



Assessing the Receptiveness of Industrial Design Students to Business Programs: A Framework for Reinforcement and Implementation

Jayson E. Lannu*

De La Salle-College of Saint Benilde, Manila, Philippines

Abstract: Business subjects build a strong foundation for those who aspire to venture into entrepreneurship, having in-depth knowledge in management, finance and marketing. Business programs can provide a strong foundation with contemporary and practical contexts that are relevant to everyday decision-making. The Industrial Design Program of the De La Salle-College of Saint Benilde envisions graduates of the program who are not just design-inclined but also competent individuals who are equipped with technical business skills utilizing their strong design foundation in building business empires that promote economic progress to communities they belong to. In this light, the proponent sees an opportunity to further affirm this contention by establishing how students of the program assess business subjects as influenced by how they perceive their professors' qualifications and competencies and how these translate to a better appreciation of the relevance of these subjects to their profession as industrial designers. The study results affirm a high level of technical qualifications among the program professors, having displayed above par competencies and employed methodologies that deliver an effective learning experience to students. On the other hand, students' receptiveness was at a certain level influenced by how professors exude their expertise in business concepts and their relevance to the design practice. Preferences in improving students' appreciation of the business programs also emphasized a proposal on business organization exposure local or abroad, alignment of professors' credentials to business, and relaying experiential knowledge in business. The paper intends to integrate a student-centred approach in enhancing the current curriculum of the Industrial Design program and improving the competencies of business professors to promote a deeper appreciation of the relevance of business programs to the practice of the design profession. With these results, students and school administrators would better gauge and understand factors that affect perceptions and how these can be influenced to further enrich learning among students of the program.

Keywords: *Business professors, business programs, competencies, curriculum, industrial design.*

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INTRODUCTION

Business activities affect our daily lives regardless of profession or social stature. It affects the way we spend, save, invest and work. It influences how we perform our jobs and exploit opportunities for personal or corporate interests. Business can significantly impact the standard and quality of lives of everyone and in the environment where one operates and eventually, students will encounter the world of business.

In developing countries such as the Philippines, teacher competencies and qualifications are attributed to student-learning and appreciation of subjects taught. With these contention from different scholars, call for professionalization of teacher education especially in Higher Education Institutions (HEIs') has been desirable linking it to aligned graduate programs, relevant work experience and governmental mechanisms such as licensure and certifications (Darling, 1998;

*Correspondence concerning this article should be addressed to Jayson E. Lannu, De La Salle-College of Saint Benilde, Manila, Philippines. E-mail: jayson.lannu@gmail.com

Darling & Sykes, 1999; Darling, Berry, & Thoreson, 2001; Darling, Chung, & Frelow, 2002; Sadik, 2016; Yahya, Ismail, Salleh, & Abdullah, 2015). Moreover, studies suggest the positive effects of advanced degrees aligned to the field of expertise. This characteristic is related to the expertise of teachers to subject matters acquired during their formal studies consequently establishing positive relationship between teachers' preparation in the subject they later teach and student achievement (Goldhaber & Brewer, 2000; Lavilles Jr & Robles, 2017; Niamhom, Srisuantang, & Tanpichai, 2018; Taher, Shrestha, & Khalid, 2016).

Ayeni (2011) contends that teaching is a continuous process that involves being a catalyst for desirable change with the use of appropriate methods. In order to bring about this change, teachers must be able to present subjects in an interesting and interactive manner using the best desirable methods of teaching with the aid of technology and other relevant methodologies (Edelson, 2001; Malrouu, 2017). Sustained teaching methods must be utilized if these methods suit learners' needs since every learner responds in a different way (Chang, 2011).

Receptiveness of students to learning has become a crucial objective among educators. There have been contemporary calls for new kinds of learning from different parts of the society (Fink, 2013). How students perceive and appreciate subjects is mostly dependent on how teachers tailor-fit methodologies and contextualized subjects to students' respective future professions.

The relationship between teaching and learning has widely been the subject of arguments among scholars. It was contended that professors' competencies and the methodologies they employ play a significant part on how learners appreciate subjects in their programs. At the end of their program their employability determines how effective teachers were in teaching the subjects. In the Industrial Design profession in the Philippines, it was validated that most of the graduates are able to immediately land employment and practice their profession (Lannu & Nobleza, 2017). This is a clear indication that teachers of the Industrial Design Program may have utilized the most effective methodologies in teaching coupled with a strong academic foundation as well as years of relevant experiences.

