SPP5: Client Final Report

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# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive Summary</td>
<td>4</td>
</tr>
<tr>
<td>Project Overview</td>
<td>7</td>
</tr>
<tr>
<td>Project Goals</td>
<td>7</td>
</tr>
<tr>
<td>Project Processes</td>
<td>7</td>
</tr>
<tr>
<td>Phase I: Business, Performance &amp; Gap Analyses</td>
<td>7</td>
</tr>
<tr>
<td>Phase II: Cause Analysis</td>
<td>9</td>
</tr>
<tr>
<td>Phase III: Intervention Selection, Design &amp; Development</td>
<td>11</td>
</tr>
<tr>
<td>Phase IV: Intervention Implementation &amp; Change</td>
<td>11</td>
</tr>
<tr>
<td>Phase V: Evaluation</td>
<td>11</td>
</tr>
<tr>
<td>Project Assumptions</td>
<td>12</td>
</tr>
<tr>
<td>Disclaimer</td>
<td>13</td>
</tr>
<tr>
<td>Analyses</td>
<td>14</td>
</tr>
<tr>
<td>Business Analysis</td>
<td>14</td>
</tr>
<tr>
<td>Purpose</td>
<td>14</td>
</tr>
<tr>
<td>Analysis Questions</td>
<td>14</td>
</tr>
<tr>
<td>Analysis Approaches</td>
<td>15</td>
</tr>
<tr>
<td>Data Collection</td>
<td>15</td>
</tr>
<tr>
<td>Analysis Results</td>
<td>16</td>
</tr>
<tr>
<td>Limitations and Constraints</td>
<td>23</td>
</tr>
<tr>
<td>Summary and Conclusions</td>
<td>23</td>
</tr>
<tr>
<td>Performance Analysis</td>
<td>24</td>
</tr>
<tr>
<td>Purpose</td>
<td>24</td>
</tr>
<tr>
<td>Analysis Questions</td>
<td>24</td>
</tr>
<tr>
<td>Analysis Approaches</td>
<td>24</td>
</tr>
<tr>
<td>Analysis Results</td>
<td>25</td>
</tr>
<tr>
<td>Limitations and Constraints</td>
<td>31</td>
</tr>
<tr>
<td>Summary and Conclusions</td>
<td>31</td>
</tr>
<tr>
<td>Gap Analysis</td>
<td>32</td>
</tr>
<tr>
<td>Purpose</td>
<td>32</td>
</tr>
<tr>
<td>Analysis Questions</td>
<td>32</td>
</tr>
<tr>
<td>Analysis Approach</td>
<td>32</td>
</tr>
<tr>
<td>Data Collection</td>
<td>32</td>
</tr>
<tr>
<td>Analysis Results</td>
<td>33</td>
</tr>
<tr>
<td>Limitations and Constraints</td>
<td>34</td>
</tr>
<tr>
<td>Cause Analysis</td>
<td>35</td>
</tr>
<tr>
<td>Purpose</td>
<td>35</td>
</tr>
<tr>
<td>Analysis Questions</td>
<td>35</td>
</tr>
<tr>
<td>Analysis Approach</td>
<td>36</td>
</tr>
<tr>
<td>Data Collection</td>
<td>36</td>
</tr>
<tr>
<td>Analysis Results</td>
<td>37</td>
</tr>
<tr>
<td>Limitations and Constraints</td>
<td>43</td>
</tr>
</tbody>
</table>
Interventions ........................................................................................................ 44
Purpose ............................................................................................................... 44
Gap 1 .................................................................................................................. 44
  Intervention Recommendations ................................................................. 44
    Intervention 1 .............................................................................................. 46
    Intervention 2 .............................................................................................. 48
    Intervention 3 .............................................................................................. 49
    Intervention 4 .............................................................................................. 49
    Intervention 5 .............................................................................................. 50
Gap 2 .................................................................................................................. 50
  Intervention Recommendations ................................................................. 50
    Intervention 1 .............................................................................................. 51
    Intervention 2 .............................................................................................. 51
    Intervention 3 .............................................................................................. 52
    Intervention 4 .............................................................................................. 52
    Intervention 5 .............................................................................................. 53
Gap 3 .................................................................................................................. 53
  Intervention Recommendations ................................................................. 53
    Intervention 1 .............................................................................................. 54
    Intervention 2 .............................................................................................. 54
    Intervention 3 .............................................................................................. 55
    Intervention 4 .............................................................................................. 55
Gap 4 .................................................................................................................. 55
  Intervention Recommendations ................................................................. 55
    Intervention 1 .............................................................................................. 56
    Intervention 2 .............................................................................................. 56
    Intervention 3 .............................................................................................. 56
    Intervention 4 .............................................................................................. 57
Limitations and Constraints ............................................................................. 57
Appendix A: Client Questions .......................................................................... 59
Appendix B: Student Questions ........................................................................ 66
EXECUTIVE SUMMARY

Our client for this project was the Institute of Media Production, Examination, and Information Systems, at Universitas Terbuka (UT) in Indonesia (or simply, the Institute). We performed a series of four analyses and then produced an intervention report that detailed strategies to deal with the identified performance gaps and causes. We were in contact with five clients who work or worked for UT and for the Institute, all of whom are currently students in the Instructional Systems graduate program at Florida State University. In addition to these members of the organization, we also sent online surveys out to students, which garnered 106 student responses.

In order to gather the necessary data to complete these analyses and ultimately suggest interventions, we decided on two main methods of gathering information. For all five of the clients, we used surveys, with a large variety of questions. Most questions were answered by at least two of the clients, which allowed us to confirm the reliability of the answers. Additionally, we interviewed some of these clients, which provided richer data and answers to specific questions that came up after the initial survey was distributed. Finally, we used existing data sources, such as the UT website, for gathering certain types of information. We had separate questions for each of the four analyses, but we combined all of the questions and asked them at once, which was simpler for our clients.

Disclaimer: Before reviewing the data and documentation from our performance analysis process, it is important to remember some distinct limitations. The following issues caused problems for us which we had to find ways to work around.

There was no physical access to the Institute, UT, their facilities, the faculty members, the students, and the current employees of the Institute. As wonderful as our five clients were, they are all currently graduate students at Florida State University, and if they are still employed at UT, it is in a much-diminished capacity. Perhaps the most important source of data would have come from access to the current employees who did the instructional design of the materials, and who actually worked in the Institute. Additionally, the students we interviewed provided rich and valuable data. However, many of the students who answered were students who order their material online. Many of the gaps, causes, and interventions discussed in the following analyses are in regards to the production of print-based instructional material.

Another problem is that the data we received was "word-of-mouth." There were at times inconsistencies between the clients, which could be remedied by more observed data and a wider range of survey respondents.

The Business Analysis provided a clear picture of the organization's goals. Two main goals were identified, which were to produce high-quality instructional content, and to do so in a timely manner. High-quality instructional content is defined as self-contained learning material which includes learning objectives, appropriate and effective learning content, examples and non-examples, as well as formative assessment items and answers. This material should be comparable and competitive with other international distance learning universities, in order to stay viable in a possibly expanding competitive market. The second
goal is to produce material in a timely manner. This was defined as meeting the deadlines imposed on the Institute by the Heads of UT, and having the instructional material ready for distribution in time for the students.

The Performance Analysis resulted in a clear map of the processes and accomplishments that go into and come out of the Institute. At the macro-level, there are customers, suppliers, potential competitors, and regulatory authorities, which all have an effect on the UT and the Institute's performance processes. The customers are the 37 regional offices and the students. The subject-matter experts (SME) of the courses are well-recognized professors from other local universities, who contract with UT to provide course development services. As of now, the potential competitors are few, but could include other international distance-learning universities. In recent years, the regulatory authorities also allow any Indonesian face-to-face university to offer distance learning classes in the country. Finally, the government affects UT's processes and accomplishments. There are certain requirements that the government has for UT, since it is a public university.

There are both internal and external processes within the Institute and within UT. These external processes involve coordination meetings, deadlines, and monitoring/evaluation programs. The internal processes include design and development of the actual instructional materials by the Institute's staff. An understanding of these processes and accomplishments assisted with defining the gaps and causes in the subsequent analyses.

The Gap and Causal Analyses identified four general areas in which performance gaps exist, and then identified the main causes of these gaps.

The first main gap identified is a lack of instructional design support, which results in student errors and limited learning of the instructional content. This gap stems from a lack of learner-centered materials, a lack of a systematic instructional design model for the course writers, and also the members of the Institute not following some steps of the instructional design model.

The second gap is a lack of administrative support in delivery and distribution. Some of the causes of this are beyond our control--such as problems with the delivery company, and with the Indonesian postal service. Another cause is the late registration windows, which allows students to register for classes very late, which often means they do not get their instructional materials delivered with enough time for them to prepare for the test.

The third identified gap is a lack of instructional support for students. This gap is especially apparent in the students' responses. Causes include a lack of tutoring support, lack of community learning support, and a lack of learning resources.

The fourth identified gap was a lack of student services support, which included support in the forms of convenient office hours and a lack of guidance with choosing classes. Causes identified for this gap included inconvenient working hours for the regional offices, a lack of a help desk, and the lack of proper academic advising for students.

Finally, the Intervention Report detailed some possible interventions for each of these four major areas of gaps and their causes.
The first area, a lack of instructional design support, could be addressed in a number of specific ways. The first is to fully address each step of the Dick and Carey instructional design model in the process of creating instructional material, especially the step of formative evaluation. Following these steps more carefully would definitely provide a higher quality product. Related to this intervention is to involve trained and experienced instructional designers in every step of the course writing process. Currently, course writers are only given a three-day workshop, which is definitely not enough time to learn instructional design. Another intervention suggestion is to allow for specialization of tasks, and do away with the current practice of job rotation within the Institute. UT’s also needs to create and implement a new revision policy, which would provide more guidelines for instructional designers.

The second area of gaps involved the lack of administrative support for delivery and distribution. Interventions identified were the adjustment of registration windows to better allow students to plan and prepare for their examinations. Additionally, allowing students to choose their exam dates, and to plan their courses in advance would likely give students more of a chance to learn the material. Another intervention is to improve communication between regional offices and the main Distribution Center of UT. This would allow for the regional offices to actually have enough stock of materials for students. There may also be ways to bypass the national postal service, which would improve delivery and distribution. These should be looked into.

The third gap, the lack of online and physical tutoring support can be addressed with the following interventions. The first is one that is encompassed by the interventions discussed previously--if instructional content is improved, then students will need less tutoring. Additionally, implementing a feedback and monitoring system that allows students to ensure that there is quality tutoring. Finally, Web 2.0 technologies should be used to create an online learning community, through which students can support one another, and tutors can support students.

The fourth gap, the lack of student services support, can be addressed by interventions that were suggested by the cause analysis. One intervention is lengthening or changing the hours of regional offices to better accommodate working students. Similarly, providing longer office hours of the help hotline for students would address this problem directly. Additional orientation for students would also provide them with some proactive support for students' issues. A basic computer course would also proactively provide some support for students.

Overall, there are many areas for improvement within and outside the Institute. However, the Institute does do a lot of things well. They provide large amounts of instructional material to a huge number of students in Indonesia. Without a doubt, UT staff is working to the best of their ability, given limited resources and personnel available to meet the high volume of work. They provide an important service, and improving their performance will improve the lot of their customers, their employees, and their country. We would like to thank all UT members and students who assisted us in obtaining information and recommendations for this report.
PROJECT OVERVIEW

PROJECT GOALS

To enhance the ability of Universitas Terbuka (the Indonesian Open University) to develop and deliver instructional materials that are:

High-quality, according to outside expert evaluators, and more importantly based on student satisfaction reports
Educationally effective & updated as per the university’s 7-year revision policy. Because the university creates its own learning materials, it is important that the revision policy is followed and the materials begin being revised after 5 years of availability to the students. Then, after the two year revision, the new revised materials will be delivered to the students 7 years after the old materials became available.
Delivered on-time to students, whether online or print-based
Accessible in terms of cost (both economical for the university and affordable to the student)
Accessible in terms of the use of proper technology, whether online or print-based
Low in production cost and cost-effective

PROJECT PROCESSES

Phase I. Performance Analysis

A. Conduct an Organizational/Business/Environmental Analysis to understand the vision, mission, values, goals & strategies of the organization
   1. Entry – meet the client
      We will establish a working relationship built on communication and with a focus on organizational goals. We will use online survey tools, email, phone and face-to-face conversations to conduct our analysis.
   2. Data Collection – The most important questions (Piskurich p.17)
   3. Agreement – Seeking common ground and clarification.
      After we have performed the business analysis based on answers to the questionnaires and compiled the business analysis document, we will return it to the clients. Any edits or changes will be received from those clients, and thus we will reach agreement on the business analysis portion of this project.
      Questions dealing specifically with environmental issues are included on the initial client contact questionnaire. Answers to the survey questions will help us to obtain a clearer picture of the environment that UT exists in. A qualitative data analysis will be carried out on the different clients’ answers to these questions, and recurring themes will be drawn out and compiled into an official data analysis document.
   5. Work Environment – Resources, Tools, HR Policies
      Through interviews and our questionnaires, we will garner information specifically about the work environment, especially information about Human Resource policies, resources, and tools that support employees in meeting organizational goals.
   Information about the flow of work, organizational structure, and general roles will be
gathered from the questionnaires.

7. Worker – Knowledge, Skill, Motivation, Expectations, & Capacity
   Information about the organization’s current capacity to develop and deliver
necessary knowledge and skill training to employees will be gathered from interviews
and questionnaires. Information about current employee capacities will be gathered
as well.

B. Performance Analysis – from Macro to Micro
1. Macro level and the Marketplace
   Using information from the interviews conducted, we will create a theoretical process
map showing where UT exists in the Indonesian education marketplace, explaining
how suppliers provide raw educational material to the organization, and where the
organizational outcomes of educational materials go--which is out to the roughly
400,000 students across Indonesia. Additionally, data for the aforementioned
theoretical process map will be gathered from the informational documents provided
by our client, as well as from information garnered from the UT website and
promotional materials.

2. The Organization level
   The next step is to figure out the process and the structure of how raw educational
data is converted into the output of educational materials for UT. In order to better
understand this process of how outputs are created, we will create a
process/accomplishment map showing the distinct accomplishments/outputs of each
component of the organization.

3. The Performer Level
   Finally, we need to explain exactly how performers fit into this situation. Feedback,
expectations, knowledge, skills, and abilities must be addressed and documented.
This is the most crucial part of the performance analysis, and though we start with the
macro level and the marketplace, we need to keep each performer in mind, since
people are the organization, and any proposed solution must address the
organization's people.

C. Gap Analysis – find the difference between current and desired performance levels
1. Analyze observable workplace behavior
   While workplace behavior is not directly observable in our case, due to limited
resources, we have created questions for organization members and the organization’s
clients (UT students) in order to understand workplace behavior.

