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Round 1

Round 1 Status

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Notifications

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<a href="#">[jtet] Editor Decision</a>	21-10-2022 09:04 PM
<a href="#">[jtet] Editor Decision</a>	21-10-2022 09:05 PM

Reviewer's Attachments

Q Search

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Revisions

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Review Discussions

Add discussion

Name	From	Last Reply	Replies	Closed
▶ <a href="#">Article 11757 revision for JTET</a>	fkkputra 20-09-2022 06:53 AM	-	0	<input type="checkbox"/>

September 20, 2022

Dear Prof. Datin Ts. Dr Noraini Kaprawi,

Editor in Chief  
Journal of Technical Education and Training (JTET)  
Universiti Tun Hussein Onn Malaysia, Malaysia

Thank you for reviewing our manuscript “PREFERRED COMPETENCIES FOR TOURISM AND HOSPITALITY GRADUATES’: EVIDENCE FROM TRACER STUDIES” which was submitted to *Journal of Technical Education and Training (JTET)* for publication consideration. We are grateful to receive your constructive and valuable comments from the reviewers, which have helped us to improve the overall quality of our manuscript.

Please note we have revised the paper based on your comments and suggestions. This revision summary provides a point-to-point response to the comments offered by the reviewers, and we highlighted (yellow) the revised version in the main text.

Again, thank you very much for your interest in this work. We wish the final revised manuscript would meet the standard of upcoming issues publication in *Journal of Technical Education and Training (JTET)*.

Yours truly,

Fajar Putra  
Correspondence author

#### **Reviewer(A)' Comments to Author:**

(1) A longitudinal type of study such as this, on examining the effectiveness of a cohort is a valuable resource for studies relating to curriculum development and students' learning outcomes as it shows first hand result of the planned syllabus.

#### **Our response:**

*Thank you for your comments.*

(2) It is a large scaled study but was not able to be placed entirely in the article due to the word count limitation.

#### **Our response:**

*Thank you for your comments. We try our best to fit all the findings in this article including the distribution of graduates’ characteristics, graduates’ competencies in employment, and learning experiences from the graduates.*

(3) Formatting and citation style should be corrected (line 61, 99, 236)

**Our response:**

*Thank you for your comments. Please note we have revised the manuscript based on your comments revised the incite citation style as per requirement. Please see the full manuscript revised.*

Line 61: (Ministry of Education and Culture, 2020)

Line ... (previously line 99): (Nurdin & Hartati, 2019)

Line 236: According to Riggs and Hughey (2011),

(4) The results and findings would be good if the researchers could add more respondents' similar responses rather than just a select one for each competency (e.g., in Table 7).

**Our response:**

*Thank you for your comments. Please note we have revised the manuscript based on your comments and add another response in table 7. Please see the full manuscript revised.*

(5) In line 78, you mentioned 7 steps in data collection but only five steps were explained

**Our response:**

*Thank you for your comments. Please note we have revised the manuscript based on your comments and elaborate the 7 steps.*

The process of data collection consists of seven stages. The first step is designing the questionnaire, eleven standard criteria's from the National Accreditation Board of Higher Education (PD-DIKTI) to build questions in the questionnaire, they are: alumni biodata, employment status, waiting time to get the first job, type company/institution for current job, location of current work, monthly salary, relationship between field of study and their work, teaching method during study, assessment of teaching and learning activities towards work, the extent of applicability of graduates competencies in employment, and relevancies of teaching and learning experiences with professional competencies.

Second, collecting and verifying graduate data, the tracer study team consist of fourteen verifiers consisting of fresh graduates or final year students from each study program in STP Bandung. Third, preparing an online questionnaire using QTAFI software, consists of four features: administration, surveys, questionnaires, and data to support the tracer study (Arutyunyants, 2015). The STP Bandung tracer study team administered the questionnaires, then emailed each verified graduate to participate in the surveys. This activity was carried out three times by a team consisting of six reminders. The fourth step is inviting the graduate to participate in the tracer study; verifiers ensure an active email address and phone number from the alumni. Fifth, after the official notification process, communication via email and telephone was conducted to remind graduates who had not opened the questionnaire link to send to their email. In the process

of recalling, the main task of the reminder is to remind respondents of the importance of filling out the tracer study questionnaire for the STP Bandung. Participation in this study is voluntary; hence, the reminders process avoids coercing respondents to fill out the questionnaires. The sixth stage is the data collection period with the time and provision for the number of reminders up to four times to the alumni, then the data cleaning process according to the standard descriptive statistical analysis of each question item. In last stages, prepare the final report and dissemination of the tracer study results.

(6) Line 232 showed that the sentence is incomplete and hanging.

**Our response:**

*Thank you for your comments. Please note we have revised the manuscript based on your comments.*

they argue that the learning and teaching process are not only came from educational institution, but also during the industrial internship.

(7) In line 278, you mentioned that 3 competencies as essential skills for future employability of the graduates but in abstract, only two were mentioned.

**Our response:**

*Thank you for your comments. Please note we have revised the manuscript based on your comments and updated three competencies mentioned in abstract.*

The Result of this study showed that three competencies constitute the critical skills required in future employment for tourism and hospitality management graduates namely fundamental, functional and professional competencies.

## Reviewer(B)' Comments to Author:

Comments:

(1) This research focusing on the multi-cohort tracer studies about tourism and hospitality management graduates' employability and competencies is very interesting, so it could contribute to extend the literature of TVET.

- It includes a clear and detailed explanation regarding the data collection process.

### **Our response:**

*Thank you for your positive comments.*

(2) There is no literature review section

### **Our response:**

*Thank you for your comments. Based on author guidelines of JTET the introduction and literature section are combine in one section, however we address your suggestion by adding subsection **I.1. Tracer Study in Higher Education** to highlight on the previous research used for this study. Please see the full manuscript revised.*

(3) I don't ensure whether the method that this study used is a mixed methods approach. Although this study included both quantitative and qualitative data analysis, it seems that the survey included both questionnaires and open-ended questions for suggestions.

