak other languages (e.g., Japanese) once they leave Ikema Island. Speaker B also pointed out the lack of opportunities to teach Ikema to children.

While, for speakers of F50, Japanese seem to have been their primary language growing up, M50 were a different case. The next section outlines the language life of M50 speakers.

6.2. M50

It looks as though the use of Ikema has been a tool to bond with other members of the community for speakers of M50. Unlike their female counterparts, both M50A and M50C confidently recalled that they spoke both Ikema and Japanese growing up. Speaker M50A was raised by his mother, who spoke to him in Ikema or Japanese-mixed Ikema as his father was working away from home and didn't come back so often. Speaker M50C was also raised by his mother, along with his seven older siblings who he recalled spoke to him in Ikema. Moreover, speaker M50A remembers speaking Ikema from elementary school through to high school, mainly while he was hanging out with his *agu* 'friends (of the same age)' from the same community. Both M50A and M50C, like everyone else, moved to mainland Japan for work after graduating from the high school, and returned permanently after more than 30 years. Interestingly, leaving Ikema Island didn't stop them from speaking Ikema. It is reported that there were several locations near Tokyo and other major cities where people from Ikema Island or other Ikema-speaking communities regularly gathered. It is noteworthy that speaker M50C commented that he used to speak more Ikema when he was on mainland Japan than he does now.

For speaker M50A, Ikema continues to be his major medium of communication. For instance, he goes to an outdoor gathering everyday where male elders who are in their 60s to 80s (some are even older) come to socialize, mostly in Ikema. Speaker M50C's story related to *myaakuzltsl* 'Myaakuzltsl (festival)'[33]also implies the importance of speaking Ikema as a means to be a member of the community. He related an experience, which he shared with other male members of the Ikema Island community, from when he joined an age-grade system called *mutunuyaa* 'house of origin'[34] during myaakuzltsl. When younger members join *mutunuyaa*,

[33] Largest traditional festival in Fall unique to three Ikema-speaking communities where people pray for bountiful harvest and fishing, and prosperity for dependents and the community.
[34] When the annual *myaakuzIts1* comes, every man that has turned 55 years old that year will join the gathering called *mutunuyaa* 'house of origin.' There are four *mutunuyaa* in the Ikema Island community.

senior elders playfully instruct them not to confuse the honorific Ikema expression *uyatassari* 'honorary elders' with *ssariuyata* 'perverted elders' when they introduce themselves in Ikema in front of other senior members of *mutunuyaa.*

Similar to F50, some ambivalent views on the current and future state of Ikema were observed in M50. Speaker M50A was rather equable about the future of Ikema, which his answer "*betsuni ii n janai* 'whatever they decide is'" to the question "do you think it's important for the future generation to speak Ikema?" well described. In contrast, M50C acknowledged the importance of training future Ikema speakers, but not in a way that they feel obligated. Speaker M50C said that putting pressure on young people to learn Ikema is no different from the former Japanese government's linguistic assimilation policy because they are both different types of *enforcement*.

Another noteworthy finding is that both M50A and M50C shared the understanding that the Ikema they speak is somewhat different from Ikema spoken by the elders in their 80s and 90s, and there are certain expressions that are not familiar to them, especially the honorific expressions. This awareness of the inability to fully understand "old Ikema" is shared by several speakers across the groups (e.g., Speaker F65B, M65A, M65B, and M65C).

So far, I have demonstrated that M50 speakers have been and still are actively speaking Ikema, while F50 have rather been shifting away from it. Now let's have a look at the language life of older speakers.

6.3. F65

F65 speakers' level of proficiency was found to be somewhere between M50 and M65. Examination of their past and current language life revealed some potential contributing factors:

F65 speakers had lived their childhood—approximately from the late 1950s to the late 1960s—in a time where Ikema was more predominantly used than that of M50 speakers, but after they left Ikema Island, there seemed to be less opportunity for them to speak Ikema compared to M65 speakers. At the time when speakers of this group were growing up, Ikema was still a standard medium of everyday interaction. Such accounts as 'it is more comfortable to speak in Ikema' (F65A), 'I can express myself better in Ikema' (F65A), or 'Ikema is the first language that comes out when I get angry at my grandchildren' (F65C) support the idea that Ikema was primarily used by these speakers, rather than Japanese. Interestingly, however, speaker F65A and F65C recollected that their primary caregivers talked to them mostly in Japanese. Several accounts suggest that this tendency of the parental generation of F65 and M65 speakers to use Japanese when they give children directions isn't isolated: Japanese was often used toward children perhaps purposely at the time because doing so was seen as "*kyooiku nesshin*" 'tiger mom' (M65B). This may be because, due to the government's policy of enforcing the use of Japanese as the national language, ordinary people began feeling that Japanese had the potential to give them a better future and that Ikema was retrospective. All speakers of F65 and M65 in this study were affected by this policy. It seems that the use of Ikema at school was prohibited from elementary through to middle school. It is reported by both the speakers of this study and by previous studies (e.g., Heinrich, 2015a; Nakayama & Ono, 2013) that those who didn't obey this rule or accidently used Ikema were given time-outs in the hallway or made to wear *hoogen fuda* 'dialect placard' around their neck as a punishment. However, it also seems that they still spoke Ikema among friends when teachers[35] were not looking, or once they went home.

[35] Normally came from places other than Ikema community

What would, then, possibly lead to F65 speaker's overall performance in the proficiency assessment which was found to be relatively less competent than their male counterparts? It appears that both exposure and opportunity to speak Ikema have been limited for F65 speakers in their recent past and current lives. For example, in addition to the fact that all three speakers (F65A, F65B, and F65C) married a non-islander husband, they did not gather with Ikema-speaking people, like the male speakers, once out of the island. In other words, it is possible to say that certain areas of F65 speakers' proficiency in Ikema (e.g., vocabulary) have declined due to the lack of practice.

As for language attitude, some positive attitudes (e.g., Ikema is great (F65A)) were observed. Also, a hope for Ikema to be preserved was shared by all the three speakers. Other comments relevant to the future of Ikema included concerns about young people's passive attitude about the issue (F65A and F65C), feeling that Ikema will eventually die out (F65C), and the importance of documenting Ikema (F65C).

I have so far summarized the past/current language use and language attitude of speakers of F50, M50, and F65. The next section presents the language life of M65 speakers.

6.4. M65

M65, who were found to be the most competent in proficiency assessment, shared many characteristics with their female counterparts in terms of the past language use. However, the language life interviews revealed some characteristics unique to this group; unlike F65 speakers, M65 speakers seemed to share a memory of struggling to acquire Japanese growing up and even after graduating high school.

The three speakers were raised either by parents or grandparents, who spoke to them in Ikema, or Japanese-mixed Ikema. Growing up, Ikema was their primary tool of communication with family and friends, while they were being exposed to Japanese through TV and radios. Like speakers from all other groups, all three speakers spent some time outside the island. Speaker M65A also worked overseas as an automobile parts dealer for several years. Speaker M65A excitedly recalled his first step onto mainland Japan soil after graduating from high school in 1971 with a pocketful of money his parents gave him. Since Okinawa was still under United States governance at the time, he needed to carry a passport to enter Japan and exchange US dollars for Japanese yen on the passenger boat to Shinjuku-district in Tokyo. He recalled that it was an unnecessarily burdensome process to break down his 10,000 yen bill (worth approximately 100 US dollars today) into smaller bills and changes at the kiosk with his "*fujiyuunanihongo*" 'inconvenient Japanese' and lack of knowledge of Japanese currency. Ever since the day he moved out of Ikema Island, Japanese became his primary language. He didn't speak to his mainlander wife or to his two children in Ikema while he was living on mainland Japan. He recalled the only time he spoke in Ikema was probably when he called his parents on the phone, which made his children curious if they heard him. After 40 years of life away from the island, speaker M65A has gotten to the point where he feels more comfortable speaking in Japanese than Ikema. However, since he came back to Ikema, he has been actively involved in the community events as a local leader, which inevitably requires a high level of Ikema proficiency. In addition, the account that it took him two years to get his Ikema back highlights the effort he put in to actively practice Ikema.

On the other hand, even after over 30 years of living in a Japanese-dominant society, speaker M65C still feels like himself the most when speaking in Ikema. While some episodes

where his lack of proficiency in Japanese and being from a “remote island” brought about amusing interactions with mainland Japanese people were quite entertaining, listening to his bitter memory of not being able to express himself well in Japanese was heart-wrenching. Speaker M65C remembers that he felt frustrated and powerless when he was punished by his teacher at school for his failure to speak in Japanese at all times and for accidently speaking in his own language. Even more frustrating was the fact that he was unable to ask his teacher why such a rule existed, because he didn’t know how. He also remembers feeling embarrassed about his “broken” Japanese, and often getting impressed by females who held no fear of making mistakes and spoke it willingly and confidently even when their Japanese was full of mistakes. Not being proficient in Japanese also made speaker M65B shier and quieter than he really was.

