



Indigenizing the Curriculum: Teaching at the Ifugao State University, Philippines

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Abstract

The Nurturing Indigenous Knowledge Experts (NIKE) among the young generation in Ifugao was a project in Ifugao, Philippines spearheaded by the Ifugao State University (IFSU) and was sponsored by the UNESCO Association in Japan. Through the project, the Ifugao Indigenous Knowledge Workbook was developed. It contains nine chapters. The workbook was pilot-tested to students who had IK classes. The descriptive survey method of research was used. A questionnaire was used to gather data from first year Bachelor of Elementary Education and Bachelor of Political Science students. Frequency count, percentage and mean were computed. T-test was used to determine if there exists significant difference on knowledge gained before and after IK was taught to the students.

Results revealed that the respondents have an increased level of IK in all the areas covered in the NIKE workbook after they enrolled in their classes. It is alarming to note that the students are knowledgeable about IK but they are not practicing it. However, according to the respondents, they will apply their IK through teaching after graduation.

Keywords: Indigenous knowledge, curriculum, elders, students

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1. Introduction

Indigenous knowledge has always existed in ancient times. It has become a focus of inquiry both nationally and internationally especially for those interested in educational innovation. Term indigenous means native born, growing or produced locally in a country or region [1].

Indigenous knowledge systems (IKS) as human experiences, organized and ordered into accumulated knowledge with the objective of achieving quality life and creating a livable environment for both humans and other forms of life [2]. He characterized IKS as local, orally transmitted and the consequence of practical engagement in everyday life constantly reinforced by trial and error experience. Indigenous knowledge is of particular relevance to conflict resolution, food distribution, women empowerment, biodiversity, learning attitude, empowerment, values and learning through culture.

Indigenous knowledge is a transcultural (or intercultural) and interdisciplinary source of knowledge that embraces the context of about 20 percent of the world's population. It is systemic, covering both what can be observed and what can be thought. It comprises the rural and the urban, settled and the nomadic, original inhabitants and migrants. Other names for Indigenous knowledge (or closely related concepts) are "folk knowledge," "local knowledge or wisdom," "nonformal knowledge," "culture," "indigenous technical knowledge," "traditional ecological knowledge," and "traditional knowledge" [3]. Indigenous knowledge is the basis for local level decision making in many cultural communities. It has a value not only for the culture in which it evolves, but also for scientists and planners striving to improve conditions in rural localities [4]. Indigenous Knowledge is an exercise in self determination [5]. It refers to the particular values, beliefs, rituals, traditions, and environmental relationships that exist in an indigenous community [6]. Indigenous knowledge according to him is a key element that tends to be deeply embedded within the society in which it has been developed and must be seen in its economic, political and cultural contexts.

Interest in indigenous knowledge has risen for the past years because of the role that it plays in participatory approaches to sustainable development. Recording indigenous knowledge is now regarded as an invaluable national resource. IK is important for both the local and global communities [7]. The development partners need to recognize the role of IK, understand its workings in the context of the local communities, and integrate systematically the most effective and promising of its practice into the development of programs they support.

The rise in recognition of IK in Australia has also been accompanied by a popular perception that, if local communities are empowered to do so, they will use their local knowledge to manage their natural resources sustainably [8-12] and [13]. However, there has been little discussion or debate as to whether this will occur, how IK operates at different scales, and how indigenous peoples' agency plays out in NRM decision making on indigenous landscapes [14]

A study in Zimbabwe observed that farmers' willingness to use seasonal climate forecasts increased when the forecasts were presented in conjunction with and compared with the local indigenous climate forecasts [15]. Farmers in Africa were also known to conserve carbon in soils through the use of zero-tilling practices in

cultivation, mulching, and other soil management techniques [16]). African women are also known to rely on indigenous plants that are more tolerant to drought and pests, providing a reserve for extended periods of economic hardship [17]. In Southern Sudan, women were also known to preserve a spread of varieties of seeds that will ensure resistance to the range of conditions that may arise in any given growing season [18].

This research was conducted to evaluate the significance of the Nurturing Indigenous Knowledge Experts (NIKE) Workbook which was an offshoot of the project sponsored by the UNESCO Association of Japan. There are nine chapters of the book and the book was pilot tested at the College of Education and the College of Arts and Sciences. The result is of prime importance in the decision as to whether to include indigenous knowledge as general education subject across the programs of the university.

1.1 Theoretical framework of reference

The basis of offering IK in the curriculum is Republic Act Number 8371 (1997) otherwise known as the Indigenous Peoples Rights Act (IPRA) [19]. It is an act that recognizes, protects and promotes the rights of indigenous peoples, creating a national commission of indigenous peoples, establishing and implementing mechanisms, appropriating funds thereof, and for other purposes.

Section 30 of the IPRA provides that the state shall provide equal access to various cultural opportunities for the ICCc/IPs through the educational system, public or private cultural entities, scholarships, grants and other incentives without prejudice to their right to establish and control their educational systems and institutions by providing education in their own languages, in a manner appropriate to their cultural methods of teaching and learning. Indigenous children/youth shall have the right to all levels and forms of education of the state.

