Primary Sources:

We used footage of Korean citizens working during the New Village Movement to reconstruct their local villages in the introduction of our video when we explained that the development of South Korea arose from the efforts of its citizens. We also used footage of Park Chung-hee telling the Korean civilians that they must work diligently to make life in Korea better for all. We used this footage when explaining that Park Chung-hee was the one who sent Koreans to Germany to work as miners and nurses.

We used footage of Koreans working when the economy was underdeveloped to show how man power and determination, not resources, were the main causes of South Korea’s economic development. We also used footage of Korea in the 1960s. The 1960s was when the Korean War happened, and the economy was at its worst.

We used a photo of the finished Seoul Busan highway from this source. We used this photo when giving examples of the multiple ways Park Chung-hee strived to develop Korea’s economy.

Ahn On-gil (77). Personal interview. 2 November 2015
This was a student-conducted interview with a Korean man who traveled to Germany as a miner. We asked him the same questions we asked the Korean nurses, and he gave us similar insight as well. At this point, we realized that the miners and nurses did not go to Germany on behalf of the economy, but went for their families and individual aims. We also realized that their trip to Germany brought them more benefits than detriments.

This is a footage of President Park Chung hee visiting West Germany. We used this footage when explaining how the similarities between South Korea and West Germany led to a closer relationship between the two countries, encouraging the establishment of the Korea-Germany labor recruitment agreement.


This source is a news clip on the impacts of the New Village Movement. From this documentary, we learned that the people’s efforts were very important in helping Korea’s economy develop, because the development started at the local level and expanded to the national level. Watching the people work really allowed us to feel that an extreme amount of hard work was required for Korea’s economy to develop.


This is a documentary about Korea after the Korean War. We used clips from this video to display Korea’s destroyed landscape and economy after the war.


We used several excerpts from this documentary about the Miracle on the Han River. Firstly, we used an excerpt of a graph of increasing Korean exports to explain Korea’s exponential growth during the Miracle of the Han River. (This part is secondary.) Secondly, we used scenes of Korea’s poor economy after the Korean War. Thirdly, we used scenes depicting the Miracle of the Han River. Fourthly, we used scenes explaining the New Village Movement, which was one of the Korean economic development plans that followed the dispatchment of the padokguelloja. In our documentary, we explained that the successful dispatchment of the padokguelloja encouraged the Korean citizens to actively pursue economic improvement, and the excerpt explicitly stated that the New Village Movement stemmed from direct citizen participation and motivation to work. We used excerpts of the citizens working for the New Village Movement as well.

Kim In-seon, who worked in Germany, set up an organization with her own money in order to provide terminal care for other South Koreans who had gone to Germany as nurses and miners. She is now the president of a volunteer hospice organization in Berlin, Germany, called Mitgehen. This article served as an example of a nurse whose life changed for the better after her stay in Germany.


We used three photos from this source. One is a group photo of the miners. Another is a photo of two miners sitting together that we used when talking about how the work of the miners contributed to the Miracle of the Han River through the invisible hand effect. Another is a photo of the nurses shortly after their arrival in Germany which we used when explaining that some of the miners and nurses had adventurous motives behind their decision to go to Germany. This source also taught us that the Korean-German labor recruitment treaty brought Korea enough capital and foreign exchange funds to build the basic infrastructure for the industrialization of Korea. This source gave us statistics of the unemployment rate and GDP of Korea before and after the labor recruitment.


This is a photo of Korean nurses praying in the church in Germany. It shows how the nurses tried to believe in themselves and their fate even when they were having a difficult time overseas.


This is a photo of the Korean miners’ faces covered in soot while working in the German mines. This photo gave us more insight into the dire conditions the miners faced.

We used a photo with a black background of a group of Korean miners in Germany holding tools and marching. The photo is darkened and conveys a mood of hardship and severity that we utilized in our documentary.

Gil-ja Ryu (70). Personal interview. 2 November 2015
This was a student-conducted interview with a Korean woman who traveled to Germany as a nurse. We asked her the same questions we asked another Korean nurse, Mrs. Kwon, and she gave us similar insight. By interviewing a second Korean nurse, we were able to be more sure about the reality of the situation that the first nurse told us about.