Language attitudes observed through their comments were mostly positive, and all three of them acknowledged the value of Ikema as a cultural heritage unique to the community. It is possible that this contributes to their obvious concern about the future of Ikema. Speaker M65A, who was once involved in administration of community’s traditional ceremonies as a local community leader, especially recognizes the essentiality of preserving Ikema in order to maintain the community’s traditions and culture. In the Ikema community, traditional ceremonies are still carried out in Ikema. It concerns him that these historical ceremonies and rituals won’t be the same in the future without the knowledge of Ikema among young people. In contrast, speaker M65C believes that language is part of the human soul. He thinks the most important thing is for young people to be able to express themselves without being restricted by their language ability. Even though he wants Ikema to remain in the future, he is opposed to forcing younger generations to speak Ikema and make them endure the same feelings of frustration and powerlessness as him.

Even though two older groups grew up in the same time, M65 seems to have had more difficulty adjusting to the language shift from Ikema to Japanese than F65. The next section summarizes the findings from the language life interviews.

6.5. Summary and Discussion

The language life interview focused on the speakers' past and current language use and their attitude toward the target language, Ikema, which may have reflected on the speaker's current level of proficiency. The interview results provided evidence that age and gender can make some difference in these factors. F50 speakers seem to have spoken primarily Japanese throughout their lives, even though growing up in the Ikema Island community exposed them to Ikema, and thus, resulted in their high receptive skills. M50 speakers, in contrast, seem to have been in environments where they regularly spoke Ikema. As for the older groups, it seems that both F65 and M65 speakers have lived in a time where Ikema was more widely spoken. While F65 speakers seem to have had fewer opportunities to speak in Ikema once they were grown up, M65 speakers appear to have maintained an environment which allowed them to speak Ikema. Also, as opposed to F65 speakers, M65 speakers seem to have had hard time becoming fluent in Japanese. Overall, the results provided evidence that female speakers, regardless of age, tended to shift away from the target language more quickly than male speakers, which supports the observations of previous researchers such as Trudgill (1974) that women are "more sensitive to social significance of social-class-linguistic variables" (p. 93). This stronger inclination of female speakers toward Japanese also corresponds with Iwasaki & Ono (2011)'s observation, of a "faster switch among women than men from Ikema to the dominant language of Japanese" (p. 362). On the other hand, male speakers tended to stick to the target language more than female

speakers by placing themselves into environments where they could speak Ikema, whether it was in school, during their time on mainland Japan, or at the annual festival of *myaakuzltsl* on the island.

Attitudes toward the target language seem to be mainly positive among all the speakers, yet the views about the future status of Ikema seemed to vary from one speaker to another. Some differences between older and younger groups were observed. All the speakers I interviewed, except for speaker M50A, shared the view that it is important for Ikema to be preserved. However, when it came to the question "do you think that it is important for younger people to speak Ikema?" younger speakers tended to have passive/accepting attitudes which regard Ikema losing its speakers as a natural consequence of it being no longer necessary to a people's daily lives. In contrast, older speakers tended to be more sensitive about the threatening situation Ikema is facing, and express strong hope for its better future. Hopeless comments such as 'Ikema will eventually die out' (F65, M65B) would further support my observation that older speakers are regarding the situation more closely and thus have a better sense of its urgency.

It goes without saying that the current study alone does not sufficiently represent the language attitudes of the majority of people in the Ikema Island community. Furthermore, not only is 'language attitude' by nature a dynamic concept that changes over time even within the same person, but it also exists on an unconscious level as Shulist & Rice (2019) pointed out. Keeping these shortfalls in mind, I intended to present how the current speakers of Ikema feel about their dialect and its future, mainly through interpreting the accounts each speaker provided in their language life interview. It is, therefore, important to carry out studies in this context with more speakers and for a longer time frame to confirm the trends found here.

Chapter 7 Summary and Conclusions

7.1. Summary

This study has examined the current state of the Ikema dialect of Miyako Ryukyuan among Ikema community members who are in the age range of 50 to 70. Traditionally, the vitality of an endangered language has been more commonly assessed through quantitative methods such as large scale surveys and questionnaires that rely on self-reported data. By employing various instruments when gathering data including proficiency assessments, language life interviews, and participant observations, the present study intended to capture the multidimensional reality in an endangered language community based on more empirical data. In addition, it sought to contribute to the development of a standardized tool for assessing levels of proficiency in the field of endangered languages by introducing a proficiency assessment developed by the author.

