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South Korea Tutorial Via Web

An Interactive Qualifying Project

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I. Abstract

Since I came to the U.S.A to study, I have noticed that Americans do not know much about Korea. All they knew about Korea was Hyundai Motor Company and the Korean War. This was the motivation that led me to create this web site in order to educate and eventually make Americans more interested in Korea and Korean culture. The web site was generated by 'Dream Weaver', web page generating software, and it was finished by editing the html source file. The information on the web site was researched from the Internet (Sites can be found in the background research section). After the web site was uploaded, I used the survey method in order to find out the quality, achievement, and effectiveness of the web site. First, the pre-test was taken by the volunteers to find out how much they already knew about Korea before they see or surf my web site. Next, the volunteers were given a week to spend some time to surf and read information on the web site. After using the web site, the post-survey was given to the volunteers in order to see their response to the web site and how much they have learned via the web site. Lastly, an analysis was done using the results of the two surveys (Results can be found in the result and discussion section).

The address of the web site in the project is 'www.wpi.edu/~dkum.'

II. Background Research

Information on Korea was not that hard to find, especially using the Internet. Since Korea is my mother country, I was also able to use my knowledge and add to the information I found from the Internet. The following is a list of the web sites that were very helpful for writing about Korea:

- 1. www.lonelyplanet.com/destinations/north east asia/south korea
- 2. www.cia.gov/cia/publications/factbook/geos/ks.html
- 3. fifaworldcup.yahoo.com/en
- 4. www.urinara.com
- 5. www.lib.utexas.edu/maps/korea.html
- 6. english.tour2korea.com/index.html

There were many more web sites that helped me with some details, especially the images and pictures, but the list above is the main source of research I used for my web site.

III. Methodology

As I start and plan the project, I decided to make goals or tasks that the web site should meet. Since the structure and design of the web site would depend on the tasks, at first I defined them in the following list:

3.1 Task Specifications

- 1. The web site must be user-friendly.
- 2. The web site must be interesting.
- 3. The information must be sufficient but not too long or detailed so that the users can read all the information and not get bored.
- 4. All questions on the survey must be appropriately included and explained in the web site.
- 5. The design must be simple but not too plain.
- 6. The web pages should have appropriate links.
- 7. The web pages must have sufficient images for the users to get more visual aids.

3.2 The Design of the Web Site

The plan of the web site

At first I drew a map of the web site that would be generated. The map was very helpful in deciding the structure of the web page and checking where I was in the project. The map can be found in the Appendix as Figure 1. As you can see from the map, there is a home page with 8 main sections. The 8 sections are Politics, History, Religion, Culture, Economy, Geography, Language, and Korea/Japan World Cup. There is also a sub-menu for 6 of the main sections.

The design of the Flash intro

Before I actually started designing the web site, I thought I needed something special to give users a strong and interesting impression about the site. Since I was designing a web site for the first time, it would not be as good as the professional web pages on the Internet so I needed something to catch the user's eye. I thought a simple Flash animation would give a good impression and make users interested in the web site.

Since I also did not have any experience with Flash, I had to get a book to learn how to make an animation. I followed the instructions explained in the book and created an animation that contains my logo, 'Dkum STUDIO'. I gave each letter and figure different kinds of movement with fade-in. After all figures and letters emerge, they soon fade out. Below the animation there is a button that leads a user to the home page.

The design of the home page

At first I divided the homepage into three frames: top, left, and main frames. The top frame contains the main menu bar, the 'WPI' logo, the 'dkum' logo, and an image of the 'Namdaemun', which is an old and huge gate in Seoul. Each box of the menu bar is linked to a corresponding page for information. I erased the typical underline of the links for better look of the menu. The 'WPI' logo is linked to the WPI main web site and the 'dkum' logo can be used to e-mail me. The left frame of the home page consists of the same menu bar as in the top frame. The main frame of the home page shows an introduction and motivation for the project. There are also images of events which will take place in Korea, brief information, and the survey form link.