### **Our response:**

*Thank you for your comments. This study adopted a quantitative method, based on longitudinal surveys to graduate students from three cohort. The open-ended questions are part of the surveys, and we analyses by using content analyses.*

*The second method is the qualitative approach uses content analysis on the graduates' concrete suggestions based on open ended questions in the last part of tracer studies.*

(4) This study measured the graduates' perceptions learning method and activities and their impacts on the employability, so it can differ from the actual factors and competencies that contributed to the graduates' employability.

### **Our response:**

*Thank you for your comments.*

(5) Please add the section of the literature review and include findings of previous studies related to your research topic. Moreover, in the discussion section, comparison of findings in this current study and previous studies should be discussed instead of simply presenting the previous studies. Some detailed description about previous studies located in the discussion section should be moved to the literature review section as well.

**Our response:**

Thank you for your comments. we address your suggestion by adding subsection **1.1. Tracer Study in Higher Education** to highlight on the previous research used for this study. Please see the full manuscript revised.

- (6) Please include more detailed about the mixed methods, especially the qualitative method part. How did you collect the qualitative data (e.g., interviews)? Who participated in the data collection process? How did you conduct a content analysis (e.g., coding)?

**Our response:**

Thank you for your comments. The qualitative data is based on the open-ended questions in the last part of surveys. In this research team of the coding is based on the categories of framework we used in this study Figure 1 - Employability and Competencies of Tourism and Hospitality Graduates'

- (7) Please include sample questionnaires? How the seventeen standard criteria from PD-DIKTI integrated into the questions?

**Our response:**

Thank you for your comments. We provide the sample of questionnaires uploaded in supplement files on JTET open journal system. The criteria itself consist of eleven criteria as stated on main text

Eleven standard criteria's from the National Accreditation Board of Higher Education (PD-DIKTI) to build questions in the questionnaire, they are: alumni biodata, employment status, waiting time to get the first job, type company/institution for current job, location of current work, monthly salary, relationship between field of study and their work, teaching method during study, assessment of teaching and learning activities towards work, the extent of applicability of graduates competencies in employment, and relevancies of teaching and learning experiences with professional competencies.

- (8) If there is more details about the participants' demographic information such as gender, please included in the table 1.

**Our response:**

Thank you for your comments. Please note we have revised the manuscript based on your comments in table 1

Number of Responses	Female	Male
550	352	198
620	341	279
582	338	244
<b>1752</b>	<b>721</b>	<b>1031</b>

(9) Please describe the limitation regarding measuring the participants' perceptions.

**Our response:**

*Thank you for your comments. We have added the limitations in collecting participants responses using online surveys, please see revised manuscript.*

In the assessing measuring the participants' perceptions there are several important limitations to the dependability of the participant's opinion. While filling out the forms for the online survey, respondents choose midpoints on the scale. While expressing an opinion, the researcher cannot judge the participants' earnestness about the questionnaire. The biggest disadvantage of using online surveys is that knowledgeable participants who lack computer and internet skills are excluded. Because of the small screen size of mobile phones, the length of the questionnaire and responses to open-ended questions are limited (Nayak & Narayan, 2019).

Comments from Editor	Response
<b>1. Title:</b> Graduates, no s' (no apostrophe)	Thank you for your comment, we have revised the title
<b>2. Abstract</b> ○ edited	Thank you for editing the abstract, we have revised based on your comments (please see revised manuscript).
<b>3. Introduction</b> ○ Training programs in VET (introduce VET here) ○ Confusing, too much 'and' ○ Please use British English-standardised  ○ 1.1. Tracer study in higher education Too long a sentence. Cut into a few sentences. Please improve this sentence. Make it simpler.  ○ Where, in Indonesia or worldwide?  ○ Turn this into separate heading: OBJECTIVE	Thank for your comments in introduction section, we have revised, paraphrased article based on your comments (please see revised manuscript).  Tracer study has been studied by scholars in the context of curriculum feedback, analyse graduates and user (industry) satisfaction, skills for employment, and higher education quality assurance (Duke & Reese, 1995; Kardoyo & Nurkhin, 2016; De Castro, 2017; Gonzales et al., 2019).Tracer study is an useful tools for assessing graduates employability process including: the duration of work search, horizontal and vertical alignment learning outcomes to the job, and job position in the industry (Albina & Sumagaysay, 2020; Heriyadi, 2021).  Today there are currently about thirty-five higher institutions with tourism and hospitality bachelor's degree programs in Indonesia (Krisnawati et al., 2020; Oktadiana & Chon, 2019).  Thank you for your comment, we have added sub heading OBJECTIVES in introductions section (please see revised manuscript).
<b>4. Literature Review</b> ○ I think this should be in the Literature up after the Objective section. It seems this framework directly guides your report on the results.	Thank you for your comment, we have added Literature section for this article (please see revised manuscript).



<p><b>5. Method</b></p> <ul style="list-style-type: none"> <li>○ Please simplify the research procedure. I suggest converting this into a flow-chart. Otherwise, it can stay like this but please improve the grammar.</li> </ul>	<p>Thank you for your comment, we have revised and paraphrase the paragraph as follow:</p> <p>The process of data collection consists of seven stages. The first step is designing the questionnaire based on eleven standard criteria's including: alumni biodata, employment status, job waiting time, types of company, location, salary, relationship between field of study and their work, teaching method, assessment of teaching and learning activities towards work, the extent of applicability of graduates competencies in employment, and relevancies of teaching and learning. Second, collecting and verifying graduate data. Third, preparing an online questionnaire using QTAFI software (Arutyunyants, 2015). The fourth step is inviting the graduate to participate in the tracer study. Fifth, communication via email and telephone was conducted to remind graduates who had not filled the questionnaire. The sixth stage is the data collection period with the time and provision for the number of reminders up to four times to the alumni. The seventh stage is the data cleaning process according to the standard descriptive statistical analysis of each question item and prepare the final report and dissemination of the tracer study results.</p>
<p><b>6. Findings and Discussion</b></p> <ul style="list-style-type: none"> <li>○</li> </ul>	
<p><b>7. Conclusion</b></p>	
<p><b>8. Acknowledgement:</b></p> <ul style="list-style-type: none"> <li>○ You may include the name of the agencies and institutions.</li> </ul>	<p>Thank you for your comment, we have added Literature section for this article (please see revised manuscript).</p>