2. Reframe problem in terms of current behaviors
3. Reframe problem into expected outcomes
4. Ask questions that will define the importance of the discrepancy
   We feel it is important to interview UT students since they are the recipients of UT
services. A comparison of the level and quality of services the students report
receiving to UT’s stated goals will show us whether a gap exists and where it is most
evident.
Phase II. Cause Analysis

A. Lack of Environmental Support – Data, Information, Feedback, Resources, Tools, Consequences, Incentives, Rewards
B. Lack of Repertory of Behavior – Skills & Knowledge, Individual Capacity, Motivation & Expectations

Approach/Methodology

For the business, performance, and gap analyses, we will interview and survey our clients, using the questions shown below as a starting point. We will combine this data with review data gathered from the UT website, preliminary data provided by our main client, Dewi, as well as this YouTube video-- http://www.youtube.com/watch?v=cSMFu_aRKZg, which explains some basic information about UT and Indonesia. Additional information is given in the Business Analysis Schedule/Description sections below.

Kirby and Dewi created a list of questions relating to business and performance analyses directed to members of the organization, while Crystal, Boon, and Joice created a list of questions specific to gap and cause analyses directed to members of the organization and students. We recognize that a full cause analysis is not possible until the gap analysis has been completed. After the gap analysis, our team will have more specific and detailed cause analysis questions, but the questionnaires contain some questions relating to cause analysis.

In order to not tax our contacts with several questionnaires that may have similar or repeated questions, we have edited and pooled the questions. With Dewi’s direction, we have created tailored questionnaires from the pool of questions that are specific to each contact’s area of expertise, as well as a questionnaire specifically for students in Bahasa Indonesian. We have therefore created a total of six questionnaires, one for each of the following people: Dewi Padmo, Anak Agung, Ida Zubaidah, Sri Wahyuni, Kristani Ambar, and one for the students.

The questionnaires for organizational members will be sent in an online format, but we plan to conduct personal interviews with each aforementioned individual as well. The questionnaires will serve as a basis for the interviews and a springboard for further investigation and cause analysis. The student’s questionnaire will be available online to all students participating in online tutorials and is in a relatively simple, multiple-choice format. It is our understanding that we will have a greater number of completed student questionnaires if the format is simplified and doesn’t require too much effort on the part of the students. Ideally, we would have preferred to be physically present to interview the students.
Respondents – Population and Stakeholders

Stakeholders are members of the organization and students, as well as Indonesia as a nation which stands to benefit from improvements in the quality and availability of higher education. The population surveyed will be organizational members and students.

Data Collection

Because UT students live in Indonesia, they will complete online surveys with questions that have been translated into their native language in order for them to fully understand the questions and respond in the easiest manner possible.

We can selectively interview organizational members through online meetings. The use of both open-ended and closed-ended questions provides a greater level of diverse measurements and freedom in responding. The use of a variety of closed-ended questions will provide an easy and clustered way for students to reply, such as rating scales, multiple choice, ordinal, and categorical questions. This will lead to more accurate data collection and avoid meaningless answers.

We chose the interview method for our local UT clients, because they are in Tallahassee, available for contact, and are willing to help. An interview, as opposed to a distance survey, allows us to go further in-depth with these clients and to gather more specific and useful information. The structured interview design allows us to gather standardized information that will allow for triangulation of common themes and recurring ideas in different clients' responses. With clients who are unavailable for this structured interview, due to geographical or other considerations, we will send a survey, containing similar questions to the structured interview, and attempt to gather the pertinent information.

Data Analysis

After the questionnaires have been returned to us, we will conduct an analysis of the different answers provided by the different clients, and pull out the most crucial information, and the information that is agreed upon by majority of the different clients. At this point, we will compile four documents containing information about what we perceive as the most important business goal or goals, performance goals, performance gaps, and causes of these gaps. With the business analysis, we will mine the data for recurring themes, important issues and topics, and any other presently unknown things that pop up in many data sets.

A business and performance analysis based on the questionnaires was conducted by Dewi and Kirby.

- For the Business Analysis, once the survey and interview data is returned, we will search through responses for common themes and recurring facts. Important issues will be noted and placed in the context of our current understanding of the organization, based on the other materials mentioned in the Approach/Methodology item. At this point, we will compile a
document containing information about what we perceive as the most important business goal or goals.

- For the Performance Analysis, we will create a theoretical process/accomplishment map, with a focus on the individual performers, but containing information about the marketplace level, including competitors, outputs, and inputs, as well as information about the flow of accomplishments within the organization. Finally, information about worker knowledge, skills, abilities, motivation, and expectations will be addressed at the performer level. A gap and cause analysis based on the questionnaires will be conducted by Crystal, Boon, and Joice.

- For the Gap analysis, we will review the responses we received and search for areas in which performance does not reach the desired level, as articulated by organizational members. We will especially pay attention to student surveys and performer level data in order to determine the performance gap.

Once the performance gap has been clearly delineated, we will begin the cause analysis. Some of the interview and survey questions will touch on causation, but we believe we will have more specific questions once the gap analysis is complete.

**Phase III: Intervention Selection, Design & Development**

A. Organization/Structural Interventions  
B. System-Level Interventions  
C. Process-Level Interventions  
D. Job Performer Interventions  
E. The Spectrum of Interventions  
   1. Performance Support – Instructional and Noninstructional  
   2. Job Analysis/Work Design  
   3. Personal Development  
   4. Human Resource Development  
   5. Organizational Communication  
   6. Organizational Design & Development  
   7. Financial Systems  
F. Complete a Contract with the Client

**Phase IV: Intervention Implementation & Change (Not included in this report)**

A. Change Management  
B. Process Consulting  
C. Employee Development  
D. Communication, Networking & Alliance Building

**Phase V: Evaluation (Not included in this report)**

A. Processes – Formative, Summative, Confirmative  
B. Products – Formative, Summative, Confirmative  
C. Lessons Learned
PROJECT ASSUMPTIONS

Universitas Terbuka (UT) is one of the mega-universities in the world with a student body of over 400,000 in 2007. The UT Head Office (HO) is located in the capital city of Indonesia, Jakarta, and its 37 Regional Offices (ROs) are located throughout the country. The university is headed by a Rector, along with four Vice Rectors (VR), who are responsible for: (1) academic affairs; (2) general administration and finance; (3) operational and student affairs; and (4) and organizational development and collaboration. UT applies a combination of a centralized and decentralized management system. Institutional policies regarding both administrative and academic matters are determined by administrators in the HO. Activities and operations related to the development and production of course materials, test/examination items, and examination data processes are centrally managed in Jakarta.

The ROs are technically responsible for carrying out the daily operational activities in regional areas. Those activities mainly include receiving students’ registration, organizing face-to-face tutorials, administrative counseling, and organizing examinations. ROs are scattered throughout the country. Although the offices are located in relatively big cities within the local area, they do not follow procedures in standard electronic communications. Communication between the ROs and the HO still relies mostly on postal mail and courier services, as well as telephone, facsimile and emails.

Within the HO, programs and activities are decentralized to respective departments. Each unit plans its programs and proposes annual budgets. The program and budget plans for all of the units are reviewed at an institutional level for approval. Department Deans manage the unit faculty’s curriculum development, course materials development, and test item development. They also report all Academic Affairs to VR I.

As the institution develops and social needs changes, UT missions have expanded to become the following:

1. To expand the opportunity for quality higher education through distance education system;
2. To produce competent academicians or professionals who are able to compete globally;
3. To increase participation in continuing education in order to create a ‘knowledge-based society’
4. To increase the quality and quantity of research and development in distance education system, especially in distance higher education;
5. To innovatively and continuously disseminate and share information on distance education especially distance higher education;
6. To strengthen national unity and integrity through the provision of higher education broadly and equally;
7. To increase cross-cultural understanding and networking through partnership locally, nationally and globally;
8. To produce academic products in distance higher education as well as in other fields of knowledge.

The institution aims and constantly strives to provide on-time, cost effective, up to date and learner-centered education for the people of Indonesia.

**DISCLAIMER**

Before reviewing the data and documentation from our performance analysis process, it is important to remember some distinct limitations. The following issues caused problems for us which we had to find ways to work around.

There was no physical access to the Institute, UT, their facilities, the faculty members, the students, and the current employees of the Institute. As wonderful as our five clients were, they are all currently graduate students at Florida State University, and if they are still employed at UT, it is in a much-diminished capacity. Perhaps the most important source of data would have come from access to the current employees who did the instructional design of the materials, and who actually worked in the Institute. Additionally, the students we interviewed provided rich and valuable data, however, some of them may have been only online students. Many of the gaps, causes, and interventions discussed in the following analyses are in regards to the production of print-based instructional material. Another problem is that the data we received was "word-of-mouth." There were at times inconsistencies between the clients, which could be remedied by more observed data and a wider range of survey respondents.
THE ANALYSES

BUSINESS ANALYSIS

Purpose

The business analysis was conducted to ensure that information about the organization's needs is taken into account in the subsequent analyses and throughout the entire HPT process. The business analysis has the goal of defining and finding what the goals, needs, and wants of the organization are, and to make sure that those goals are clearly defined, appropriate, and measurable. This will ensure that suggested interventions will have an actual effect on the things that are important for the organization. The business analysis provides the base upon which everything else will build.

This analysis serves to ensure that our recommendations meet the needs of our organization client—the Institute of Media Production, Examination, and Information System, Universitas Terbuka (UT) – Indonesia. For the rest of this document, and for the subsequent analyses, we will refer to this as simply the “Institute.” The business analysis for this organization has been done to enumerate the organization’s goals, as well as the goals that were produced by us as performance consultants, which were agreed upon by the organization. Our performance improvement goals should be measurable, so that progress can be tracked and results can be evaluated. In addition, the goals should be time-bound, output focused, and important and relevant to the organization’s goals.

Analysis Questions

In order to understand and measure the goals of the organization to improve performance, we collected information using a number of questions that relate to business analysis. In order to make it easier to digest and more focused, we decided to categorize those questions into eight major questions, which we took from George Piskurich's 2002 book, *HPI Essentials*. The most important questions for the business analysis are:

How important is this goal to the business? How do you know the degree of importance?
Are there alternative goals that warrant more attention than the goal targeted by the client?
To what extent is the goal congruent with business strategy, values, and other goals? Are there competing goals? Are there goals that supersede this one?
Is the goal likely to remain stable?
What degree of buy-in on this goal is there by stakeholders?
To what extent are business goals supported by reliable and valid data?
How does the organization measure progress on the goal at present?
What forces (external and internal) are working for and against achievement of this goal?

In addition to the above questions, we asked several questions relating to the organization, institutional policies, instructional material, student needs, and the ordering system. For a list of the specific questions asked to the aforementioned clients for this analysis and the others, see Appendix A.

**Analysis Approaches**

After the initial entry and meetings with the main client, Dewi Padmo, we determined that UT’s goals were fairly straightforward and clear, and there was alignment within the organization’s members about the direction of UT. This was determined not only by preliminary talks with Dewi, but also by a review of published information about UT, such as the organization’s website. Therefore, we decided to focus on the most important questions, about goal importance, goal stability, goal buy-in, and others (listed above) that would give us a clear, widely agreed-upon picture of the organization’s goals.

In order to carry out this analysis, we decided upon a questionnaire and interview approach, as well as a review of existing sources of material on UT. These sources are combined to form a multi-faceted image of UT, with different perspectives that allow data to be validated. These different sources of information will provide the most accurate picture of UT's goals and environment that is possible given our inability to actually visit the headquarters in Indonesia.

**Data Collection**

We collected data from three members of the Institute and two members of the Faculty, some who are currently employed by UT, and some who worked there in the recent past. Some of these employees were/are faculty members, and others worked in UT's administration.

Dewi Padmo: Head of the Institute of Media Production, Examination, and Information System, Universitas Terbuka (UT) – Indonesia -- deals with five centers within this Institute which represent the core of operational system to run the University.
Kristanti "Ita" Ambar Puspita: Head of Examination Center and a faculty member -- has experience as a course writer from inside the university.
Anak Agung Sastrawan: Head of Distribution Center -- takes care of UT's learning material warehouse and delivery of learning materials to the university's 37 regional offices throughout the country.
Ida Zubaidah: Faculty member -- has an experience as a course writer from inside the university, and is a coordinating writer from another university.
Sri Wahyuni: Faculty member – has an experience as a tutor in online tutorials.

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These individual differences among clients are positive and allow us to gain a clearer understanding that incorporates multiple stakeholders and perspectives. We asked these five clients prepared questions, some of which were open-ended and some of which were yes/no.

**Analysis Results**

According to the business analysis process, and as performance consultants, we categorized the analysis results based on the structure of the most important, broadest questions that we asked in relation to the business analysis.

· **How important is this goal to the business? How do you know the degree of importance?**

The primary goal of the Institute is to provide/develop a high quality of learning materials (printed and non-printed) that are relevant to the latest knowledge and technology developments. This primary goal is very important to the business of this Institute, according to direct questions asked to the clients, as well as from one-one-one conversations with the primary client, Dewi.

As a distance education institution the University (Universitas Terbuka), the learning material that is produced by this organization is the primary source of learning for its students. For the good of the main customers (the students of UT), and for the future of the organization in an increasingly competitive environment, it is very important to develop high quality learning materials that successfully teach students and make them competitive in the international and national market. UT's instructional content should be self-contained learning material which includes learning objectives, appropriate and effective learning content, examples and non-examples, as well as formative assessment items and answers. It is then very important for the Institute to develop high quality learning materials. Therefore, the goal is considered very important by the organization.

The other primary goal of this organization is to deliver/distribute the learning materials in a timely manner to the students. Since the primary source of learning for UT’s students is printed and non-printed learning material produced by the Institute, it is very important for the Institute to deliver/distribute those learning materials to UT’s regional offices where the students can purchase the learning materials in time to graduate and to continue their studies. This means that the Institute has a responsibility to cater to the time-frame needs of the regional office to provide learning materials for the students. The regional offices are the only place where the students are able to purchase the learning materials. A "timely manner" is then defined as completed instructional content delivered to the regional offices as expected by the students.

The students of the University are highly dependent upon easy access of the learning materials. Thus, the punctuality of delivering the learning materials into the main outlets, the 37 regional offices of the University that scatter throughout the 37 provinces in Indonesia is
essential. It is clear, based on the above issues, that the goal of the Institute to deliver to deliver/distribute the learning materials in a timely manner is very important.

In the last two years, a new policy from the University was created that allows students to purchase online learning materials from the UT website. This new and still-emerging system cuts down on traditional distribution/dissemination concerns, such as contracts with shipping and printing companies and timely distribution, including the rescheduling of the deadline to distribute manuscripts.

• Are there alternative goals that warrant more attention than the goal targeted by the client?

Alternative goals include providing online instructional material, but this material would still fall under the influence of the two main goals. One possible alternative goal is providing instructional material through the Internet. Increased development of online instructional material would likely support the two main goals of the organization. The development of online instructional content would support the goal of distributing material quickly, and distributing high-quality materials, because of the nature of the technology. Online content could be delivered almost instantaneously, and higher quality could be achieved by increasing real-time collaboration and broadening possible instructional strategies.

