

Nursing and Intuition
—— What Can Second Language Acquisition
Contribute to the Profession ——

Eric E. Larson

【Abstract】

The problem being addressed here is not an argument for linear data analysis^{1) 2)} or intuitiveness in nurses decision-making^{3) 4)}. If it is the goal of the nursing profession to assist their patients in the best way possible⁵⁾, both decision-making processes have their merits and should be linked in a symbiotic relationship.

The problem being looked at here is, "Does the secondary language acquisition (SLA), English in this study, help the nursing profession in Japan, in respects to decision-making. If so, shouldn't there be more emphasis on secondary language acquisition, especially English, in nursing curriculums? And if so, what is the best way, in terms of cost efficiency and accountability, to go about this unique problem of required English classes and English acquisition in Japanese nursing universities."

This is the first part of an eight year longitudinal study into the matter of a possible connection between SLA and intuition in nursing. Levels of English skills and intuition were established. Correlational research was conducted to see how second year nursing students fair in these categories.

Results in Figures #1 & #2 were tabulated using EPER/EIKEN scores for students' English levels and KIIS/MBTI for intuitional levels. It was found that the higher the English scores, the higher the scores were on intuition.

In a final discussion of the possible connection between English abilities and levels of intuition, a significant correlation was found to exist. Instrumentation could be improved by better means or analysis as well as a larger population study. Other factors may also be responsible for the outcomes in this study, but clearly there seems to be a relationship between the acquisition of a secondary language and the levels of intuition that seem to benefit from the secondary language acquisition in nursing students.

【Key words】 Intuition, Nursing, Secondary language acquisition

I INTRODUCTION

This study concentrates on secondary language acquisition for nursing students at a nursing university in Kyushu. Currently, one class per week for first, second, and fourth year students is offered in the curriculum with an elective course for second year students. Out of 109 courses in four years of

study, students are required to take three English classes with the option of the one elective course in their second year. All classes meet approximately 30 times/class for 90 minutes during a one year span of time.

Considering the point of importance in the medical field of the English language (the university subscribes to over 60 medical English journals

alone, not to mention the non-medical magazines and newspapers), it is of some concern that not enough hours of English are being taught in the nursing universities to prepare nursing students for their roles as the primary caregivers in Japan's society as well as a heavy emphasis on the wrong area of English education.

The acquisition of knowledge is one of the primary functions of higher education ⁶(Woolfolk 1995). In the nursing field, knowledge has been shown to exist in two distinct, but very separate areas. These are the analytical assessment-based data ^{1) 7) 8) 2)} and intuition ^{3) 9) 4) 10)}. Through these acquisitions of nursing knowledge, it was also found that the more experience and knowledge a nurse had, the more intuitive a nurse became ¹¹⁾. So, if one considers the acquisition of a second language knowledge, shouldn't nursing universities be doing more to help nursing students with their intuitive skills?

Unfortunately, we now live in times that require both validation and cost effectiveness, especially in hospital and nursing University settings of rising costs and pressure from the administration to prove the worth of capital outlays.

This research will try to find a balance between the validation of intuitive nursing and analytical assessment-based data and how English, in a cost efficient way ¹²⁾, can improve the field of nursing in Japan. The usage of a strong program in reading in English ¹³⁾, not only for medical nursing knowledge, but also reading for enjoyment ¹⁴⁾ will be looked at.

II METHODS

A. INTUITION IN JAPANESE NURSING STUDENTS

Two instruments were used to determine the second year nursing student's levels of intuition.

First was the Kuroda Intrinsic Intuition Scale (KIIS). This was in the form of a simplified version devised by Yuko Kuroda of Japan Red Cross College of Nursing ¹⁵⁾. The second instrument used was the Myers-Briggs Type Indicator (MBTI) Form G, commercially produced by Consulting Psychologists Press, Inc. ¹⁶⁾. The relationship of two factors for the intuitional part was examined. The problem being addressed was to get concrete data on second year nursing students levels of intuition to be statistically analyzed.

Design

The research design to examine the relationship between intuitional factors was a correlational survey. To the best of the researcher's knowledge, this relationship between the two instruments has not been formally established, so the focus of this part of the study was to gather data on intuition to be analyzed later with SLA instrument data in a population of second year nursing students.

