

# Reading Quiz 0.2 part II, and 1.1 - INTD290

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## 1 How to Submit this Assignment

Once you answer the questions, take a picture of your work and convert it to a PDF. Submit the PDF to the assignment link on Moodle.

## 2 Nueva España

1. Discuss some examples of the book trade between France, Spain, and New Spain. What is the implication for the growth of Enlightenment knowledge in New Spain?

New Spain traded many farmed goods, such as sugar, tea, and textiles to not only Spain and France but also domestically to other states and territories. With growth of these industries and the economy, there was an increase in scientific knowledge and understanding, as well as the amount of powerful mine owners. The popularity of Enlightenment ideals can be attributed to

2. those experiencing their own growth and power wanting to adapt their mental attitude as well. It helped powerful people build alliances.

## 3 Nueva Granada



Figure 1: A map of the Northern edge of South America and the Caribbean.

1. On Fig. 1, label the locations of the following cities:

- Quito
- Santa Fe (de Bogotá)
- Caracas

2. List the universities in each of the above cities. Which ones were founded with Enlightenment ideals in mind, and at which ones were taught concepts from Newtonian (as opposed Scholastic) physics?

Enlightenment:

Quito: Universidad de Quito, San Fernando,  
Santa Fe: Colegio Máximo, Universidad de  
los Jesuitas, Universidad Santo Tomás  
Caracas: Universidad de Caracas

Newtonian:

Quito: Universidad Gregoriana of Quito,  
Santa Fe: Universidad Javeriana of Santa Fe  
Caracas: Military Academy of Mathematics,  
Academy of Geometry, Universidad de Caracas (1788)

## 4 Comparisons of Adoption of Scientific Revolution

- What do the contrasted examples of José Ignacio Bartolache and José Celestino Mutis say about the acceptance of the Scientific Revolution in the different *virreinatos*? Give examples of the accomplishments of each person, and give context for the acceptance of the work of each in their respective *virreinato*.

Bartolache established a scientific newspaper in Mexico in 1772, and he wrote about Newtonian science for the masses before it was discontinued after 16 issues. This was the second scientific journal published, but many more followed after, leading to success of scientific publications and the Enlightenment philosophy was encouraged. By contrast, in Nueva Granada, many universities and academic institutions were controlled by religion, or at the very least, traditional scientific thought (scholasticism). While Mutis wasn't able to structurally change universities to teach Newton and Copernicus, he did bring these ideas to his students and several other professors in Nueva Granada did the same.

- Discuss the educational roles of the Jesuits and the Dominicans in Nueva Granada<sup>1</sup>. When did the Jesuits leave Nueva Granadan education, and why? How did the Dominicans operate educational institutions as they asserted control over various universities?

The Jesuits were banished from Nueva Granada in 1767, which made room for the Dominicans to step up and take control. They requested funding and buildings to try and keep the Jesuit institutions, but despite their efforts, the Crown (not the pope) took control of education.

- Eventually, the Spanish Crown took control of education. How did this happen, and more importantly, why would the Crown wish to do this? Now turn your attention to the time before the Spanish Crown took over education. **This one is worth a bonus point.** *How did control of education grant political control? Why would the power to confer degrees give someone political power?*

By "royal patronage", the Crown claimed the right to control public education, and wanted nobody but the state in charge of it. From the beginning it was never intended for those who weren't elite. By controlling education, the Crown also controls what messages about politics are being taught and spread in schools. Additionally, those who are more educated reach higher political office, so the Crown also gets to pick who they want this power to go to.

## 5 Advent of Newtonian Physics in Nueva Granada

- Discuss the significance of the geodetic expedition of Charles de la Condamine in 1735. What was the goal? What were the cultural outcomes for Creole peoples, according to the writings of Alexander von Humboldt? This French scientist and mathematician came to study the shape and area of the curvature of the Earth, and inspired interest in the Quito elites. Creole scientists and mathematicians, some friends of Condamine, worked on studies and reports of Latin American science and history.

- Which Catholic religious order first taught Newtonian physics in Nueva Granada?

- Carmelites
- Dominicans
- Franciscans
- Jesuits

Did this order always teach Newtonian physics?

The Jesuits were the first to do so systematically, and actually had enormous control over education globally. They did not always teach this kind of physics, and even while Jesuits were the first, many had a more traditional education and did not include any new theories in their teachings.

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<sup>1</sup>It might be helpful to know: Dominican universities were sometimes named *San Tomás*, after Saint Thomas Aquinas (not Saint Thomas the Apostle), because Saint Thomas Aquinas was a Dominican. *San Ignacio de Loyola* was the founder of the Jesuits, and some Jesuit universities are named *San Ignacio*.