

***The Information of Workplaces From Opinions of Graduated Students Attended the Cooperative Education in the Program of Printing and Packaging Technology, King Mongkut's University of Technology Thonburi***

Somsri Binraman, King Mongkut's University of Technology Thonburi, Thailand  
Suchapa Netpradit, King Mongkut's University of Technology Thonburi, Thailand  
Phichit Kajondecha, King Mongkut's University of Technology Thonburi, Thailand

The Asian Conference on Education 2023  
Official Conference Proceedings

**Abstract**

The objectives of the routine-to research (R2R) were to survey the information and opinions from the graduated students who had experiences from attending the cooperative education program, and to provide the database of the workplaces for the undergraduate students in next generations after determining the qualifications for selection. The online questionnaire was created using google form and the link was sent to 150 graduated students of this program by using the line group connection. The satisfaction was evaluated in 5 rating scale from 1, very poor, to 5, very good in three main topics: Readiness and Collaboration, Research Project Support, and Mentor or Advisor Providing. The feedback data with Microsoft Excel program were analyzed using descriptive statistics at the univariate level. The feedback responses of 50% of samples were obtained from 3 generations from 2020, 2021 and 2022, getting the information of total 40 workplaces categorized into 4 types, Design or Graphic Houses, Offset Printing Houses, Packaging Manufacturers, and Suppliers and Services. The results showed that a high number of the design or graphic houses, the suppliers and services, and the packaging manufacturers were very good in mentor and advisor providing. The satisfaction of graduated students in the readiness and collaboration, and research project support of the design or graphic houses and the suppliers and services were high. The workplaces type of design or graphic houses were the most appropriate for internship, and the suppliers and services were more appropriate than the offset printing houses and packaging manufacturers, respectively.

Keywords: Workplaces, Cooperative Education, Printing and Packaging Technology

**iafor**

The International Academic Forum  
[www.iafor.org](http://www.iafor.org)

## **Introduction**

The higher education institutions around the world use cooperative education to provide a broader range of degree studies in almost every field of study, making cooperative education graduates “know themselves, know people, and know their work” [1]. Cooperative Education is an education model that systematically switch classroom learning between practical work experience with a partnership of both public and private industrial enterprises and all involved sectors [2].

King Mongkut’s University of Technology Thonburi saw the importance of internship as an educational tool for undergraduate students by providing the opportunity to practice and apply the knowledge gained in the classroom in the actual operation at the workplace. Therefore, the university has included the student’s internship is part of the required subjects in the student’s course [3]. In the program of B.Sc. Printing and Packaging Technology, the cooperative education was set for the 4<sup>th</sup> year students to have operation practice course in the workplaces in a period of one semester (16 weeks). The aims of this learning activity are to promote students to have more experience and professional skills, understand the behavior of workers and organization culture, able to work with other persons, and have a good attitude before graduating for further career.

As the responsible of the educational service support work, the routine-to research (R2R) was performed to develop the database of workplaces for our undergraduate students in the cooperative education. The questionnaire was then created to survey information and opinions from previous generations of undergraduate students who had experiences from attending their cooperative education program. Our purpose in this study was to get the information of workplace profiles to help the next generation of undergraduate students in choosing their suitable workplace for their internship.

## **Methodology**

The quantitative research method used in this study was surveyed from three generations of graduate students who have experiences from attending the cooperative education practice of B.Sc. program in Printing and Packaging Technology, during the academic year 2020-2022. The online questionnaire as a tool of data collection was created with the google forms with open-end questions on the name of workplace, occupation after graduation and other suggestions, and closed-ended questions for the satisfaction evaluation in 5 rating scale from 1, very poor, to 5, very good. The opinion and satisfaction of the respondents on the workplaces in printing or packaging industries were evaluated as 5 rating scales in three main topics including sub-topics, as shown in Table 1.

Table 1: The contents for satisfaction evaluation in Questionnaire

<b>Main Topics</b>	<b>Sub-topics</b>
Readiness and Collaboration	<ul style="list-style-type: none"> <li>- Facilities for operations</li> <li>- Welfare support</li> <li>- Advisors preparation</li> <li>- Work safety</li> <li>- Contact and Coordination</li> <li>- Training Plan</li> </ul>
Research Project Support	<ul style="list-style-type: none"> <li>- Correspondence to subject area</li> <li>- Scope of training work</li> <li>- Support by administrators</li> </ul>
Mentor or Advisor Providing	<ul style="list-style-type: none"> <li>- Professional in knowledge and experience</li> <li>- Available for advice</li> <li>- Pay attention in teaching and assignment</li> <li>- Assistance for work problems</li> <li>- Communication and knowledge transfer</li> </ul>

The link of google form was sent to 150 graduated students of this program by using the line group connection. The feedback data with Microsoft Excel program were analyzed using descriptive statistics at the univariate level. The average rating scales (1-5) of any workplaces were classified in the range as follows.

