

Using First-Year Students to Harness Data

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Data is a crucial asset for every business or organization, but the ability to effectively manage it varies widely. Some organizations rely on volunteers to manually input and summarize data, while others may not collect or utilize data due to lack of skilled personnel, causing them to miss out on opportunities to showcase their achievements. Organizations need assistance in addressing their data challenges, while students require access to real-world data to develop their skills. Engaging in community projects provides students with valuable practice, skills, and knowledge necessary for internships or jobs.

Data systems often operate behind the scenes. For example, when customers purchase items at Target, they are unaware that the transactional database manages that data. Information systems enable organizations to gather, store, analyze, and distribute data. Local governments and non-profits need help with simple data projects due to a lack of knowledge of what is possible and a lack of data skills. Simple tasks of collecting, cleansing, organizing, structuring, and summarizing data, and producing reports and charts are valuable skills for students and essential data needs for local governments and non-profit organizations.

Can first-year students with little to no business or data experience provide value to community projects? Yes, they can, and they do. At the Kelley School of Business, the BUS-K 204 Honors class students spend the first part of the semester learning about data and information systems. Towards the end of the semester, the students watch a video of a client interview and then have a video meeting with the client to understand their needs.

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Following this, the students work in teams to complete a series of assignments to create an information system. While the client may share some actual data with the students, they also learn how to create mock data to demonstrate the system to the client.

The regular class K201, "The Computer in Business" class, could benefit by working part of the project.

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With approximately 400 students working in teams of six, a Power Automate system was developed to allow students to ask the client questions indirectly. All students can view the questions and the client's responses. This system prevents students from overwhelming the client by directly contacting them, while still enabling them to ask questions. At the end of the semester, the client can choose to implement a system created by the students. Faculty members are responsible for making any necessary updates to the system, importing the client's actual data, and ensuring that the system is operational for the client. The faculty answer clients' questions and solve problems for one year.

IU Health Hospice needed a system to help manage volunteer visits to their clients. Volunteers would travel to a client's home, spend time with them, engage in activities, and provide the caregivers with a break. For each visit, specific data needed to be recorded, including the volunteer's mileage, visit duration, COVID-related information, activities during the visit, and general information about the client's mental health. Volunteers used to submit this information verbally, through email, or in a Word document, which required additional effort to retype and summarize the data for reporting purposes.

First-year students worked in teams of six to create a system where volunteers could input the required information using Microsoft Forms on their phones or computers. The IU Hospice manager would then download that data in an Excel file and import it into a database with the click of a button. Another button could be pressed to generate a report summarizing volunteer visits by quarter or year. When onboarding a new volunteer, the manager could use a form to input their information, and another button could be pressed to create a report summarizing all volunteers.

First-year students should participate in service learning because it allows them to work with real data, understand organizational challenges, and apply their new skills and knowledge. Students can complete competencies based on the National Association of Colleges and Employers (NACE) Career Readiness Goals such as:

- Professionally advocate for oneself and others.
- Employ active listening, persuasion, and influencing skills.
- Make decisions and solve problems using sound, inclusive reasoning and judgement.
- Keep an open mind to diverse ideas and new ways of thinking.
- Motivate and inspire others by encouraging them and by building mutual trust.
- Be present and prepared.
- Collaborate with others to achieve common goals.

This experience helps students identify gaps in their knowledge while also motivating them by showing that their work has a real-world impact. By creating systems for clients, students can see the tangible benefits of their efforts, beyond just receiving a grade. Additionally, working in teams allows students to connect with their peers and make long-term friends, while also learning the importance of communication and documentation in collaborative work for the smooth functioning of their team.