The goals targeted by the client are broad and apply to both the alternative of providing more online instructional material and the current focus on print-based courses. Due to the lack of access to technology for many of UT’s students, developing print-based materials will remain an important function of the Institution.

• To what extent is the goal congruent with business strategy, values, and other goals? Are there competing goals? Are there goals that supersede this one?

It is clear that the organization's business strategies and values support the two main goals. This is apparent in a few answers to more specific questions about the Institute and its employees, including faculty in the University itself. For example, the organization values hiring highly educated faculty members, with at least a Master's degree in their respective fields--and Doctorate degrees are preferable. Ida talked about this in response to a question about faculty qualifications, in which she compared the qualifications of the university staff to other international universities’ qualifications. She said that for faculty members, Doctorate and Master’s degrees are expected by the management. Some administrative staff members have Bachelor’s or high school degrees, but are carefully selected by the top management.

Bachelor’s degrees are required for administration members, and at least high school degrees are required for the supporting staff. It can be assumed that Ida’s comments above simply combined these two levels of qualification and those managerial positions within the administration are for the most part held by people with Bachelor’s degrees. Anak also mentioned selection tests for all employees of the Institution that is given by the Bureau of General Administration. This selection test supports the idea that staff are carefully selected
according to a high standard and in accordance with the organization's main goals. Additionally, both Anak Agung and Ida said that qualifications are regularly revised. However, there may be an issue with these revisions.

According to Dewi, these revisions are "not well managed. This happened mostly in the multimedia production centers. There are many jobs and tasks within these centers which are related to both hardware and software. New hardware or software is purchased by these centers, in order to support the main goal of providing high quality instructional content. In this situation, specific qualifications of employees should be revised according to the new technology, but this task was often neglected. This is mostly due to the high workloads of managers in the center, who are busy with routine activities. Training activities or employee recruitment should refer to these new qualifications in order to continuously improve employee capabilities. The improvement of employee qualifications would definitely affect the quality of the product produced, and ensure that new technology is used effectively.

Another big issue is that the University has a policy to rotate employees to other units within the University every 8 years, which often means that under-qualified and under-experienced workers are placed in new jobs. Two possible issues are behind this problem--either employee qualifications need revisions, or decisions about job rotation are ill-informed. This is a huge problem for production centers that depend upon employees with specific skills and capabilities in order to produce quality materials.

The rotation issue has an enormous impact on the achievement of the goal of the Institute in producing high quality instructional content. The recruitment system, especially for employees that need special technical skills, should be integrated with the current qualification system.

In addition to careful selection of both faculty and administrative staff, there are regular training and evaluation programs for employees. Anak Agung briefly described the training program for employees and explained that there is regular staff training conducted at least once a year. In regards to training, UT conducts standardized yearly planning, starting in June of each year. All units of the organization, including faculty, Institutes, Bureaus, and the Human Resource Development center and Quality Assurance center are required to submit descriptions of their planned activities and budgets. The Human Resource Development center is responsible for planning training activities based on the needs of UT in general, and based on the submitted needs of each specific unit.

So, for example, if the Institute needs to improve employees' technical skills in graphic design or layout, the Head of the Institute is expected to propose specific trainings that address these issues in June. However, if there is an urgent need for certain training that presents itself after yearly planning has been approved by the Rector (President) and passed, it can be accommodated with permission from the Rector, or through the Vice Rector for General Administration and Finance Affairs. If this happens, the Head of Institute writes a proposal to the Rector or Vice Rector and to the Head of the HRD center, who will then make a decision about the request. This process could probably be streamlined--even a
financially small request for training must be made directly to the Rector or Vice Rector. A possible solution to this particular issue is to only require Rector approval when the estimated costs of the proposed training are above a certain threshold.

Also, providing even more evidence that the organization's goals are congruent with values and policy, there is significant oversight from management for administrative staff within the Institution. According to Dewi, the head of the Institute periodically monitors progress of programs and activities within the Institute. Additionally, regular meetings are held to discuss progress. Multiple respondents mentioned the fact that top management must approve each program designed by the Institution. Also, there are specific ISO (an international collection of standards, including things like continual improvement, accurate records-keeping, and process monitoring) procedures that must be followed.

• Is the goal likely to remain stable?

The goals of the organization seem to be stable since the product of the organization is the primary learning materials used by its students. There is possibility for change in the future, however, according to Anak Agung: "In the future, the goals may change depending on government and the university's policy." The organization is under the review of the government's Ministry of Education, since it is a public university. Regulations may change based on changes to government regulations on goods and services. This all being said, for our purposes, we can assume that the goals will generally remain stable in the future. Though the specific processes and procedures for dissemination of educational materials may change, the two main goals of the organization of providing high-quality educational materials and doing so in a timely manner are likely to be very stable regardless of environmental changes.

• What degree of buy-in on this goal is there by stakeholders?

It seems that there is a high level of stakeholder buy-in to these goals, based on all of the data above about the congruence of the Institution's two main specific goals and the overall goals of the organization. The management oversight, regular training programs, and careful staff selection all support this idea. As stated previously, the goals of the Institute are to provide/develop high quality instructional content (printed and non-printed) that are relevant to the latest knowledge and technology developments.

This goal is highly related and integrated into the Mission and Strategic Plan of the University. It is stated in UT’s strategic plan, that as a higher education distance learning institution, the provision of high quality learning materials is of paramount importance. It is further mentioned in UT’s strategic plan that instructional materials should be designed by applying systematic instructional design which is suitable for independent distance learning, and that the University is regionally, nationally, and globally recognized as a leader in this arena. This strategic plan is supported by the Rector's policy that the development of instructional content will always be considered one of the top priorities in terms of budgeting. There will always be financial support for instructional content development, both for new learning materials and for the revision of existing learning materials. Thus, it
seems that the degree of buy-in on the main two goals is high by the stakeholders. Additionally, both Dewi and Anak Agung, when asked this question very directly, responded with a clear "yes."

There is a concern about buy-in in terms of the employee rotation policy. Some decisions made by the Vice Rector of General Administration and Financial Affairs to rotate employees who are not qualified for certain tasks or jobs seems to be not integrated fully with the goals of the Institute. This may represent a lack of buy-in with the main goals. This is a major concern. The Institute is forced by this policy to deal with the new employees who do not possess necessary capabilities for doing certain technical tasks. Training and development for newly rotated employees in technical skill areas will take time and affects the quality of instructional content that is produced.

· To what extent are business goals supported by reliable and valid data?

Both respondents, Dewi and Agung, who were asked specifically about the goals of the Institution independently, reported that the goals of the Institute are measured in a fairly reliable and valid manner. As mentioned earlier, starting in June, all units are required to submit their activities and budgets. In terms of the development of instructional content, before all faculties (Faculty of Education, Faculty of Economics, Faculty of Social and Political Sciences, Faculty of Mathematics and Sciences, and Graduate Faculty), and the Institute submit their unit activities and budgets, the Vice Rector invites the Dean of the Faculties, the Head of the Institute, and The Head of the Centers to discuss generally how many learning materials will be developed or revise in the coming year, and a list is developed. The Institute will get the list from all of the faculties, and based on that data, the Institute is able to plan its activities and budgeting in producing instructional content. On average, the Institute produces, in total, about 150 distinct pieces of instructional content per year.

Based on the list of instructional content planned to be developed each year, the Institute meets with the Deans and Vice Deans of Academic Affairs for operational planning, including the discussion of deliverable deadlines and scheduling. Since the Institute is responsible for creating instructional content for all of the different schools, the schedule is very important and very full. So, during the operational planning period, there are in-depth discussions about the schedule, and about when the Institute will get the manuscripts of learning materials from the faculties. The results of this meeting will then be sent to the Vice Rector of Academic Affairs as a monitoring tool.

According to the ISO standards, there are regular and periodic evaluation meetings every three months that are held by Vice Rector of Academic Affairs for progress checks on learning material manuscripts and instructional content development. The meeting will involve the Deans and Vice Deans of Academic Affairs, the Head of the Institute and Heads of the Centers.

The reproduction process of learning materials has a certain procedure. The Institute sets up a technical meeting in order to make a decision about which learning materials are ready
to be reproduced at the outside printing house. The meeting involves the Head of the Centers, the Vice Deans of Academic Affairs, an assistant of the Vice Rector of Academic Affairs, an assistant of the Vice Rector of Operations, and an assistant of the Vice Rector of General Affairs and Finance. Due to the large amount of instructional content that will be reproduced, there are five different meetings held, one for each school within the University. These procedures for the development of learning materials and instructional content prove that the business goals of the Institute are fairly reliable and supported by valid data.

- **How does the organization measure progress on the goal at present?**

Anak Agung was asked about how the Institution's management, administration, and operation systems are evaluated, and he mentioned that there were both internal (through the Institution) and external (through the University) evaluations. In response to this question, Dewi said: "In order to measure its progress towards reaching the goals, we have a regular meeting within the institution to make sure all of the target that already set up every year can be achieved under coordination of the Head of Institute. There are also a regular meeting among the units that are involved in developing the learning materials, which are: Schools (Faculties), and the Institute under coordination of Vice Rector of Academic Affair. Our management for learning material is also implement the International Organization for Standardization (ISO). This ISO is very crucial to maintain our development process.” The ISO is an independent, international set of standards for procedures and for promoting organizational efficiency and effectiveness. This independent set of standards is one way that the Institute and UT measure goal progress. However, we are unable to access these standards because they are confidential and released only to people with special permission.

The Quality Assurance Center of the University sends an internal auditor, who is responsible for auditing all units involved in the production of instructional content, including the faculties, the Institute, and the Centers. This process ensures that all units are meeting their responsibilities and living up to their roles in the process, according to the submitted yearly plans. Then, an external audit is performed by a representative from the ISO organization. This process is similar to the internal audit, but it also checks the internal audit itself.

It is clear from Dewi’s response that there are measurements that address goal progress both internal and external to the Institution. Additionally, an evaluation seems to have been carried out that produced valid data using the ISO standard. This bodes well for the evaluation of the success of the eventual program we will plan to implement.

Additionally, the extent to which the Institution is meeting these goals is evaluated and assessed by the larger UT organization and by top management. This was apparent in responses by Dewi and Anak Agung. When asked about measures used to evaluate the extent to which the Institution provides leadership and guidance in developing course materials and learning support, Dewi mentioned an annual meeting with the Rector of UT. Once a year, the Rector has a meeting with all of the units separately to evaluate the achievement of the target of each unit based on the yearly plan.
What forces (external and internal) are working for and against achievement of this goal?

External:

In developing the learning material, the institution has to work closely with the faculties who are responsible for preparing preliminary manuscripts of instructional materials. Once the manuscripts are ready, the institution will proceed to produce standardized instructional materials and deliver them to the regional offices. One large issue, according to Dewi, is that these manuscripts are often delivered late or not at all, which makes it difficult or impossible for the institution to reproduce standardized instructional materials and to deliver them to the regional offices and eventually the students.

In the case that the manuscripts are late, the Institute will ask employees to work overtime in order to finalize it in time to meet the deadline. If this does not work, then the deadline will be rescheduled, and the previous edition will be reproduced instead of the current, unfinished one. So, if the submission of the manuscript by the faculty is late, the students will get the old edition for another semester. In the case that the manuscripts are not delivered at all, then the previous edition will be reproduced and students will get the old edition for at least one more year. Most of the writers of these manuscripts are selected professors who are subject matter experts in their field; however, they are often quite busy and need deadline extensions to finish the manuscript. There may be an issue with the deadlines themselves, which may be too early and unrealistic. Or, there may not be enough consequences for the writers of the manuscripts. The lack of consequences or a problem with the process (the deadlines being too early) may be equally to blame. Another possibility is that the writers of these manuscripts are too busy, and are assigned too many manuscripts or other projects. If the goal of the organization is truly to submit high quality instructional content to students in a timely manner, then these issues must be addressed.

Government regulations on goods and services provision may also affect the production of the instructional materials due to this time limitation. There are government regulations that affect the Institution's production of instructional materials, since UT is a public university under the jurisdiction of the Ministry of Education. The Institution is not able to select the printing house to reproduce instructional material, or the delivery company that delivers the instructional materials to the regional offices directly.

Internal:

Lack of adequate training of staff may be one of the obstacles to reaching the organization's goals. According to Dewi, UT has a policy that requires staff to be rotated every eight years. This sometimes makes it difficult to replace staff with sufficiently skilled new employees. If it is impossible to change this policy, it may limit our possible range of interventions.
Limitations and Constraints

We were limited by our lack of physical proximity to UT's headquarters. An important source of potential information was thus missed out on. Direct observation of UT employees at work would have most likely provided a great deal of information about organizational goals and needs, as well as norms and values within the organization.

Another limitation is that our sample of faculty/administration members was limited to only those who spoke English fluently, and who are graduate students here at FSU. We were lucky enough to have a large number (5) of these contacts, but more data collected from administration and faculty members who do not speak English fluently would have given us a better overall sense of the organization and its environment for this particular analysis.

Summary and Conclusions

This business analysis clearly defined the two major goals of the Institute—to produce high quality instructional content and to do so in a timely manner. This high quality is defined by measuring student success, and by looking at processes in the organization with the ISO standards, which include continual monitoring. A timely manner is one that meets the deadlines imposed by the University and its administration, since currently there seems to be a clear problem with instructional content being delivered as expected to students. Both of these goals must occur simultaneously in order for the organization to perform as expected, and they depend upon one another.

The business analysis also answered the most important questions about the organization and its environment, including what its goals are, the level of support for those goals, and information about those goals. These questions will guide future analyses, and ensure that any implementation is fully aligned with the organization’s goals. Additionally, the limitations and constraints discussed in this analysis will serve to inform future analyses.

PERFORMANCE ANALYSIS

Purpose
The performance analysis was conducted in order to reveal information about the organization's accomplishments and ability to meet its customers' needs through these accomplishments. It proceeds from a macro- to micro-level, which means that we start by thinking about how the organization exists in its marketplace, and how its accomplishments are delivered to its customers, and ends up looking at the employees in the organization and how their small, even day-to-day accomplishments fit into the larger system of the organization. The current portion of the performance analysis seeks to create an understanding of these processes and accomplishments, from the macro to the micro level. The subsequent gap and cause analyses will more clearly determine the ideal and current states of performance and the whys behind them.

The performance analysis seeks to uncover several perspectives on a problem or opportunity, and to determine all drivers or barriers to successful performance. The following sections in this document explain the questions, the rationale behind them, and finally, the results of the analysis.

Analysis Questions

There is some overlap in the questions used in the performance analysis with the questions used in the business analysis, and with some of the questions used for the subsequent gap and causes analyses. However, the data gathered from some of these questions applies to all the analyses. For a list of the specific questions asked to the aforementioned clients for this analysis and the others, see Appendix A.