## Preferred Competencies for Tourism and Hospitality Graduates: Evidence from Longitudinal Tracer Studies

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Received [13 June, 2022](#); Accepted [21 October, 2022](#); Available online [xx December 2022](#)

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**Abstract:** This paper reports on the multi-cohort tracer studies about graduates' perception (inserted) on employability, competencies, and job-specific skills in the field of tourism and hospitality management. Mixed-methods research was designed to explore graduates' perceptions on the preferred competencies using online surveys. 1694 tourism and hospitality graduates participated in this study, data collected using longitudinal design involving three cohorts. The results of this study show that three competencies constitute the critical skills required in future employment for tourism and hospitality management graduates namely fundamental, functional and professional competencies. The findings shed new light on the vocational education and training (VET) preferred competencies, especially from the perspective of the graduates in the field of tourism and hospitality management. This study also suggested that preferred graduates' job competencies for the tourism and hospitality sectors can integrate with collaboration strategy during internship and industry-related certification programs. In the context of learning experiences, this study also found that tracer studies play a crucial role as the initial stage for developing higher education curriculum relevant to the tourism and hospitality management courses.

**Keywords:** Competencies, Job Skills, Tourism and Hospitality graduates, Tracer Study, Vocational Education and Training.

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[penerbit.uthm.edu.my/ojs/index.php/jtet](http://penerbit.uthm.edu.my/ojs/index.php/jtet)

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## 1. Introduction

According to Yiu and Law (2012), tourism and hospitality management programs offer a mass of professionally trained students ranging from hotels, restaurants, travel agencies, and tourism and hospitality-related business fields. The tourism industry has provided job opportunities and welfare for tourism and hospitality sector workers (Banjarnahor et al., 2021). However, Madera et al. (2017) has argued that one of the weak points of national and regional tourism development lies in the limited quality and quantity of human resources in business actors, industry, and government. Through relevant education and training programs in vocational education, the capacity and capability of tourism and hospitality workers will be improved (Cuffy et al., 2012; Haryana, 2020). Hence, vocational education and training (VET) are critical to the success of the tourism and hospitality sector and the global economy (Deaconu et al., 2018).

Tourism and hospitality management study program prepares students to enter the workforce after completing their studies. However, there seems to be a gap between industry expectations and what tourism and hospitality education provide (Gursoy et al., 2012). Moreover, the current reality for the VET pathway is improving the quality of educational services through adequate learning facilities, infrastructure, quality of educators, adequacy of internships, and capacity for competency certification (Helmy, 2021). The demand for tourism and hospitality workers who has relevant technical competencies has become a critical factor for the successful operation in these sectors (Bharwani & Jauhari, 2013). The employability of tourism and hospitality graduates depends on job competencies, the definition of job competencies is the ability of an employee to perform a job from industrial perspectives (Baum, 2002; Wang & Tsai, 2014).

Wang and Tsai (2014), in their study describe that job competency is crucial for the tourism and hospitality student's employability. Personal competency refers to career planning, development and core skills in their relevant field of work. The study also suggested that developing tourism and hospitality graduate competencies consists of two central clusters: fundamental competency and functional competency. Functional competencies are more related to the graduates' hard skill that is more visible in the industry. The fundamental competency comprises work attitude and personal attributes that are significant attributes for employees to perform their work. However, Sisson and Adams, (2013) argued that fundamental competency is the central aspect of graduates' career planning and development skills. Level-specific competency refers to the competency needed in specific type of position within the organisation and needed to accomplish a task consisting of professional management and technical skills (Wang & Tsai, 2014).

The role of tourism and hospitality higher education institutions is to produces quality graduates, build their personal character, and job competency (Wang & Tsai, 2014). Higher education can use tracer study to gain relevant and up-to-date information about achievements in learning outcomes, graduates' competencies, and satisfaction from stakeholders (Kardoyo & Nurkhin, 2016). The tracer study is a standardized survey of graduates of higher education institutions conducted after the graduates leave the institution and conducted at least 1 (one) year after graduation. Tracer study is a systematic, standardized, and common mechanism used by higher education institutions to gain information from their graduate students (Schomburg, 2003). Moreover, tracer study can provide information to evaluate higher education outcomes and can be used to improve the quality of the higher education institution concerned (Schomburg, 2016).

### 1.1. Tracer Study in Higher Education

Tracer study has been studied by scholars in the context of curriculum feedback, analyse graduates and user (industry) satisfaction, skills for employment, and higher education quality assurance (Duke & Reese, 1995; Kardoyo & Nurkhin, 2016; De Castro, 2017; Gonzales et al., 2019). Tracer study is an useful tools for assessing graduates employability process including: the duration of work search, horizontal and vertical alignment learning outcomes to the job, and job position in the industry (Albina & Sumagaysay, 2020; Heriyadi, 2021).

Since 2011, The Ministry of Education, Culture, Research, and Technology Indonesia has developed a national career centre and tracer study development system to measure higher education performance (Direktorat Jenderal Pendidikan Vokasi, 2020). The journey of tourism hospitality education in Indonesia has been established since 1962, by the launching of the national tourism academy (Akademi Pariwisata Nasional), later known as Bandung Institute of Tourism (STP Bandung) as the government vocational education program (Oktadiana & Chon, 2017). There has also been a heightened interest in tourism and hospitality management program also among the private institutions. Today there are currently about thirty-five higher institutions with tourism and hospitality bachelor's degree programs in Indonesia (Krisnawati et al., 2020; Oktadiana & Chon, 2019). This development has helped improve the quality of human resources in the tourism and hospitality sector. There is an urgent need to develop information on higher education outcomes and a monitoring system to measure the performance of VET in Indonesia, which focuses on four areas, one of which is the creative economy and hospitality, revitalizing the VET as one of the policies of from the Ministry of Education, Culture, Research and Technology (Direktorat Jenderal Pendidikan Vokasi, 2020). Tracer studies are an important part of the process of ensuring the quality of vocational education as mandated by Presidential Regulation No. 68 of 2022 concerning the Revitalization of Vocational Education and Training, as well as being the main tool for measuring the work results of vocational education, namely the work of vocational education graduates.