The IKs of the Ifugaos that were taught include eight areas which were based from the book prepared by the NIKE writers in 2011. These are: land and water management, rice production practices, biodiversity conservation practices, stone works, house construction, laws and justice system, rituals, dances and festivals.

Land and water are looked upon by the Ifugaos as great treasures from their creator, thus, folks tried to sustain them even with the influences of modernization.

Ifugao which is one of the provinces found in Region CAR (Cordillera Administrative Region) has many landforms like mountains, hills, valleys, and caves. Its water forms are rivers, lakes, falls, and springs.

The IKs being practiced by the Ifugaos are acquisition and loss of land, management of land surface, water use and management. This includes the contemporary challenges in land use and management which cover ancestral domains and ancestral lands.

Rice is life to all Filipinos. The Ifugaos have two major classifications of Indigenous rice being planted in the rice field. These are the non glutinous rice variety or the *Ipugo* and the glutinous rice or *Dayakkot*.

Different farming tools are used in preparing the land and in harvesting rice. A rice production cycle is observed based from the Ifugao agricultural seasons which are the “tialgo” or the period after transplanting to harvest time where there is decreased rice supply and “kiwang” or the period after post harvest to seed bedding and of abundant rice supply. In each season, various practices are observed on rice production. Post harvest activities are practiced on drying, stoning, and milling. Rice is also prepared by the Ifugaos as yeast, wine, and different rice recipes.

Biodiversity refers to the variety of organism in a geographical location. The types of biodiversity are species, genetic and ecosystem. In Ifugao, a vast of indigenous flora which include trees, herbal plants, and pesticides plants are available. These are being used based on their indigenous uses and some are still under research and classified as aquatic indigenous animals, terrestrial indigenous animals and aerial indigenous animals. Some of Ifugao’s indigenous biodiversity practices are kaingin system, rice terraces, and multistory agro-forestry system. While many Ifugaos desire to conserve biodiversity, loss are logging, small scale upland agriculture, hunting, illegal fishing, forest fire, improper grazing, road construction and conversion of forest and rice field areas into residential lots.

Stones are very useful to the Ifugaos. These are used for stone wall construction and stone tilling. Different stones are used for stone walls. The stages of stonewall construction are followed by the folks. During rice terraces construction, engineering principles and techniques are performed like in site selections, hydraulics retaining walls, random bonding, buttressing, water sealing, irrigation and drainage system. Construction processes are being followed during stone walling, backfilling, maintenance and repair. A range of materials and tools are also used by the Ifugaos in stone tilling. Steps are followed in stone tilling in order to tile the ground so it does not get muddy, easy to clean and for drying rice grains and legumes.

The house is the home to the Ifugao family. It is built according to structure and function. The architecture of the native house is applied on the external parts, the foundation of the house and the interior design. In selecting the materials to be used, the carpenters consider the kind of wood and the tools to be used. Like in any house construction, the Ifugaos make basic planning and programming before the construction. The experts follow strictly the steps in the construction of the house to ensure perfect construction and safety for the family to reside. Men and women play significant roles in house construction.

Ifugao laws and justice system are passed from one generation to another orally. Laws originated from taboos and customary laws. There are considerable taboos called *paniyo* in Ifugao. The justice systems follow processes in settling disputes. Practices in settling disputes and conflicts which may involve rituals called the *bakiare* also observed. There are property laws related to sale, purchase of land, and processes in settling conflicts land disputes. Punishment to various offenses like crimes against persons, properties and against cheating are carried out. Penalties are imposed based on the degrees of offenses.

Rituals are performed in the different stages of life and during social occasions across all the municipalities in Ifugao. A *mumbakior* a native priest performs the ritual and animals are sacrificed during the rituals. The rituals

executed during the life cycle of man are rituals during and after pregnancy, childhood, adulthood-marriage, old age, death, murder, and year after death. Other rituals are also performed on health, politics, and agriculture.

The beating of the gongs unites the Ifugaos as they dance despite diversity in beliefs, dialects, social and economic statuses. The dances may differ in each municipality and it could either be ceremonial or festival. The kinds of Ifugao dances are *dinnuy-a*, *hinggatut*, *pagaddut*, *tobab* and *tayaw*. All the dances follow specific footworks, arm, and hand movements. As the Ifugaos dance, they soar like eagles which symbolizes their being high on ambitions, accomplishments, relationships and others yet maintaining a low profile.

There is a yearly festival in the different municipalities where some rituals are presented or contested. The festivals are Gotad ad Ifugao, Gotad ad Hingyon, Gotad ad Kiangan, Ighumtad ad Majawjaw, Rambakan jay Lamut, Kulpi ad Asipulo, Imbayah Festival and Uрпиh ad Banaue, and Tungoh ad Hungduan.

The inputs were age, gender, municipality, course and year level, subject where IK was taught, ethnic group and language spoken and IK holders in the family. The process included the IK lessons taught in class which covered land and water management, rice production practice, biodiversity conservation practices, stone works, house construction, laws and justice system, rituals, dances and festivals. Source of Indigenous Knowledge, extent of IK practice and grades in IK class were also included.

For additional information and reference, future prospects on employment and application of IK were asked. The outputs were the strategies on how to increase IK among the next generation.