At the culmination of this research endeavor, the researcher is optimistic that the results can pave way to founded generalizations and recommendations on how to further develop the current curriculum of the Industrial Design Program specifically its business subjects and enhance professors' competencies to better improve the learning experience of students and provide students a platform and a training ground for business decision-making to strengthen their business competencies.

Statement of the Problems

The research aimed at establishing the level of receptiveness of Industrial Design students and how they perceive factors that affect their appreciation of the Business Programs. Specifically, it sought to answer the following inquiries:

1. To what extent do Industrial Design students assess their professors' level of qualifications and competencies?
2. How do the respondents perceive the level of relevance of Business Programs to their profession as Industrial Designers?
3. Is there a significant relationship as to how Industrial Design students assess their professors' level of qualifications and competencies and how they perceive the relevance of Business Programs to their profession?
4. What generalizations can be inferred in recommending means of improving the level of interest among Industrial Design students and upgrading professors' qualifications and competencies?

Research Hypothesis

H1: *There is no significant relationship as to how Industrial Design students assesses their professors' qualifications and competencies and how they perceive the relevance of Business Programs to their profession.*

Conceptual Framework

The design practice provides the most lucrative platform for entrepreneurial opportunities locally and abroad. It serves as an avenue for business ventures both as a practicing designer and as an enterprise owner. Nonetheless, this practice boasts of the many existing and untapped industries in need of design which are aesthetically pleasing and functional.

Business competencies are a few of the many setbacks of aspiring entrepreneurs. Technical competencies in design can be utilized further if a designer possesses the skills which can aid in the growth of a business establishment. These competencies must be grounded from the academic realms and be instilled to students with a deeper appreciation on

the relevance of business programs to the industrial design profession. Moreover, the research is conceptualized with the intent of employing a parallel approach to assessing professors' qualifications and competencies as well as how Industrial Design students perceive the relevance of business programs to their future practice.

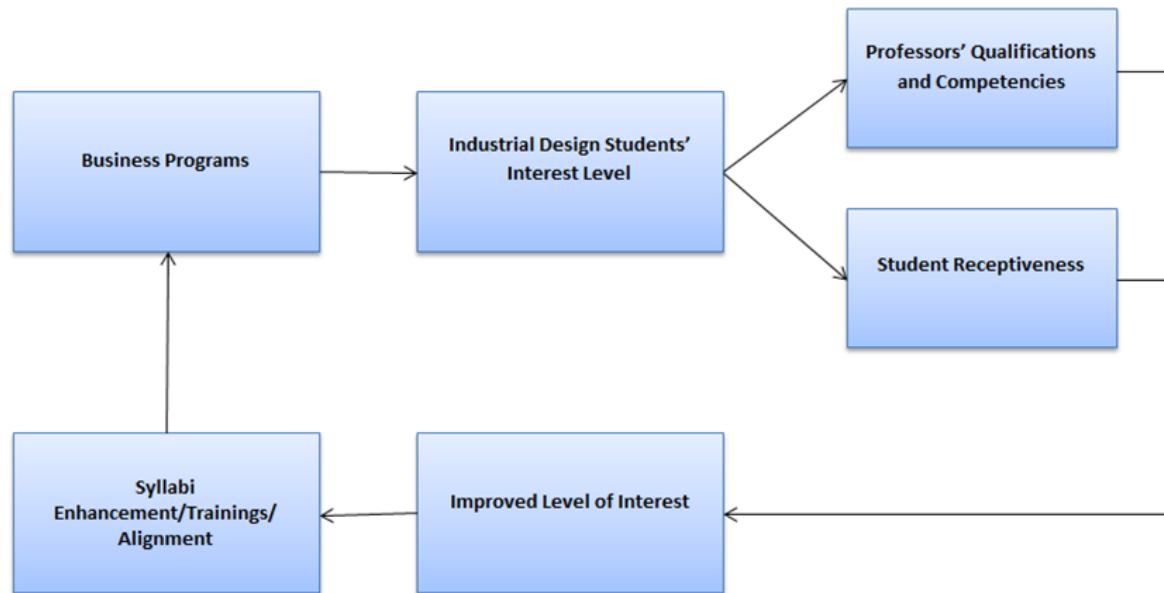


Figure 1 Conceptual Framework

METHOD

The descriptive research design was adapted to provide a quantitative foundation on how students perceive business subjects' relevance and professor competencies. A well-structured questionnaire having undergone face and content validation was the primary source of data and was interpreted qualitatively. The purposive sampling technique was utilized to pre-determine set of respondents, specifically one hundred (100) randomly selected students of the Industrial Design Program who have at least undertaken one business subject and was currently enrolled during the 2nd Term AY 2016-2017. Factors such as Professors' qualifications and competencies and students' receptiveness were assessed by the participants of the study and the four point likert scale served as the measure of agreement or disagreement to the statements and questions posed. Finally, the Pearson Correlation was used to determine the relationship between the two major factors that influence student perception to business programs.