The design of the sectional pages

Each section of the main menu is linked to a corresponding sectional page. All sectional pages consist of three frames. The top frame of the sectional page is very similar to that of the home page. However, it does not have the image of the 'Namdaemun' for the simpler look of the page. The left frame of each sectional page consists of a corresponding sub-menu bar with a background of the same color as in the main menu. To make them more recognizable and better looking, I made the links blue

and non-underlined. The links change its color to light gray when the mouse is over the link. Also once the link was clicked, the color changes to dark gray permanently. I put an image corresponding to the content in each sectional page for appearance and better understanding. Each image has a brief description for even easier understanding. The main frame of the sectional page contains either the entire information or a brief introduction with a sub-menu on the left frame. I used a bold font for words that are either important or are related to the questions in the survey. This should make it easier for users to read and find information that is key to the survey. In the main frame of the sectional pages I tried to make as many links as possible to let users get more detailed information. I tried to make the information in the web site simple and compact so as not to make users bored or scared of a lot of reading.

3.3 Survey and Analysis

I sent an e-mail to all WPI students to find volunteers for the survey. Fortunately, I received 30 replies, which are more than I expected. I sent e-mail to those 30 people again that explained how to do the survey. However, only 14 of them did the survey for me, even though I sent a few e-mails to remind them to finish the survey. I received a lot of advice and thoughts on my web site once I corrected all the surveys and made a few sheets of tables and graphs to analyze the results.

IV. Results

The evaluation of the web site was satisfactory. I corrected all questions and made tables to see the result easier. The first table, Figure 3, shows the percentage of the people who answered each question correctly for either pre or post-survey. The second sheet shows the score of each individual for both pre and post-survey. The last sheet shows the personal data of those surveyed and their ratings of the web site.

Refer to Appendix for these figures:

- Figure 1: The map of the web site
- Figure 2: The survey form with answers
- Figure 3: The table of the percentage of correct answer for each question
- Figure 4: The graph of the percentage of correct answer for each question
- Figure 5: The table of individual scores
- Figure 6: The graph of the individual scores
- Figure 7: The table of web site ratings

V. Discussion

5.1 Analysis on the question

According to Figure 3, I can conclude that people did not know much about Korea, since the average score was only 56.1% correct out of 20 basic multiple questions. However, the average score increased easily to 85.7% correct in the post-survey, from which I can also conclude that people have learned about Korea from my web site. The increase of the average can be easily seen from the graph in Figure 4. The front bars are scores from pre-tests and the bars behind are from post-survey.

In the difficulty of questions, question #1 was clearly the most difficult problem. Only 14.3% of people got it right in the pre-survey and 78.6% in the post-survey. On the other hand, people already knew about the capital of Korea, Samsung, and the oldest religion in Korea. The most improved question was the language problem (#11). Only 28.6% had the correct answer in the pre-survey but 92.9% people had the correct answer in the post-survey. It seems that questions about the capital city (#18), the oldest religion (#17), and Korean manufacturers (#15) were fairly easy in the pre-survey. In the post-survey most people answered correctly for the following five questions: questions about the Korean current president (#2), Taekwondo (#6), IMF Crisis (#8), Currency (#10), and Language (#11). It seems that people had a harder time with questions from 1 to 11. The volunteers did well in the Religion, Korean Manufacturers, and Geography sections, which are questions from 12-20.

5.2 Analysis on the individual

From Figure 5, I have noticed a few people already had some information about Korea. Since one of them was half Korean and half American, she was very interested in Korea and wanted to visit. Also there was one person who has already visited Korea for some reason. He showed a big interest.

Since a few people already have some knowledge about Korea, the real average of the pre-survey should be even lower, which means people are very unknowledgeable about Korea. The average score was increased by 29.6%, which should be same as the average score in the first table. Every person who took the survey showed improvement of the survey scores after looking at the web site. The lowest increase was 20% and highest was 50%.

As I graded and collected data of the post-surveys, I noticed that people did not read all the information on the web site, which I already expected. If it was forced for users to read all information, the increase of the average score would have been larger. I also found out that people with less interest in Korea showed lower increase of their scores.