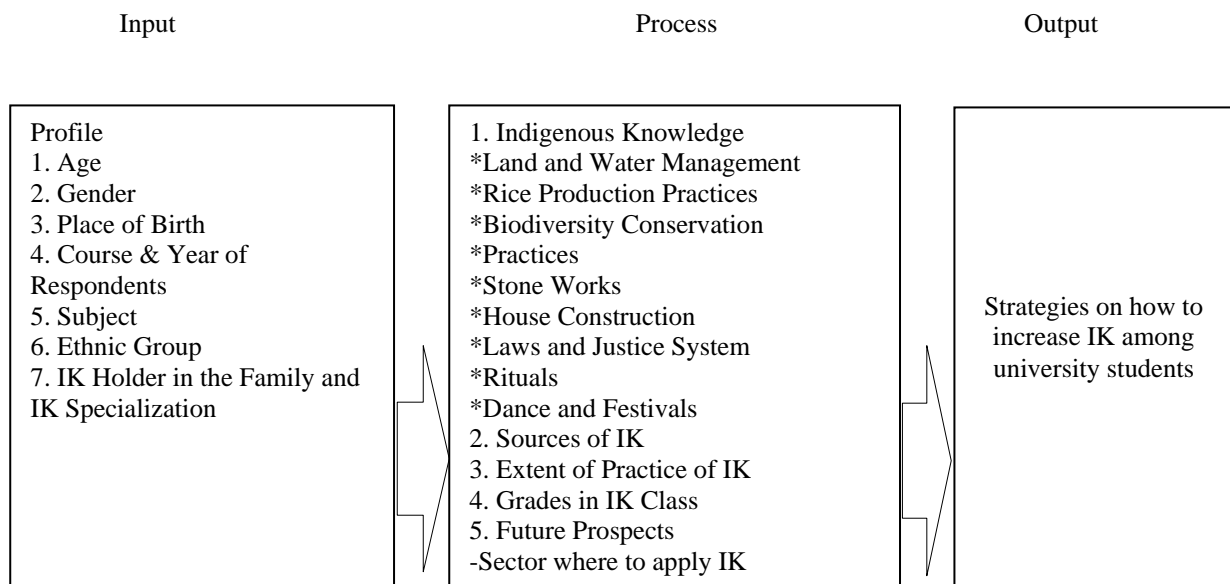


Figure1: Paradigm of the Study

1.2 Statement of the Problem

1. What is the profile of students according to:
 - 1.1. age,
 - 1.2. gender,
 - 1.3. municipality,
 - 1.4. course and year level,
 - 1.5. subjects where IK was taught,
 - 1.6. ethnicity & language spoken, and
 - 1.7. IK holders in the family
2. What is the level of IK of respondents before and after taking an IK class?
3. Is there significant difference on the IK of students before and after taking an IK class according to their profile variables?
4. Who taught the students about IK?
5. To what extent did the respondents use their IK?
6. What is the general average of respondents enrolled in the IK class?
7. What sector do the students desire to apply their IK after graduation?
8. Where do the respondents want to apply for a job after graduation?

2. Methodology

2.1 Research Method

The study made use of the descriptive survey method of research.

2.2 Research Environment

The research was conducted at the Ifugao State University (IFSU). IFSU is a Higher Education Institution (HEI) in the Philippines, established by law and financially subsidized by the government. It is the only institution of higher learning in the developing province of Ifugao. It occupies an aggregate of 500.175 hectares of land, spread over its campuses. Its main campus, with a total land area of 88.60 hectares is located in Nayon, Lamut, Ifugao, which is about 300 kilometers away from Manila. It is about 19 kilometers away from Lagawe, the capital town of Ifugao.

Founded in 1920, the university has grown from a Settlement Farm School to a university in October 14, 2009 with six (6) satellite campuses, 36 campus-based academic programs, seven (7) transnational education/extension programs, 400 faculty and staff, and 7,444 students. Majority of the students belong to the Indigenous Peoples (IPs) of the province of Ifugao. IFSU goes far beyond the borders of the Philippines with an international campus based in Malaysia, Thailand, and Vietnam. Its extension programs are Bacolod and Iloilo, Philippines. IFSU is located in Ifugao which is known for its famous rice terraces that was inscribed in 1995 by UNESCO as a world heritage site. Ifugao is composed of 11 municipalities bounded in the Northern part of the Philippines. The map that follows shows the location of Ifugao which is number 7.