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Deleted: While for ...the...e fundamental competency comprises work attitude and personal attributes that are significant attributes for employees to perform their work. However, Sisson and Adams, (2013) has... argued that fundamental competency is the central aspect of graduates' career planning and development skills. ...evel-specific competency refers to the competency needed in specific type of position-#...

Commented [NBH5]: ...organisation. [Full stop] Professional competency, is it related to fundamental competency?

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## 1.2. Objectives

As one of Indonesia's leading tourism and hospitality higher education institutions, STP Bandung held a tracer study or graduate feedback. The objective of the tracer study is to measure the implementation of the international standard of tourism and hospitality graduates and improve the quality of VET for the students (Pusat Penjaminan Mutu, 2020). Information from tracer study is beneficial for various evaluations of higher education such as institution quality assurance, higher education accreditation, and most importantly, as an indicator for the institution performance in creating graduate competencies (Ministry of Education and Culture, 2020). Based on the previously mentioned background, there are three objectives of this study, first, profiling tourism and hospitality graduates from three years graduate cohorts. Second, this study identifies learning methods and the contribution of universities in mastering competencies for tourism and hospitality graduates. Third, investigates critical skills and mapping employability of tourism and hospitality graduates based on fundamental, functional, and professional competencies framework (Wang & Tsai, 2014). Four main competencies in tourism and hospitality adapted from Wang and Tsai, 2014), namely fundamental competencies, personal competencies, job competencies, and functional competencies. Functional competencies are closely related to professional skills in the field of work, namely management skills, which emphasize more on aspects of project management, leadership, ability to cooperate in teams and problem-solving. Then technical skills are the ability to execute work in related fields with computer skills, presentation skills, communication skills, report writing and foreign language abilities. In addition to the two main competencies previously mentioned, there are two other competencies: personal competency (i.e., career planning and development of core skills), and job competencies are the knowledge and skill relevant for tourism and hospitality.

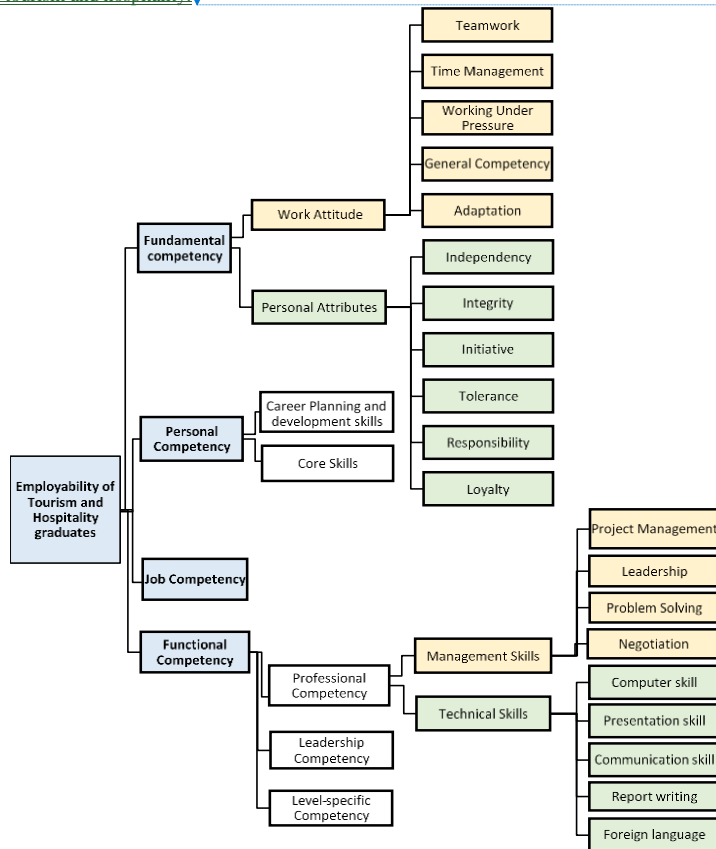


Figure 1 - Employability and Competencies of Tourism and Hospitality Graduates!  
Adapted from: (Wang & Tsai, 2014)

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Commented [NBH13]: Turn this into separate heading: OBJECTIVE

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Previous researchers have mentioned the industries' expectations towards tourism and hospitality graduates, as Raybould and Wilkins (2005) noted that tourism and hospitality student learning experience should be supported by conducting industrial exposure on the industry placement or internship. They also explained that employability skills have been identified as the ability to acquire, maintain, and excel at a job consisting of nine generic skills, including interpersonal communication, problem-solving, analytical thinking, information management, teamwork, leadership, social networking, adaptability, and self-management. Interpersonal communication, problem-solving, and self-management skills are essential skills from the industry (Raybould & Wilkins, 2005). Other researchers such as Zehrer and Mössenlechner (2009) are much more concerned with social, personal, activity- and action-oriented skills are much more vital when hiring tourism students. Meanwhile, the industry also emphasizes vocational skills and language skills. However, some soft skills are required, such as interpersonal skills and organizational experiences. Learning has not encouraged soft skills that support work, such as knowledge of foreign languages and critical thinking, analysis, innovation, leadership, negotiation, and teamwork skills. Therefore, higher education must design and implement innovative learning processes to achieve the learning outcomes through optimal and relevant aspects, including attitudes, knowledge, and skills (Simatupang & Yuhertiana, 2021). In contrast, Gursoy et al. (2012) has argued that some critical changes in the hospitality subject areas, where the top three essential skills for the hospitality graduates are leadership, internships or industry experience, and preparation for industry employment, they argue that the learning and teaching process are not only came from educational institution, but also during the industrial internship.

