

Grade on Geology – 1º year. Subject: Introduction to Geology. University of Salamanca, Spain

Question			Answer	
Number	Statement	Target	%	Resume
1	Indicate the fields of work (environmental science, geology, biology, environmental impact assessment, natural risks) where GIS can be applied	To assess students' understanding of the extensive applicability of GIS, which is one of its key advantages	38	Environmental science, geology, biology, environmental impact assessment, natural risks.
			23	Geology
			15	Environmental science
			8	Geology, biology
			8	Environmental impact
			8	Geology, environmental impact, biology
2	Out of the videos you have watched, which GIS applications did you find most intriguing or unexpectedly interesting?	To determine which videos were more appealing to students, providing insights into their motivation and career orientation	36	Video spotlighting natural risks such as landslides, volcanoes and earthquakes.
			36	The video on magnetic anomalies mapping.
			9	The video about hoopoe microbiota and their relation to the environmental conditions.
			9	The video showcasing the GIS application for geotourism development.
			9	The videos demonstrating GIS applications for visualizing, analyzing, and correlating data.
3	Do you think it is important to study in different universities and develop professionally in different organizations, companies, and cities?	To assess whether students perceive mobility as a positive or negative factor	100	Students indicated that studying and working in diverse universities, cities, and countries will contribute to enhancing their skills and capabilities.
4	Do you think that GIS will be useful in your professional development?	To assess whether students consider GIS useful for their professional trajectory or not	100	Students emphasized GIS as a valuable tool for organizing, mapping, and representing data, particularly in the field of geology, as noted by one student.
5	Are GIS used in the private sector (companies) as well as in the public sector (administration, research...)?	To ascertain students' perception regarding the applicability of GIS in both public and private sectors.	100	All students know the widespread use of GIS in both public administration and private sectors.
6	Do you think that GIS can be useful for the development of your own company in a hypothetical future?	To evaluate whether students perceive the applicability of GIS in supporting businesses creation	82	Students hold a positive view regarding the beneficial applications of GIS in a company focused on environmental science, geological engineering, and hydrology.
			18	Students believe that the utility of GIS would depend on the specific objectives and focus areas of the company.

7	Can GIS build a real relief model (made of plastic) with the help of a 3D printer?	To know student perception related to the use of GIS in combination with emerging tools as a 3d printer	100	All students confirmed that GIS tools have the capability to generate a 3D model, which can be physically constructed using a 3D printer.
8	Are GIS useful for the study of the Global Change?	To assess students' perception regarding the application of GIS in mitigating the Global Change	100	All students pointed out that GIS can be instrumental in conducting investigations on global change.
9	One of the videos mentions an international network of women scientists, do you think this type of initiative is useful?	To assess student perception on women in science	91	Students indicated that such initiatives are essential for motivating and enhancing the visibility of the scientific women, contributing to the goal of achieving gender equality in science.
			9	A student believes that initiatives of this nature are beneficial irrespective of gender.
10	Rate the interest degree of the videos according to: 0 no interest, 1 very uninteresting, 2 not very interesting, 3 don't know, 4 interesting, 5 very interesting		82	Students find interest the videos overall (value = 4).
			9	Students find very interest the videos overall (value = 5).
			9	Students find some interest the videos overall (value = 3).

Grade on Environmental Sciences – 2º year. Subject: Geographic Information System, remote sensing and thematic mapping. University of Granada, Spain