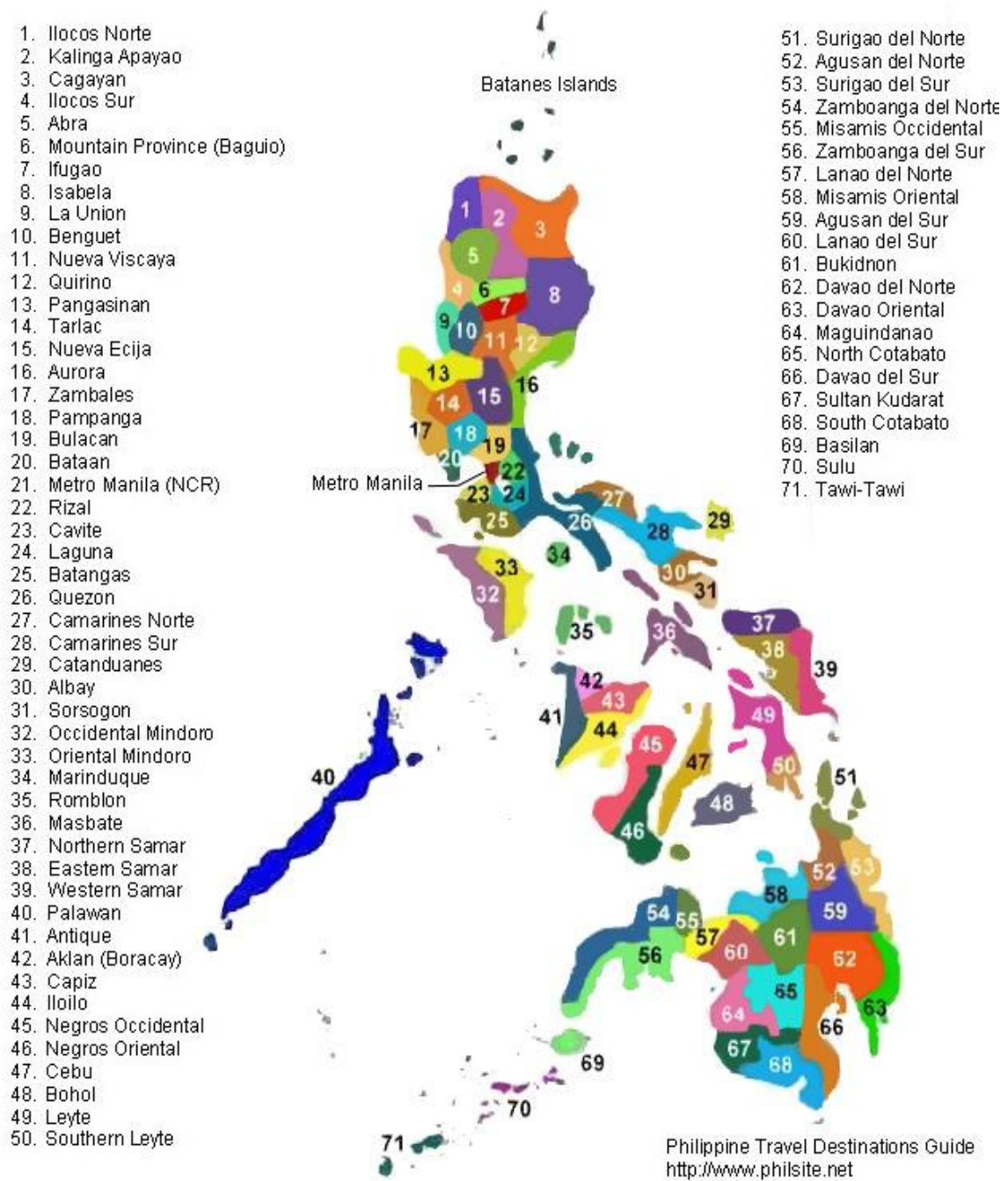


Figure 2: Map of the Philippines

2.3 Respondents

The respondents were Bachelor in Elementary Education and Bachelor in Political Science students. The distribution of respondents is shown on the table below.

Table 1. Respondents

Course	Number of Respondents
Bachelor in Elementary Education	28
Bachelor in Political Science	70
Total	98

2.4 Data Gathering Instrument

The draft questionnaire prepared by SekiguchiHirota (2013) was revised by Nancy Ann P. Gonzales (2014) and was tested to 35 nursing students who had an IK class two years ago. The reliability value of 0.487 indicates that majority of the questions were not reliable thus the questionnaire was revised again until the value was 0.80. After having the final questionnaire reviewed by experts, the research aide administered it to the respondents. All students present when the questionnaire was administered answered the instrument. Those who were absent did not have the chance to participate in answering.

2.5 Data Gathering Procedure

The researchers sought permission from the deans and instructors concerned specifically from the Colleges of Education and Arts and Sciences before the questionnaires were administered.

2.5 Statistical Tools

The frequency count, percentage, and mean were computed. T-Test was used to determine if there existed a difference before and after IK was taught to the students. Statistical Analysis software (SAS) was used in the analysis of data.

Scale of Interpretation

- 1 No Knowledge (NK)
- 2 Slightly Knowledgeable (SK)
- 3 Knowledgeable (K)
- 4 Very Knowledgeable (VK)

3. Results and Discussions

- 1. Profile**
- A) Age**

Figure 3 shows that 63% of the respondents have ages that range from 15-19 years old and 36% have ages from 20-24 years old. Only one respondent is 25 years old and above. This implies that majority of the respondents are at their proper ages to be in the tertiary level.