4.51–5.00	Very good
3.51–4.50	Good
2.51–3.50	Fair
1.51–2.50	Poor
1.00 –1.50	Very poor

## Results

The feedback responses of 75 graduated students (50% of samples) were obtained from 3 generations, those were 8 persons from 2020, 12 persons from 2021, and 55 persons from 2022. The information was summarized for total 40 workplaces relating to printing or packaging industries, which are categorized into 4 types, as follows.

- 1) Design or Graphic Houses: 3 workplaces from 9 graduated students.
- 2) Offset Printing Houses: 14 workplaces from 27 graduated students.
- 3) Packaging Manufacturers: 14 workplaces from 22 graduated students.
- 4) Suppliers and Services: 9 workplaces from 17 graduated students.

The data shows that the popular workplaces were offset printing houses and packaging manufacturers. The evaluation rating scales of each workplace type were analyzed in average scores to inform the quality level at each main topic and the number of workplaces was counted in percentage, as shown in Table 2.

Table 2: The number (%) of workplaces in each quality level for 4 workplace types in different 3 main topics

Workplace Types	Quality level	Readiness & Collaboration	Research Project Support	Mentor/Advisor Providing
1. Design or Graphic House	Very good	-	-	<b>66.66%</b>
	Good	<b>100%</b>	<b>100%</b>	33.33%
2. Offset Printing House	Very good	14.28%	21.42%	28.57%
	Good	<b>71.43%</b>	<b>42.86%</b>	<b>71.43%</b>
	Fair	14.28%	28.57%	-
	Poor	-	7.14%	-
3. Packaging Manufacturer	Very good	28.57%	21.42%	<b>50%</b>
	Good	<b>35.71%</b>	<b>42.86%</b>	21.42%
	Fair	28.57%	21.42%	21.42%
	Poor	-	7.14%	-
	Very poor	7.14%	7.14%	7.14%
4. Suppliers and Services	Very good	11.11%	33.33%	<b>66.66%</b>
	Good	<b>55.55%</b>	<b>44.44%</b>	33.33%
	Fair	33.33%	11.11%	-
	Poor	-	11.11%	-

For consideration in quantitative results, it was indicated that the high number of design or graphic houses, packaging manufacturers, and suppliers and services were very good in mentor and advisor providing. The offset printing houses were good in readiness and collaboration, and mentor/advisor providing. The poor level was observed in the topic of research project support for the offset printing houses, the packaging manufacturers, and the suppliers and services. After analysis, the very poor packaging manufacturer in all topics was then concerned to be delete from the list. In addition, the workplaces due to the poor quality in the topic of research project support should be revised to solve this problem for the undergraduate students in the next generation.

For consideration in qualitative results, the satisfaction evaluation of graduated students in scale from 1-5 was shown in Figure 1, which shows that the readiness and collaboration, including research project support of 1) design or graphic houses and 2) suppliers and services were slightly higher than those of 3) offset printing houses and 4) packaging manufacturers. For mentor or advisor providing, the suppliers and services were the best due to the staffs have knowledge in techniques and were available to transfer their knowledge of work to the students who practice as the technicians for customer services. The packaging manufacturers had the lowest score in terms of research project support and mentor/advisor providing due to the very tight of work.

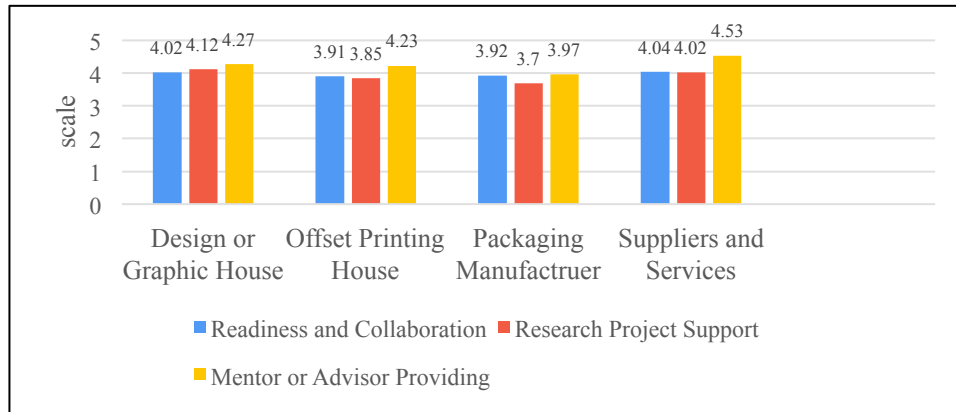


Figure 1: The satisfaction level of the graduated students to the workplaces

Table 3 shows that high number of the graduated students prefer to have internship at the design or graphic house and supplier and services. From the questions due to the occupation of graduated students after graduation, there were some persons are working in the same workplace after their internship, as shown in Table 3. For the open-end questions, there were some suggestions from the graduated students as shown in Table 4.