We used a photo of troops from the Warsaw Pact during the Cold War when explaining the impact the Cold War had on South Korea-West Germany relations. This photo conveyed the strict, serious mood of the Cold War, which brought South Korea and Germany together even closer by being on the same side during the Cold War.

Hwangbo Su-Ja (bottom C), board member of the Association of Korean Miners and Nurses Dispatched to Germany, pointing to a picture which was taken of her and her colleagues while she worked in Germany. Digital image. *TheSundaily.* N.p., 5 Jan. 2014. Web. 6 Feb. 2016.

We used a photo of neatly dressed, smiling Korean nurses while they were working in Germany to exemplify the better conditions they encountered in Germany. We also used a photo of the miners’ and nurses’ passport when talking about their trip.


This is an interview with Dr. Roberts, who was born in Germany to a Korean miner/nurse couple. She explained her personal, familial, cultural, and linguistic background. This source helped us understand how moving to Germany changed the lives of Koreans. We were able to
see that the children of the miners and nurses were German at heart. Going to Germany truly changed the lives of the nurses and miners.

Korean exports, Cultural Center of the German Village, Namhae, South Korea. Personal photograph by author. 2015.
This is a photo of Korean exports we took in the padokguelloja museum. We used it to depict our explanation that Korean exports increased after the improved economy resulting from the dispatch of Korean miners and nurses to Germany.

We used excerpts from this documentary about the Korean War that displayed Korea’s devastated economy after the war and the hardship the Koreans went through, factual information, and quotes from foreign authority figures stating that there was no hope for Korea’s economy.

Korean-German Dress, Cultural Center of the German Village, Namhae, South Korea. Personal photograph by author. 2015.
This is a photo of a dress made by the Korean nurses in Germany we took in the padokguelloja museum. It combines elements of style from both Korea and Germany and symbolizes the Korean nurses’ encounter with German culture.

Korea-Germany Labor Recruitment Agreement, Cultural Center of the German Village. Personal photograph by author. 2015.
This is a photo of the Korea-Germany labor recruitment agreement that we took in the museum about the padokguelloja. We used this photo in our documentary.

This source has a group photo of the Korean and German workers. We used this picture to show the positive relationship that they had with each other, supporting our idea that the Koreans had positive encounters in Germany worked diligently in Germany, elevating Korea’s international reputation.

This is a group photo of the Korean nurses in Germany that we used in our documentary as a visual representation when mentioning the Korean nurses.

<http://english.chosun.com/site/data/html_dir/2008/07/18/2008071861029.html>
This is another group photo of the Korean nurses in Germany. We used this photo in our documentary as a visual representation when mentioning the Korean nurses. This source also taught us that there was huge competition among the Koreans to go to Germany. Going to Germany brought the Koreans many benefits.

This is a video of president Park visiting Germany in 1963. We used an excerpt of this clip to show the relationship between South Korea and Germany during the early 1960s when the dispatch of Korean miners and nurses was at its peak.

This is a picture of Korean miners in Germany waiting to see President Park. They are holding the Korean flag and the symbol of mining is above their heads. This portrays their passion towards working for their families back at home.

This is a photo of Koreans working in the Middle East. It demonstrates one impact the Korea Germany labor recruitment agreement had on the rest of Korean history. The dispatch of the miners and nurses to Germany was the beginning of Korea’s history of international labor dispatch.

From this gallery of photos, we used a photo of a mother and child in South Korea in the 1960s. We used this photo when explaining how the padokguelloja sent money back to South Korea to help their families.

Mrs. Kwon (65). Personal interview. 2 November 2015  
This was a student-conducted interview with a Korean woman who traveled to Germany as a nurse. We asked her various questions ranging from factual information to personal experience. We were able to look at the situation from an actual first-hand account and eliminate inaccurate interpretations that other third-party sources made. The interviews made us realize that there were benefits in going to Germany for the miners and nurses and it was not as hard in Germany as some may believe. We also learned that the miners and nurses believed they did not need compensation and that they had their own motivation for going to Germany besides patriotism.

Padokguelloja documentary, Cultural Center of the German Village, n.d. Film in Museum.  
This is a video from a museum of the Korean miners and nurses in Germany. We used several scenes from this video of the Koreans’ journey to Germany, their work there, and the foreign exchange that resulted.

