

ESTHER REGINALD YEBOAH- COURSE REVENUE REPORT

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BUSINESS TASK

Educative is an online academia platform that publishes online course in for major subjects Business Finance, Web development, Graphic Design and Musical Instruments.

The Data analytic department has been tasked by the organization, Educative to find opportunities to increase sales and track performances. Already, there is a suggestion to use the Web development courses to increase the sales. Our findings will reveal if this strategy should be accepted or not.

These findings have been collated into this report, and excel worksheet and a Power Bi dashboard.

DATA PREPARATION

The data that has been collected for this mining is in four files (by their subjects). Imported and combined using the Excel software, we have in total 3677 observations and 11 variables. However, 2 additional columns have been created to aid our analysis:

- course_id -unique ID for each course
- course_title -title for the courses
- price -price for each course; 0s are for free courses
- num_subscribers -number of people who subscribed for the course.
- num_reviews -number of people who reviewed the course.
- num_lectures -the number of lectures in one course
- level -the level of expertise of the course published
- Rating -subscriber rating of courses
- content_duration -how long each course last
- published_date -date the course was published
- subject -categories each course fall in.
- Free_Paid -if course is free or paid
- Revenue -price multiplied by number of subscribers

No duplicates were found, renamed some subjects in the subject column (where “subject: web development), ratings were rounded up to 2 decimal places, changed ‘Published_ timeline’ to published date

EXPLORATORY DATA ANALYSIS- Refer to Worksheet for answers

To track our performance as tasked we did some EDA to answer few questions

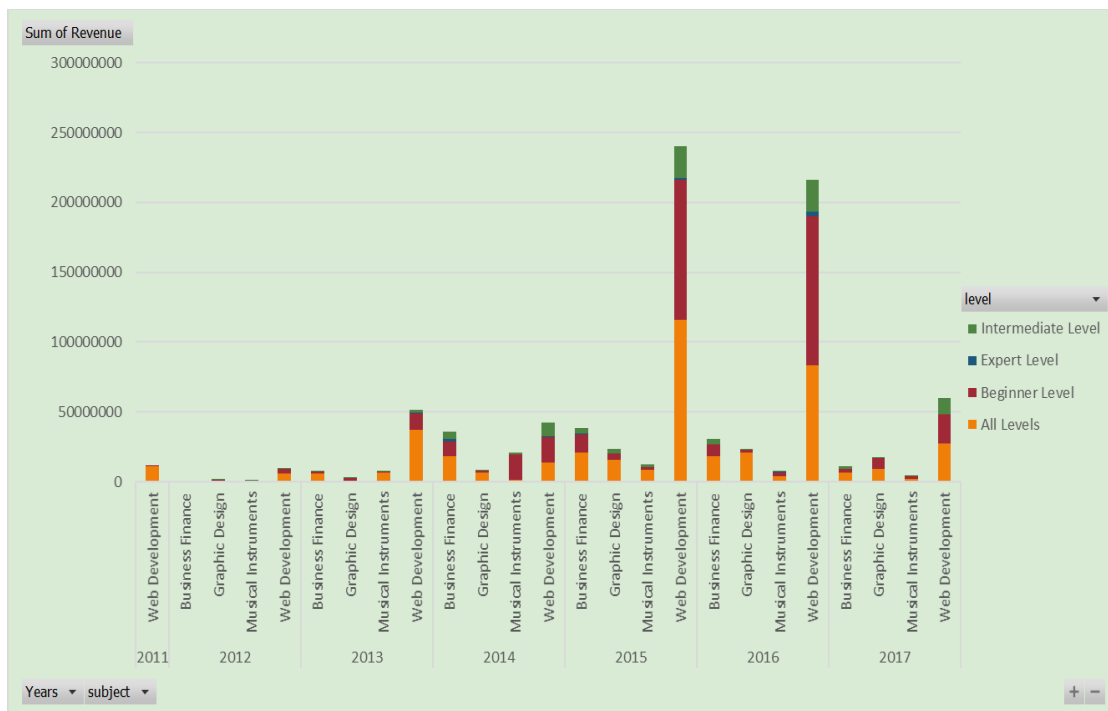
1. What are the top 20 courses with the highest number of subscribers?
2. How many courses were published every year by the four subjects we offer (Business Finance, Graphic Design, Musical Instruments, Web Development)?
3. How much Revenue do we make every year?
4. What are the average number of subscribers each subject has?
5. What is the proportion of free and paid courses by subject?
6. Total number of courses published for each level, revenue and average price?
7. Is there a correlation between subscription between duration, price and rating?
8. Average number of course produce every year.