Analysis Approaches

In order to carry out this performance analysis, we used a similar approach as with the business analysis. We decided upon a questionnaire and interview approach, as well as a review of existing sources of material on UT. These sources are combined to form a multi-faceted image of UT, with different perspectives that allow data to be validated. These different sources of information will provide the most accurate picture of UT's goals and environment that is possible given our inability to actually visit the headquarters in Indonesia. Since we had a large number of varied question to gather data that would relate to the performance analysis, we decided to cluster those questions into three important concept areas, which we took from George Piskurich's 2002 book, *HPI Essentials* which were: 1) market place context and a relationship view of the organization, (2) the process, or sequence of accomplishments within the organization, and (3) performance requirements and changes linked to the organization's goals.

Analysis Results

According to the performance analysis process, and as performance consultants, we categorized the analysis results based on three important concepts which we took from
George Piskurich's 2002 book, *HPI Essentials*: (1) market place context and a relationship view of the organization, (2) the process, or sequence of accomplishments within the organization, and (3) performance processes linked to the organization's goals. The responses of the questions that we asked in relation to the performance analysis were analyzed under these important concepts.

**1) The macro level and major functions and accomplishments of the organization in the context of the marketplace.**

The focus of this first concept is related to the organization’s current and potential customers, suppliers, competitors, and regulatory authorities.

*Customers:*

There was agreement between respondents, who were asked the same question about who the Institute's current and potential customers are. In the broadest sense of the word, the customers of the Institute are the students enrolled in UT. However, there are also some more direct customers—the 37 regional offices spread across the country of Indonesia. These regional offices are the “ground-level” distributors of the instructional content, who sell the content to the students. The faculties of the schools are also considered customers—though they also provide input accomplishments for the Institute. Potential customers are other public or private institutes who want to use the instructional materials produced by the Institute—however, this group of potential customers is not clearly defined.

Approximately 70% of the students at UT are working people, mostly school teachers. Not all of Indonesia’s teachers are enrolled in the University—and this represents a larger group of potential students. The main customers of the Institute are the students served by the regional offices. It also seems that there exists a potential group of customers in the private sector that could be tapped into, who are not current customers and may have a need for the knowledge and skills education offered by UT.

The following figures represent some demographic and basic descriptive statistics about the main customers of UT and the Institute, the students.

**Total enrollment: 425,000**

**Male to Female ratio—48 : 52**

<table>
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<tr>
<th>Age Range (years)</th>
<th>Percentage (%) of Student Body</th>
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<tbody>
<tr>
<td>&lt;24</td>
<td>9</td>
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<tr>
<td>25-29</td>
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<td>30-34</td>
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<td>35-39</td>
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<td>&gt;45</td>
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<table>
<thead>
<tr>
<th>School</th>
<th>Percentage (%) of students enrolled</th>
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<tbody>
<tr>
<td>Education</td>
<td>76</td>
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<tr>
<td>Suppliers:</td>
<td></td>
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<td>------------</td>
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<tr>
<td>The main accomplishment of the Institute is the standardized instructional content. Nearly all of the content is written by other professors or experts from other universities and is edited by the faculty of UT, but nearly all of the time written by other professors or experts from other universities. The material, then, has both an internal and external component—it must be produced in a raw form by outside subject matter experts from other universities, and then edited by internal experts from UT’s faculties. The external suppliers are faculty members of other universities. This may be a problem for the successful accomplishment of the Institute's goal of sufficiently timely dissemination and delivery of instructional content, because external course writers may not be subject to the same rules and consequences as internal course writers, and may not be as stringent in following and meeting deadlines for course material submission to the Institute.</td>
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<tr>
<td>The course material writers are mostly invited and hired from nationally recognized conventional (face-to-face) universities, such as the University of Indonesia (UI), Gajah Mada University (UGM), Bandung Institute of Technology (ITB), Bogor Agricultural Institute (IPB), University of Indonesian Education (UPI), and others. The writers are considered subject matter experts.</td>
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<th>Competitors:</th>
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<td>There are no competitors from an internal standpoint. The Institute is the sole provider of instructional content design for UT. The Institute is solely responsible for creating standardized materials that can be distributed to students. On an external level, there is potential competition from other distance learning universities in Indonesia. There are not currently any other open universities in Indonesia, which means that a certain segment of the population who is interested in enrolling in an open university will always enroll in UT. Other universities, however, may offer distance learning courses that directly compete with UT’s courses—however, there is also a sense of collaboration as evidenced by the course writers and their own universities.</td>
</tr>
<tr>
<td>The Indonesian government recently passed an initiative (No 107, 2005) that allows any face-to-face university to offer distance learning programs as long as the university can fulfill certain government requirements. Distance learning is growing in popularity, and since it is not limited by geographic constraints, it is even conceivable that a distance learning university from another country could begin offering classes to the Indonesian population, and become a direct competitor. The government regulation that allows any face-to-face university (meeting regulations) to provide distance learning in Indonesia points to the likelihood of competitors. This likelihood adds to the importance of the two main goals of the organization--providing high-quality instructional content and providing content that is delivered in a timely manner.</td>
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</table>
Regulatory authorities:

Government regulations decree which printing houses and delivery companies must be contracted by the university, since it is a public institution. This directly affects one of the accomplishment processes of the Institute, that is, to print a large number of copies of instructional material and then to distribute them.

Government regulations may adversely affect the organization's goal of producing instructional content in a timely manner. Due to the fact that government regulations can be quite hard to change, this may be a problem that we as performance consultants cannot fix—we may have to find ways to streamline other processes in order to minimize the possible adverse effects of these regulations.

(2) The process, or sequence of accomplishments within the organization

This concept is very important to the initial phase of the performance analysis. It details the key internal and external products and services (or accomplishments) produced by the organization. After the broad, key internal and external products are discussed briefly, a detailed outline/process map of accomplishments is provided.

Key internal product:

Internally, the key accomplishments are the steps in the process leading up to the creation of the external product, which is discussed in depth in the Process map of accomplishments. The Institute receives written courses and creates standardized instructional content for distribution to UT’s customers.

The key external product is the finalized instructional content, which is reproduced and printed and distributed to UT’s customers.

Process map of EXTERNAL accomplishments:

1. A needs meeting, coordinated by the Vice Rector of Academic Affairs, is conducted with the participation of each faculty’s Deans. Along with these faculty Deans, the Vice Deans of Academic Affairs, the Head of the Institute, and the Head of the Center decide on the list of courses that will be produced in the coming year.
2. Based on the list, the faculty of each school will decide the deadlines for course writers and faculty editors.
3. Subject matter experts, or course writers, are identified by each school’s faculty and approved by Dean of the faculty. These course writers then produce the original course material according to the specifications of course material provided by the faculty. The course writer must sign a contract for this task, which usually stipulates that the writer finish the course within 8 months.

Evaluation:
- There is a progress check meeting held by the Dean of faculty with all of the course writers in the middle of the process, usually during the fourth month.
4. The Institute will then set up a coordination meeting with the faculty Deans, the Vice Deans for Academic Affairs, and the Head of the Center. In this meeting, deadlines for the delivery of course material to the Institute, as well as the date in which the Institute will offer its product, the finalized instructional content. These deadlines are published and circulated within the units involved in the process, so that all employees can see them.

5. The associated faculty within UT receives the course written by the subject matter expert, and edits the course according to UT’s standards, according to his or her own personal expertise, and according to course’s blueprint as established by the faculty when the curriculum for each program of study was designed.

6. The faculty delivers the edited course to the Institute according to the deadlines imposed by the meeting participants from steps 2 and 4. The course contains all of the educational content, but is not in the form of the finalized instructional content.

7. The Institute takes the course and recreates it into distributable, reproducible instructional content, according to systematic instructional design principles. This is done by the production center, which includes the divisions of layout, graphic design, and copy editing. A layout specialist puts everything together.

**Evaluation:**
- There is a coordination meeting held by the Vice Rector of Academic Affairs which is attended by faculty Deans, the Vice Deans of Academic Affairs, the Head of the Institute, and the Head of the Center, during which a progress check is made on the entire development process, including steps 3-7)

8. The Head of the Institute sets up a coordination meeting to discuss the reproduction process for the instructional materials ready to be reproduced. The coordination meeting is attended by the faculty Deans and Vice Deans, the assistant of the Vice Rector of Academic Affairs, the Assistant of the Vice Rector of General Administration and Finance, and the Head of the Center. In this meeting, the decision of how many exemplars of each piece of instructional material should be reproduced (based on a prediction on number of students that will register for that course) is made, and the printing house is notified.

9. For online purchasing, printed copies of instructional material are sent to the UT book store, which is allowed to select a delivery company to directly send materials to students.

10. The delivery company distributes the material to the regional offices. The distribution of the material is evaluated and monitored by the Distribution Center.

11. Finally, the regional offices sell the printed copies of instructional material to the students.

**Evaluation:**
- The Institute monitors the sale process, including the stock of learning materials in each of the regional offices. The regional offices print out data from their on-site databases and send them to the Institute.
- The Vice Rector of Operations also monitors the delivery process. The Head of the Institute is responsible for reporting the current stock of instructional materials at both UT’s headquarters and at each regional office.
Process map of INTERNAL accomplishments:

1. The manuscript is adapted to the standard template (by layout staff).
2. The cover is designed (by graphic design staff).
3. Any illustrations which are needed are designed (by graphic design staff).
4. All material is combined and edited (by layout specialist staff).
5. The first draft is edited and proofread (by copy editing staff).
6. Once the process is done, the draft is sent back to the appropriate faculty to undergo a final check.
7. After receiving faculty feedback, the production center then finalizes the draft and makes a prototype of the instructional material.
8. Formal approval is given by all parties that are involved in the process: The Head of the Center, the appropriate faculty, and the instructional designer all give their formal signature.

(1) Performance processes linked to the organization's goals

This final concept is a useful tool for understanding the current level of organizational support for performance processes, including expectations, resources, and feedback, and the people that participate in these process. This final concept is at the performer level.

Expectations and Feedback:

Several levels of monitoring and evaluation of the process of production exist. Internal evaluations are conducted within the Institute by managers and supervisors. The first level is within the Institute. During the production process, a production coordinator evaluates and monitors the layout and graphic design staff, and also provides formative feedback based on their individual and group performance. In monitoring and checking the quality of the product, the managers and supervisor uses a standard template that shows the proper layout and graphic design. This clearly suggests that high expectations exist regarding the quality of work. Within the deadlines set by the Institute, there is very little time for revisions and changes. This may create a gap in performance.

When the edited “raw” courses are delivered to the Institute from the faculty past the deadline, the quality of the Institute’s final product often becomes lower than the expectation, since the Institute must rush to meet the already-imposed deadline. The production center staff often must work overtime in order to meet this deadline. Also, sometimes the feedback given by the supervisor is also a bit insufficient because of the lack of a clearly established image of what an ideal product should look like. This situation might be an issue that can be addressed for improving the quality of the instructional content.

The evaluation and monitoring processes discussed in the external process accomplishment map delineate expectations for the performers in the Institute. These expectations are a possible area in which a performance gap may exist--and where a targeted intervention recommendation can possibly be made.

Resources:
The Institute proposes a budget before the fiscal year end that should incorporate all resources and tools that are needed throughout the year. Based on yearly activity targets and past budgets, the Head of the Institute and the Heads of the Five Centers plan activities and budgeting for the coming year. This is an important piece of information for the performance analysis--the relative infrequency of resource and tool requests may be an issue for the Institute, and may be a part of the intervention plan.

The employees in the Institute seem to have sufficient tools and resources to do the job. Every layout and graphic design specialist has their own computer, and these computers are equipped with capable design software. Based on the business analysis, however, a problem is very likely to exist in the staff training and selection domain, since staff are rotated and may not know how to correctly use and take advantage of these resources and tools.

Feedback is also an important component of performance at the employee level. Evaluations clearly occur throughout the process, according to the process map of external accomplishments. However, according to the data we collected, the clear provision of feedback is only given on an informal level, and only given within the Institute’s production center. Understanding these current, lacking feedback mechanisms for performers may allow us to suggest interventions that target an area of deficiency.

**Limitations and Constraints**

The same limitations and constraints discussed in the business analysis are present in this performance analysis. As in the business analysis, but even more applicable, there is the problem of not being able to observe processes and accomplishments directly at the Institute. This kind of direct information would provide us with some very valid information about the organization’s (and the performers that make up the organization’s) processes. Job/task analyses are difficult to do without observation of the process. Additionally, this analysis does not focus as much on what the performer needs to do to be successful on each task and accomplishment within the Institute. This is a challenge that has been only partially met by the information gained from interviews and surveys, found in the process map of external accomplishments.

**Summary and Conclusions**

From the data gathered during this performance analysis, the key accomplishment is clearly defined as the standardized instructional content produced by the Institute. It is composed of the input of instructional material (or written courses) edited by the faculty of UT, and is transformed by the staff within the Institute into something that can be reproduced and delivered to the students as coursework. This analysis clearly lays out the steps in the process of accomplishments that occur before this key accomplishment happens, both external to the Institute and internally. This analysis also defines the expectations, feedback, and resources available to the staff within the Institute, and documents how these actions are carried out. This analysis also looks at the external or macro-level of the Institute and of UT, which is situated in a highly government-regulated country, with a high potential for
competitors in the future. All of these findings will be useful during the gap and cause analyses to follow.

GAP ANALYSIS

Purpose

We conducted the gap analysis in order to find the difference(s) between the current performance levels of the Institute of Media Production, Examination, and Information System of Universitas Terbuka (“Institute”) and the ideal performance levels (the goals) of the Institute. The gap analysis will identify the issues (gaps) that the Institute is experiencing. After the gaps are identified, the cause analysis will identify the causes of the gaps, which will lead to the ability to identify the correct interventions.

The gap analysis is used to ensure that the correct problems are identified and thus that the correct causes are identified and the appropriate interventions are implemented. The remainder of this document will explain the questions asked to determine the gaps and explain the gaps that were found.
Analysis Questions

Many of the questions used in this analysis overlap with those used in the other analyses. However, as stated before, the information gained from many of these questions will be used in several different analyses. For a list of the specific questions asked to the aforementioned clients for this analysis and the others, see Appendix A.

In addition to the client questions, we also asked the students of UT to answer a series of questions. These questions helped us better identify the gaps, as we looked at the goals of the Institute and compared them to the responses of the students. This gave us a clearer picture of what the students viewed as problems with the Institute. The questions that the students answered are listed in Appendix B.

Analysis Approach

To conduct the gap analysis, the main approach was to use surveys. There were individualized surveys sent to each of our clients that work with the university. In addition, the survey for the students was posted on the student webpage of the university’s website. Any student could answer the survey during the time period that it was open. There were no restrictions on which students could and could not answer the survey. In addition to the surveys, some of the clients had additional interviews and emails.

Data Collection

In addition to the client surveys, there was a lot of information collected from the student surveys. One hundred and six students responded to the survey within a few days. We had planned on keeping the survey available for three weeks, but after reaching more than one hundred responses in the first few days, we decided to close the survey once the responses exceeded one hundred. The reason for this was to ensure that the number of responses was not too overwhelming. We felt that it was more beneficial to have that number of responses and be able to comprehend the responses, rather than having to go through many more surveys and not have the time or ability to interpret the responses.