<https://www.youtube.com/watch?v=gqvgfIK7UZw>  
This documentary has many footages of Germany during the Miracle of the Rhine. We used clips from this video to contrast Germany’s developed economy with South Korea’s underdeveloped economy.
This video shows what MyeongDong, one of the busiest primary shopping districts in South Korea, was like in 1993. We used this to gain a greater understanding of Korea in the 1990s and to show Korea’s gradual economic development starting from the 1960s to today. By the 1990s, Korea’s economy was quite modernized.


This is a newspaper article stating that the Koreans miners and nurses sent to Germany should be compensated for their sacrifices. We used this article to support our point that many people believe that the miners and nurses have gone through tremendous suffering only and deserve to be revered today, but this view is slightly distorted.


We used clips from this video of Korea after the Korean War. These clips clearly show the dire conditions in Korea that the miners and nurses helped alleviate.


This is a time lapse of Seoul that we included in the introduction and conclusion of our documentary. We used this video to show modern day South Korea. It was interesting to imagine how such a small group of people led to such amazing economic development.


This is a German documentary on the rapid economic growth of Germany. We used clips from this documentary of Germany during its industrialization and of the surplus of labor. This depicted how Germany needed more labor for its industrialization, which Korea provided.
<https://www.youtube.com/watch?v=-lYrl7e-BR>
This is footage of the Vietnam War. We used footage from this source when explaining that the Koreans participated in reconstruction projects after the Vietnam War. The Koreans’ participation is an example of overseas labor dispatch that followed the dispatch of the miners and nurses to Germany.

This is footage of the Vietnam War as well. We used footage from this source when talking about the Koreans’ participation in post-Vietnam War reconstruction projects as well.

This source had a photo of the miners’ faces covered in soot. This showed the difficulty of the work the miners had to go through. We also learned from this source that the passion and diligence of Korean workers impressed the Germans. Even after the Koreans’ three-year contract for work ended, many companies wanted them to stay and continue working. As a result, many people either extended their labor contract or chose to stay in Germany permanently. This document was useful because it described how Koreans gradually assimilated to German society and how their impression on Germans helped Korea to bring about more trade agreements and investments from German companies.

N.d. Web. 12 Dec. 2015. <http://manhattannycondosforsale.com/koreatown-manhattan-new-york-neighborhood/> This is a road sign in New York that points out the direction to Korean Town. We used this picture when explaining how most of the padokguelloja chose to stay in Germany or move to other countries outside of Korea. This photo shows the lasting legacy of the Koreans’ decision to stay in the U.S.
We used a photo of a well-paved road in South Korea back when South Korea’s economy was underdeveloped when explaining how the money the padokguelloja earned contributed towards all types of economic development, ranging from development at the local level to development at the national level.

<https://www.youtube.com/watch?v=E8rXMZBeFvU>.  
This is a film that contains many scenes of Germany in the 1960s. We used excerpts of everyday German society when describing how the miners and nurses adjusted well to German society.

결혼사진. 2015. Cultural Center of the German Village, Namhae.
Pierog, James. 2015. Cultural Center of the German Village, Namhae.  
This is a photo that we took of a Korean woman getting married in Germany. We used this photo to show that the padokguellojas’ working experiences in Germany often led to the beginning of new lives.

<http://www.korea.kr/celebrity/contributePolicyView.do?newsId=148700871>  
We used this picture to show President Park signing a labor recruitment treaty with the German president.

<https://www.youtube.com/watch?v=68ui5bS1Sys>  
We used a clip from this video of reconstruction in Vietnam. This clip was used as visual support to our example of reconstruction in Vietnam as an example of instances of work done in foreign countries after the dispatch of miners and nurses to Germany.

We used footage of South Korea’s substandard economy from this documentary.

From this source, we used a photo of the Korean miners sitting in their uniforms. We used this photo when talking about how the hard work of the Korean miners helped elevate Korea’s reputation among the international community.

<http://www.cfe.org/20150615_139613>  
This is a documentary about the padok guen loja. We used some scenes of simple pictures of the padokguelloja as well as several footages of how much Korea has developed.

<www.youtube.com/watch?v=2Kj7AU8rNPM>  
This is a video of the Seoul Busan Highway being built. We used this video when mentioning the different types of Korean economic development plans that followed the dispatchment of the padokguelloja.