**Commented [NBH14]:** Oh!! I think this should be in the Literature up after the Objective section. It seems this framework directly guides your report on the results.

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## 2. Methods

This study used mixed methods research (MMR) approach. According to Cohen et al. (2018), mixed-method research involves quantitative and qualitative data collection in a single study or series of studies to address a particular phenomenon and solve research problems. The quantitative approach in this study uses online surveys by distributing an online questionnaire to multi-cohort tourism and hospitality graduates from year 2017, 2018 and 2019. Online-QTAFI (Question Table and Figure) software developed with assistance from the career and development centre University of Indonesia (CDC-UI) was used to conduct surveys during 2018 until 2020. The objectives of the online surveys are to profile tourism and hospitality graduates (i.e., demographic, employment characteristics), to identify the relevance of learning methods and contribution of vocational education and training in mastering student competencies that will help answer the first and second objectives for this study. The second method is the qualitative content analysis related to learning experiences, critical skills, and facilities for mapping tourism, and hospitality graduates' employability and competencies framework (Wang & Tsai, 2014).

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The process of data collection consists of seven stages. The first step is designing the questionnaire based on eleven standard criteria's from the National Accreditation Board of Higher Education (PD-DIKTI) including: alumni biodata, employment status, waiting time to get the first job, types company, location of current work, salary, relationship between field of study and their work, teaching method during study, assessment of teaching and learning activities towards work, the extent of applicability of graduates competencies in employment, and relevancies of teaching and learning experiences with professional competencies.

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Second, collecting and verifying graduate data, the tracer study team consist of fourteen verifiers consisting of fresh graduates or final year students from each study program in STP Bandung. Third, preparing an online questionnaire using QTAFI software, consists of four features: administration, surveys, questionnaires, and data to support the tracer study (Arutyunants, 2015). The STP Bandung tracer study team administered the questionnaires, then emailed each verified graduate to participate in the surveys. This activity was carried out three times by a team consisting of six reminders. The fourth step is inviting the graduate to participate in the tracer study; verifiers ensure an active email address and phone number from the alumni. Fifth, after the official notification process, communication via email and telephone was conducted to remind graduates who had not opened the questionnaire link to send to their email. In the process of recalling, the main task of the reminder is to remind respondents of the importance of filling out the tracer study questionnaire for the STP Bandung. Participation in this study is voluntary; hence, the reminders process avoids coercing respondents to fill out the questionnaires. The sixth stage is the data collection period with the time and provision for the number of reminders up to four times to the alumni, then the data cleaning process according to the standard descriptive statistical analysis of each question item. In last stages, prepare the final report and dissemination of the tracer study results.

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To ensure validity and reliability for this study, we used a triangulation approach. According to (Cohen et al., 2018), triangulation is one of validity procedure in education research, where researchers search for convergence among multiple and different sources of information to form themes or categories in a study. The application mixed methods to reflect the multiple methods of establishing the research's trustworthiness (Wong & Cooper, 2016). Another type of triangulation is data sources from longitudinal cohort design tracer studies conducted from 2018 to 2020. Cohort study refers to research carried out over a time involving members of a population or sample, united by some commonality or resemblance (Nurdin & Hartati, 2019). The findings from multi cohort study will be discussed in the next section.

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### 3. Findings

This section presents the results of this study, followed by an interpretation of the tracer study outcomes. The findings structured into the following: (i) profiling tourism and hospitality graduates, including demographic characteristics, employment status, and nature of work, (ii) perceptions of graduates in learning method and assessment of teaching and learning activities towards their employability, (iii) concrete suggestions on how to prepare graduates for the workforce better. The total potential respondents for this study are 1954 graduates, however, only 1694 (86.7%) graduates reply to the invitation and filled the tracer study questionnaires (Table 1). The response rate is still considered satisfactory, compared with previous studies on tracer study, for example, 54% (Awang Ngah et al., 2004); 26.4% (Landrum et al., 2010); and 41% (De Castro, 2017). Responses rates increase when people are interested in the subject matter of the survey, or if the subject is very relevant to them, or if completing the survey brings them a sense of satisfaction (Cohen et al., 2018, p. 344).

**Table 1 - Distribution of Graduates (2018 – 2020)**

Tracer Study Report (Year)	Number of graduates	Number of Responses	Female	Male	Response rate (%)
2018	688	550	352	198	79.9%
2019	637	620	341	279	97.3%
2020	628	582	338	244	92.7%
<b>Total</b>	<b>1954</b>	<b>1752</b>	<b>721</b>	<b>1031</b>	<b>86.69%</b>

Sources: (Pusat Penjaminan Mutu, 2018, 2019, 2020)

The summary data for the employment status of the STP Bandung graduates participated in the tracer study are shown in Table 2 and Table 3. Most of the graduates already have a full-time job (75.33%) and a small number working part-time (4.33%). Some of them are self-employed or starting their own business (11.67%); this number is above STP Bandung target, that 10% of their graduates are entrepreneurs. While there are still graduates unemployed (8.67%) for various reasons such as still looking for a job, family matters, continuing professional or postgraduates' study, and other reasons that the respondents did not mention.

**Table 2 - Employment Status of STPB Graduates (n=1694)**

Employment Status	%
Full time	75.3 %
Part-time	4.3 %
Self-Employed*	11.6 %
Unemployed	8.7 %

Note: \*Include graduates that start their own business.