Sample

Pretesting sample of two nursing personnel with high English skill levels and one English teacher was conducted. One nurse had over 20 years nursing experience and the other with over 10 years nursing experience, and the English teacher had over 5 years of teaching experience. Only the MBTI was carried out. Results tested high in the area of intuition with the 20 year experienced nursing registering the highest point value of four fitting in the ENFP quadrant of the sample, the nurse with 10 years of nursing experience also tested high, gaining three out of the total four possible points for this sample, fitting in the ISTP quadrant, and the English teacher also fit into the highest quadrant of ESFP with a total of four points. Results of pretesting fit a pattern of advanced

nurses and also advanced teachers, ie, advanced learners, showing high levels of intuition.

In the main part of the research, a correlational sample of the second year nursing students from Kyushu, Japan, was used. The type and sample of the location was chosen so that the researcher could participate in the data collection and facilitate that process more satisfactory. All second year nursing students were asked to participate from a selected prefectural nursing university. Once again, reasons of time constraints, practical and economical factors were taken into consideration over the possibility of the population not being as typical of a population as the researcher would have liked.

Sample size is of course a major concern in a correlational study. Out of a class size of 104, 93 were present on the testing day (8 males and 85 females, average age ; 20.5).

Instruments

Two instruments were used. The first is a simplified version of Kuroda's Intrinsic Intuition Scale (KIIS). This was in the form of a simplified questionnaire originally devised by Yuko Kuroda of Japan Red Cross College of Nursing (Kuroda 1995) which has been used on several occasions in the past to measure intuition in Japanese nursing students. The second instrument used was the Myers-Briggs Type Indicator (MBTI) Form G, commercially produced by Consulting Psychologists Press, Inc. (Myers, 1993) which is used throughout the entire world for means of psychological typing which can help people identify their strengths and unique gifts. Permission was asked and granted to translate the MBTI Form G into Japanese for ease of administration to the tested population.

Cross referencing was used to establish the second year nursing students' levels of intuition.

Procedure

The researcher contacted the dean of the university and asked for permission to test the second year students. Verbal permission was granted and testing was conducted during one class period for 90 minutes.

The KIIS test consisted of 26 questions in six areas testing students on a wide range of content involving intuitional processes. The answers were in a simplified form of answering either yes or no to the questions in how they felt. All questions were in Japanese. The test is quick and easy to take as well as to mark. The testing procedure was explained and verbal consent by all attending students was given.

At the end of the testing period, the test answer sheets were collected and hand tabulated twice. Each second year nursing students' KIIS test score was calculated by adding up the yes answers.

For the MBTI, Consulting Psychologists Press, Inc. was contacted and asked if a translation of their MBTI for ease of testing could be done in Japanese. Their licensure department granted permission and a Japanese version was made.

The MBTI Form G Japanese Version as well as the Myers-Briggs Prepaid Profile Report was also handed out along with the KIIS test. The KIIS test was conducted first. About 10 minutes was all that was necessary for the KIIS test. Next, the MBTI test was conducted. Careful directions were followed in the preparation of the computer scored profile report. The MBTI Form G consisted of 126 questions in three parts. There is no set time limit for the completion of either the KIIS or the MBTI tests, so the entire 90 minutes was used, even though most students finished earlier than the class period of 90 minutes.

The MBTI Form G Profile Report was col-

lected and counted twice to make sure all forms were accounted for. A list of the tested names was made and sent along with the Profile Report as instructed by the company.

The packet of the MBTI Profile Reports was sent by registered express mail the following day to Consulting Psychologists Press, Inc. in Palo Alto, California. The results were returned a week and a half later by registered express mail.

B. SLA FOR NURSING STUDENTS IN JAPAN

Examination of the relationship of two factors for the Secondary Language Acquisition (SLA) were looked at. The problem being addressed here was to get concrete data on the second year nursing students performance in the English language to be statistically analyzed in determining whether SLA plays an important role in the intuitional processes of nurses.

Design

The research design to examine the relationship between SLA factors was a correlational survey. Once again, knowledge of this relationship has not been formally established, so the focus of this part of the study was to gather data on cognitive development in terms of SLA to be analyzed later with intuition in a population of second year nursing students.