The proficiency assessment results supported strong receptive skills in all four speaker groups—F50 (female speakers around 50 years old), M50 (male speakers around 50 years old), F65 (female speakers around 65 years old), and M65 (male speakers around 65 years old)—with M65 speakers potentially bearing the highest word-level receptive skills. They revealed, however, different levels of productive skills among the speaker groups. Majority of F50 have very limited productive skills; their production of Ikema tended to be restricted to the word or phrase level. This makes most of F50 speakers "receptive speakers" (Florey, 2007). On the other hand, M50, F65, and M65 have strong productive skills. More specifically, older groups, particularly M65, showed greater competency than M50 in most of the dimensions examined in the study, including amount of Ikema produced, use of discourse markers, lexical knowledge, and discourse completeness and detailedness. Moreover, the study revealed a variety of

innovative forms of Ikema that were actively produced by every speaker in the study. All things considered, M50, F65, and M65 were identified as “fluent innovative speakers” (Florey, 2007).

The language life interviews revealed different past and current language practices among the speaker groups. Most notably, while F50 speakers did not speak Ikema growing up, their male counterparts seemed to have spoken Ikema actively and voluntarily throughout their lives, even in an environment where Japanese was more dominantly spoken. Compared to the younger speakers, both F65 and M65 grew up at a time when Ikema was more widely spoken. However, similarly to F50, F65 seemed to have shifted away from Ikema more quickly than their male counterparts.

7.2. Limitations and Implications

7.2.1. Limitations

This section discusses some of the limitations the study faced. Firstly, due to the limited scope of the study, it has only been able to provide preliminary observations of general trends in the current state of Ikema dialect among the speakers of the study. Therefore, a more in-depth study with larger data set is necessary to confirm these trends. Furthermore, in order to better understand speakers’ current language use, participant observation over longer periods of time is required. Secondly, some limitations of the proficiency assessment came to light. For example, while the word translation task results may be directly linked to the speakers’ level of lexical knowledge, it also may not accurately reflect speaker’s actual knowledge due to a lack of factors, such as contextual information, which speakers would always have in real-life conversation. In other words, since it is likely that we learn and store knowledge of words in relation to other factors and often within certain frequent contexts where they occur (e.g., genre of topics,

collocated words, fixed-expression, and so on), it might be the case that some of the speakers who weren't able to recognize words in this task would be able to if the same word was presented in context. I chose verbal translation as it is less complicated and time-consuming than written translation, and I considered it the most suitable for the particular population and culture I was working with. However, the results as well as the observation during the assessment suggested that some of the speakers had some difficulty adopting this method, which may have resulted from different levels of experience or familiarity with this type of task. The productive tasks also showed some limitations; despite the effort put in to select the best topics, some topics such as giving the instructions to a recipe were leading the speakers to use more of the dominant language (Japanese) than other topics. While the reason for this is not entirely clear, I suspect that in certain areas of everyday interactions, the degree of use of Japanese is higher than in other areas. In future works, therefore, the aspects discussed here should be taken into account when developing new assessment tools. Alternative ways to test receptive or productive skills can be, for example, showing participants an object presented in the picture and asking them to describe what is being presented, or having them listen to a story or stretch of discourse and identify the meaning. Another observation made during the proficiency assessment was that, despite the presence of the local consultant, the speakers seemed to be feeling somewhat "staged" and "tested." As a result, some speakers became shy and were unable to show their natural capacity during the interview. For example, there was a young male speaker, who was very quiet and didn't say much during the proficiency assessment. As soon as the assessment was over, he started talking loudly with the consultant in Ikema, as if he had gotten off the stage and become himself again. I would like to suggest that this also illustrates a type of contextualization (Nakayama & Ono, 2013) that affects speaker's natural and habitual pattern of language use.

Namely, the speakers identified the interview as "a stage on which they need to perform." This implies that we need to be careful when interpreting the results we obtained. The use of data produced in a more natural context might alleviate this problem.

Lastly, the author's lack of knowledge in Ikema might have prevented both the task development and analysis of the results from being appropriate and accurate. I would like to continue developing my skills and knowledge in Ikema for potential future studies.