Sources: (Pusat Penjaminan Mutu, 2018, 2019, 2020)

**Table 3 - Distributions of Graduates Nature of Work in Tourism, Travel and Hospitality related sectors (n=1694)**

Nature of Work	Rank	%
Food & Beverages	1	40.7%
Lodging	2	35.7%
Tour and Travel	3	8.3%
Tourism Attraction, Leisure and Recreation	4	4.3%
Destination Management Organization	5	3.3%
Meeting, Incentive, Convention and Exhibition (MICE)	5	3.3%
Transportation (airlines, train, land transport)	6	2.3%
Tourism Consultant	7	2.0%

Sources: (Pusat Penjaminan Mutu, 2018, 2019, 2020)

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The distributions for the type of sectors that graduate joins as full time and part-time worker, majority the graduates work in hospitality, and tourism-related industry, with 76.4% of them are working in food and beverages and lodging sector (i.e., restaurant, café, catering, hotel, resort, and others type of accommodation companies). The rest of graduates (24.6%) work for tour and travel, tourism attraction, leisure and recreation, destination management organization (DMO), meeting, incentive, convention, and exhibition (MICE), transportation (airlines, train, land transport), and tourism consultant.

The findings reveal that most graduates think that learning through internships/fieldwork is the most effective learning method during their studies, followed by the learning process in class theory (lecturing) and practical activities conducted both on and off-campus (Table 4). In addition, learning activities help graduates gain the experience, knowledge and competencies needed. Those activities include research activities (individual, in groups and with a faculty member), guest lectures, seminars, workshops, and exhibition that invites practitioners from industry, policymakers, entrepreneurs, and successful alumni. In addition, other activities such as involvement in student organizations (i.e., student senate, student associations, extracurricular activities related to sports, art, music, and skill development such as barista clubs, culinary clubs) help them gain social learning experience during college. However, the graduates think that their experience in community service activities needs to be improved.

**Table 4 - Graduates Perceptions on the Learning Methods**

Type of Learning Methods	Rank	Weighted Mean	Interpretation
Internship	1	4.46	To a great extent
Lecturing	2	4.29	To a great extent
Practicum (Field trip, laboratory activities and demonstration)	3	4.28	To a great extent
Research Project	4	4.19	To a great extent
Guest lecture, Seminar, and Workshop	5	4.05	To a great extent
Student organization	6	3.93	To some extent
Exhibition	7	3.74	To some extent
Extracurricular	8	3.62	To some extent
Community services	9	3.43	To some extent

Note: (0.00-1.00) not at all; (1.01-2.00) very limited; (2.01-3.00) limited; (3.01-4.00): to some extent; (4.01-5.00) to a great extent. Sources: (Pusat Penjaminan Mutu, 2018, 2019, 2020)

**Table 5 - Assessment of teaching and learning activities towards work**

Skills	Rank	Weighted Mean	Interpretation
Self-development	1	4.33	To a great extent
Job performances	2	4.31	To a great extent
Continuous learning on work	3	4.23	To a great extent
Work-related values	4	4.22	To a great extent
Career development	5	4.19	To a great extent
Entrepreneurship	6	3.89	To some extent

Note: (0.00-1.00) not at all; (1.01-2.00) very limited; (2.01-3.00) limited; (3.01-4.00): to some extent; (4.01-5.00) to a great extent. Sources: (Pusat Penjaminan Mutu, 2018, 2019, 2020)

According to Table 5, the highest benefit of the study program is for their self-development in terms of work-related skills ( $M=4.33$ ). In addition, the graduates also mentioned that job performance (4.31), including communication skills, presentation skills, research skills, report writing, and computer skills was supported by the teaching and learning process in STP Bandung. Moreover, graduates also mentioned that continuous learning process (4.23) such as adaptation, working under pressure, independence. Values held at work are also rated high (4.22), such as responsibility, tolerance, loyalty, and integrity. The graduates also think that the benefits of the college and the study program they choose are beneficial in their current career development process (4.19). In addition, learning in entrepreneurship is felt to be influential in increasing their interest and ability to start a business after graduation. The contribution of STP Bandung in improving the ability to work is in a high condition (4.19) from the perspectives of their graduate. Based on graduates' perceptions, twenty-five competencies are applicable and indispensable in the workplace (Table 6). The top five are teamwork, tolerance, knowledge and skills relevant to their working fields, responsibility, and communication skills. They feel that those competencies are found relevant and, to some extent, is high (4.15). In this case, the relationship between mastery of competencies by graduates and the contribution of STP Bandung and relevant study programs has helped graduates to master competencies needed in the workplace.

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In the last section of the questionnaire, graduates answer an open question about their suggestions for teaching and learning activities in STP Bandung concerning professional competencies (Table 7). Based on the responses from graduates related to essential employability competencies during the learning process, the main competencies can generally be categorised into hard skills, including knowledge and skills in the fields, computer skills and computer system application, communication skills including foreign language abilities, and report writing. Graduates conveyed several teaching and learning methods that support the achievement of relevant competencies; most of them mentioned that practicum, lecturing, and internship learning experiences were helpful. In addition, the graduate also said that learning methods such as research projects, community services, field trips, case studies, and exhibitions help them learn specific skills and competencies.

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**Table 6 - The Extent of Applicability of Graduates Competencies in Employment**

Competencies	Rank	Weighted Mean	Interpretation
Teamwork	1	4.31	To a great extent
Tolerance	2	4.29	To a great extent
Knowledge and skill in your fields	3	4.29	To a great extent
Responsibility	4	4.28	To a great extent
Communication Skill	5	4.28	To a great extent
Working Under Pressure	6	4.24	To a great extent
Critical Thinking	7	4.23	To a great extent
Problem Solving	8	4.23	To a great extent
Adaptation	9	4.22	To a great extent
Research ability	10	4.21	To a great extent
Presentation Skill	11	4.21	To a great extent
Loyalty	12	4.20	To a great extent
Integrity	13	4.20	To a great extent
Independency	14	4.17	To a great extent
Leadership	15	4.15	To a great extent
Analytical thinking	16	4.14	To a great extent
General Knowledge	17	4.11	To a great extent
Initiative	18	4.10	To a great extent
Negotiation	19	4.07	To a great extent
Time Management	20	4.07	To a great extent
Learning Skill	21	4.05	To a great extent
Report Writing	22	4.03	To a great extent
Foreign Language ability	23	3.99	To Some Extent
Project Management	24	3.92	To Some Extent
Computer skill and Computer system application	25	3.85	To Some Extent

Note: (0.00-1.00) not at all; (1.01-2.00) very limited; (2.01-3.00) limited; (3.01-4.00): to some extent; (4.01-5.00) to a great extent. Sources: (Pusat Penjaminan Mutu, 2018, 2019, 2020).