We used two photos from this source. The first is a group photo of the Korean miners. The second is a photo of Korean miners working in a German mine. We used this photo when emphasizing the dispatch of Korean miners and nurses to Germany as a major method Park Chung-hee used to reconstruct Korea’s economy.

<https://www.youtube.com/watch?v=Z8kh-14guA4>
This video contains footage of Korea in the 1970s. We used this footage to show Korea’s gradual economic development. It was interesting to see how Korea’s economy made a drastic improvement in the 70s, which was right after the dispatch of the padokguelloja.

이 종현. 파독 광부의 급여명세서. 2013. 파독근로자기념관, Yangjae-dong. New Daily. Web. 4 June 2016. <https://www.newdaily.co.kr/news/article.html?no=156400>. This is a photo of a paycheck of the padokguelloja displayed in a padokguelloja museum. We used this photo when explaining how the padokguelloja earned and sent a large amount of money to Korea.


지하 막장에서 석탄을 캐고 있는 필자. N.d. Chosun Media. Web. 20 Sept. 2015. <http://monthly.chosun.com/client/news/viw.asp?ctcd=&nNewsNumb=200905100062> This is a photo of the Korean miners working in Germany. This photo clearly evinces the small bodies of the Koreans, which was one of the reasons why it was hard for the Koreans to mine in Germany.

파독근로자 : 경제발전의 뿌리를 찾아서. Prod. 자유티비. YouTube. N.p., 21 Apr. 2015. Web. 1 Dec. 2015. <https://www.youtube.com/watch?v=d8OWbmtOfp4> This video briefly covers the story of the padok-geun-lo-ja. We used clips from this video of the Korean miners and nurses toiling away in Germany, and we also used stock footage of modern-day Seoul, Korea to depict the economic development Korea has gone through.

“한국경제 70년, 그들이 있었다 1부 - 자본주의, 싹을 틀우다.” YouTube. Ed. TM Tvc. YouTube, 12 Apr. 2015. Web. 06 Feb. 2016. <https://www.youtube.com/watch?v=F1JbNQ13Pmw> This source provided us with interviews and pictures/videos of padokgeunlojas. It talked mostly about their lives and contributions in German and Korean society. We used excerpts of these
interviews to support our points that the Korean nurses were treated well in Germany and to provide a vivid description of the types of hardships the Korean miners encountered in Germany.
Secondary Sources:

We used this song, which sets a reminiscent, sorrowful mood, as background music.

From this source, we used an animated map of Germany in our documentary. It shows the division between West and East Germany, which portrays how West Germany was in risk of communist attack from East Germany.

<https://www.youtube.com/watch?v=c-S-ZDNOV5A>
This is a traditional Korean song, Arirang. We used it as background music for our conclusion as we talked about the Miracle of the Han River and the explosive economic growth that defines Korea as a nation today.

This article talks about the economic conditions of Germany at the time, demonstrating the incentive for Germany to take in workers. It also talks about the problems of taking in large amounts of guest workers due to social tensions and immigration. This gives insight on how different the Korean guest workers are in comparison to other ones and how the Korean guest workers had far less problems than other workers. This supported our idea that the Korean nurses adjusted well to German society.

<https://www.youtube.com/watch?v=T4xJXTv-vBU>
This is the green screen background that we used to illustrate an arrow pointing from Korea to Germany representing the Koreans’ move from Korea to Germany.

We learned from this book that the government and the German Hospital Association were working to make the nursing association more attractive. They revised the regulations governing the training of nurses. This supported our idea that the nurses were treated well in Germany.


This picture of the cover of Adam Smith’s book, The Wealth of Nations, was used as a background image when we explained his invisible hand theory. We used this picture as Adam Smith is a recognized figure who helped validate our idea that the padokguelloja did not intend to boost Korea’s economy but did so naturally.


This article focused on the protests led by Korean nurses in Germany who wanted to stay in Germany for longer than their contracted three years. We learned about the positive opinions Germans had for Korean nurses from this article. This source supported our idea that the Korean miners and nurses had adjusted well to Germany and had also improved Korea’s reputation within the international community.


This article talks about how President Park’s visit to Germany to see Korean miners and nurses greatly encouraged them to work harder and even gave them a sense of patriotism. We were able to read a lot of quotes from the actual miners and nurses from this source, recalling their time in Germany and how President Park’s speech and visit influenced them. This supported our idea that although the miners and nurses themselves went for the families, the Korean government wanted the workers to work hard on the behalf of Korea’s economy.