7.2.2. Implications for Future Studies

Finally, this section presents some implications this study has for future research. The study was significant in three ways. First, it revealed some characteristics of the state of the Ikema dialect of Miyako Ryukyuan that indicate a weaker vitality level than UNESCO's reported status (level 3: "definitely endangered"). This implies that Ikema may require more attention and urgent action in order to change its steady decline toward extinction. It also made an important addition to the few studies previously done on the language endangerment situations in the Ryukyus (e.g., Anderson, 2009; Heinrich 2007; and Iwasaki & Ono, 2009). This was especially significant in that the study filled some of the gaps between *Uchinaaguchi* 'Okinawan' and other much less studied varieties of Ryukyuan including Miyako, and, in doing that, improved our understanding of the state of endangered languages in the world community.

Second, the study contributed to discussions of the best practices in language vitality assessment (Florey, 2007; Lee & Way, 2017; Róse Labrada, 2017; Yang et al., 2017), and to efforts of developing a standardized tool for measuring the proficiency level of the speakers of endangered languages. In particular, by exploring an assessing tool that requires actual use of language (receptive tasks and productive tasks), the study offered a way to obtain information

about the proficiency levels of speakers of endangered languages more accurately than traditional self-assessing methods. I hope that this study will lead to more discussions regarding this matter, and more effort will be put on exploring different approaches.

Lastly, the discovery of innovative uses of Ikema among the current speakers suggests the importance of more inclusive documentation practice, as it could provide significant insights not only to the status of an endangered language, but also to the world's linguistic diversity. In addition, it demands reconsideration of the traditional notion that values the "ancestral code" (Woodbury, 2011, p. 177), and linguists' attitudes that implement it. Based on participant observation in the community, I believe that this language ideology is also present among the current speakers of Ikema. For example, almost all the speakers of the study, regardless of their gender or age, described their Ikema speaking ability as insufficient. During the interview, sometimes on several occasions, they made meta-linguistic remarks as to how "rusty" their Ikema had gotten or how little Ikema they knew. Apologizing for not being able to contribute to the study or referring to someone else who was a "better" speaker (e.g., elders) were also commonly observed practices. These behaviors indicate the dominance of the idea in the current speakers of Ikema that their version of Ikema is somewhat less authentic or valuable than the version of the older speakers, and that they are not proficient enough in Ikema to be qualified as a participant of a linguistic study. Thus, it is essential for future researchers to be aware of this language ideology and carry out documentation practices that value both traditional and newly emergent forms. The present study did not provide a discussion on what it means to be a *native speaker* or *fluent speaker*, which is clearly a fluid notion just like the speakerhood and languagehood discussed in Chapter 2. In the case of Ikema, this is made more difficult by the fact that all the current speakers of Ikema are bilingual in Japanese and Ikema, and the

phenomenon of language contact (e.g., innovative forms) is a natural consequence rather than simply the sign of lower fluency. It is, therefore, crucial for the future studies on proficiency to carefully consider what the baseline of comparison is—is speaking monolingually an appropriate standard or is mixing two codes a new standard more appropriate to the current situation? I would like to believe that keeping these things in mind and being open to the ever-changing reality of a language will lead to the better preservation of language diversity in the world.

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Appendix A

Proficiency Assessment Task 1

1.	yadufutsl	door
2.	huuya	eldest brother
3.	chiinun	bottom
4.	kamatsl	cheek
5.	fujja	whale
6.	aigashii	support, advice
7.	hubbuja	single male
8.	umatsl	fire
9.	manjuu	papaya
10.	ugunaarii	gather
11.	bijarii	sit
12.	idii	exit/go out
13.	ajjii	say
14.	fai	eat
15.	bamikii	get loud
16.	mmikii	angry
17.	myaaslmunu	easy
18.	hyaamunu	fast/early
19.	yarimunu	old/bad
20.	sshimunu	cold

Proficiency Assessment Task 2

1. nnamakara/ hainkai/ ikii/ uiyu/ tuikuudi/(5)
   now:from garden:to go:SEQ watermelon:ACC get:come:VOL
   '(I) will to (the) garden and fetch (a) watermelon.'

2. zzatu/ ssaran/ ikii/ cchuui/(4)
   father:with Hirara:to go:SEQ come:CONT
   '(I) have gone to Hirara with (my) dad.'

3. umanna/ shitunu/ haasa/ fuudoo/(4)
   here person:NM many come:FP
   'Lots of people come here.'

4. unu/ munuu/ fusariiui/(3)
   this thing:TOP rotten:CONT
   'This thing is rotten.'

5. gabaa/ zzuu/ ttiicchaaido/(3)
   big fish:ACC catch:come:RES:FP
   '(Someone) caught and brought back big fish.'