**Table 7 - Example Respondents Statements on Relevancy of Teaching and Learning Experiences with Professional Competencies**

Respondent Code	Professional Competencies	Method of teaching and learning	Respondent statement
TS012020	Initiative	Case Study	"Real case studies to hone analytical and problem-solving skills. Invite tourism industry players to find answers to real company management problems. Critical thinking is also lacking. Because they are used to following existing directions rather than trying to find out solutions for the problem"
TS012019	Critical thinking	Research project	
	Problem solving	Community services	

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TS092020	Teamwork	Field trip Research project	<i>"It is necessary to improve the provision of collaborative and competitive assignments to students through field trips and research activities. Increase intense tutoring activities with each student"</i>
TS252020	Knowledge and skill in your fields Interdependency	Practicum internship	<i>"Training for students regarding the various positions (divisions) and applicable skills that can be useful in the future work"</i>
TS122020	Communication skill Foreign language ability Teamwork Analytical thinking	Lecturing Practicum	<i>"Focus on communication skills, argumentation, foreign languages, analysis, attitude, cooperation skills and disciplines of each study program"</i>
TS162020	Computer skill and computer system application	Lecturing Practicum Internship	<i>"Using the opera system in the hotel or providing theoretical data for the system used in the hotel"</i>
TS202020	Knowledge and skill in your fields Interdependency	Internship Practicum	<i>"Up-to-date learning that is appropriate to the job field. Experience from practice and job training. Because practice gives confidence in work. They can have the freedom to choose their specialization and the institution where they will conduct the internship"</i>
TS272020	Analytical thinking Report Writing	Practicum Research project Community service	<i>"Learning with the real conditions in the industry and not just studying tourism in general, because tourism consulting services still has prospect even during the COVID-19 pandemic"</i>
TS032019	Computer skill and computer system application Knowledge and skill in your fields	Lecturing Practicum	<i>"Digital-based understanding and training such as digital marketing, including basic design learning in marketing courses, managing tourism websites, and tourism marketing content. Digital analytics, SEO, SEM, User Interface &amp; User Experience (UI/UX)"</i>
TS142019	Communication skill Foreign language ability	Student organizations Extracurricular	<i>"Encourage language student clubs, many students can speak foreign languages other than English, but there is no forum for expression on campus"</i>
TS082018	Knowledge and skill in your fields	Practicum	<i>"Increasing the intensity of lecturers towards students in the field of practice to find out the development of students' soft and hard skills"</i>
TS152018	Computer skill and computer system application Project management	Practicum Exhibition	<i>"The ability to hard skills without reducing theoretical thinking to introduce the tourism industry, especially the field of travel in ticketing operations, event planning, and others"</i>
TS182018	Knowledge and skill in your fields	Lecturing Practicum Internship	<i>"Accounting learning curriculum is especially useful when we become managers. Knowledge and skill in inventory management and analyzing variance between budget and actual are closely related to the rapidly growing food and beverage retail industry"</i>

Sources: (Pusat Penjaminan Mutu, 2018, 2019, 2020)

#### 4. Discussion

Based on our study of tourism and hospitality graduates at STP Bandung from year 2018 - 2020, fundamental and functional competencies are the most critical aspects in teaching and learning activities. [The findings also found that the learning process should follow the needs of industry job competencies.](#) When referring to the relation of employability and competencies of graduates, this study found that two major groups, namely fundamental and personal competencies consisting of four categories of competencies, namely work attitudes (five competencies), personal attributes (six

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competencies), management skills (four competencies), and technical skills (five competencies). Please see Figure 1 for the complete list. Soft skills includes initiatives, critical thinking, problem-solving, teamwork, analytical thinking, and independence. In addition, involvement in student organizations and extracurricular activities is significant in improving graduates' organizational and communication skills. The fundamental activities classify into the graduates' work attitude and personal attributes, which emphasise soft skills in employability, including teamwork, time management, working under pressure, adaptation, independence, integrity, initiative, tolerance, responsibility, and loyalty. These aspects involve general competency possessed by graduates in work related to their work.

Tourism and hospitality education should focus not only on cultivating technical skills but also on reinforcing competency development, motivating students to learn professional management skills and promoting their self-efficacy. Educators can play some significant roles by giving a bit of advice to teach management theory practice and upgrade teaching techniques to maximize the effectiveness of school education. According to Riggs and Hughey (2011), one of the challenges for tourism and hospitality educators is to ensure that the soft skills have an equal portion to hard skills, even though hard skills are often easier implemented and graded. They also suggested that technical skills such as information technology, legal and regulatory requirements must be taught but should not take precedence over soft skills. This study confirmed that hard and soft skills would help their nature of work in the tourism and hospitality sectors. For the learning methods internship program, lecturing and practicum play a pivotal role in the graduates' competencies.

Strengthening the capacity of human tourism resources is a critical success factor for national and regional tourism development (Marais et al., 2017). However, there seems to be a widening gap between employers' expectations and what tourism and hospitality education provide. Thus, the collaboration between tourism and hospitality and industry is crucial to enhance the quality of education and ensure the competitiveness of human capital in the industry (Elsharnouby & Elbanna, 2021; Wang et al., 2010). Therefore, strengthening collaboration initiatives with industry stakeholders include internships, apprenticeships, and graduate employment. Hence, implementing a VET curriculum relevant to industrial needed follows the link and match policy (Disas, 2018; Verawardina et al., 2019). For evaluation purposes, tourism and hospitality higher education should emphasize work attitude. Work attitude and personal attributes should be part of the student internalization as early as possible and incorporated into the work-related values rather than focusing on theoretical skills to pass the examination.