5.3 Data of volunteers and web site ratings

The average age of the volunteers is 23 years old. The average rate of the interest in Korea increased from 7 to 7.29, which is not a big increase (#23). However, rate of 7 out of 10 shows that people already had some interest in Korea before they started the survey. The increase of rating their feelings about visiting Korea was slightly larger than that of interest in Korea. Although the actual point did not dramatically increase, people gave an average rate of 3.79 out of 5 for question #30, which is asking if the web site made users more interested in Korea.

From the analysis of the rating data, I found out that people were satisfied with the web site itself. The average rates of questions from 25 through 28 were above 4 and the rates of question 29 and 30 were slightly below 4. In other words people were less satisfied with the sufficiency of the information on the web site and with making themselves more interested in Korea. According to one of the comments I have received, there must be more information on social activity to actually make somebody interested. However, some people also gave me comments that they loved the design of the web site and it was very user-friendly. The rating for the question on if the web site was helpful to understand Korea was 4.12 and for the question on if the web site was easy to use was 4.21. The overall rating of the web site was 3.99, which is satisfactory.

VI. Conclusion

After I finished collecting and analyzing data, I concluded that the goal of the project was achieved, because the overall rating of the web site was 3.99 and many people commented that they learned a lot and liked its layout and structure. The increase of the scores from 56.1% to 85.7% is evidence that people gained knowledge about Korea.

Through the entire Project I have been through many processes such as research, design, writing, and survey, from which I have learned many things. From research, I have learned even more about my mother country. From design, I have learned how Dream Weaver and html file works. From writing, my English writing skill has improved a lot; especially the writing workshop was very helpful. Lastly from the survey, I have learned how to analyze data. Although I have successfully finished the IQP, if I had some more time, I could have added more information in the web site and make English flow smoother.

It was a great opportunity for me to learn how to make a web site, do survey people, and analyze data. I wish more people could visit my web site and get interested in Korea.