The correlational design is used when a researcher anticipates a given relationship among variables and wants to determine what relationships exist in a given situation between two or more variables (Fraenkel et. all, 1996).

Sample

In this research, a correlational sample of the second year nursing students from Kyushu, Japan, was used. The type and sample of the location was chosen so that the researcher

could participate in the data collection and facilitate that process more satisfactory. All second year nursing students were asked to participate from a selected prefectural nursing university. Once again, reasons of time constraints, practical and economical factors were taken into consideration over the possibility of the population not being as typical of a population as the researcher would have liked.

Sample size is of course a major concern in a correlational study. Out of a class size of 104, 98 were present on the testing day (8 males and 90 females, average age of 20.5). One sample was not used due to insufficient data.

Instruments

Two instruments were used: their highest scores of their high school STEP (Standard Test of English Proficiency) Test developed by Eikyo (1967), and EPER's (Edinburgh Project on Extensive Reading) Extensive Reading Test developed by the University of Edinburgh (IALS University of Edinburgh, 1998).

The STEP Test is a nationally available test of overall English proficiency in the areas of grammar, vocabulary, English conversation, reading and spoken English in Japan.

EPER's Extensive Reading Test is also a commercially available test specifically design to measure the general proficiency of reading.

Cross referencing was used to establish the second year nursing students' levels of SLA.

Procedure

The researcher contacted the dean of the university and asked for permission to test the second year students. Permission was granted and testing was conducted during one class period for 60 minutes, the recommended length of time by EPER.

The test consisted of 141 questions testing students on a wide range of levels from post-

beginner to educated native speaker. It consists of a series of cloze passages, which begin at a very low level and become more and more difficult. The test is quick and easy to mark.

There are five versions of the EPER placement/Progress Test. Each comes with a scores conversion table allowing you to convert the scores from any one version of the test onto a scale which is common to all the tests. Direct comparisons between scores obtained on different versions of the test are possible. EPER Placement/Progress Test A was used for testing.

At the end of the testing period, the test answer sheets were collected and hand tabulated twice. Each second year nursing student's EPER Placement/Progress Test score was calculated using the Score Guide. Actual scores

TABLE 1
EPER/EIKEN & KIIS/MBTI RESULTS
(in numbers of participants)

LEVELS*	EPER	EIKEN	ENG #	KIIS	MBTI	INTUI #
Low	11	38	21	25	15	13
Medium	46	23	58	55	43	46
High	41	10	29	15	35	34
N/A	6	15	5	9	11	11
NON		18				
Totals	104	104	104	104	104	104

N/A = not available (information not given by participants)

NON = has never taken the EIKEN test

* For EPER & EIKEN Final Scores :

0 - 3 were graded as low

4 - 6 were graded as medium

7 - 9 were graded as high

For KIIS & MBTI final Scores :

0 - 8 were graded as low

9 - 15 were graded as medium

16 - 24 were graded as high

TABLE 2
FINAL DATA SCORES

GROUPS	LOW ENGLISH	HIGH ENGLISH	TOTALS	%
L/L**	5		5	5%
L/M	13		13	14%
L/H	1		1	1%
M/L	3	3	6	7%
M/M	10	15	25	27%
M/H	8	15	23	24%
H/L		2	2	2%
H/M	1	9	10	11%
H/H		8	8	9%
TOTALS	41 (10 students excluded)	52 (1 student excluded)	93*	100%

* Out of a total of 104 second grade students, 93 were used for the final data. 11 students were excluded due to either not taking the tests or insufficient data.

** The first or left side L-M-H refers to the EPER & EIKEN final scores (English abilities)
The second or right side L-M-H refers to the KIIS & MBTI final scores (Intuition abilities)

were then converted to Standard Score form once again using the available Score Guide. Student's levels were then assigned one of 9 levels depending upon the outcome of their Standard Score.

For the STEP Test part of the procedure, students were asked to list their highest level they have reached in the STEP Test. Once again, student's levels were assigned one of 5 levels depending upon the outcome of their STEP Test score.

