
Evaluation Report on Duke University's Coursera Specializations on Business Analytics and Java Programming



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Overview

Starting in August 2015, Online Duke and the Duke Center for Instructional Technology collaborated with six instructors to develop two Coursera Specializations. Four instructors worked together to create a 5-course (4+capstone) Specialization on Java Programming; two instructors created a Specialization on Business Analytics in the same format.

The capstone course for the Java Programming Specialization was completed in mid-January 2016 and the Business Analytics course team finished production on their capstone course in March 2016. Since that time, we have collected survey data from learners in both Specializations and tracked learner activity patterns. We also conducted interviews with most of the course team members on both Specializations to understand the staff and instructor experience. This report summarizes that information.

Unique Aspects

- A much faster timeline for course creation than on any prior project
- Much larger course teams than Duke has used in prior projects
- The technologies required to create the course activities and assessments were new to the project team so new skills had to be developed rapidly
- Just-in-time course feedback was provided to course teams through the use of very short feedback surveys embedded in each course module
- Courses would likely be very visible and generate significant revenue
- Multiple industry partnerships (Airbnb, Tableau, TerraData, Google)

Successes

- Provided career-oriented, high-demand skills training for people working in, or seeking to enter, professional fields
- Generated revenue for Duke and for the course instructors
- Raised Duke's visibility and reputation as one of the leading elite American universities offering open, online education
- Provided the catalyst for several new methods to assess course quality that will be used in future projects including just-in-time module feedback surveys and in-house beta testing

Needs Improvement

- The Java Programming Specialization fell short of the goal of attracting women and minorities to the courses and the field of computer science
- The Business Analytics Specialization did not initially include sufficient quality assurance process so revisions had to be undertaken after the courses launched to correct errors
- Coursera staff and potential industry partners did not provide the technical support expected by CIT and the faculty members
- Revenue expectations were not communicated effectively to faculty

Recommendations

- Obtain details in writing of any support or resources that will be provided by companies or partners outside of Duke University
- For projects involving multiple faculty members, plan in advance for how revenue will be adjusted if time commitments change within the group
- Establish effective quality assurance process before launching courses and designate a QA lead person