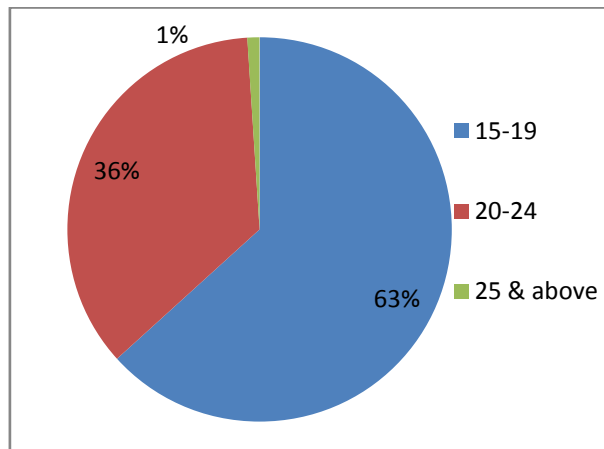


Figure 3. Age of respondents

B) Gender

The graph reflects that 21% are males and 79% are females which means that majority of the respondents are females.

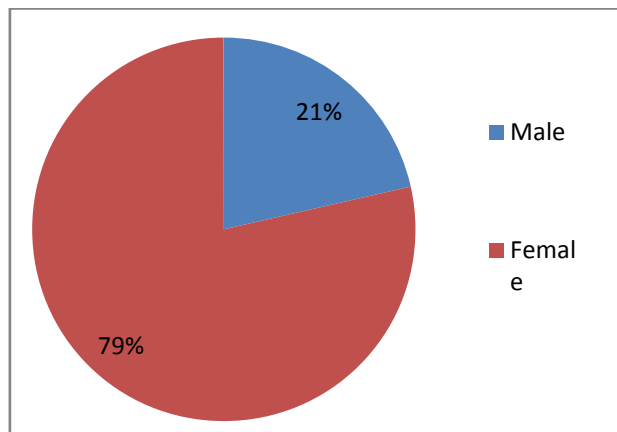


Figure 4. Gender of Respondents

C) Place of Birth

As shown in table 2, 14.29% of the respondents are from Banaue and Kiangán respectively and 11.22% are from Lagawe. Only two or 2.04% of the respondents are from Alfonso Lista. This indicates that majority of the respondents are from the municipalities of Banaue, Kiangán, and Lagawe. Very few respondents are from Alfonso Lista and other places outside Ifugao.

Table 2. Place of Birth

Municipality	Frequency	Percentage
Aguinaldo	4	4
Alfonso Lista	2	2
Asipulo	10	10
Banaue	14	14
Hingyon	4	4
Hungduan	7	7
Kiangang	14	14
Lagawe	11	11
Lamut	6	6
Mayoyao	5	5
Tinoc	10	10
Nueva Vizcaya	4	4
Quirino	4	4
Others	3	3
Total	98	100.00

D) Course and Year

Table 3 presents that the respondents are enrolled in Bachelor in Elementary Education and Bachelor of Science in Political Science. Twenty nine percent are BEE second year students, 31% are Bachelor of Science in Political Science second year students, 27% are Bachelor of Science in Political Science third year students and 14% are Bachelor of Science in Political Science fourth year students. This indicates that majority of the respondents are Bachelor of Science in Political Science students.

Table 3. Course and Year of Respondents

Course and Year	Frequency	Percentage
Bachelor in Elementary Education	28	29
Bachelor of Arts in Political Science	30	31
a. AB Political Science 2	26	27
b. AB Political Science 3	14	14
c. AB Political Science 4		
TOTAL	98	100

E) Subject

As presented in figure 5, there are two subjects where the NIKE book was piloted. Seventy one percent are enrolled in Ifugao Arts, Culture Tradition subjects and they are the Bachelor in Political Science students. Twenty nine percent attended the IKSP subject and they are the BEE students. This implies that majority of the respondents are Bachelor in Political Science students enrolled in the Ifugao Arts, Culture Tradition subject.

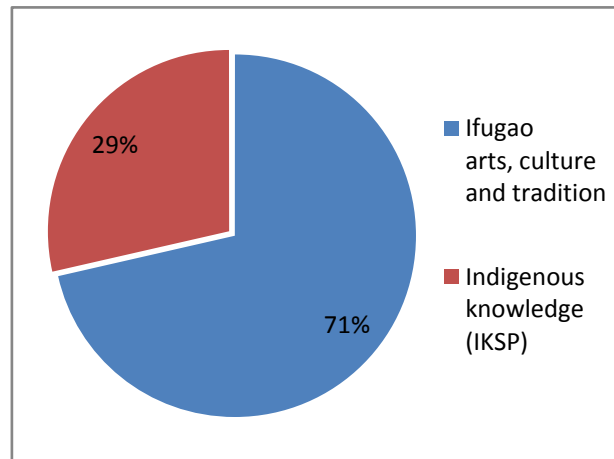


Figure 5: Subjects of respondents

F) Ethnic group where parents belong and dialect/language spoken at home

The ethnic affiliation of the respondents is illustrated in table 4. Forty eight or 48.98% of the students are Tuwali, forty nine or 50% of the fathers are also Tuwali and 41 or 41.84% are mothers who are Tuwali. Two or 2.04% are Keley-i. It concludes that majority of the students belong to the Tuwali group even their parents. Very few respondents are Keley-I which is another ethnic affiliation of Ifugao.