FINDINGS

To answer the question of finding opportunities to increase revenue, we will be focusing on 3 factors; Subjects, Levels and Titles.

Revenue generated by subject from 2011-2017

Row Labels	Sum of Revenue
Business Finance	123735315
All Levels	69837715
Beginner Level	35578315
Expert Level	2709565
Intermediate Level	15609720
Graphic Design	76983170
All Levels	52388850
Beginner Level	18592325
Expert Level	164210
Intermediate Level	5837785
Musical Instruments	53359055
All Levels	23031730
Beginner Level	25429895
Expert Level	793505
Intermediate Level	4103925
Web Development	631082465
All Levels	294407915
Beginner Level	262545635
Expert Level	4943475
Intermediate Level	69185440
Grand Total	885160005

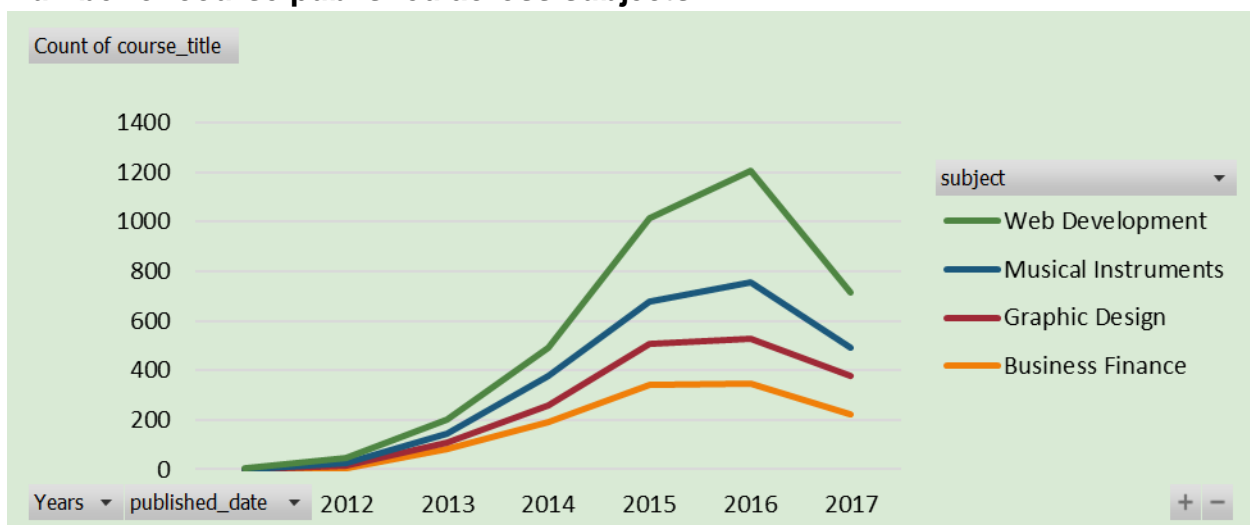


Currently, Courses under web development generates most revenue especially courses meant for all-levels and beginner levels followed by the business finance subject.

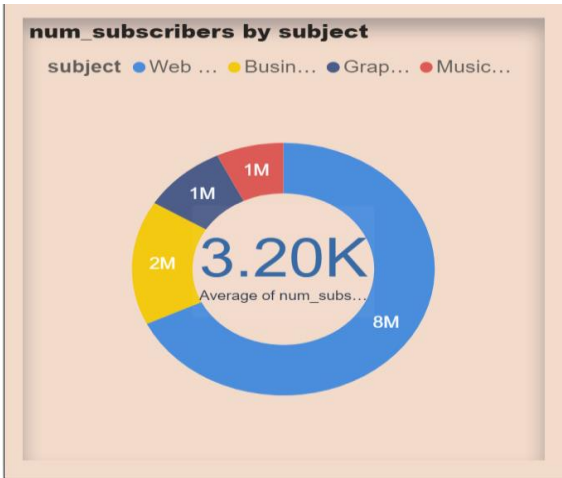
The decrease we see in 2017 is due to the fact that our data collected ended in the middle of the year the same for 2011.

To leverage these findings for opportunities to increase revenue, more courses should be published under Web development and business finance. Also, we can make free or discount most courses in the other subjects to boost their patronage.