RESULTS AND DISCUSSION

To establish founded results on the perceptions and receptiveness of students to Business Programs, one hundred (100) pre-selected respondents were chosen among the Industrial Design students enrolled in the 2nd Term AY 2016-2017.

Table 1 GENDER

Gender	<i>f</i>	%
Male	71	71.00%
Female	29	29.00%
Total	100	100.00%

As to the gender of the respondents, it was tallied that 71 (71%) of the subjected participants were male and 29 (29%) of the respondents were female respectively.

Table 2 AGE

Age	<i>f</i>	%
16-20	68	68.00%
21-25	32	32.00%
Total	100	100.00%

As to age, most of the respondents or 68 (68%) were within the age bracket of 16-20 years of age and on the other hand 32 (32%) were 21-25 years of age respectively.

Table 3 YEAR LEVEL

Year Level	<i>f</i>	%
2nd Year	31	31.00%
3rd Year	58	58.00%
4th Year	11	11.00%
Total	100	100.00%

As to the year level of the respondents, 31 (31%) were 2nd Year students, 58 (58%) were 3rd Year students and 11 (11%) were 4th Year Industrial Design students respectively.

Table 4 PROFESSOR'S QUALIFICATIONS/COMPETENCIES

Summary	WM	Interpretation
Professor's Qualifications/Competencies		
Technical Competencies		
Technical competencies in teaching business subjectss	3.48	Agree (A)
Experiential knowledge in business practice	3.15	Agree (A)
Effectively rely business concepts in a simple and comprehensible manner	3.11	Agree (A)
Provide significant and relatable examples contextualized in ID practice	3.07	Agree (A)
Expounds business concepts beyond the parameters of books/theories (empirical)	2.96	Agree(A)
Methodologies in Teaching		
Use visual aids that are relevant and comprehensive	3.64	Strongly Agree (SA)
Presents videos/animations that induce effective learning	3.05	Agree (A)
Proposes visits to actual busienss establishments	2.23	Disagree (D)
Provides case studies and business decision making activities	3.10	Agree (A)

Professors' qualifications or competencies play a vital part in the learning experience of students. It allows an effective relay of knowledge and better comprehension among intended recipients of information. Students of the Industrial Design Program assess their professors' technical competencies with a weighted mean of 3.48 interpreted as Agree (A). This is a clear indicator that students perceive their professors to have the fundamental knowledge on business as exuded by their expertise. Experiential knowledge was rated with a weighted mean of 3.15 interpreted as

Agree (A). It can be inferred that professors do not just possess theoretical knowledge but also relevant experiences in the practice of business. Effectiveness in the relay of business concepts was assessed by the students with a weighted mean of 3.11 interpreted as Agree (A). This assessment affirms the ability of professors to effectively relay information in a comprehensible manner allowing students to better understand topic discussions. Significant and relatable examples as contextualized in design practice were assessed with a weighted mean of 3.07 interpreted as Agree (A). This proves how professors are able to contextualize relevant examples specifically the relevance of business concepts in the practice of the profession. Given experiential and theoretical knowledge possessed by professors, students deem that topics are expounded beyond the parameters of books making it practical and empirical. This was assessed with a weighted mean of 2.96 interpreted as Agree (A). Among the indicators presented to establish professors' qualifications and competencies, empirical explanations on business concepts pose the lowest assessment. Although the rating is acceptable, it could be an opportunity for professors to further gain industry or experiential knowledge in business practice to ensure that discussions in class are insightful and realistic.

Table 5 *STUDENT RECEPTIVENESS TO BUSINESS PROGRAMS*

Summary	WM	Interpretation
Student Receptiveness		
Relevance of business programmes to industrial design practice		
Prepare to become better in industrial design practice	3.23	Agree (A)
Provide technical know-hows to be more effective in my profession	3.31	Agree (A)
Provide operational knowledge to make industrial design more lucrative	3.26	Agree (A)
Engages industrial design students to actual scenarios	3.08	Agree (A)
Improve my capacity to venture into business involved in design	3.14	Agree (A)
Preference on improving learning experience		
Provide a more interesting and interactive visual aids in teachings	3.32	Agree (A)
Provide experiential knowledge in business to improve learning experience	3.51	Strongly Agree (SA)
Propose business establishment visits locally or abroad	3.79	Strongly Agree (SA)
Professor must possess aligned qualifications/credentials in teaching business	3.63	Strongly Agree (SA)
Professors in business must undergo training/workshops to improve teaching skills	3.43	Agree (A)