Table 4. Ethnic Affiliation of Respondents

Ethnic Affiliation	Student		Father		Mother	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
No Response	8	8.16	7	7.14	6	6.12
Tuwali	48	48.98	49	50.00	41	41.84
Kalanguya	19	19.39	14	14.29	17	17.35
Ayangan	24	24.49	22	22.45	27	27.55
Keley-i	2	2.04	0	0.00	2	2.04
Others	5	5.10	7	7.14	6	6.12

When the respondents were asked about the language being spoken at home, 59 or 60.20% of the students claimed they speak Tuwali at home, 53.06% speak Filipino and 51.02% speak English. No one among the respondents speaks Keley-i. The respondents also noted that 53.06% of their fathers speak Kalanguya, 32.65% speak Filipino and 22.45% speak English at home. The respondents cited that 58.16% of the mothers speak Kalanguya, 38.78% speak Filipino and 22.45% speak English. This means that Tuwali, Filipino and English are the main languages spoken at home. However it is interesting to note that students speak Ilokano at home while parents do not speak it. This manifests the influence of the Ilokanos to the Ifugaos. Lamut, Ifugao where IFSU is located is a melting point of races and majority of the residents are Ilokanos. The parents of the students may also be speaking Keley-I but the students do not use it in communicating.

Table 5. Language Spoken at Home by Students

Language	Student		Father		Mother	
	Frequency	Percentage	Frequency	Frequency	Percentage	Frequency
Tuwali	59	60.20	6	6.122	6	6.12
Kalanguya	15	15.31	52	53.06	57	58.16
Ayangan	15	15.31	13	13.27	15	15.31
Keley-i	0	0.00	18	18.37	19	19.39
Ilocano	31	31.63	0	0.00	0	0.00
Tagalog	52	53.06	32	32.65	38	38.78
English	50	51.02	22	22.45	22	22.45

G) IK Holders in the family and IK specialization

The IK holders in the family could be the parents of the students or their grandparents. Table 6 shows that 42.86% of the paternal grandfathers of the respondents are IK holders. Only 1.02% claimed that mothers are IK holders. This shows that majority of IK holders are the grandfathers from the father side. Only 21.43% of the maternal grandfathers are IK holders.

Table 6. IK Holders in the Family

IK Holders in the Family	Frequency	Percentage
Father	8.0	8.16
Mother	1.0	1.02
Paternal Grand Father	42.0	42.86
Paternal Grand Mother	16.0	16.33
Maternal Grand Father	21.0	21.43
Maternal Grand Mother	15.0	15.31
Uncle	3.0	3.06

Table 7 presents that 43.88% of the IK holders are indigenous priests (Mumbaki), 41.84% do not have specialization, 32.65% are Narrators or Manonton, and 28.57% Munkiwa or rice wine makers.

There are only 2.04% of each of the respondents who are indigenous law makers, munpahok, muntuping or stone wall experts, Mungaud or rice field experts, and Munhap-ud or indigenous blower. This explains that IK holders are getting extinct thus, the need to transmit IK to this generation and the generation to come.

Table 7. Specialization

Specialization	Frequency	Percentage
None	41	41.84
Hudhud (Indigenous song)	5	5.10
Manonton (narrator)	32	32.65
Mumbaki (indigenous priest)	43	43.88
Munkiwa (rice wine maker)	28	28.57
Indigenous Law Maker	2	2.04
Munpahok (one who wedges)	2	2.04
Muntuping (stone wall maker)	2	2.04
Rituals	3	3.06
Dances	5	5.10
Mungaud (rice field expert)	2	2.04
Munhap-ud (indigenous blower)	2	2.04

2. IK before and after an IK class

There are nine areas that were covered in the teaching of IK to the students. These are Land, Water Use and Management, Indigenous Rice Production Practices, Indigenous Biodiversity Conservation Practices, Indigenous Stone Works, Indigenous House Construction, Indigenous Laws and Justice System, Ifugao Rituals on Health, Agriculture, Politics etc. and Ifugao Dance and Festivals. The first chapter is the introduction.

Table 8 reveals a p-value of 0.000 indicating that there is significant difference on the level of indigenous knowledge before and after the students took IK classes. This implies that teaching IK students has increased their knowledge in the eight areas. However while there is an increase in knowledge, the overall mean after the students took an IK class is 2.98 which is only with a knowledgeable level.