Question			Answer	
Number	Statement	Target	%	Resume
1	Indicate the fields of work (environmental science, geology, biology, environmental impact assessment, natural risks) where GIS can be applied	To assess students' understanding of the extensive applicability of GIS, which is one of its key advantages	77	Environmental science, geology, biology, environmental impact assessment, natural risks
			15	Environmental science, geology, environmental impact assessment, natural risks
			4	Environmental science, geology, biology, natural risks
			4	Environmental impact assessment, natural risks
2	Out of the videos you have watched, which GIS applications did you find most intriguing or unexpectedly interesting?	To determine which videos were more appealing to students, providing insights into their motivation and career orientation	27	The video focused on hoopoe microbiota and their relation to the environmental conditions; the topic was unexpected to students, who highlighted its potential application for bird protection
			19	The video on land uses assisted by GIS and its application to environmental impact assessment, for instance, windfarms impact
			15	Videos about GIS applications on geotourism for designing tourism routes, which would consider the occurrence of local services. Geotourism concept was new for students.
			11	The video that shown a 3d model of a Spanish region built using GIS with educational purposes, especially for blind people
			11	The video about the study of solid Earth, including magnetic anomalies that were unexpected for students, who want to learn more about it
			11	The video about species locating using GIS and R to relate the Global Warming and the distribution of beluga whale
3	Do you think it is important to study in different universities and develop professionally in different organizations, companies, and cities?	To assess whether students perceive mobility as a positive or negative factor	96	Students remarked that it is important to have an open mind and foster intellectual and personal growth during both educational and professional stages. Many of them answered that mobility during the educational phase enables exposure to diverse learning, teaching, and working methods, broadening knowledge and accessing new sources of information and perspectives. The world is much more diverse than we often realize, and there is something to learn from everyone, especially in the context of environmental sciences, which require a global perspective. All of these factors contribute to becoming a more dynamic and adaptable individual, better equipped to face future challenges and seize job opportunities. Some students highlighted that mobility also offers opportunities to learn languages and experience different cultures, whether in Spain or other countries. Other considered that it promotes personal maturity and self-sufficiency, encouraging exploration of unexpected paths in life. This, in turn, reinforces motivation and facilitates the identification of one's own area of expertise as explained by a student.
			4	A student responded that it is not necessary to go through different universities; it depends on the needs of each person. Not all universities offer the same range of studies.
4	Do you think that GIS will be useful in your professional development?	To assess whether students consider GIS useful for their professional trajectory or not	77	Certainly! Students perceived GIS is highly versatile and finds applications in numerous fields, such as land use, agriculture, livestock, protected areas, forestry, vegetation distribution, wildlife sighting, wildfires, ecology, reforestation, and environmental impact assessment. It proves valuable both in private companies and public administration for some students. Throughout the bachelor's program, students will encounter various subjects where GIS is utilized. Its capabilities encompass combining diverse information sources, including digitizing paper data, and creating visually accessible maps tailored for non-specialized audiences. Ultimately, few students highlighted the utilization of GIS expands employment prospects significantly.
			19	Students with an uncertain professional orientation at the moment don't have a clear answer. Its relevance would likely depend on the nature of the professional future. While it may not be a requirement for positions in public administration, it

				could be highly valuable if I choose to work in environmental or applied sciences, where GIS is extensively utilized. Some students remarked GIS as powerful tool for conducting spatial analysis and editing maps to present data effectively according to specific audience.
			4	GIS is particularly beneficial for students interested on GIS development.
5	Are GIS used in the private sector (companies) as well as in the public sector (administration, research...)?	To ascertain students' perception regarding the applicability of GIS in both public and private sectors.	100	All students acknowledged that GIS is extensively employed in both public administration and private industry.
6	Do you think that GIS can be useful for the development of your own company in a hypothetical future?	To evaluate whether students perceive the applicability of GIS in supporting businesses creation	39	Students recognized the contribution of GIS in entrepreneurship due to their exceptional versatility. They have identified applications, with farming and agriculture production being the primary focus. Other examples such as monitoring employee tasks, mitigating contamination, forecasting weather, managing urban infrastructures and facilities have been detailed. A student emphasized the potential of combining remote sensors with GIS to develop innovative business.
			15	Students responded that GIS enables businesses by the identification of optimal sites for industrial development. At least, be utilized to create interactive maps of company offices, providing valuable information to customs and facilitating efficient navigation within the premises. A student stood out the potential role of GIS in designing effective market strategies.
			12	Student considers that GIS is instrumental in establishing a new company that aligns with their motivations, detailed in question 4: forest management, mitigating wildfires and reforestation efforts. A student would really use GIS to create a new business about hunting and fishing activities.
			8	Students expressed lack interest in starting a new company; however, GIS will undoubtedly be indispensable if they decide to pursue a business venture related to Earth sciences.
			8	After watching videos, students are considering the creation of a new company on ecotourism or geotourism.
			4	Students who have never considered starting an own business recognize the potential utility of GIS in a hypothetical new technological company on earth sciences. For instance, GIS could provide optimal locations for human settlement that are resilient to the impacts of Global Change in the medium to long term.
			4	To establish a new company, GIS would be seamlessly integrated with geotourism and environmental education industries.
			4	Students have embraced the utilization of GIS for scientific research.
			4	There was no response from students who expressed interest for applying a public administration position.
7	Can GIS build a real relief model (made of plastic) with the help of a 3D printer?	To know student perception related to the use of GIS in combination with emerging tools as a 3d printer	93	Students watched the combination of GIS and a 3d printer in a video.
			7	Students expressed that GIS cannot be used for building a real 3d model.
8	Are GIS useful for the study of the Global Change?	To assess students' perception regarding the application of GIS in mitigating the Global Change	100	Students expressed their agreement because GIS is employed in investigating species distribution and assessing natural risks associated with ongoing climate changes.
9	One of the videos mentions an international network of women	To assess student perception on women in science	92	Students recognize the necessity of running women scientist networks to enhance the women presence and visibility across all professional domains, including science. A student come across such initiatives and discovered their significance.