Analysis Results

The data collected from both the client and student surveys showed several gaps. We have categorized these gaps into four main categories. Under each category, the specific gaps are listed:

Gap 1) Lack of Instructional Design Support

1.1) The students complain that the learning materials are hard for the learner to understand.

1.2) The tutorials are not well explained, do not match the materials of the course, and do not provide a sufficient explanation about the learning objectives at the beginning of the module.
1.3) The materials are not formatively evaluated before they are distributed to the students.

1.4)

1.5) The material revision policy is not implemented as it should be, which results in outdated materials.

1.6) Many students (approximately 42% of the responding students) do not receive the proper guidelines to help them decide which classes to register for and which materials should be purchased for those classes.

**Gap 2) Lack of Administrative Support in Delivery & Distribution**

2.1) The registration window is large and ends only a short time before the examination.

2.2) The students receive their materials several weeks after registration, which causes the students to not have ample time to prepare for the examination.

2.3) There is a weak national delivery and distribution system within the postal service.

2.4) The materials received by the students are often incorrect, meaning that the materials received are not the ones that the student ordered.

**Gap 3) Lack of Online and Physical Tutoring Support**

3.1) The tutors do not give a lot of support to the students and arrive late to the online sessions with the students.

3.2) There is no learning community of learning for the students.

3.3) There is a lack of learning resources, such as books, journals, articles and news, available to the students.

**Gap 4) Lack of Student Service Support**

4.1) The regional offices, where the students order their materials, are inaccessible to many of the students, mostly working adults, due to limited business hours for 8am to 4pm on weekdays only.

4.2) There is not a help desk to assist the students when they have technical questions about their materials or other online-related questions.

4.3) The academic advisors do not give sufficient support to the students on how many classes to take and when to take them.
4.4) Many students fail early in their studies.

**Limitations and Constraints**

We were faced with a few limitations when conducting this analysis. One of the main limitations was that we only had access to 5 English-speaking UT staff (or former staff) members that are now students at FSU. We did not have access to any other staff members who are currently in the Institute. Another limitation that we had was the time constraints. We did not have very much time to conduct this analysis with the other analyses.
CAUSE ANALYSIS

Purpose

The Cause Analysis is an investigation to determine the origins of past, current, and future performance gaps that exist within a system. A Cause Analysis was conducted to investigate the causes of existing gaps within the Institute of Media Production, Examination, and Information Systems of Universitas Terbuka, which we will refer to as the Institute. When causes are identified correctly, diagnosing the gaps with proper interventions will effectively improve the problems and gaps, which are consuming the resources of the organization.

The Cause Analysis serves as a guarantee that each identified gap is real and originates from a certain source. The sources and roots of problems are caused by either singular or multiple chains of events. This analysis will generate a complete picture of the reason for the existence of gaps, and furthermore, the degree of the problems and gaps in a system. The main gap identified is errors in printed and online learning materials and in administration procedures.

The business, performance, and gap analysis established the current state of the Institute. This Cause Analysis identifies the origins of gaps at the Institute. The identified causes of gaps are categorized under the following four areas:

Gap 1) Lack of Instructional Design Support

Gap 2) Lack of Administrative Support in Delivery & Distribution

Gap 3) Lack of Online and Physical Tutoring Support

Gap 4) Lack of Student Service Support

Analysis Questions

The questions used in this Cause Analysis uncover the root causes of gaps that exist in the Institute’s system. The following questions seek to gather more information about the gaps that exist within the Institute that cause problem related to business performance and to goals set by the Indonesian Ministry of Education and UT. There are other reasons the gaps exist. The earlier Gap Analysis mentioned the 4 major areas where gap exists: 1) Instructional Materials and Administrative support materials, 2) Delivery & Distribution, 3) Tutoring, and 4) Student support services.

The following questions seek to uncover the causes of the 4 gaps:

1) Lack of Instructional Design Support
   1. Why are there errors in the learning materials and test questions?
   2. Why do the students complain about the errors?
   3. What kinds of errors were mentioned by the students?
4. What caused the errors?
5. Why does the instructional design model not help students learn the content?

2) Lack of Administrative Support in Delivery & Distribution
   1. Why do the students receive material later than the expected time?
   2. Why do the delivery “bottle necks” exist?
   3. Who controls the “bottle necks”?
   4. Why do some students complain that the materials are too expensive?
   5. Why do the students sometimes receive the wrong printed materials?

3) Lack of Online and Physical Tutoring Support
   1. Why do students feel a lack of support from the tutors?
   2. Why are the tutors late to online tutoring sessions?

4) Lack of Student Service Support
   1. Why do the students not receive adequate support from UT?
   2. Why do the students feel that the regional offices are inaccessible at times?
   3. Why do the students have inadequate knowledge about basic tasks like online course registration?
   4. Why do the students fail to take foundation classes, like computing, as they begin their major?
   5. Why is there a high rate of students failing courses?

**Analysis Approach**

The Cause Analysis was conducted using multiple approaches including surveys, interviews, and structured brainstorming. These multiple approaches were to ensure that a 360-degree view on the UT system was used to identify the root causes. Surveys were used to collect general data from UT students who had access to the Internet. Although only 13% of the students have access to the Internet, 106 students participated in this survey.

These approaches were chosen in part due to efficiency and convenience. Efficiency refers to the best method to save time, cost, and the ability to successfully collect the needed data with the least possible amount of barriers. Due to the limited timeframe of 4 months to conduct the UT System Analysis, efficiency was the key to achieve optimum results in this analysis. Convenience refers to the most rapid, simple, and the method involving the least traveling. UT is located on the opposite side of the world. With the limited time allowed for conducting this analysis and the limited budget, communications technologies provided us with the most convenient and cost-effective methods to conduct the analysis.

**Data Collection**

In order to perform a holistic analysis, two groups were given surveys:

1) **Students** – This group was limited to students who have access to the Internet. There were 106 students who participated in the survey. The online tutored students were the chosen...
targeted group because they have access to the Internet and experience different challenges compared to those who purchase their materials at the 37 national wide regional offices. Furthermore, they experience virtual contact with staff and tutors through scheduled and non-scheduled online interactions. These students live in 37 regions in Indonesia where the regional offices located. Most of these students register and order courses online because their regional office does not carry the materials or it is inconvenient to go to the regional office.

From the students, we collected data regarding their experiences studying at UT. The 4 gaps found, guided the analysis questioning the root causes of these gaps. The questions asked are listed in Appendix B.

2) **Staff** – These staff members are current graduate students at Florida State University. The staff members were full-time employees and faculty at UT. Two out of 5 were working at the Institute prior to their arrival at Florida State University, and they had the opportunity of working in or closely with the Institute.

**Analysis Results**

**Gap 1) Lack of Instructional Design Support**

In the instructional design process, we found a number of issues. During the interviews, some study materials were shared with us. However, those materials given could not be used due to the fact that the files were corrupted. When we asked the staff to resend the materials, the same types of issues were faced. Furthermore, we had no access to the instructional design model used by UT. The SMEs had to base their instructional material development on a template. The only data collected on the learning materials are from the online tutoring files and descriptions given by the UT staff during interviews. Based on the descriptions given by the interviewees, the learning materials are designed according to a template provided by UT.

When a subject matter expert (SME) is hired, the SME will attend a 3-day workshop on how to design learning materials based on a UT-designed template. The 3-day workshop provides training for the SME about the learning material design process according to UT’s standard. These SMEs are from different universities in Indonesia and they are used to using a variety of diverse models for developing learning materials. After the training, these SMEs are given 8 months to complete a new course. An SME also reviews and develop updated materials every five years.

**Cause 1.1) Both students and tutors agree that some of the learning materials are not learner-centered.** They were created based on the SMEs’ perspectives instead of the learners. Therefore, the learning materials are hard to understand from a learner’s perspective.

**Cause 1.2) Instructional design model.** According to the UT staff, UT follows Dick and Carey’s Instructional Design Model when developing learning materials. However, not all 9-stages are followed closely. The table below shows which stages are missing from the UT learning model.
<table>
<thead>
<tr>
<th>Stage</th>
<th>Title</th>
<th>Followed by UT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Instructional Goals</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>Instructional Analysis</td>
<td>Yes</td>
</tr>
<tr>
<td>3</td>
<td>Entry Behaviors and Learner Characteristics</td>
<td>No</td>
</tr>
<tr>
<td>4</td>
<td>Performance Objectives</td>
<td>Yes</td>
</tr>
<tr>
<td>5</td>
<td>Criterion-Referenced Test Items</td>
<td>Yes</td>
</tr>
<tr>
<td>6</td>
<td>Instructional Strategy</td>
<td>Yes</td>
</tr>
<tr>
<td>7</td>
<td>Instructional Materials</td>
<td>Yes</td>
</tr>
<tr>
<td>8</td>
<td>Formative Evaluation</td>
<td>No</td>
</tr>
<tr>
<td>9</td>
<td>Revision of Instruction</td>
<td>No</td>
</tr>
<tr>
<td>10</td>
<td>Summative Evaluation</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Cause 1.3) After the SMEs attend the 3-day workshop, the SMEs are expected to develop a new course without any instructional design assistance. The lack of formative evaluation is a cause of the poor learning material development. There are no formative evaluation processes implemented at any time in the two years that the SME is developing the course. When an SME completes a course of learning materials, another UT staff that is also a SME checks the final drafts. When a problem is found, the original author will be notified and asked to make changes accordingly. However, instructional designers are not used during the entire development process.

The data collected from students and staff shows that the 3-day training workshop does not equip the SMEs with enough knowledge and skills to develop learner-centered materials. Each of the SMEs therefore leaves the workshop with only partial instructional design knowledge. Therefore, we suggest that these workshops need further analysis to determine the benefits that would be realized by equipping SMEs with complete instructional design skills. During the process of instructional development, there is no evaluation to assess the performance of these SMEs, nor is there any instructional design assistance. The only requirement for the SME is to turn in the final product at the end of the 8 months contract.

Cause 1.4) No pilot testing. During one of the interviews, one of the UT staff mentioned that the final product of the course is immediately sent for printing without pilot testing due to the short period of allotted time.

Cause 1.5) Implementing revision policy. In 2007, UT created a new policy that requires all courses to be reviewed once a year by internal SMEs. However, due to the massive number of courses conducted by UT, currently only selected courses are being reviewed. SMEs who are also working as tutors and UT staff are assigned to review the learning materials according to their expertise. Although the policy was created over two years ago, UT has not implemented the policy on a university-wide basis yet.

Cause 1.6) Lack of proper guidelines. This gap is found among those who register for courses using the registration form, as online registration is not available, and purchase learning materials online. Approximately 42% of students did not receive guidance to register or course guidance, which highlights the need to create clear and step-by-step
guidelines. UT staff explained that these guidelines are clearly given in the catalog, but a job aid for students may be necessary. The guidelines can be found in the catalog, but many students do not generally carry the catalog with them to the local Internet café to purchase materials. These students felt helpless and had limited guidelines to help them register for classes. This could be overcome by providing simple online job aid or a help function, or by designing a more intuitive format for the online registration and purchasing system.

Gap 2) **Lack of Administrative Support in Delivery & Distribution**

During the analysis a particular trend was documented; students receive printed learning materials one or two months after registration. Approximately 30% of the students in the survey received their learning materials over a month after registration, and over half of those students received their learning materials after two months or more. These students complained that the late delivery caused them to not have ample time to prepare for the examination. This is particularly true for those who register for courses and purchase their learning materials online. Currently, the academic calendar consists of two semesters a year, which is six months per semester. The first semester starts in January and ends in mid-May, and the second semester starts in June and ends in early November. Each semester ends with an examination week.

**Cause 2.1) Late Registration Window Schedule.** UT has two registration windows per year. Each has a 3-month open period for students to register online or at the regional offices. The first semester registration starts in early December and ends in late February, and the second semester start in late May and ends in late July. Students who register late or after the end of registration in late February will automatically be expected to take exams during the May examination window. However, because of late registration windows, students find themselves not able to prepare well for the final exams.

When a student registers at the regional office, the student is allowed to pick up the learning materials immediately. If a particular learning material is not in stock for distribution at the regional office, the students can purchase these materials online, and they will be sent to the student directly from the UT Headquarters through the mailing system. Students who purchase learning materials online only receive learning materials through the mailing system. From the data collected, 30% of students receive materials more than a month later and half of them receive material more than two months after registration. The students who do not have access to the Internet are left with no learning materials at all, and those who have access to the Internet tutorials only have access to summaries of the courses and not the entire course materials. According to the staff, there are a number of online courses available. The combination of late registration windows, late delivery of learning materials due to the poor mail delivery system in Indonesia, and no complete online learning materials prevent students from preparing well for their final exams. The cause of this gap is the short period between registration windows and final examination weeks coupled with the poor delivery system. The variables which could be controlled by UT are shifting, shortening, or closing the registration windows earlier, or moving the exam week to a later date. We suggest that shifting, shortening, or closing the registration windows earlier would be a better choice than
Delaying the examination week. The intervention section will provide the detailed support for this suggestion.

Cause 2.2) *Lack of Choice in Selecting Examination Calendar*. One of the other challenges the students face is the lack of time to prepare for exams. From Cause 2.1, we learned that the UT registration system does not allow the students to choose their examination schedule. Automatically, when a student registers for courses in late February, his or her exam week will be in May. The students do not have a choice, which often causes them to cramp their studies between the time they receive the learning materials and exam week. This can be solved in a number of ways. One is to allow the students to select the current examination week or the examination week a semester later. The other method is by addressing Cause 2.1, which is highly related to Cause 2.2.

Cause 2.3) *Weakness in national delivery and distribution system*. This is referring to the national postal service system. Learning materials are sent out to students within days from their registration according to the staff interviews. However, the Indonesian postal service is often late in delivering the learning materials to the students. While there have been no reports of learning materials never being delivered, late arrival of the learning materials is a large concern. The delivery and distribution service is the number one challenge for the UT distribution center. This is definitely out of UT’s jurisdiction; however, UT could apply other interventions to resolve this matter. We suggest that resolving Cause 2.1 and 2.2 will also improve this situation. Most of the students buy their learning material at their Regional Office. UT doesn’t deliver learning material door to door except for the students who buy the learning materials online. For online purchasing UT uses various kinds of delivery agents, such as private delivery companies and the national postal service. The problem in distribution system due to the miss prediction of learning materials needed at Regional Office. So that the students not able to buy at Regional office.

Cause 2.4) *Lack of business operation support*. Delivery and distribution support faces another challenge, which is apparent because of a conflict of views between students and UT staff. This issue involves incorrect course registration. Students commented that the courses they registered for were wrongly entered into the system by UT staff. The UT staff thought that the students registered for the wrong courses themselves. This conflict cannot be assessed from a distance; further on-site investigation and analysis are needed. Another related issue occurs when the students receive the wrong learning materials, even though the students must buy their materials from the Regional Offices, unless they purchase their materials online. Another frequent comment from the students was that the administration processes are very slow. When students receive the wrong learning materials, students either report directly to the regional office or send the materials back with a request for the correct materials. This causes lost study time and delays in students’ graduation. One student commented that he had to delay his study for a semester due to incorrect and slow receipt of materials.