Moreover, the competencies required by the industry must compile into the curriculum; some of the suggestions are by involving practitioners as visiting lecturers or tutors is another suggested strategy for enhancing the learning experience among graduates (Sigala & Baum, 2003). Proposed curriculum enhancement and program by involving stakeholders in curriculum planning and development will strengthen collaboration initiatives among academia and industry — some of the initiatives include internships, apprenticeship, practical training, graduate employment, and suggestions on the promotion of industry-related certification programs globally in the hospitality education.

One indicator for the success of learning outcomes and the relevance of the learning and education for the community is the success of graduates in entering the workforce. Higher education institutions are responsible for equipping with specific competencies and facilitating and bridging graduates to enter the workforce. Collaboration and involvement of the stakeholders in a constructive manner, including giving criticism, evaluation, and recommendations, are expected to improve the results of vocational education development (Akomaning et al., 2011). Moreover, re-examining the relationship from the perspectives of different stakeholders and balancing the interests of all parties for win-to-win solutions and cooperation are essential strategies to develop this matter. Different stakeholders must have a mutual understanding of the expectations and outcomes of tourism and hospitality education.

Stakeholders' involvement in curriculum planning and development is pivotal because it has implications for a holistic tourism and hospitality education. The competencies required by the industry need to be compiled into the curriculum to produce preferred graduates. Aligned with government programs under the Ministry of Education, Culture, Research and Technology initiatives and policy in mapping and harmonize the needs of the industry with the competencies obtained from higher education program called *Merdeka Belajar: Kampus Merdeka* (Simatupang & Yuhertiana, 2021). In the process, higher education is existed to conduct appropriate graduate tracer study programs to prepare graduates according to the competencies needed in the workplaces and assist government programs in mapping and aligning the needs of the job competencies obtained from higher educations.

## 5. Conclusion, Limitations and Recommendations

The current study examines tourism and hospitality preferred employability, competencies, and job-specific skills from multi-year tracers' studies from one of the tourism and hospitality higher education institutions in Bandung, Indonesia.

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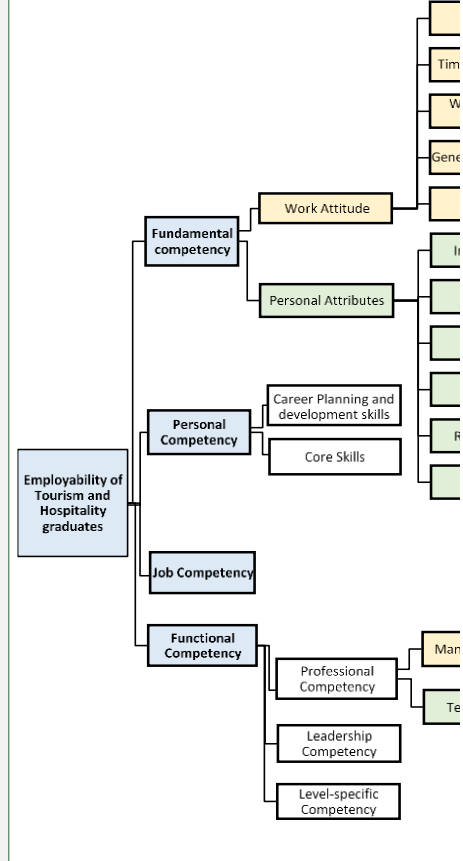
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The study found that fundamental, functional, and professional competencies constitute the necessary skills required in future employment. This study has an essential meaning for developing vocational education and training (VET). First, this study has given more comprehensive information about tourism and hospitality graduate qualifications, competencies and job-specific skills required by the industry. [The quality of the curriculum structure has become a significant issue in tourism and hospitality education](#). The tourism and hospitality program can successfully prepare its graduates for industry employment [based on the standards and availability of appropriate courses](#), where the dynamic needs of the tourism and hospitality industry reflect in the VET curriculum. [The internship is the most crucial learning approach for underlying graduates](#). The internship program deserves more attention and should further investigate the effectiveness of an internship program in achieving student learning and career objectives, to optimize students' employability. Similarly, for the students to increase their employability, they must prioritize and excel in their skills and competencies to best serve the needs of the industry.

Tracer study has helped STP Bandung capture information from graduates about the learning process and conformity with competency requirements in tourism and hospitality working environment and improve the quality of vocational education and training in tourism and hospitality sectors. Furthermore, the tracer study model used is the national standard model set by the Ministry of Education, Culture, Research and Technology to strengthen the benefits obtained. This activity is also a form of STP Bandung commitment to implementing the National Higher Education Standards (SNPT), which requires higher education to conduct tracer study consistently every year. Tracer study is also one of the requirements for complete accreditation by the National Accreditation Board for Higher Education (BAN-PT) and completeness of the self-evaluation documents required. The information obtained is beneficial to improve the quality of education, especially in determining the direction of improvement and development of vocational study programs in the future.

However, in terms of limitation, this study was carried out in vocational education and training (VET) in Indonesia. Future studies can [utilise](#) the questionnaire survey of this research to other nations and examine the significant differences between Asian countries and Western countries. As it mentioned in the methodology section, the secondary data was retrieved from tracer study reports of STP Bandung. In the assessing measuring the participants' perceptions there are several important limitations to the dependability of the participant's opinion. While filling out the forms for the online survey, respondents choose midpoints on the scale. While expressing an opinion, the researcher cannot judge the participants' earnestness about the questionnaire. The biggest disadvantage of using online surveys is that knowledgeable participants who lack computer and internet skills are excluded. Because of the small screen size of mobile phones, the length of the questionnaire and responses to open-ended questions are limited (Nayak & Narayan, 2019). Therefore, further study is needed by conducting focus group discussion with [stakeholders such as faculty members, the alumni, tourism and hospitality industrial partner, the Ministry of Education, Culture, Research and Technology](#), and panel of expert to explore more meaningful information about graduates' competence and employability. Further study can include more sample of higher education institutions that offer tourism and hospitality study programs and compare the results.

### Acknowledgement

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