Demographics

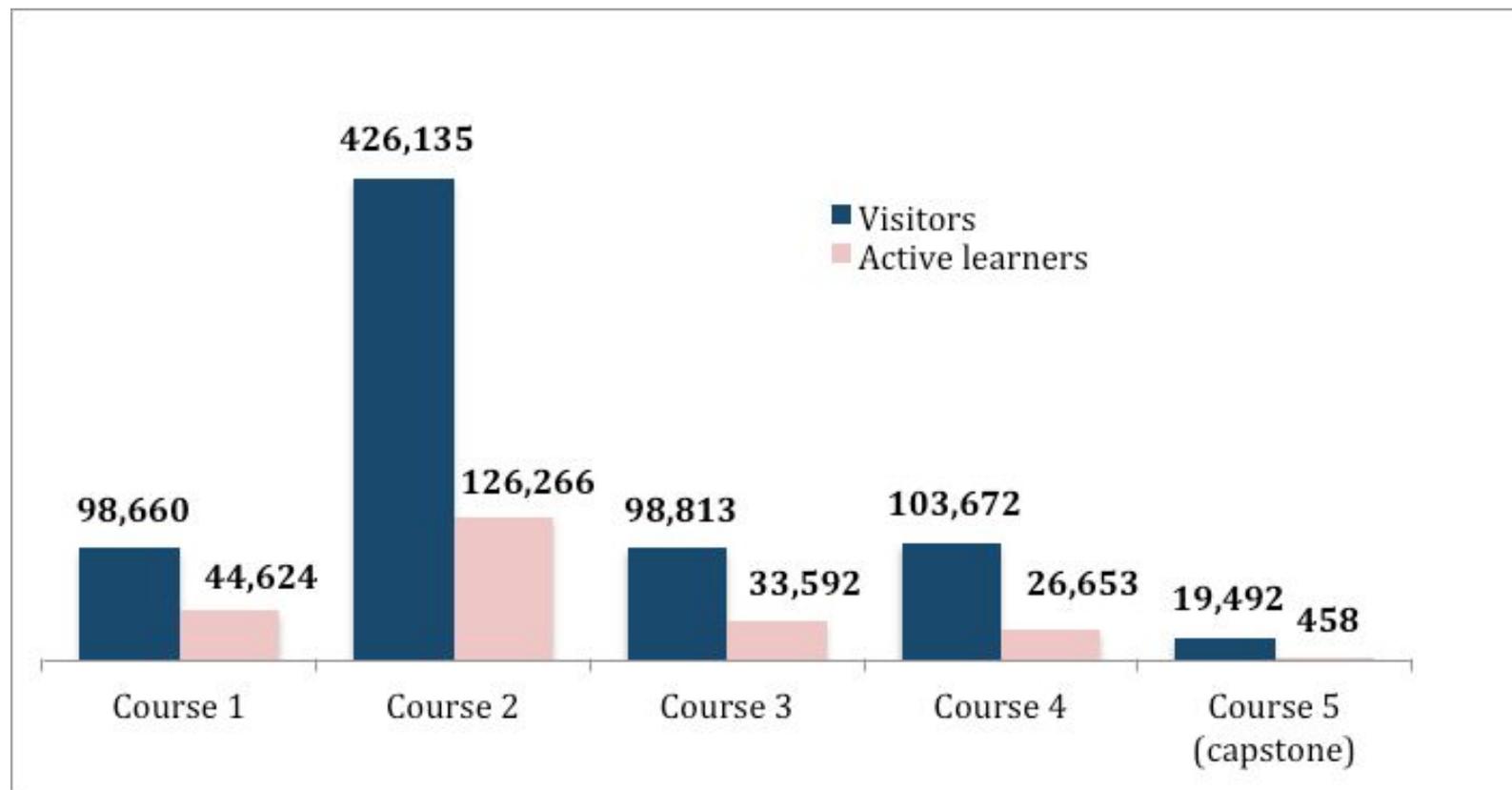
Business Analytics

	Course 1	Course 2	Course 3	Course 4	Course 5 (capstone)
North America	43%	30%	44%	42%	44%
Women	30%	28%	28%	29%	25%
College degree	86%	84%	91%	88%	92%
Employed	76%	77%	81%	74%	71%