Methodologies in teaching provide a platform for better learning. Relevant visual aid was assessed with a weighted mean of 3.64 interpreted as Strongly Agree (SA). Creativity and utilization of contents were among the strong points of Industrial Design professors. Videos or animations presented in class to make learning more interactive were rated with a weighted mean of 3.05 interpreted as Agree (A). Visit to local or international business organizations was one of the weak points of the program with a weighted mean of 2.23 interpreted as Disagree (D). Business decision-making activities conducted inside classrooms were assessed with a weighted mean of 3.14 interpreted as Agree (A). Finally, immersive and interactive discussions inside the class were rated with a weighted mean of 3.10 interpreted as Agree (A). Among the methodologies presented to respondents, visits to business organizations was one of the weakest points of the program and this assessment could serve as an opportunity for student-exposure to provide students a more realistic venue to observe actual business practice.

Student receptiveness to business programs reflects the appreciation of students to concepts that are relevant in the

practice of their profession. Students felt that business programs prepare them to become better in the Industrial Design practice with a weighted mean of 3.23 interpreted as Agree (A). Business Programs provide technical know- hows to be effective in their professions with a weighted mean of 3.31 interpreted as Agree (A). Operational knowledge is one of the key competencies that business programs provide with a weighted mean of 3.26 interpreted as Agree (A). Engaging students to business scenarios was rated with a weighted mean of 3.08 interpreted as Agree (A) and lastly, business programs provide students with the capacity to venture into business with a weighted mean of 3.14 interpreted as Agree (A). Among the presented indicators of relevance of the business programs to the design practice, exposure to actual business scenarios presents an opportunity to introduce to the business programs syllabi activities that could expose students to realistic business scenarios to improve their decision-making skills.

Students' preferences suggest that visual aids in teaching must be more interesting and interactive with a weighted mean of 3.32 interpreted as Agree (A). Experiential knowledge in business to improve learning experience was given preference with a weighted mean of 3.51 interpreted as Strongly Agree (SA). Visit to local and international business organizations was given the highest rating with a weighted mean of 3.79 interpreted as Strongly Agree (SA). Qualifications alignment in teaching business was also given a high preference with a weighted mean of 3.63 interpreted as Strongly Agree (SA). Finally, workshops and trainings in improving teaching skills were assessed with a weighted mean of 3.43 interpreted as Agree (A).

Table 6 *HYPOTHESIS TESTING- PEARSON CORRELATION*

	Mean	S.D	Pearson Correlation	Decision	Remarks
Pro qualifications	3.09	0.14	0.552156414	Rejected H_0	There is significant relationship
Student receptivness	3.37	0.05			

df = 9; Significant level = 0.05

It can be generalized that Industrial Design students' receptiveness to Business Programs is at a certain level directly influenced by how students perceive their professors' qualifications and competencies. Therefore, given the results of the statistical computation in establishing the relationship between professors' qualifications and students' receptiveness, the null hypothesis is rejected.

CONCLUSION

1. Students of the Industrial Design program assess the professors of the business programs to be competent with sufficient qualifications and relevant industry experience. On technical competencies and teaching methodologies, empirical explanations of business concepts and visits to local and international business organizations were among the opportunities that need to be improved and integrated in the current business programs syllabi.
2. Students of the Industrial Design program deem the business programs to be relevant in the practice of their profession specifically its business aspects. Engagement to business scenarios was one of the activities that need to be integrated, on the other hand, students prefer that professors of the business programs provide more experiential knowledge, visits to local and international business organizations must be initiated and professors must have aligned qualifications in business.
3. Students' receptiveness to business programs of the Industrial Design program is at a certain level influenced by how students perceive professors' qualifications. It can be inferred that there is a significant relationship as to how Industrial Design students assess their professors' level of qualifications and competencies and how they perceive the relevance of Business Programs to their profession.

RECOMMENDATIONS

1. Needs assessment among professors must be initiated by the department to determine necessary augmentations to improve strategies and methodologies in teaching business programs.
2. Relevant business practice and aligned academic credentials must be considered and given weight for aspiring new-

entrant professors and for appraisal metrics among current faculty members teaching business programs.

3. Local and international business organizations visit must be proposed and integrated to selected business programs to expose students to actual business operations.
4. Teaching strategies and implementation of business programs syllabi must be OBE- oriented requiring research or case studies that focus on business decision-making.
5. Conduct further research to test other factors that could influence students' receptiveness to the relevance of business programs to the industrial design profession.

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