	scientists, do you think this type of initiative is useful?		8	Students do not perceive women's associations in science as beneficial since they link these associations with job opportunities based on gender quotas.
10	Rate the interest degree of the videos according to: 0 no interest, 1 very uninteresting, 2 not very interesting, 3 don't know, 4 interesting, 5 very interesting		58	Students find interest the videos overall (value = 4).
			31	Students find very interest the videos overall (value = 5).
			12	Students do not know if videos are interesting or not (value = 3).

Grade on Geology – 4º year. Subject: Applied Geomorphology. University of Granada, Spain

Question			Answer	
Number	Statement	Target	%	Resume
1	Indicate the fields of work (environmental science, geology, biology, environmental impact assessment, natural risks) where GIS can be applied	To assess students' understanding of the extensive applicability of GIS, which is one of its key advantages	100	Environmental science, geology, biology, environmental impact assessment, natural risks.
2	Out of the videos you have watched, which GIS applications did you find most intriguing or unexpectedly interesting?	To determine which videos were more appealing to students, providing insights into their motivation and career orientation	60	Videos showcasing GIS applications in analyzing natural risks.
			20	Videos combining GIS and 3d printers for unveiling landforms for accessibility to people with disabilities
			20	Video on fauna changes studies in relation to the Global Warming
3	Do you think it is important to study in different universities and develop professionally in different organizations, companies, and cities?	To assess whether students perceive mobility as a positive or negative factor	80	Students emphasized the profit of studying in diverse universities, cities, and countries, as well as working across various fields and environments with people from different cultures. They noted that such experiences enable individuals to expand the horizons of their minds. Students highlighted the importance of mobility for academic and professional growth in the fields of science, language acquisition, and the establishment of a valuable network for future employment opportunities.
			20	A student who recognizes the importance of studying in different universities also express concerns about the financial burden associated with such endeavors. Despite acknowledging the value of diverse educational experiences, the student believes that other questions are more relevant.
4	Do you think that GIS will be useful in your professional development?	To assess whether students consider GIS useful for their professional trajectory or not	80	Students considers that GIS will be very useful for mapping geological features and other applications. A student remarked the utility of representing GIS data on Google Earth for enlarging visibility.
			20	Students considers that GIS will be essential for working in their carrier focused on science, as sedimentology and geomorphology.
5	Are GIS used in the private sector (companies) as well as in the public sector (administration, research...)?	To ascertain students' perception regarding the applicability of GIS in both public and private sectors.	100	All students acknowledged the extensive utilization of GIS in both public administration and private sectors.
6	Do you think that GIS can be useful for the development of your own company in a hypothetical future?	To evaluate whether students perceive the applicability of GIS in supporting businesses creation	100	All students indicated that GIS would be indispensable in a geological company with a broad spectrum of focuses, including natural risks, mapping geological resources, and geological engineering. One student specifically highlighted the utility of GIS in generating information that can attract potential investors.

7	Can GIS build a real relief model (made of plastic) with the help of a 3D printer?	To know student perception related to the use of GIS in combination with emerging tools as a 3d printer	100	Every student highlighted the beneficial synergy between GIS and a 3D printer in the creation of 3D models showcased in a video.
8	Are GIS useful for the study of the Global Change?	To assess students' perception regarding the application of GIS in mitigating the Global Change	100	The students expressed unanimous agreement in investigating species distribution and assessing the natural risks associated with ongoing climate changes.
9	One of the videos mentions an international network of women scientists, do you think this type of initiative is useful?	To assess student perception on women in science	80	Students acknowledged the initiative as beneficial for understanding the contributions made by women scientists, enhancing their visibility, and striving for equal respect for gender in the field of science. One student is a member of a women geologist association, which provides her with support and guidance.
			20	Two students view the initiative positively, recognizing its role in providing visibility to scientific investigations. However, one student raises the concern that men may be excluded from such initiatives, emphasizing the belief that a collaborative effort involving both women and men would be more effective and equitable.
10	Rate the interest degree of the videos according to: 0 no interest, 1 very uninteresting, 2 not very interesting, 3 don't know, 4 interesting, 5 very interesting		40	Students find interest the videos overall (value = 4).
			60	Students find very interest the videos overall (value = 5).