Gap 3) *Lack of Online and Face to Face Tutoring Support*
Cause 3.1) Lack of tutoring support. Tutor assistance is provided in a number of ways. Students can receive tutoring by fax, by telephone, in a classroom, through the mail, and in online discussion forums. However, students frequently utilize only two of the five tutoring services, which are in-classroom and in online discussion forums. These two are most accessible to students. Using a fax machine and making telephone calls are too expensive for most students. Calling outside of the local region can be quite costly. Fax services are the same price as phone calls. This is comparatively expensive for Indonesians when most people’s incomes are as low as $90-200 per month. With the increasing amount of competitive cell phone services in recent years, Indonesians will be able to enjoy cheaper and accessible phone call and mobile internet services.

Face-to-face tutoring is the most expensive. Those who are required to attend tutoring for a class are very few in number. Most of the students are encouraged to attend online asynchronous discussion forums. UT staff estimated that about 13% of UT students participate in online discussions. Students who participated in the online tutoring commented that many times, the tutors do not answer their questions or are delayed in answering their questions. From the staff, we learned that there is no a monitoring system to keep track of what tutors do and to evaluate their performance.

Cause 3.2) Lack of community learning support. The UT distance learning system is mainly supported by online tutoring in addition to independent reading. Those who actively participate in these online forums suggested in the survey that UT utilize Web 2.0 systems, such as Facebook, Myspace, Skype, and other online tools. These tools are free and many UT students who have access to online tutoring already use these tools for their personal social interactions. A few students suggested that UT should use these tools to organize online learning communities. These allow students to communicate and learn from each other during the semester. Geographically, it is impossible to organize physical learning communities. Creating online networks will lighten the workload of tutors and create new learning resources for UT students. In the intervention section, we will discuss the use of Web 2.0 tools.

Cause 3.3) Lack of learning resources. In addition to a lack of community learning resources, physical resources such as books, research materials, journals, articles, and news were found to be broadly unavailable to students. Although UT has 37 regional offices, none of them have a library system. UT students seek more learning resources to help them in pursuing their education. The UT website has links to a few other learning resources, such as journals for education-related organizations; however, there is no promotion of public learning resources like the Indonesia National Library and any online or local information resources. Students would like see more learning resources made available to them in order for them to expand their knowledge.

Gap 4) Lack of Student Service Support
The student survey found that over 60% of the students commented on a lack of student services support. Below is a list of a number of main causes of this lack of support.

Cause 4.1) **Regional office hours.** UT regional offices are open from 8 am to 4 pm, from Monday to Friday. These offices are closed on week-ends and public holidays. With half a million students registered each semester, who are mostly working adults, the UT office hours are inconvenient to a majority of the students. Most of the students work during those hours. This prevents students from going to regional offices to pick up learning materials and to register for courses. Some students take time off of work to come to the regional office, and this interferes with their working hours and could possibly cost them a portion of their income and even their jobs.

Cause 4.2) **Lack of hotline help desk.** Students also report a lack of telephone service support during their free time after their working hours. For many students, telephone is the only way they have to reach the UT office. Students suggest an after-hour customer service hotline help desk to assist students.

Cause 4.3) **Academic advisor not giving proper advice.** Over 60% of the students are taking between 5-10 courses during a semester. Many of these students are new and not familiar with their own capability and limitations in studying for classes. Due to lack of academic advisor support, many students over-load themselves with classes while working a full-time job, causing them to fail some of their classes, especially since the students must register for a pack of courses, where multiple courses are registered for instead of just 1. This demotivates the students to perform well in future classes. Although many students have no access to the Internet and to regional offices, proper advice should be given to assist new students in registering for the appropriate number of classes based on their personal capabilities.

Cause 4.4) **Lack of transitional learning support.** One of the UT staff mentioned in his interview that he noticed that many students fail early in their study at UT, which is a gap caused by the lack of transitional learning support. Many of the students do not understand the UT system. They expected the tutors to show them the learning materials and guide those using step-by-step lecturing methods. This unfamiliarity with UT’s methods of teaching results in a lack of motivation and disappointment on the part of the students. This leads to high percentage of students failing in their first semester. UT first-year students do not receive any sort of orientation as to what they should expect to happen during distance learning. The transition from a traditional teacher-centered approach to a student-centered approach is too sudden for many of these students. This identified cause of transitioning gaps among students can be resolved by prescribing learning transition interventions.

Another kind of transitional learning support is also needed to address the student’s lack of computer skills. Many of the students have access to the Internet, but are not comfortable with certain technologies used in UT courses. Some sort of transitional basic computer skills course offered in the regional offices would address this gap. Transitional learning support would ultimately reduce staff workloads as well as increasing student performance.
Limitations and Constraints

We faced a number of limitations and constraints while conducting these analyses including lack of financial resources and time. However, these are only two of a number of limitations and constrains. There are two main constraints that led to multiple limitations in this project.

Constraint 1) *Financial Resources.* UT is a government funded project and the fees collected from the students are very little. This is to keep the cost low in order to help more Indonesian citizens to obtain a college degree. First, this prevented the consultants from traveling to Indonesia observing the business procedures and environment. Second, when consultants are not able to be present at the business site, the views of the consultants may be limited and not able to capture the holistic picture of the UT system. Although we tried to assess the system holistically from a distance, we know there are a lot of missing data which we were not able to collect and observe through online and distance communications. Third, the lack of financial resources prevented to extend the analysis to the students who have no access to the online survey we posted. Of the 425,000 UT students, only 13% are online students, meaning that they engage in the online tutorials. Majority of the students have no access to internet and the survey. These students’ opinions and behavior is not part of this analysis. The analysis and prescribe interventions are based on the small number of students. These students would need another analysis to assess the gaps and the causes separately. With more financial resources, we could have a more in depth and holistic analysis.

Constraint 2) *Time.* We conducted four analysis in only two months from a distance. First, with more time, we could have assessed more gaps and causes of the UT issues. Many of the issues are hidden from the surface. The more interviews we conducted with the UT staffs and more causes we found in the system. These causes are valuable in prescribing accurate diagnosis to the causes in order closing the gaps. However, this limited time allowed us to limit our analysis 4 main gaps exist in UT system. By resolving these gaps, many of the UT business and operation performances will improve and get closer to the UT goals and missions. Second, couple with distance, time limited the consultants from communicating closely with more current UT staffs in Indonesia. We rely fully on those who were at one time or the other working at UT. With more time, the consultants would like to interview those who are working at UT, as well as the SMEs. They would be able to give us a 360 degree view of the progressing works that UT is carrying out.

This Cause Analysis challenges the consultants with many details issues. The consultants were able to identify number of gaps and causes, however, while learning the analysis and analyzing a system prevented the consultants to perform optimally in analyzing all gaps and causes of gaps within short two months period. This weakness is not a common practice. However, as a consulting team, we think the current analysis is capturing the main gaps and causes and paving the way to a new beginning to improve UT system.
INTERVENTIONS

Purpose
The intervention report is designed to provide intervention recommendations, based on the Gap and Cause Analyses. While the Gap Analysis provides a picture of the difference in performance between Universitas Terbuka’s (UT) stated performance goal and its current performance, the Cause Analysis seeks to determine the underlying reasons for the performance gaps found. This intervention report is designed in such a way that specific interventions are recommended for the causes identified in the Cause Analysis.

The identified causes of gaps are categorized under the following four categories:

Gap 1) Lack of Instructional Design Support
Gap 2) Lack of Administrative Support in Delivery & Distribution
Gap 3) Lack of Online and Physical Tutoring Support
Gap 4) Lack of Student Services Support

Gap 1) Lack of Instructional Design Support

Intervention Recommendations for Gap 1: Lack of Instructional Design Support

We have determined that the following interventions are necessary in order to address Gap 1 and its underlying causes (1.1-1.6). If followed, this set of interventions will increase the quality of the materials delivered to the students:

1) Follow each step of the Dick and Carey instructional design model, including formative evaluation.
2) Involve Instructional Designers (ID) in every step of instructional material design.
3) Create specialization of tasks, as opposed to rotation of duties.
4) Review, revise and implement UT’s current revision policy.
5) Create support material for students that goes beyond a catalogue of courses and provides students with a map to graduation.

Intervention 1: Follow each step of the Dick and Carey instructional design model, including formative evaluation.

Although UT states that the Dick and Carey model is being used for designing instructional material, it is clear that the model is not being used in its entirety since essential instructional design steps are not being completed, namely, learner analysis, formative evaluation, and revision of instructional materials based on formative evaluation. Out of the design steps that are followed, it is impossible to determine which are being completed correctly because our team did not have access to UT. Because of the high number of students who expressed dissatisfaction with the learning material and because of the high rate of students who do not pass final exams, we believe that a complete review of the ID process is overdue. In order
for the learning material to properly support student learning, the ID stages that are not
followed from the Dick and Carey model need to be implemented as follows:

I. **Stage 3:** Conduct learner and context analysis – identify the characteristics of the
learners, describe the environment in which learners will perform skills learned, and describe
the learning context.

A complete learner and context analysis will identify learners’ previous experience with
independent learning, their level of motivation, and their experience with the subject matter
being taught. This will facilitate the design of instruction, the creation of motivational
activities, the format of the materials presented, and the amount of materials presented in a
given step. The performance and learning context analyses further serve to provide
information about the amount of support learners will receive during instruction, as well as to
outline any constraints to instruction. If critical issues are properly addressed, students will
be adequately supported during instruction and will therefore be more successful as
independent learners. It was clear from our performance analysis that the SME are face-to-
face teachers and are therefore more accustomed to working with instructor-led material,
which is very different from independent learning material. A proper learner and context
analysis would result in the creation of learning material that is better suited to UT students’
needs as independent learners.

II. **Stage 8:** Conduct formative evaluation – information is received from the learners in
order to improve the instruction.

As opposed to the other design steps which are possibly not being correctly followed, this
step is not being done at all. The Performance Analysis conducted by our team determined
that evaluation of instructional material is done by other SME, which defeats the purpose of
creating learner-centered material and does not follow the Dick and Carey ID model. While
UT members state that there is not enough time for formative evaluation, we believe that it is
possible to accomplish this step by building it into the existing writing and production
processes. A formative evaluation of learning material before mass production will result in
better quality learning material, thus greatly increasing learners’ success rates and consequent
motivation, as well as reducing demand for tutors.

*The Systematic Design of Instruction* by Dick and Carey (2005), referenced throughout
this report provides greater detail for understanding the details of the formative evaluation
process. The fundamentals of formative evaluation include three steps: *one-to-one
evaluation, small group evaluation, and field trial.*

A *one-to-one evaluation* with learners serves to remove errors in instruction and obtain
initial reactions. This is done with material that is in the draft stages and will answer: 1) whether
the content is clear to individual learners, 2) what the impact of instruction is on
learner’s attitudes and achievement of learning objectives, and, 3) how feasible the
instruction is given the resources available. Note that this stage can be done with only three
target learners.
A small group evaluation serves to identify any problems that learners may still have with the material, and to determine whether the learners can use the instruction WITHOUT INSTRUCTOR INTERVENTION. Based on changes made after the one-to-one evaluation, learner performance is noted on posttests to see if instructional objectives were reached. Learner attitudes are assessed, and information is gathered about the time required to complete each unit of instruction. Note that this stage is done with 8 – 20 target learners simultaneously.

A field trial replicates the learning situation that the target learners will be in. Instructional designers observe students using the materials without interfering at any point. It is not necessary to incorporate complete assessment (final exams) in the field trial. This step is essential in order to get a clear picture as to whether there are any additional concerns with the material. This stage is done with 30 learners simultaneously.

Dick and Carey outline 5 questions that a formative evaluation seeks to answer:

<table>
<thead>
<tr>
<th>Question</th>
<th>Who Judges</th>
<th>How data is gathered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are the materials appropriate for the learning outcome?</td>
<td>Learning specialists/SME</td>
<td>Checklist Interview</td>
</tr>
<tr>
<td>Do the materials include adequate instruction on the subordinate skills, and are these sequenced and clustered logically?</td>
<td>SME</td>
<td>Checklist Interview</td>
</tr>
<tr>
<td>Are the materials clear and easily understood by representative members of the target group?</td>
<td>Target learners</td>
<td>Observations of learners Interviews with learners Tests (outcomes of assessments) Materials</td>
</tr>
<tr>
<td>What is the motivational value of the materials?</td>
<td>Target learners</td>
<td>Observations of learners Interviews with learners Tests (outcomes of assessments)</td>
</tr>
<tr>
<td>Can the materials be managed efficiently in the manner they are mediated?</td>
<td>Target learners</td>
<td>Observations of learners Interviews with learners</td>
</tr>
</tbody>
</table>

III. Stage 9: Revise instruction – information from the formative evaluation is used to revise the instruction, as well as to ensure the accuracy of the instructional analysis and the entry behaviors determined in step II.

We propose incorporating the steps of the Dick and Carey model into the existing instructional materials creation process (outlined in the Performance Analysis) as follows: Needs meeting, coordinated by the Vice Rector of Academic Affairs to decide on the list of courses to be produced.
A. Identification of SME to be contracted for writing course material. According to UT deadlines, material must be completed within 8 months (96 weeks).

B. Deadlines for delivery of each stage of the ID process (outlined below) are established in a meeting with faculty Deans, Vice Deans for Academic Affairs, and the Head of the Media Production Center. These deadlines are circulated within the units involved and SME and Instructional Designers are informed.

C. SMEs are teamed up with Instructional Designers and layout staff (more information on this topic is shown below) to conduct steps I-V of the ID process. Steps I-V are presented to the Dean of faculty by the agreed upon date. Time: 10 weeks

D. Based on steps I-V, SME and ID teams present the Instructional Strategy (step VI) for approval by the Dean of faculty. Time: 2 weeks

E. Upon approval of the instructional strategy SME and ID teams begin creating the instructional material and assessments (step VII). Time: 60 weeks.

F. Assuming that the instructional material is broken down into chapters or units, as each chapter is created, it undergoes **one-on-one** formative evaluation with 3 target learners and revisions are made (step VIII). This process occurs simultaneously with the creation of instructional material on a chapter by chapter basis.

G. After each chapter is revised based on **one-on-one** formative evaluation, it is formatted to UT’s general specifications and outline by layout staff. This process occurs simultaneously with the creation of the instructional material on a chapter by chapter basis.

H. Once each chapter is formatted by layout staff, it undergoes **small group** formative evaluation for a second round of revisions with 10 target learners (step VIII cont.). This process occurs simultaneously with the creation of instructional material on a chapter by chapter basis.