VII. Appendix

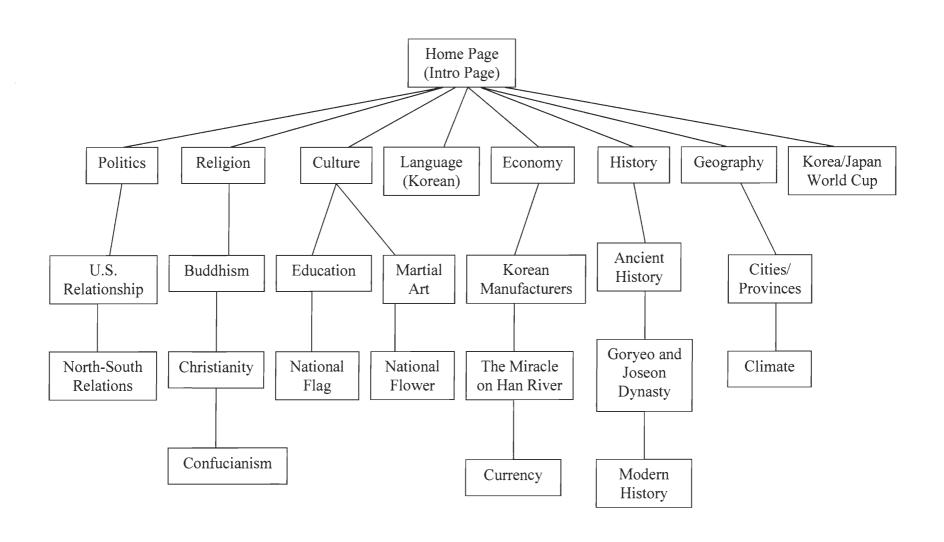


Figure 1: The map of the web site

Figure 2: The survey form with answers

Survey on Knowledge of South Korea

Name:		Major	: Cla	ass of:
In this survey,	Korea means or	nly South Korea (or Republic of Korea	(ROK), not North Korea
Brief Facts				
1. What is the	population in So	outh Korea?		
a. 10 million	b. 20 million	c. 35 million	d. 45 million	
2. Who is the	President of Sou	th Korea at the p	resent time?	
a. Young-Sam	Kim b. Jun	g-Hee Park	c. Dae-Jung Kim	d. Du-Hwan Chun
Culture				
3. In what yea	r the Korea/Japa	n World Cup wil	l occur?	
a. 2002	b. 2004	c. 2006	d. 2008	
4. How many	years of education	on are usually ne	eded before college e	ducation in Korea(not
including pre-	school education	n, i.e. kindergarte	n)?	
a. 11 years	b. 12 years	c. 13 years	d. 14 years	
5. What is the	population of co	ell-phone users in	Korea (% of all popu	ulation)?
a. 10%	b. 30%	c. 50%	d. 70%	
6. Which one	e of these marti	al arts is from k	Korea?	
a. Judo	b. Taekwon	do	c. Kungfu	d. Karade
Politics				
	s the president's	term?		
a. 3 years	b. 4 years	c. 5 years	d. 6 years	
7	, , , , , , , , , , , , , , , , ,	J -		

- 13. In what year did the Seoul Olympics take place in Korea?
- a. 1980
- b. 1984
- c. 1988
- d. 1992

Korean Manufacturer

- 14. Which of the following is **not** a Korean car manufacturer?
- a. Kia
- b. Subaru
- c. Hyundai
- d. Daewoo
- 15. Which of the following is a Korean company?
- a. Samsung
- b. Philips
- c. TDK
- d. Panasonic

Religion

- 16. What is the major religion in Korea today?
- a. Catholicism b. Buddhism
- c. Christianity d. Hinduism

Economy

- 8. In what year did Korea get financial help from IMF (International Monetary Fund)?
- a. 1974
- b. 1986
- c.1998
- d. 2001
- 9. When did the economy grow the fastest during the last century in Korea?
- a. 1930's
- b. 1950's
- c. 1970's
- d. 2000's
- 10. Approximately what is the currency rate of Korean Won vs. U.S. Dollar?
- a. 120 Won/Dollar
- b. 400 Won/Dollar
- c. 920 Won/Dollar
- d. 1300 Won/Dollar

Language

- 11. How many letters (including vowels and consonants) are there in Korean language?
- a. 10
- b. 24
- c. 36
- d. 45

History

- 12. When did the Korean War occur?
- a. 1940
- b. 1945
- c. 1950
- d.1955

17. What religion	on have the Kore	eans believed in	for the longest period of time?
a. Catholicism	b. Buddhism	c. Christianity	d. Hinduism
Geography 18. What is the	name of the Ko	rea's capital city	?
a. Pusan	b. Kwang-Ju	c. Dae-Jun	d. Seoul
19. Which one	of these words i	s <u>not</u> related to I	Corea?
a. Peninsula	b. Mountain	c. Islands	d. Low population per area.
a. Mostly cold	climate in Korea l b. Mo l but sometime	stly hot	c. Four distinct seasons
21. Where are a. Europe f. other	b. North Amer	ica c. Sou	th America d. Africa e. Asia
22. How old ar	re you?		
I am	years old.		
	are you interest om 1 to 10, 1 = n		all. 10 = I'm very interested in Korea.)
24. Do you wa	nt to visit Korea	?	
(Please rate fro	om 1 to 10, $1 = 1$	No way, I'm not	going. 10 = I feel like going to Korea right now.)
Designer com	ments: Since it	has been a quit	e challenge for me to create this web site

Designer comments: Since it has been a quite challenge for me to create this web site (www.wpi.edu/~dkum) by myself with no experience in making web site and I have equally concentrated on the design of the web site and the information in the web site, it might not have detailed information. Thank you again for doing the survey and please enjoy the web site.

The following questions are for only those who have been through the web site.

For the following 6 questions please use 1-5 ratings		
(1: Strongly disagree 2: Disagree 3: No opinion 4: Agree 5: Strongly Agree)		
25. Did you learn a lot from the web site about Korea?		
26. Was the web site easy to use?		
27. Was the web site helpful to understand Korea?		
28. Was the web site interesting?		
29. Was the information on the web site sufficient?		
30. Did the web site make you more interested in Korea?		
Any comments to the web designer?		