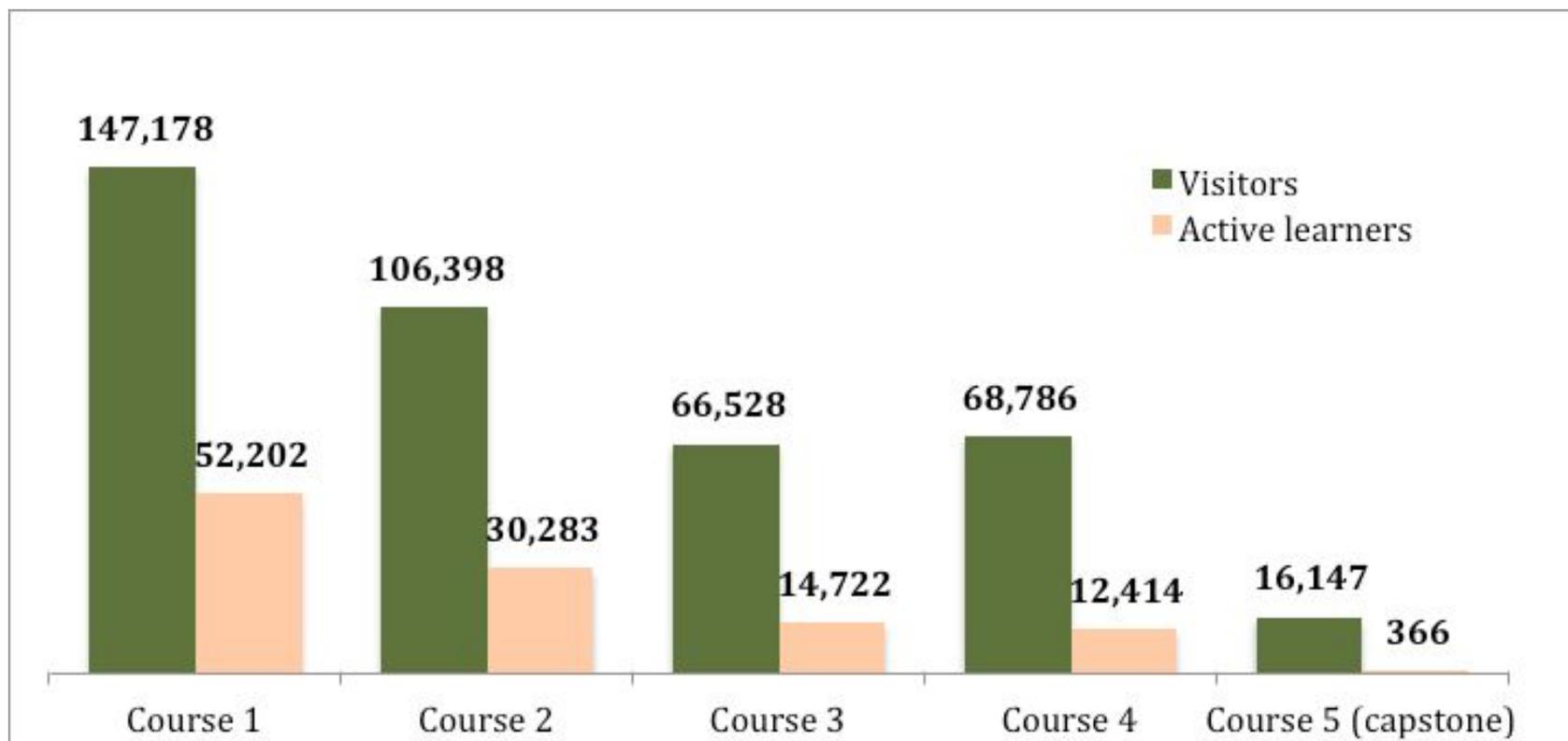
Java Programming

	Course 1	Course 2	Course 3	Course 4	Course 5 (capstone)
North America	36%	33%	32%	33%	38%
Women	29%	20%	20%	17%	24%
College degree	63%	75%	78%	77%	88%
Employed	70%	70%	70%	73%	79%