I. ID teams submit the draft of the course to the faculty Dean for approval. Faculty Dean has access to steps I-V of the ID, as well as to the Instructional Strategy (which was approved prior to commencing creation of the instructional material). Dean reviews, comments, and discusses any concerns with the ID teams. Time: 3 weeks

J. Instructional material is sent to the production center for illustrations, and final layout work. Final course materials are readied for field trial. Time: 4 weeks

K. ID team conducts field trial formative evaluations with 30 target learners (step VIII finish). Material is revised if necessary (step IX). Time: 4 weeks

L. Revisions are added to the finalized course materials via collaboration between the ID team and the production center (step IX). The faculty Dean is notified of the changes and gives final approval. Time: 3 weeks

M. Total time used up until this point: 86 weeks, leaving 10 weeks for unanticipated delays in the development process.

N. Quantities of materials needed are determined and materials are sent to the printing house to be reproduced en masse for distribution.

O. Material is distributed based on the needs of each Regional Office

The above recommendations are general guidelines showing how the ID process can be successfully incorporated into the existing production process. The time allotted for each step does not necessarily have to follow the above timeline and should be discussed and agreed on by SME and UT design staff. It is evident that some target learners are needed for
the development of each module. It is possible for UT to offer the target learners “free courses” based on their assistance in the design process. It is also possible to use the same group of target learners for formative evaluation of more than one course.

**Intervention 2:** *Involve Instructional Designers (ID) in every step of instructional material design.*

Subject matter experts (SME) are not ID professionals and a three-day training workshop is insufficient to provide a manuscript writer with sufficient knowledge and skills to develop learner-centered material. The lack of preparation of SME for developing material according to the Dick and Carey ID model and the lack of structure and teamwork of SMEs with UT during the design process results in poor quality instructional material that is not delivered on time to UT. This can be solved by pairing each SME with one ID professional and one layout professional. Additionally a structured production timeline for development must be adhered to, as per the suggestions outlined above.

Within each 3-person team, the Instructional Designer serves as project manager for the entire development process. The ID team begins with steps I-V of the D&C ID model. Once the instructional strategy has been approved, the SME creates the content, while the Instructional Designer makes sure that the content produced follows the ID model. As each chapter is created, a *one-on-one* formative evaluation is conducted by the Instructional Designer and revisions are made with the assistance of the layout professional. As soon as a chapter undergoes the first revision, a *small group* formative evaluation is conducted by the Instructional Designer and a second round of revisions is made with the assistance of the layout professional. As each chapter is produced, it goes through both of the above formative evaluations while the SME is busy writing the next chapter of the instructional material. In this manner, we can ensure that the ID process is actually being followed and that the development of content is streamlined. The SME will also be supported in the creation of materials, which will result in a more efficient use of his or her time.

Via this process, the faculty Dean will also be able to see each chapter or unit of the instructional material as it goes through the formative evaluation and revision process (if he or she so desires) and will provide oversight to the ID team, as well as approval before field trials and again before final printing. The addition of a layout professional to each ID team ensures that the SME and Instructional Designer are adequately supported at each step of the ID and revision process and cuts time off of the final formatting and illustration that occurs just before production (steps K-M).

As is evident from the above explanations, the ID process is at the heart of UT’s current issues with providing instructional material that is high quality and delivered in a timely manner. In order to follow the suggested interventions above, SME need to be highly committed to the design process and capable of working in a team with an Instructional Designer. The aforementioned three-day course that is currently required for SMEs should be modified to show a general outline of the 9 steps of D&C ID model, but most importantly, to prepare SMEs for working in a production team with an Instructional Designer and a layout professional. UT’s design process incorporating formative evaluation and revision,
and the timeline for each of the development stages needs to be made clear and agreed on by any SMEs contracted by UT.

We realize that UT may not currently have sufficient human resources to hire an optimal number of Instructional Designers in order to follow the above recommended intervention. An alternative would be to have Instructional Designers assist more than one SME during the development of each course. This would place high demands on the Instructional Designers, but would still be possible if each SME had one layout professional to assist with making the necessary changes to the material at each round of formative evaluation.

**Intervention 3: Create specialization of tasks, as opposed to rotation of duties**

The Business Analysis conducted by our team brought to light an HR practice that we believe is not conducive to UT’s stated goal of producing high-quality, timely instructional material, namely the rotation of personnel from job to job. While rotation of tasks can be motivating for employees involved in repetitive, non-meaningful tasks, such as assembly line duties, the skilled work performed by UT employees does not fit this category and we recommend specialization of tasks instead. As was outlined in interventions 1 and 2, the structuring of ID and production tasks requires standardization of processes and individuals who are highly skilled in their respective lines of work in order to maximize efficiency.

An Instructional Designer should have at least a Bachelor’s degree in ID, but will likely have a post-graduate degree. A layout professional will most likely have a background in graphic design, and will be adept at using IT applications specific to formatting and text design. Likewise most of the other professionals involved in the ID and production process are highly specialized and arguably chose their line of study and work out of personal preference. It is counterintuitive to rotate a highly qualified professional out of their line of work into an area that they have not been adequately trained in and in which they may have no desire to work. In addition to upsetting a carefully designed and calibrated ID and production process and thereby creating delays, a rotation system may even be de-motivating to employees.

Instead, employees should be encouraged to find their niche and further their education in their respective areas, thereby providing expertise to UT and enhancing UT’s capacity for organizational learning and advancement. It may be possible to rotate employees who perform entry-level tasks, but rotation beyond entry-level tasks is not recommended. Employee promotion to higher levels of responsibility or specialized tasks should be supported by prior education and internship in the desired area of work.

**Intervention 4: Review, revise, and implement UT’s current revision policy**

Although UT currently has a revision policy, it has not been able to put this policy into practice. Doing so may involve a reassigning of responsibilities within UT in order to adequately review and revise learning material. It may be that some of the existing material has inaccuracies or is outdated to the extent that only a SME is capable of revising it. If this
is the case, the SME needs to be supported by an Instructional Designer and a layout professional as discussed above.

In other instances, the content may be adequate but the format and ID may be insufficient to support learners, in which case only an Instructional Designer and layout professional are needed to revise material. If UT decides to implement the ID interventions proposed in this report, the review and revision of instructional material will be streamlined to the extent that the current annual revision policy becomes feasible.

**Intervention 5:** *Create support material for students that goes beyond a catalogue of courses and provides students with a map to graduation.*

Because 42% of students surveyed stated that they did not receive guidance when registering for their course online, it is clear that more detailed support needs to be given to students who use the online registration system. Not only should the current paper course catalogue be available for easy online reference, ideally, each student should have an advisor who is their direct point of contact in UT and can be reached by phone or email. Students should receive advice regarding course recommendations, as well as sequencing and course load.

In the absence of personalized advisement, each student should have a “map to graduation” available on paper for easy reference and online when selecting courses. If students are given suggestions for which courses to take (based on their major), how many courses to take at a time, as well as the sequence in which courses should be taken, they will be better supported and consequently more motivated and more successful. By providing students with the recommended sequence in which to take courses, (including preparatory and IT courses) UT can be assured of a higher student success rate since students will begin each course with the necessary entry behaviors (assuming the above ID interventions are implemented, necessary entry behaviors will have been identified for each course). Improving the advisement process by giving course suggestions to students has the added benefit of assisting UT in forecasting demand for instructional materials.

**Gap 2) Lack of Administrative Support in Delivery & Distribution**

30% of the students received their instructional materials over a month after registration. Over half of these students had to wait two months or more to receive their material. The late delivery does not allow enough time for students to prepare for final exams. This is particularly true for those who register for courses and purchase their learning materials online.

**Current Academic Calendar**

<table>
<thead>
<tr>
<th>Registration</th>
<th>Semester</th>
<th>Final Exam</th>
</tr>
</thead>
<tbody>
<tr>
<td>December – end of February</td>
<td>January – mid-May</td>
<td>mid-May</td>
</tr>
<tr>
<td>May – end of July</td>
<td>June – mid-November</td>
<td>mid-November</td>
</tr>
</tbody>
</table>
Intervention Recommendations for Gap 2: Lack of Administrative Support in Delivery & Distribution

We have determined that the following interventions are necessary in order to address Gap 2 and its underlying causes (2.1-2.4):

1) Make changes to the registration windows
2) Allow students to select their examination dates and plan their courses in advance
3) Improve the communication system between Regional Offices and the Distribution Center
4) Look into ways that bypass the national postal system

Intervention 1: Make changes to the registration windows

Allowing students to register for a given semester up until two months after the semester has already begun is creating a situation in which it becomes difficult for the student to have enough time to study the material, especially if the student has to wait a month or two for the materials to arrive. Additionally, there is a rush to get the material out to the student and UT becomes overly dependent on an extremely slow delivery system. While it is true that many students go to the Regional Office to pick up material, it is not always available and often has to be ordered from the Distribution Center. Students who purchase their materials online are the most harmed by the late registration window since they always have to wait for their material to be delivered.

We suggest making the following changes to the Academic Calendar:

<table>
<thead>
<tr>
<th>Registration</th>
<th>Semester</th>
<th>Final Exam</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) October – end of November</td>
<td>January – mid-May</td>
<td>mid-May</td>
</tr>
<tr>
<td>2) March – end of April</td>
<td>June – early November</td>
<td>early November</td>
</tr>
</tbody>
</table>

If the above changes to the registration window are implemented, the vast majority of students will receive their material before the semester begins, even if no additional changes are made in the delivery system. Receiving instructional materials on time goes a long way toward improving student performance and successful course completion rates. When a student enrolls in UT, the Academic Calendar and registration window need to be clearly informed. This information should be included in the catalogue of courses and in each student’s personalized map to graduation, as well as online.

Intervention 2: Allow students to select their examination dates and plan their courses in advance

Regardless of whether or not registration windows are changed, students should be allowed to elect to take their final examination in the following semester if delivery is an issue. If a student lives in an area that generally experiences delays in delivery, he or she should not be further penalized by being obligated to take a final exam with insufficient study time. The instructional material is designed in such a way that optimal study time is 4-
5 months so if a student’s material is delayed, he or she will be placed at an unfair disadvantage when taking the final exam.

Another alternative would be to use the map to graduation mentioned in Gap 1, Intervention 5, to assist with the ordering system. If a student receives assistance in planning the sequence of courses and the course load, UT can be fairly sure of the next courses that a student will need and can arrange to have those courses sent to the Regional Office or to the student in time for the semester in which it is needed. A student can receive an email reminder of his or her course map and/or can see their course map online. The online ordering process can be automated to the extent that the student has to simply select ‘yes’ or ‘no’ in order to continue with the suggested sequence and course load. The implementation of suggested course maps will lessen the number of mistakes students make when ordering courses. A further advantage to using this system is that UT will be able to more accurately forecast the demand for each course well in advance of the date in which the materials will be needed.

**Intervention 3: Improve the communication system between Regional Offices and the Institute**

The Performance Analysis conducted by our team showed a communication process between the Regional Offices (RO) and the Institute that may not be taking full advantage of available information technology and infrastructure. According to our analysis, UT monitors the sale and stock of instructional material in each of the ROs via a printout that is mailed from each RO to the Institute. This leads to delays in determining how much material is available in each RO and how much should be sent to meet current demand. Additionally, it appears that the system students use to order online material is separate from the system used by the ROs.

Current business practices in the world’s leading production and distribution enterprises all employ a unified just-in-time communications system for monitoring inventory and placing orders. We recommend that each RO begin to use the internet for ordering and communicating with the Institute. Additionally, a unified system for ordering and monitoring inventory should be put into place with the use of software designed for this purpose. The Institute should be able to see available stock and future orders in a glance for each RO with the click of a mouse. Whenever an RO sells material to a student, this information should instantly show up on UT’s inventory and ordering system. Additionally, whenever a student places an order online or at the RO, this information should also be visible in the system. Implementation of this process will also reduce mistakes in order placement that are attributable to human error. The instant availability of information combined with a shifting of the registration window to an earlier time will make the ordering system much more efficient by cutting down on the time it takes for UT to receive orders of material and by allowing greater time for the orders to be sent out.

**Intervention 4: Look into ways that bypass the national postal system**
There are other alternatives to relying solely on the national postal system, two of which are: allowing students to buy and sell used copies of instructional materials, and printing instructional materials at each RO.

Our team has not determined whether students have an efficient way of buying and selling used modules but we are under the assumption that this may already occur on an informal basis. While there are instructional materials that must constantly be revised, it is quite possible that some materials may be used for several years. In this case, students could have the option of returning used materials in good condition to the RO and receiving a 5-10% discount on the price of their subsequent course. Other students can then buy used material at the RO for a cheaper price than new materials. Although UT may lose revenue from the sale of new courses, it stands to gain from lowering the cost of printing and distribution.

Printing instructional materials at each RO would also eliminate the delivery time entirely for students who pick up their materials and will also ensure that material is printed as it is needed. Our team has not researched the extent to which this is feasible, given UT resources and infrastructure. More information is necessary in order to determine whether this option can be implemented.

**Gap 3) Lack of Online and Physical Tutoring Support**

**Intervention Recommendations for Gap 3: Lack of Online and Face to Face Tutoring Support**

- We have determined that the following interventions are necessary in order to address Gap 3 and its underlying causes (3.1- 3.3):
  1) Improve existing instructional material in order to lower the demand for tutors
  2) Implement a feedback policy and monitoring system to ensure quality tutor interactions with students
  3) Use Web 2.0 systems to organize learning communities
  4) Give students access to online databases and regional libraries

**Intervention 1: Improve existing instructional material in order to lower the demand for tutors**

Students complain that the instructional materials currently in use are often difficult to understand. Earlier in this report we made ID recommendations that will result in the creation of material that is more learner-centered and thus easier for students to complete independently. The incorporation of formative evaluation to the ID process will shed light on the portions of learning material that students have difficulty with and create an opportunity to address students’ learning needs better in the instructional material, thus lowering the demand for tutors. The current high demand for tutors further underscores the importance and necessity of UTs incorporation of formative evaluation into the ID process.
**Intervention 2:** Implement a feedback policy and monitoring system to ensure quality tutor interactions with students

Students are encouraged to participate in online discussions in order to get answers to their questions. However, the students who participated in our survey stated that many times tutors did not answer their questions or delayed answering their questions. Moreover, students have not been given the opportunity to provide feedback on the services and support they receive from online tutors. Given the high response rate we had to our three-day online questionnaire, it became apparent to us that online students have a sense of urgency in their search for a way to communicate their questions and needs to UT.

It is our understanding that when a student has a question, he or she posts their question to an online discussion forum and must then await a reply. Email is not used to answer student questions. There is no set time for when a student can expect to receive a reply from the online tutor and some students have reported waiting for weeks. If the reply is unclear, the student must then post another question and again wait an undetermined amount of time to receive a second reply. The lack of immediacy in answering students’ questions defeats the purpose of an online forum and is disheartening to students.

We propose that UT create guidelines for answering students’ questions within no more than 24 hours. Additionally, the discussion forum needs to be organized in such a way that the questions are not lost in discussion threads so that the questions more accessible to tutors and to other students who may be experiencing similar difficulties. This will result in speedy answers to questions and will also serve as an easy reference to other students, thereby avoiding duplicate questions. This can be easily done by instructing students to begin a new thread for each question.