III RESULTS

Two major areas of interest (SLA & intuition) will be looked at. Table 1 shows the final results of all four testing devices (EPER, EIKEN, KIIS, and MBTI) as well as their final tabulated scores (ENG # & INTUI #) and the final score (FINAL in both the English part and intuition part). Rankings of low, medium, and high were given as a final score to keep the results simple to read and classify in both categories of English and intuitional levels.

Table 2 shows the Final Score Data for the 9 groups of low medium-high scores broken down into two groups of comparable sizes: Low English EPER Group and High English EPER Group. The reasoning for this was to see an easier comparison of how low English ability students and high English ability students compare in intuition.

The first thing to notice is that the low English group had ten students whose data could not be used vs. only one in the high English group. The low English group had one student in the high English score group due to the participant's high EIKEN score. The high English score group had no participants in the lower end of the English scores.

Next, the low English group had eight participants in either low or medium English levels that fell into the low intuition level, and nine participants from all three levels of English abilities in the high category for intuition. Twenty-four participants from the low and medium English groups fell in the middle ranges for intuition. One participant from the low English group didn't fit the pattern falling into the H/M group.

The high English group's medium and high English levels had five participants who were in the low intuition level, twenty-four participants in the medium intuitional levels, and twenty-three partici-

pants in the high intuitional levels.

These results clearly point to a correlation between levels of English proficiency and levels of intuition in second year nursing students.

In the future, this study will be replicated two more times and an intensive reading program for the low English groups will also set up to see if it is possible to raise their English scores and therefore, raise their levels of nursing intuition.

IV DISCUSSION

Results for intuition indicate a significant correlation between KIIS and MBTI test scores. The greater the KIIS score, the higher the levels of intuition.

As for the MBTI test, results concerning combinations of perception and judgment, over half the scores (56%) were found in the center two lateral quadrants (SF & NF) which are more closely related with intuitional processes vs. the outer two lateral quadrants (ST & NT) which are related to analytical processes. In addition to these findings, the most common raw score (ESPF) and the most common grouping (ISPF) also fall in the same middle lateral quadrant (SF). SF & NF types tend to do well in health care fields.

Horizontal quadrants, also known as combinations of direction of energy and external orientation, find the overwhelming majority (67%) once again in the middle two quadrants (IP & EP) which tend to be introspective, adaptable, dealing with changes and seeking new experiences vs. the upper and lower horizontal quadrants (IJ & EJ) which tend to show persevering characteristics in the upper quadrant and fast moving in the lower horizontal quadrant.

The results show that the effects of combinations of judgmental and external orientation put

the majority (38%) of all groups in a quadrant called FP, or gentle types who tend to be adaptable, harmonious, and are concerned with the human aspects of problems.

Raw Scores points of 6-7-8 from KIIS and MBTI were tabulated. Their findings were consistent with the above data: 77% (34 out of 44) fell in the SF & NF quadrants, 91% (40 out of 44) fell in the IP & EP quadrants, and 68% (30 out of 44) fell in the FP quadrant.

The results for English acquisition indicate there is a significant correlation between EPER and STEP test scores. The greater the score on both tests, the higher their levels of SLA.

Improvement on instrumentation could come from three areas. First, the student's STEP Test scores are at least one year old. Newer scores would give a clearer picture. Secondly, scoring sheet results of the STEP Tests can assist in the breakdown of points from each area by how many points they passed by. Next would be to use student's TOEFL scores as another instrument in gauging English scores.

It is the belief of the examiner that due to the constraints of time and funding of English education in nursing universities, a stronger English reading program for nursing should be implemented. Nursing students English abilities would increase, thereby making them better nurses, both intuitively and analytically. Ways of implementation should be looked at for the improvement of the overall field of nursing.