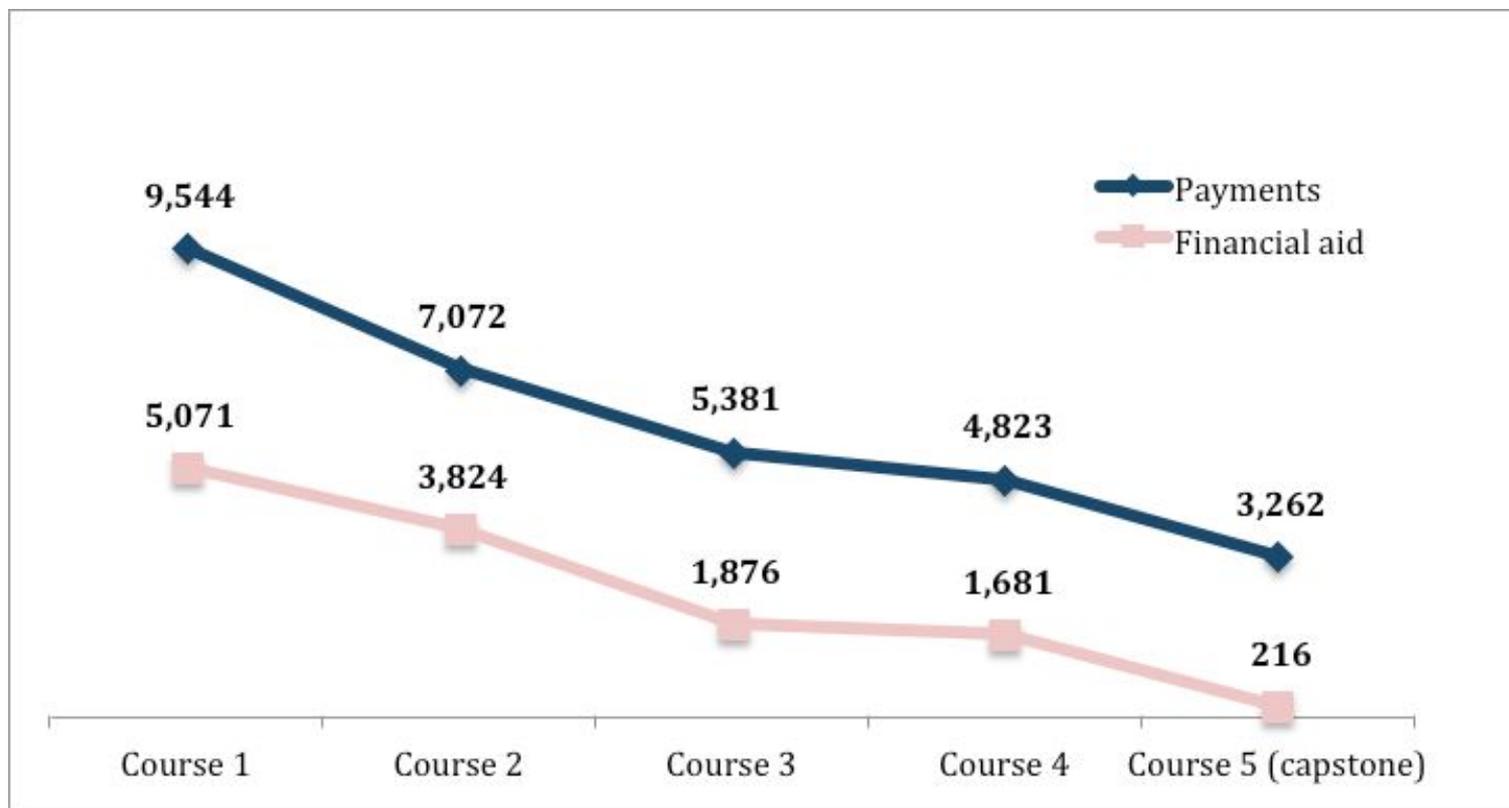
Business Analytics



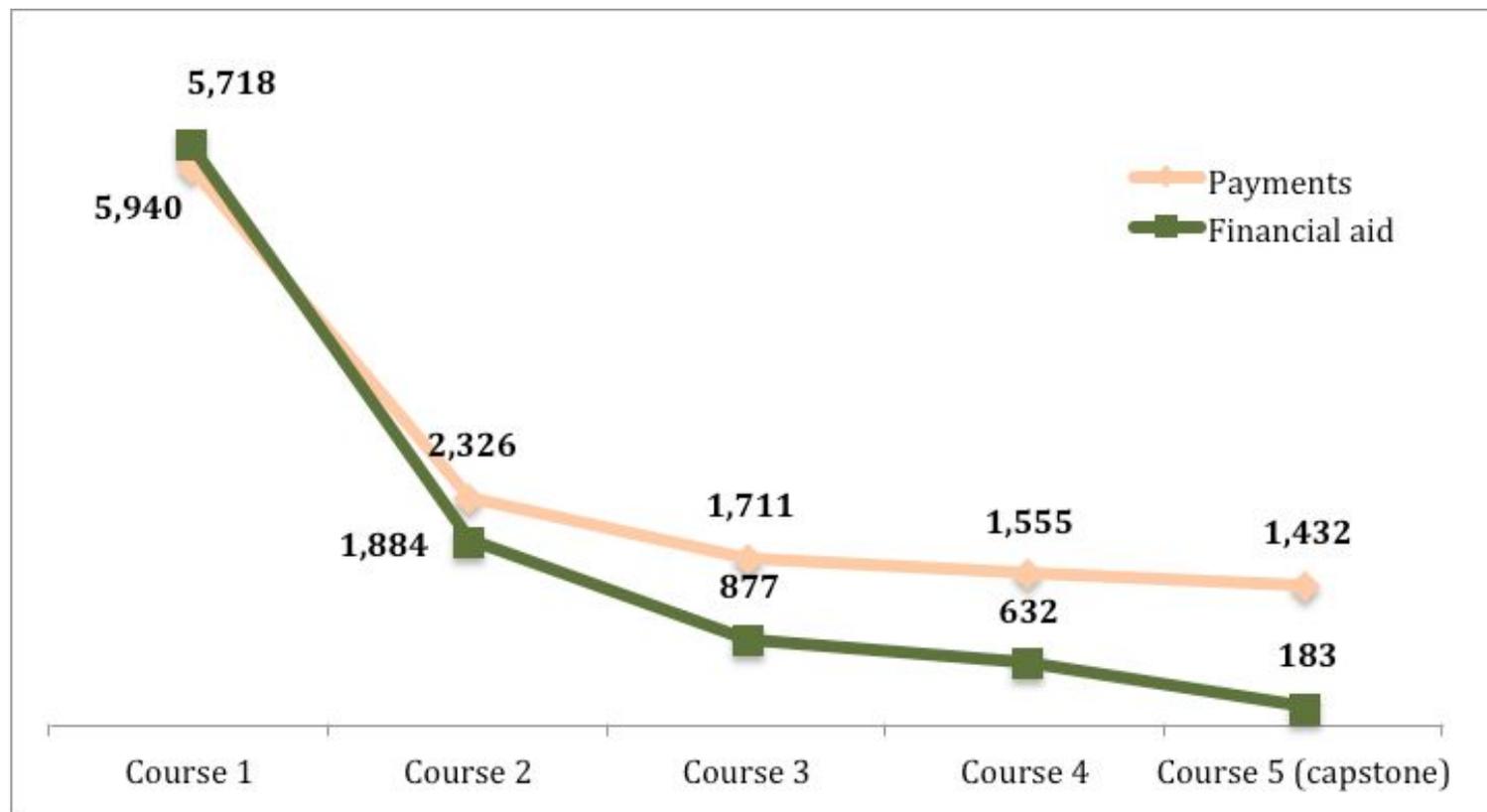
Java Programming



Business Analytics



Java Programming



Things to establish at the kick-off

- Specific division of tasks within the project team, including instructors
- How to handle errors and mistakes – who to contact and how they respond
- Realistic enrollment numbers and royalty amounts
- Expectations for frequency and format of communication
- A process for revisiting and revising task assignments as needed

Handling short timelines

- Identify a back-up person for each major task so that if things fall behind, there is a person to help
- Begin all faculty-inactive tasks (seeking approvals, gaining copyright clearance, working with vendors) at the start of the project
- Overlap course development when possible, such as having instructors plan all the courses in a series so they have the option to make large amounts of video content for multiple courses when they find time available

Quality assurance

- Quality check every piece of content before release
- Establish transparent minimum standards and a mechanism for embargoing content that does not meet them
- Differentiate between who are experts on content (faculty) and pedagogy/assessment (ATCs & OCBs) and assign final approval of materials accordingly
- Allocate funding for paid support staff before Specializations are live