Table 8. Indigenous Knowledge of Respondents

INDIGENOUS KNOWLEDGE		Before		After	
1.	Land, Water Use and Management				
1.1.	Land forms	2.30	SK	3.17	K
1.2.	Water forms	2.27	SK	3.11	K
1.3.	Water management	2.23	SK	3.09	K
2.	Indigenous Rice Production Practices				
2.1.	Types of indigenous rice (rice varieties)	2.25	SK	3.14	K
2.2.	Rice fields	2.48	SK	3.20	K
2.3.	Farming tools	2.49	SK	3.22	K
2.4.	Rice production and cropping patterns	2.21	SK	3.05	K
2.5.	Irrigation system	2.04	SK	2.94	K
2.6.	Activities after harvest	2.12	SK	3.06	K
2.7.	Yeast making and rice wine making	2.16	SK	3.06	K
3.	Indigenous Biodiversity Conservation Practices				
3.1.	Indigenous plants	1.91	SK	2.80	K
3.2.	Indigenous animals	1.98	SK	2.84	K
3.3.	Biodiversity	1.95	SK	2.74	K
3.4.	Ifugao indigenous biodiversity conservation practices	2.02	SK	2.83	K
4.	Indigenous Stone Works				
4.1.	Stone wall construction (Muntuping)	2.08	SK	2.93	K
4.2.	Indigenous stone tiling (Mundakdak)	1.88	SK	3.44	K
5.	Indigenous House Construction				
5.1.	Types of indigenous houses in Ifugao	2.06	SK	3.00	K
5.2.	The indigenous mode of house ownership	1.92	SK	2.75	K
5.3.	The architecture of the Ifugao native house	1.92	SK	2.83	K
5.4.	The external parts and the foundation of the native house	2.01	SK	2.90	K
5.5.	Steps in the construction of the native house	1.71	SK	2.58	K
6.	Indigenous Laws and Justice System				
6.1.	Indigenous laws	1.81	SK	2.69	K
6.2.	Justice system	1.83	SK	2.76	K
7.	Ifugao Rituals: On health, agriculture, politics, etc.				
7.1.	Rituals	2.04	SK	2.89	K
8.	Ifugao Dance and Festivals				
8.1.	Ifugao dances	2.41	SK	3.24	K
8.2.	Festivals	2.43	SK	3.24	K
Overall Total		54.51	SK	77.5	K

t-value=29.23

p-value=0.000

There is significant difference on the level of IK knowledge before and after the student took IK class

Significant difference on the knowledge gained when respondents were grouped by profile.

Age

Table 9 shows a p-value of 0.042 which reflects that there is a significant difference on the knowledge gained by the students as to age. The students whose age bracket is from 15 -19 years old learned more in their IK subject than those who are older. This indicates that younger students were more interested to learn about IK than the older ones.

Table 9. Age of Respondents

Age	Mean	SD	t-value	p-value	Remarks
15-19	0.948	0.524	3.874	0.042	Significant
20-26	0.715	0.629			Difference

Gender

The p-value of 0.067 in table 10 presents that there is no significant difference on the knowledge gained about IK as to gender. Both male and female students had the same level of knowledge learned in IK classes.

Table 10. Gender of Respondents

Gender	Mean	SD	t-value	p-value	Remarks
Male	0.665	0.418	3.445	0.067	No Significant
Female	0.919	0.600			Difference

Course

Table 11 reflects a p-value of 0.001 which means that there is a significant difference on the knowledge gained by the students per course. The mean score is 1.1541. It shows that the Bachelor in Elementary Education students gained more knowledge about the subject than the Bachelor of Arts in Political Science students. Among the reasons to be considered are the interest of the student and the scheduling of the subject.

Table 11. Courses of Respondents

Course	Mean	SD	t-value	p-value	Remarks
AB Political Science	0.7454	0.528	-3.357	0.001	Significant
Bachelor in Elementary Education	1.1541	0.584			Difference

Residence

Table 12 illustrates the residences of the students. The p-value of 0.330 indicates that there is no significant difference on the knowledge gained by the students and their residences. It means to say that whether the students come from District 1, District 2 or outside Ifugao, the knowledge they gained from their IK class is the same.

Table 12. Residences of Respondents

Residence	Mean	SD	t-value	p-value	Remarks
District 1	0.849	0.536	1.120	0.001	No Significant Difference
District 2	0.782	0.383			
Outside Ifugao	1.093	0.966			

Ethnic Affiliation

Table 13 shows the ethnic affiliation of the respondents. The p-value of 0.946 indicates that there is no significant difference on the knowledge gained by the respondents as to ethnic affiliation. This means that whether the respondents are Tuwali, Ayangan, Kalanguya or from other ethnic groups they all have the same knowledge gained from their IK classes.

Table 13. Ethnic Affiliation of Respondents

Ethnic Affiliation	Mean	SD	t-value	p-value	Remarks
Tuwali	0.829	0.629	0.124	0.946	No Significant Difference
Ayangan	0.863	0.469			
Kalanguya	0.899	0.608			
Other	1.953	0.227			

Teachers of IK

Table 14 illustrates that 77.55% of the parents and 52.04% of their relatives taught the respondents about IK. Only 1.02% of the siblings taught about IK. This means that majority of the parents and relatives transmitted IK to their children.

Table 14. Teachers of IK

Who taught IK	Frequency	Percentage
Parents	76	77.55
Relatives	51	52.04
Friends	27	27.55

Indigenous Priest	11	11.22
Teacher	20	20.41
Grandparents	5	5.10
Sibling	1	1.02
Community/Observation	2	2.04

Extent of Practicing IK

The respondents' answers when they were asked to what extent they practiced their IK was that they just know what it was with a percentage of 33.70%. Twenty eight percent claimed that they tried it several times and only 13.3% said they had chances to use it regularly. It is therefore concluded that majority of the respondents know their IK but are not practicing it. A lesser percentage of the respondents used their IK most of the time.

Table 15. Extent of practicing IK

Extent of Practice	Frequency	Percentage
I just know what it is	33	33.7
I have tried it several times so far	28	28.6
I have chances to use it several times a year/ I use it regularly	13	13.3
I can teach it to others	24	24.5
Total	98	100.0

Grades in IK Class

According to the students, 45.90% of them claimed they had a grade in IK ranging from 85-89% and only 2% had grades of 95% and above. This shows that majority of the students got an average grade in IK. What is interesting to note was that nobody of the respondents failed in their subjects.