Table 3: Other information of the workplaces

Workplace Types	Number of workplaces satisfied for internship	Number of workplaces admit staffs after internship
Design or Graphic House	87.5%	87.5%
Offset Printing House	76%	48%
Packaging Manufacturer	51%	61.90%
Suppliers and Services	80%	60%

From Table 3, it was shown that the workplaces type of design or graphic houses were the most appropriate for internship and the suppliers and services are more appropriate than the offset printing houses and packaging manufacturers, respectively. However, the graduated students prefer to work as the designer and producer of packaging, due to the present trend, packaging industry requirement and the students' competencies in this program.

Table 4: The suggestions of the graduated students for some workplaces

<b>Workplace Types</b>	<b>Advantages</b>	<b>Disadvantages</b>	<b>Area for Improvement</b>
Design or Graphic House	The workplace type of design or graphic house is suitable for students who have competence in design, are creative and are up to date with current trends.	Travelling is inconvenient, and students going for internships should have their cars because most workplaces are far from the university.	The internship administrators should provide students with information about the travel to the workplace and inform the staff in that workplace about the design course that the student took in the curriculum.
Offset Printing House	It is more suitable for male students as it is easier to take safety precautions and management.	The tools and equipment used for practical training frequently malfunction and become inoperable. There is hard work and poor environmental management.	The internship administrators should survey the needs of both female and male students before allowing them to practice in an internship. The students should have their own equipment such as a laptop or computer notebook.
Packaging Manufacturer	Students gained knowledge from actual practice because there was a good working system.	When going to work, there always be heavy traffic. The students should have their vehicle. They should prepare to adapt to a new society and look for opportunities to learn new tasks.	The internship administrators should inform students to study the route for traveling to work and adapting to working society. When in doubt, always ask their mentor.
Suppliers and Services	Students who are interested in printing technology will gain a lot of knowledge because the staffs are very knowledgeable.	There is no variety in the internship, the work was the same repeatedly. During the rainy season, there was heavy flooding, and the travel was long. The students should stay in dormitories with a roommate to share the expenses.	The internship administrators should provide guidelines for practicing in the area of repair, and presentation of materials and equipment.

## **Other Information From Graduated Students**

From the open-ended questions, the suggestions can be summarized as follows. Two workplace types; the design or graphic houses, and the suppliers and services were excellent in the topic of readiness and collaboration, due to good compensation, allowances, and the equipment or tools for students practice to ensuring the work efficiency.

In topic of research project support, the entrepreneurs of design or graphic houses were ready and willing to collaborate with students to have research and develop for their companies. In term of mentor or advisor providing, the staffs of suppliers and services were expert to effectively provide guidance, suggestion, and knowledge transfer. The success key of internship is to apply the knowledge gained from the workplace for future occupation, income, living, and continue to benefit society.

## **Conclusion**

This study was a routine to research (R2R) to develop the information for undergraduate students to determine the suitable workplace before application for internship in the cooperative education practice course of the B.Sc. Program in Printing and Packaging Technology at the Faculty of Industrial Education and Technology, King Mongkut's University of Technology Thonburi. The qualitative and quantitative results of the workplace was analyzed by survey on the opinion and satisfaction of the graduated students to the workplace that they had ever have a cooperative education practice. In this study, there were 40 workplaces, with a total of 75 respondents from 150 graduated students attending the cooperative education practice during 2020 to 2022.

For consideration in quantitative results, it was indicated that a high number of the design or graphic houses, the suppliers and services, and the packaging manufacturers were very good in mentor and advisor providing. For consideration in qualitative results, the satisfaction of graduated students in the readiness and collaboration, including research project support of the design or graphic houses and the suppliers and services, were also high. The workplaces type of design or graphic houses were the most appropriate for internship, and the suppliers and services were more appropriate than the offset printing houses and packaging manufacturers, respectively.

## References

- [1] Thitiratana Kerdhan, Chanon Jantra and Pikun Ekwarangkoon, “An Evaluation of Cooperative Education Project, Bangkok University”, *Journal of Modern Learning Development*, Vol. 6, No. 5, September - October 2021, p. 129.
- [2] Sujira Piwbang, 2559, “The Opinions of the Establishments towards the Desired Skills of the Students under the Cooperative Education of the Faculty of Humanities and Social Sciences at Khon Kaen University”, *Journal Council of University Administrative Staff of Thailand (CUAST)*, Vol. 12, No. 2, pp. 95-104.
- [3] Student Affairs Office, Retrieved from <https://sao.kmutt.ac.th/service/internship>, King Mongkut’s University of Technology Thonburi.

**Contact email:** [somsri.bin@kmutt.ac.th](mailto:somsri.bin@kmutt.ac.th)