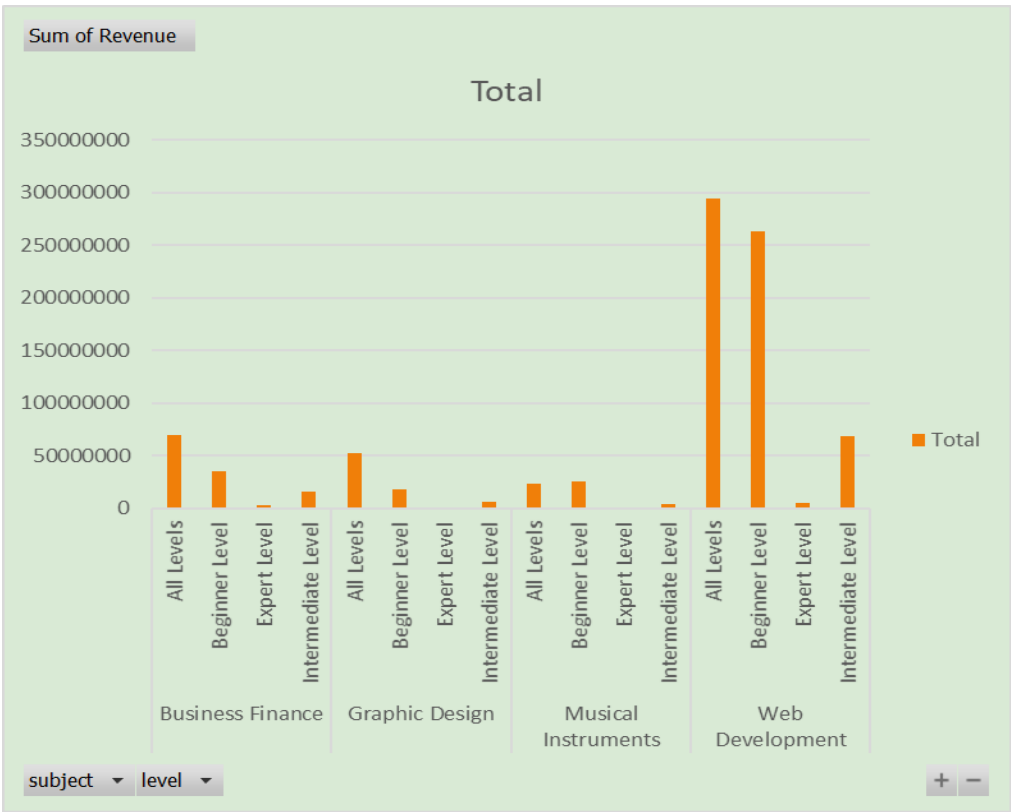
Number of course published across subjects



Also, it could be that the revenue generated from each subject is dependent on the number of courses published under each subject. Therefore, if we publish more of these courses to at least the average number of the entire courses published, we will generate more from these subjects. As shown in the chart below, the total number of subscribers in each of these subjects is greater than the total average.



Revenue by Levels



Across all subjects, all_levels and beginner courses sell the most. These can be considered when publishing new courses.

Revenue by Title

We took a look at the most sold courses titles;

Back to report		TOP 10 COURSES BY REVENUE		
course_title	subject	Revenue	num_subscribers	Free_Paid
the-web-developer-bootcamp	Web Development	24316800	121584	Paid
the-complete-web-developer-course-2	Web Development	22902400	114512	Paid
pianoforall-incredible-new-way-to-learn-piano-keyboard	Musical Instruments	15099800	75499	Paid
the-complete-guide-to-angular-2	Web Development	14018770	73783	Paid
understand-javascript	Web Development	13932100	79612	Paid
understand-nodejs	Web Development	11350560	58208	Paid
learn-angularjs	Web Development	10388175	59361	Paid
react-redux	Web Development	9146700	50815	Paid
design-and-develop-a-killer-website-with-html5-and-css3	Web Development	8575515	43977	Paid
angular-2-tutorial-for-beginners	Web Development	6010500	40070	Paid
Total		135741320	717421	

Most of these titles is about learning a programming language. More research into programming languages that are needed should be done to enable us publish courses that cater for them.

CONCLUSION

These findings are recommendations generated by fact limited to the dataset we worked with. When other factors like discounts, locations etc. are being considered, new findings should be generated