6. dinnu/ mautslga/ yamatunkai/ ikadi/(4)
   money:ACC earn:GOAL Japan:to go:VOL
   '(I) will go to (the) mainland Japan to make money.'

7. nnahii/ faubadu/ jaukai/(3)
   everyone:with eat:COND:FOC good
   '(It's) better to eat together.'

8. tinnu/ ffakariiuiba/ tslnnu/ husain/(4)
   sky:NM dark:SEQ:CONT:CSL clothes:NM hung:PT.NEG
   '(The) sky is getting dark, so (one) can't hang laundry (outside).'

9. karaa/ yarabi/ aikyanu/ dusl/(4)
   s/he:TOP child COP:NOM:of friend
   'S/he is (a) friend from childhood.

10. mmyahiicha/ hyaahii/ ukiiufubadu/ jaukatai/(4)
    a little early get.up:PUR:COND:FOC good:PST
    '(I) wish (I) had gotten up a little earlier.'

11. hukajjaa/ sltumuti/ utslnaatamii/ hataicha/(4)
    typhoon:TOP morning Okinawa:toward leave:PST:FP
    '(I) heard the typhoon left toward Okinawa (in the) morning.'

12. hyauslnna/ munuu/ chuffi/(3)
    sometimes thing:ACC make:IMP
    “Cook sometimes.”

13. minakanu/ saujju/ aslmiraitaidoo/(3)
    backyard:of clean.up:ACC do:CAUS:COP:PST:FP
    ‘(I) was made (to) clean up (the) backyard.’

14. kanu/ midunna/ yagumi/ tslmukagi/ bitudoo/(5)
    that woman:TOP very heart:beautiful person:FP
    ‘That woman (is a) very kind person.’

15. nuslduu/ hiiya/ narando/(3)
    steal:ACC do:TOP prohibited:FP
    ‘Do not steal.’

Proficiency Assessment Task 3

1 a. nnamakara njankai ifugamataga
now:from where:to go:FUT:FP
'Where (are you) going from now?'

b. (PLACE)nna nauyu aslgamataga
DAT:TOP what:ACC do:FUT:FP
'What (are you) doing there (PLACE)?'

2 a. yarabinu tukyanna nauyu hii asubiiutaiga
child:of time:DAT:TOP what:ACC do play:SEQ:CONT:PST:FP
'How did (you) play when (you were a) child?'

b. uraa inshii hii asuuga
it:TOP how do play:FP
'How (do you) play it?'

3 uharuzltaahiiya inshii ifuga naraahii fiiru
Uharuzl:toward:TOP how go:FP teach give
'(Could you) tell (me) how to go to Uharuzu Shrine?'

4 a. myaakuu njau miibadu jaukaiga
Miyako:TOP where:ACC see:COND:FOC good:FP
'Where (would be) good to see in Miyako?'

b. (PLACE)tiiya inshiinu tukunuga
:QUOT:TOP how:of place:FP
'What kind of place is it (PLACE)?'

5 a. gooyachampurutii sshiiuina
bittermelon.stir.fry:QUOT know:CONT:FP
'Do (you) know bittermelon stir-fry?'

b. inshii chuffiiuiga
how make:CONT:FP
'How are (you) making (it)?'

Appendix B

Language Life Interview

1. What year were you born?
2. Were you born in Ikema?
3. Did you grow up in Ikema?
4. Where are your parents from?
5. Have you ever lived in the mainland Japan or other parts of Okinawa?
6. What do you do for living?
7. Do you live by yourself?
8. How many people are there in your family? Who do you live with?
9. Do you speak Ikema at home?
10. Do your children understand/speak Ikema?
11. Who did you live with growing up?
12. Who took care of you the most when you were a child?
13. Did they speak Ikema to you?
14. Did other family members (e.g., grandparents, siblings) speak Ikema to you?
15. Did you speak Ikema growing up?
16. Did your teachers in elementary/middle/ high school speak Ikema?
17. Did you speak Ikema among your friends in elementary/middle/high school?
18. When did you first realize there were Japanese and Ikema?
19. Has anyone ever commented on the way you speak?
20. Do you speak Ikema everyday? When? With whom?
21. When you have the option of using Ikema and Japanese, how do you decide which language to use?
22. Do you think that the use of Ikema is declining?
23. Do you hope that young people and children would be able to/should speak Ikema?
24. (If the person doesn't speak Ikema) Do you think it's important for young people and children to speak Ikema?