Question #	Pre-survey(%)	Post-survey(%)	
1	14.3	78.6	
2	57.1	100	
3	35.7	85.7	
4	35.7	64.3	
5	28.6	42.9	
6	71.4	92.9	
7	28.6	85.7	
8	64.3	92.9	
9	64.3	71.4	
10	42.9	92.9	
11	28.6	92.9	
12	71.4	78.6	
13	57.1	85.7	
14	78.6	92.9	
15	85.7	92.9	
16	50	85.7	
17	92.9	100	
18	85.7	100	
19	50	85.7	
20	78.6	92.9	
Average	56.08	85.73	

Figure 3: The table of the percentage of correct answers for each question

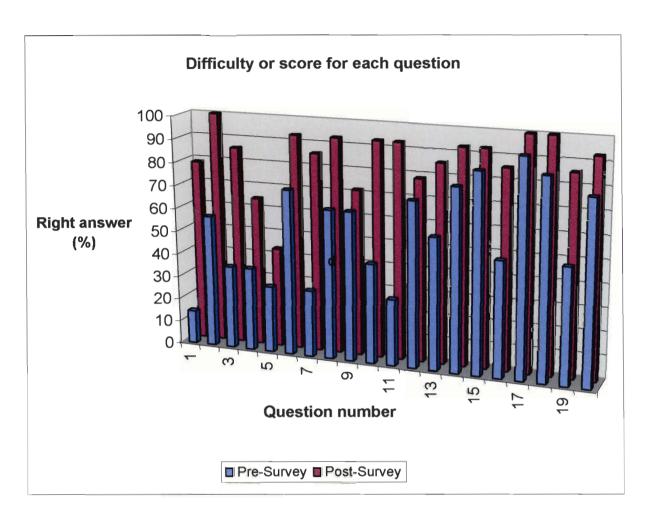


Figure 4: The graph of the the percentage of correct answers for each question

Name of Individual	Pre-survey(%)	Post-survey(%)
Alan Capewell	40	60
Belinda Gunn	70	85
Bryan Howcroft	55	80
Rebeca Dowd	45	95
Christine Rojko	90	90
Cassandra Andersen	45	90
James Kalinowski	65	90
Joshua Lee	40	85
Mark Bertolina	75	85
Eric Mill	35	75
Pavlo Fedorenko	55	100
Ronald Mendez	55	95
Stephen Walasavage	55	90
Somchoke Laohhasurayotin	60	80
Average	56.07	85.71

Figure 5. The table of the individual scores

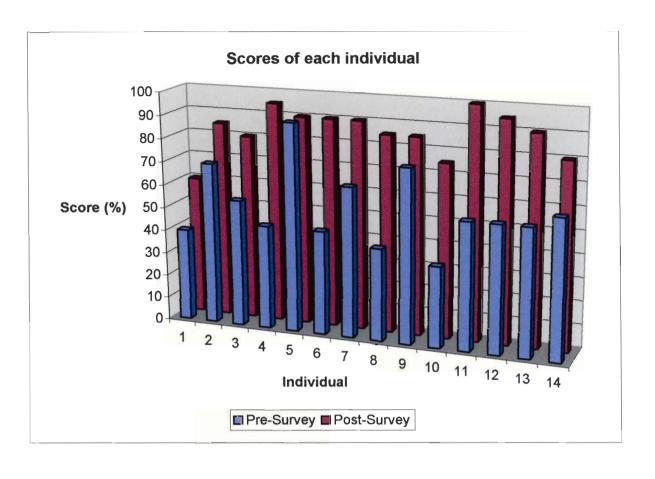


Figure 6: The graph of the individual scores

Question #	Pre-survey	Post-survey		
Average Age	-	23		
23	7	7.29		
24	6.14	6.57		
25	-	4		
26	-	4.21		
27	-	4.14		
28	-	4		
29	_	3.79		
30	_	3.79		
Overall rating average	_	3.99		

Figure 7: The table of web site ratings