Table 16. Grades in IK class

Grade	Frequency	Percentage
75-79	13	13.3
80-84		14.3
85-89	45	45.9
90-94	24	24.5
95 & above	2	2.0
Total	98	100.0

Future Prospects

After graduation, 61.22% of the respondents noted that they preferred to teach, 38.78% planned to be employed in the local government units, 33.67% in agriculture and 2.04% had not thought of getting employed after graduation. This indicates that a bigger number of the respondents prefer to become teachers and transmit IK to the next generation. It is also shown in the data that there are still students who do not have plans of applying their IK.

Table 17. Sectors the respondents plan to apply IK

Sectors	Frequency	Percentage
None	2	2.04
Business	16	16.33
Local Government Units	38	38.78
Non-Government Organizations	24	24.49
Teaching	60	61.22
Agriculture	33	33.67
Local Industry	6	6.12
Others	4	4.08

Respondents' Choice where to apply for a job

As presented in figure 3, 60% of the respondents choose to apply for a job outside Ifugao. Thirty nine or 40% prefer to work in the province. This means that majority of the respondents intend to apply their knowledge, skills and education outside Ifugao and this is also a manifestation of embracing the concept of internationalization where the job market is not only in the province. When those who want to go only out of Ifugao were asked if they want to come back to Ifugao, only three of the respondents said they prefer not to come back home.

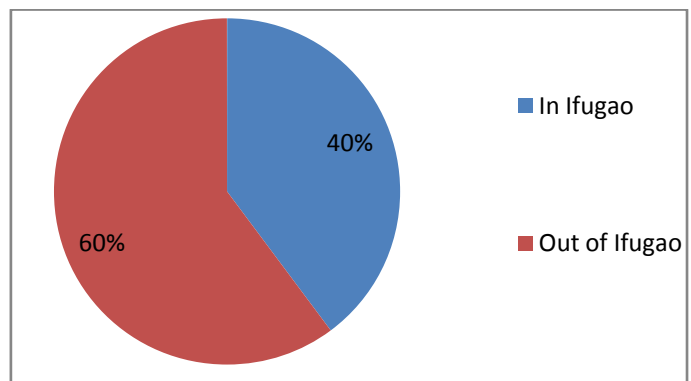


Figure 3. Respondent's choice of where to apply for a job

The respondents explained that they have chances of applying their IK in the future. They indicated the following scenarios where they can promote their IK. They said yes, they can apply their IK in the following fields:

1. Teach IK to future learners, friends and those interested about IK so that Ifugao identity will not vanish despite modernization.
2. Teach IK to children so they will not be alienated from their Ifugao culture.
3. Knowledge in Indigenous Knowledge helps one becomes an IK holder.
4. Profound IK makes one correct erroneous knowledge about the Ifugaos thus making foreigners appreciate Ifugao culture.
5. IK makes one prosper in local business and ignite nationalism.
6. IK application is a nature friendly way of preserving and protecting mother earth/ environment.

4. Conclusions

Based from the results, the following conclusions were decided:

1. The respondents are generally teenagers, females, from Banaue and Kiangan, Ifugao, who speak Tuwali, Bachelor in Political Science students, enrolled in Ifugao Arts, Culture and Tradition subject, with their paternal grandfathers who are IK holders and are indigenous priests (Mumbaki) and narrators or Manonton.
2. The respondents have an increased level of IK in all areas contained in the NIKE book after they enrolled in an IK class
3. There is a significant difference on the IK of students before and after taking an IK class as to age and course. There is no significant difference on the IK of students before and after taking an IK clas as to gender, residence and ethnic affiliation.
4. The parents and the relatives of respondents are their IK teachers.
5. The respondents are knowledgeable about IK but are not practicing it.
6. Majority of the respondents have IK grades that range from 85-89%.
7. When the students will graduate, majority of them shall apply their IK by teaching.
8. After graduation, majority of the respondents prefer to work outside Ifugao.

5. Recommendations

The recommendations below are also the strategies on how to increase IK.

1. Students who have paternal grandparents and are IK holders should take the initiative to learn more about IK from their parents. The grandparents who are IK holders could also be tapped as resource speakers.
2. It is important to include IK across all curricula during the revision of curricula in the tertiary level for in this way majority if not all of the students will preserve and promote it.

3. Younger students should continue to learn more about IK and influence older students to be educated about IK.
4. Parents and relatives of respondents who are IK holders should be invited as speakers in IK classes. Students are strongly encouraged to learn from their IKs at school, the community and during documentation processes.
5. Students could still increase their average grades by giving their best in their studies by doing more researches and getting involved in class activities will help.
6. Students after graduation when they apply their IK through teaching should be recognized or given awards especially for BEE since acquisition of the Ifugao culture is done at the early stages of education (K-12 program).
7. Ifugaos who intend to work abroad are encouraged to continue to share their IK to acquaintances and over the workplace. Those who do not plan to come back home in Ifugao should think that there is no place like home and may consider going home.
8. Similar studies like this should also be conducted before and right after the IK classes of the students.

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