【QUOTED SOURCES】

- 1) Mallick, Joan. Patient assessment-based on data, not intuition. *Nursing Outlook*, Oct., 1981, 600-605. (1981).
- 2) Walsh, Mike. Accountability and intuition: Justifying nursing practice. *Nursing Standard*, 1997, 11, 23, 39-41. (1997).
- 3) Benner, Patricia. *From novice to expert: Excellence and power in clinical nursing practice*. Menlo Park, CA: Addison-Wesley. (1984).
- 4) Rew, Lynn, & Barrow, Edward M.. Nurses intuition: Can it coexist with the nursing process? *AORN Journal*, Aug. 1989, Vol.50, No.2, 353-358. (1989).
- 5) UKCC. *Code of Professional Conduct*. UKCC, London. (1992)
- 6) Woolfolk, Anita E.. *Educational Psychology, Second Edition*. Simon & Shuster. (1995).
- 7) Radwin, Laurel E.. Research on diagnostic reasoning in nursing. *Nursing Diagnosis*, 1990, 1, 2, 70-77. (1990).
- 8) English, Ian. Intuition as a function of the expert nurse: A critique of Benner's novice to expert model. *Journal of Advanced Learning*, 1993, 18, 387-389. (1993).
- 9) Agan, David. Intuitive knowing as a dimension of nursing. *Advances in Nursing Science* Oct. 1987, 63-70. (1987).
- 10) Benner, Patricia, & Tanner, Christine. Clinical judgment: How expert nurses use intuition, *American Journal of Nursing*, 1987, Jan., 23-31. (1987).
- 11) Benner, Patricia. From novice to expert. *American Journal of Nursing*, 1982, 402-407. (1982).
- 12) Helgesen, Marc. What one extensive reading program looks like. *The Language Teacher*, 21, (5), 31-33. (1997).
- 13) VanArsdale, Stephanie K. & Hammons, James O.. Student-oriented learning outlines: a valuable supplement to traditional instruction. *The Journal of Continuing Education in Nursing*, (1998) Volume 29, (1), 22-26. (1998).
- 14) Nation, P.. The language learning benefits of extensive reading. *The Language Teacher*, May 1997, 21, (5), 13-16. (1997).
- 15) Kuroda, Yuko. Kuroda Intrinsic Intuition Scale: KIIS. *The Japanese Red Cross College of Nursing*, 4-1-3, Hiroo, Shibuya-ku, Tokyo, Japan 150. (1995).
- 16) Myers-Briggs, I. *Myers-Briggs type Indicator, Form G*. Palo Alto: Consulting Psychologists Press, Inc. (1993).

【REFERENCE SOURCES】

- Fraenkel, Jack R., Wallen, Norman E.. *How to design and evaluate research in education*, Third Edition, McGraw-Hill, Inc. (1996)
- Hill, David R.. *Edinburgh project on extensive reading*. Institute for Applied Language Studies, University of Edinburgh, 21 Hill Place, Edinburgh EH8 9DP, Scotland. (1997)
- Step Test. *Nihon Eigo Kyoiku Kyo Kai*, 55 Yokotera-cho, Shinjuku-ku, Tokyo Japan 162.

看護と直観能力について： 第2言語習得の看護職への貢献度

エリック E. ラーソン

【抄 録】

本研究は、看護職者の意思決定における linear data 分析^{1) 2)} や直観能力^{3) 4)} について個別に議論するものではなく、看護の目指す役割が「最善を尽くした看護」であるならば⁵⁾ (UKCC 1992)、意思決定過程において両者が相乗効果を持つという立場から議論するものである。

本研究は、「第2言語習得と直観的能力の看護における潜在的相関関係性」についての8年にわたる研究への導入的考察であり、「日本における看護職者が意思決定を行う際に、第2言語（ここでは英語）を習得していることが有益となる」という仮説について議論する。この仮説が正しいとすれば、看護学校・大学はもっと第2言語習得への積極的な姿勢が必要とされる。さらに、費用効率と財務責任という点をふまえ、国内の看護大学において必修英語とその習得についてどう扱うべきか、最善策について考察する。

考察方法は、予め英語能力と直観能力のレベルを設定し、看護大学2年生が第2言語習得と直観的能力という2点においてどのように呼応しあうかを調査分析するものである。

まずは、EPER/EIKEN で英語力を、KIS/MBTI で直感力を測り、表#1と表#2に表してある。これにより、英語の点数が高い程、直感的思考能力も優れていることが読み取れ、英語能力と直感能力の間には、密接な関係があることが実証されている。

従って、看護大学生に於いて、第二言語習得と直観的能力の関連性が明白になり、本研究の仮説の正当性が認められたのである。

【キーワード】直観，看護，第2言語習得