This website has images from a Korean movie about the padokgukelloja. We used an image of the Korean miners in Germany from this source.


<http://pakkarachi.mofa.go.kr/english/as/karachi/bilateral/bilateral/index.jsp?sp=/webmodule/htsboard/template/read/engreadboard.jsp%3FtypeID=16%26boardid=5815%26seqno=719368%26tableName=TYPE_ENGLEGATIO>

From this article, we learned that President Park’s economic development plans started with the construction of highway, followed by the making of automobiles, steel mills and oil refineries. This supported our idea that President Park implemented many economic development plans after the dispatchment of the miners and nurses.


We learned from this article that although the miners and nurses were sent to Germany, they didn’t forget their true identity as Korean. “We are Koreans, and that is clear.” The second generation, however, were born in Germany and knew about Korea solely from the stories narrated by their parents. This supported our idea that the legacy of the padokgukellojas’ assimilation to Germany was extensive, as their children identified as German.


This source shows the increase of Korea’s GDP from 1960 to 2013. It shows that Korea’s GDP increased drastically after the dispatch of the Korean miners and nurses to Germany. We used statistics from this source to illustrate the effect the dispatch had on Korea’s economy.


This is a map of Korea divided into North and South Korea. This was used in our documentary to portray that South Korea was in risk of communist attack from North Korea.


<http://korea-migration.de/wordpress-korean/?p=26>

This source states that in Germany, Koreans made friends, married Germans, and made Germany their second home.


<http://www.koreafocus.or.kr/design2/layout/content_print.asp?group_id=105117>

From this article, we learned that Korea gained various achievements as the rapid industrialization and democratization. What the nation has achieved during the past half century is a record which Koreans can surely be proud of.


This article told us that the Korean residents in Germany were said to blend in with the German citizens.

Lim, Woontaek. “Interview on the Details of the sending of the Koreans to Germany.” Personal interview. 9 Nov. 2015

This was a student-conducted interview with a sociology professor. We used this interview to confirm facts and get a professional opinion on the significance of our main ideas: Korea’s exploration of international relations, the Koreans’ encounter with hardships and new culture, and the exchange of workforce for currency between Korea and Germany.
This is the photo of our interviewee, Professor Robinson. We used this photo when displaying his quote on our documentary.

*Ode to My Father.* Dir. Jaegyoon Yoon. Perf. Jungmin Huang, Yunjin Kim. K Film, 2014. Film. We used some excerpts from this film about the padokguelloja to portray the lives of Korean miners and nurses in Germany, especially excerpts of the Korean miners and nurses working in Germany.


From this article, we were able to figure out a true motivation behind president Park’s decision to send Korean miners and nurses to Germany. It was part of his holistic approach to salvage Korea’s destroyed economy by obtaining loans from Germany to carry forward its first five-year economic development plan. He promised to create a prosperous nation with “happy homes filled with bright smiles.” We mentioned the five-year economic development plan as one of the development plans for Korea’s economy that followed the dispatchment of the padokguelloja.

This article is about the commemoration for the 50th anniversary of the Korea Germany labor recruitment agreement. We learned that even today, Korea and Germany celebrate and honor the dispatchment. The commemoration represents the strengthening of Korea-Germany relations after the dispatch of Korean miners and nurses to Germany.

This article gives statistics regarding the Korea-Germany labor recruitment agreement: the number of nurses and miners that went to Germany, how much the miners, nurses, and the Korean government were paid, and the reasons why Germany and Korea signed the labor
agreement. It also has an interview with a former miner. His words gave us insight into the hardships miners faced in Germany.


This is a video made using google earth that started with the entire earth and ended with a zoom into South Korea that was used in the introduction of our video.

Robinson, Michael E. "National History Day: Korean Miners and Nurses in Germany." E-mail interview. 20 Nov. 2015.

This is a student-conducted e-mail interview with a university professor. We used this interview to gain insight on the impact of sending the Korean miners and nurses to Germany on Korea’s international relations with other countries. We learned from this interview that the dispatch was one of the first among Korea’s history of international labor contracting, which had the extended legacy of improvement in Korea’s economy. This eventually became the “exploration” portion of our topic, as the dispatch of Korean miners and nurses was an exploration of ways to improve Korea’s economy.


From this book, we learned how Germany’s highway system, autobahn, impressed president Park and motivated him to build a similar highway system in Korea, a GyeongBu highway. It functioned as a significant infrastructure to boost Korea’s industrialization. We used the construction of the Seoul-Busan highway as one of the examples of economic development plans that followed the dispatchment of the padokguelloja.


This source details the economic situation in Korea before, during, and after the Germany-Korea labor recruitment agreement. It details the imports and exports, balance of trade in Korea, and the specific bills and laws that made South Korea’s economy grow.

Simoes, Alexander. "Products Exported by South Korea (1962)." *The Observatory of*
This source gives the background for the economy of Korea before, during and after the Korea-Germany labor recruitment agreement in 1963. This gave insight on how the Korea-Germany labor recruitment agreement affected Korea before, during, and after the whole process.

The invisible hand theory, which we used to support the idea that the padokguelloja were working for their own gain but at the same time were able to contribute to the growth of Korea’s economy, was from this book which was written by the economist Adam Smith.

This source gives background information on the German economy. Specifically, it details how the German economy has grown and changed over the years and the Miracle on the Rhine (the reconstruction of Germany after WWII). We used this information to predict the reasons behind Korea and Germany’s enactment of the Korea-Germany labor recruitment agreement.

We used an excerpt from this video describing the division of West and East Germany in 1960s. This video was used to describe the geo-political similarities between West Germany and South Korea during the cold war.

This source, again, gives the point of view of Germany and why Germany wanted such foreign workers. It gives statistics for the majority of workers and their country of origin. The article talks about the conditions Germany and the workers were in during the beginning of the labor
recruitment agreement, during their work, and after the work has been finished, as well as the modern day problems of integrating the workers into society and the social tensions that come from the different ethnicities of the workers and Germans.

<http://www.korea.net/NewsFocus/Culture/view?articleId=108212>
This article tells us that construction of the Gyeongbu Expressway, the first and the largest civil engineering work carried out by the korean government in 1967, we largely influenced by that of Germany’s autobahn. It was helpful to see how German influence changed Korea’s economy and society.

<https://www.youtube.com/watch?v=l0E9Ke18BtE>
We used an excerpt from this video, a part where it depicts the divide between North Korea and South Korea, to explain how South Korea and West Germany both suffered from a split and political differences within their own nations.

<http://www.cfe.org/20150603_139294>
This source explains the concept of individualism and socialism by quoting the words of famous philosophers and economists. It also describes how these concepts are seen in padokgeunloja’s contribution to Korea’s economy.

<http://www.cfe.org/20150603_139295>
This source gives us the exact statistics on how much the padokguenlojas contributed to Korea’s economy in the 1960s and the 70s. It also explains how a miraculous economic development of South Korea was derived from individual’s effort to survive, not from government’s plans.

권, 혁철. "[파독근로자] 독일현지세미나 : 파독의 국가경제적 의미 : 대한민국 성공 신화의 시작 -
This source provides a statistical information about the Korea-Germany labor recruitment agreement. It also explains the legacy of their work and how they affect us right now.

This is a photograph of the head of the Korea Center for Free Enterprise. We used this photo when our telephone interview with him was displayed in our documentary.

This source is from the Korea Center for Free Enterprise and contains quantitative information. It has information on the amount of money the padokguelloja earned, how much this contributed to Korea’s GDP, the economic status of Korea during the Korean War, and more. This source was useful because it allowed us to measure how much the dispatch of the Korean miners and nurses contributed to Korea’s economy.

This was the background music for the introduction of our documentary.

The article highlights the history of Korean immigration to Germany. It also talks about the second and third generations of the padokguelloja in Germany, and how much they assimilated into the German society.
This is a Korean traditional style song that we used for the exchange portion of our video. It has a sad yet helpful tone that matched the touching mood we were trying to convey through the story of the padokguelloja.

현, 진권. "The Economic Legacy of the Padokguelloja." Telephone interview. 5 Apr. 2016. This is an interview we conducted with the head of the Korea Center for Free Enterprise. We used this interview to ask about the impact the padokguelloja made on Korea’s economy. Our interviewee confirmed many of our analysis, and we used this interview in our video to support our idea that the earnings of the padokguelloja made future exploration of economic development plans possible.