At the end of the course, all online students should be given a survey in order for them to provide feedback on the quality of instructional materials, the quality of online tutorials, and the quality of tutor interactions. Students who do not use the online tutorials but still request tutor assistance in other forms should also be given opportunity to provide feedback on the services they receive. Based on this feedback, changes should be made in subsequent courses in order to consistently improve the quality of the learning environment. UT should make its question response policy known to students, and tutors should be expected to follow it, knowing that they will receive an evaluation of the support they provided to students at the end of each course.

**Intervention 3:** Use Web 2.0 systems to organize learning communities

Students have suggested using Web 2.0 systems such as Facebook, Myspace, Skype and other online tools for the creation of learning communities. Just as conventional schools have clubs and associations, UT students should be able to enjoy similar benefits via an online community that can provide learning support as well as boost the morale of students who otherwise feel quite distanced from UT and from other adult learners. Learning communities can be organized according to students’ areas of study and can be monitored by UT graduates in conjunction with a faculty representative from each major area of study.
The creation of online communities allows students to connect or to find other students residing in their area with which to organize social gatherings or study groups.

Regional Offices (RO) should also be equipped with computers for students to access online tutorials, order courses, or connect with their online learning community. Incorporating current popular uses of Web 2.0 systems into UT’s support structure for students has the added benefit of placing UT ahead of the curve in relation to other future competitors in the sense that it will have a grassroots connection to students and will be able to provide geographically distant students with a feeling of community and an extended network of support in a manner that other universities in Indonesia may not have considered as of yet.

**Intervention 4: Give students access to online databases and regional libraries**

Students have expressed their frustration with the lack of learning resources available to them such as books, research materials, journals, articles and news. None of UTs 37 ROs provide access to local libraries or online databases, or if they do have these, they are unsure how to access them. Although the UT website has links to a few learning resources such as journals and educational organizations, generalized access to public learning resources such as Indonesia’s National Library is not provided to students. UT students should be granted unlimited access to local public libraries for the purposes of study and research. Additionally, UT may need to look into partnerships with learning resource administrators and online databases in order to provide additional learning and research material to students. Ideally, an online library should be made available to all students.

**Gap 4) Lack of Student Service Support**

The student survey found that over 60% of the students commented on a lack of student services support. Below is a list of a number of main causes of this lack of support.

**Intervention Recommendations for Gap 4: Lack of Student Service Support**

We have determined that the following interventions are necessary in order to address Gap 4 and its underlying causes (4.1- 4.4):

1) Lengthen Regional Office hours of operation
2) Lengthen Hotline Help Desk hours
3) Provide additional orientation to incoming students in addition to a map to graduation
4) Provide a basic computer skills course

**Intervention 1: Lengthen Regional Office hours of operation**

The half million students currently enrolled at UT are mostly working adults who are unable to access ROs during the times they are currently open (8am – 4pm). Because of the limited hours of operations, students often must visit their RO during their working hours and
risk lowering their income or losing their jobs. In order to remove this barrier to accessibility and truly make UT an open university, RO hours of operation must be lengthened according to learner’s needs. We recommend that the ROs stay open until 8 or 9 pm at least two days out of the week and that they open on Saturday for at least 4 hours. RO hours of operation should adjusted according to the needs of students in each region and should be made known on the course catalogue book that is given to new students.

**Intervention 2: Lengthen Hotline Help Desk hours**

Students who do not have access to the internet and are at work all day may have the Hotline Help Desk as their only immediate resource for answering questions that arise when they study in the evenings. For the reasons given in the above intervention, Help Desk hours need to be lengthened according to learner’s needs. The current demand for Help Desk needs to be assessed in order to determine the days and times in which demand is increased. This can be done via a survey distributed to students upon their visit to their RO. Based on this assessment, UT should make modifications to its current Help Desk availability schedule.

**Intervention 3: Provide additional orientation to incoming students in addition to a map to graduation**

Over 60% of the students surveyed reported taking between 5-10 courses during a semester, which is one of the primary causes for the high failure rate of students in the final exams. Many of these students are new and not familiar with their own capability and limitations in studying for classes. Due to a lack of academic advisor support, many students overload themselves with classes while working a full-time job, causing them to fail some of their classes.

Clear advice should be given to assist new students in registering for the appropriate number of classes based on their personal capabilities. Most students are used to traditional teacher-centered instruction, not an independent learning approach. Many of the students did not understand the UT system upon enrolling. They expected the tutors to show them the learning materials and to guide them using step-by-step lecturing methods. This unfamiliarity with UT’s methods of teaching results in a lack of motivation and disappointment on the part of the students and a high percentage of students failing in their first semester. Although it is offered, UT first-year students are not required to attend any sort of orientation as to what they should expect from distance learning. The transition from a traditional teacher-centered approach to independent learning is too sudden for many of these students.

An orientation for new students needs to take place at each RO for incoming freshmen. During this orientation students will be shown examples of the learning material and will obtain a clearer picture of the learning environment that they will encounter. The map to graduation, explained in detail in Gap 1, Intervention 5, should also outline the optimal class load students should have in each semester.

Some students complained that classes were too expensive. This may be because they attempted to sign up for too many in a given semester. It is our belief that a lightening of the
class load will lead to a lower annual cost to students, a reduction in student complaints, greater student motivation, and a higher success rate in final exams.

**Intervention 4: Provide a basic computer skills course**

Additional support is also needed to address the student’s lack of computer skills. Students reported difficulties with online tutorials that shows that they lack the entry behaviors necessary for participation in these. Most stated that they did not know how to update their browsers or troubleshoot common IT issues. Many of the students have access to the Internet, but are not comfortable with certain technologies used in UT courses. A basic computer skills course offered in the regional offices would address this gap and would also put UT ahead of the curve in preparing students for the eventual increase in the use of IT for education.

**Limitations and Constraints**

Our team faced considerable limitations because we did not have the opportunity to observe UT internal processes or interview students face-to-face. It is apparent that UT staff is working to the best of their ability, given limited resources and personnel available to meet the high volume of work. This intervention report is intended to be viewed as initial recommendations which are subject to modification upon receiving additional input from UT staff. It is our desire to work together with UT to provide the best possible experience to UT’s students and to build a learning organization that is capable of meeting Indonesia’s ever-increasing demand for open and distance learning.

We are aware that many of the interventions suggested will require additional financial and human resources that UT does not currently have. Because of this, it may be necessary to downscale some of the recommended interventions. Pilot testing of recommended interventions is also necessary in order to assess the cost and efficacy of each before implementation on a university-wide basis.

It may be that the implementation of certain recommendations will increase operational costs initially. However, we believe that the increased efficiency in the ID processes and student support services will eventually offset the initial implementation costs, as well as provide a stable platform for growth and increased competitiveness of UT. Additionally, a sharp increase in the quality of instructional material, tutoring, and support offered to students will result in greater student satisfaction and therefore greater willingness to pay for courses if UT has to raise tuition by a small percentage. Additionally, students will most likely register for fewer courses, based on improved advisement so increases in tuition may not be felt as much as is feared.

It is our belief that a solid offering of a lower number of high quality instructional materials that are delivered on time and adequately supported by tutoring is superior to producing a large number of instructional materials that are inadequate and arrive late to students. By focusing initially on building sustainable and efficient internal processes, UT can then expand its course offering and revision processes even further.
We would like to thank all UT members and students who assisted us in obtaining information and recommendations for this intervention report.
## APPENDIX A

### CLIENT QUESTIONS

The following table is a list of the questions asked to the various UT staff clients, including which client was asked the question and which analyses the question was used for.

<table>
<thead>
<tr>
<th>Question</th>
<th>Contact(s) to be asked</th>
<th>Type of Analysis Used For</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The Organization</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>General Organizational Information</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1  What is the size of your organization?</td>
<td>Dewi, Anak Agung</td>
<td>Business</td>
</tr>
<tr>
<td>2  What are the goals of your organization? Do you think they will remain the same in the future?</td>
<td>Dewi, Anak Agung</td>
<td>Business</td>
</tr>
<tr>
<td>3  How important are these goals to your organization?</td>
<td>Dewi, Anak Agung</td>
<td>Business</td>
</tr>
<tr>
<td>4  How does your organization measure its progress towards reaching the goal? Is there any reliable, valid, and measurable data to show this progress?</td>
<td>Dewi, Anak Agung</td>
<td>Business</td>
</tr>
<tr>
<td>5  What do you believe are the problem areas in your organization that are obstacles to reaching your goals and what are the causes of these problems (i.e., lack of training, lack of organization, lack of motivation, etc.)?</td>
<td>Dewi, Anak Agung</td>
<td>Performance</td>
</tr>
<tr>
<td>6  Is there a training program for employees? If yes, please explain it briefly</td>
<td>Dewi, Anak Agung</td>
<td>Business, Performance</td>
</tr>
<tr>
<td>7  Who are the customers, and who are the potential customers?</td>
<td>Dewi, Anak Agung</td>
<td>Business, Performance</td>
</tr>
<tr>
<td>8  Are there any competitors providing the same or similar services to the same customers?</td>
<td>Dewi, Anak Agung</td>
<td>Business, Performance</td>
</tr>
<tr>
<td>9  Are there likely to be any competitors in the near future?</td>
<td>Dewi, Anak Agung</td>
<td>Business, Performance</td>
</tr>
<tr>
<td>10 Are there any government regulations that affect the organization's production or delivery of the instructional content?</td>
<td>Dewi, Anak Agung</td>
<td>Business, Performance</td>
</tr>
<tr>
<td></td>
<td>Institutional Policies</td>
<td>Dewi, Anak Agung</td>
</tr>
<tr>
<td>---</td>
<td>----------------------------------------------------------------------------------------</td>
<td>------------------</td>
</tr>
<tr>
<td>1 1</td>
<td>Does the institution have policy and planning? (If the client answered yes, they were asked questions 11a-11f.)</td>
<td></td>
</tr>
<tr>
<td>1 1 a</td>
<td>How are the institution’s policy and planning developed (including who develops the system and the strategies used to develop it)?</td>
<td></td>
</tr>
<tr>
<td>1 1 b</td>
<td>What actions are taken to implement the institutional policy and planning into practice (including how it is communicated to all management and staff)?</td>
<td></td>
</tr>
<tr>
<td>1 1 c</td>
<td>How are the implementation of policy and planning monitored and evaluated (including the measures used in evaluation)?</td>
<td></td>
</tr>
<tr>
<td>1 1 d</td>
<td>What are the roles of the top management in putting policy and planning into practice compared to the roles of the staff?</td>
<td></td>
</tr>
<tr>
<td>1 1 e</td>
<td>What internal and external influences may have an effect on this goal or goals? Are there any competitors? Is there government support? How does Indonesian society affect the organization and its goals?</td>
<td></td>
</tr>
<tr>
<td>1 1 f</td>
<td>Do stakeholders fully support this goal or goals?</td>
<td></td>
</tr>
<tr>
<td>1 2</td>
<td>Does the institution have a human resource recruitment and development system? (If the client answered yes, they were asked questions 12a-12d.)</td>
<td>Dewi</td>
</tr>
<tr>
<td>1 2 a</td>
<td>How are the institution’s human resources recruited and developed (including who develops the system and the strategies used to develop it)?</td>
<td></td>
</tr>
<tr>
<td>1 2 b</td>
<td>What actions are taken to recruit and develop human resources (including how it is communicated to all management and staff)?</td>
<td></td>
</tr>
<tr>
<td>1 2 c</td>
<td>How are the implementation of human resource recruitment and development monitored and evaluated (including the measures used in evaluation)?</td>
<td></td>
</tr>
<tr>
<td>1 2 d</td>
<td>What are the roles of the top management in human resource recruitment and development compared to the roles of the staff?</td>
<td></td>
</tr>
<tr>
<td>Qno</td>
<td>Question</td>
<td>Answer</td>
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<tr>
<td>-----</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>13</td>
<td>Does the institution provide resources/tools for doing the job? (If the client answered yes, they were asked questions 13a-13b.)</td>
<td>Dewi, Anak Agung</td>
</tr>
<tr>
<td>13a</td>
<td>How does the institution provide the resources and tools for doing the job (including who is in charge of providing them)?</td>
<td></td>
</tr>
<tr>
<td>13b</td>
<td>What measures are used to evaluate the properness of the resources/working tools available?</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Does the institution have management, administration and operational system? (If the client answered yes, they were asked questions 14a-14e.)</td>
<td>Dewi, Anak Agung</td>
</tr>
<tr>
<td>14a</td>
<td>How are the management, administration and operation systems developed (including who develops the system and the strategies used to develop it)?</td>
<td></td>
</tr>
<tr>
<td>14b</td>
<td>What actions are taken to implement the institution’s management, administration and operation systems (including how it is communicated to all management and staff)?</td>
<td></td>
</tr>
<tr>
<td>14c</td>
<td>How is the implementation of the institution’s management, administration and operation systems monitored and evaluated (including the measures used in evaluation)?</td>
<td></td>
</tr>
<tr>
<td>14d</td>
<td>What are the roles of the top management in implementing the institution’s management, administration and operation systems compared to the roles of the staff?</td>
<td></td>
</tr>
<tr>
<td>14e</td>
<td>Are there any working procedures for institution management, administration and operation system?</td>
<td></td>
</tr>
</tbody>
</table>

For questions 15-17, please consider "leadership and guidance" to have the goal of ensuring quality, efficiency and cost-effectiveness

<table>
<thead>
<tr>
<th>Qno</th>
<th>Question</th>
<th>Answer</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>Are there any forms of leadership and guidance provided in the design of the course materials and learning support? If yes, please include what kinds are provided, who develops and provides the leadership and guidance, and the strategies used in developing the leadership and guidance.</td>
<td>Dewi</td>
<td>Business, Performance</td>
</tr>
<tr>
<td>16</td>
<td>What measures are used to assess the effectiveness of the institution’s leadership and guidance in the design of the course materials and learning support?</td>
<td>Dewi</td>
<td>Gap</td>
</tr>
</tbody>
</table>
What are the roles of the top management in the formulation and implementation of the institution’s leadership and guidance in the design of the course materials and learning support compared to the roles of staff?

What are the qualifications for academic staff? Please include how they are determined and who determines them.

Are the qualifications ever revised? If so, how often are they revised and how long does it take to complete the revisions?

What are the qualifications for administrators and supporting staff? Please include how they are determined and who determines them.

Are the qualifications ever revised? If so, how often are they revised and how long does it take to complete the revisions?

Does the institution determine the necessary competence for personnel for performing work? If yes, please answer the following questions:

How are job competencies developed? Please include who develops the job competence and the reference they used.

Is every staff member aware of his/her own competency to do his/her own job?

Does the institution have the current profile of the every staff’s competency?

How are the instructional materials designed and developed? Please include who develops and designs the materials, their qualifications, the strategies used in developing and designing, and how much time it takes to develop and design the materials.

How are the instructional materials updated? Please include who updates the materials, their qualifications, the strategies used in updating, and how much time it takes to update the materials.

Is the material in the modules offered online identical to print-based modules? If not, how does it differ?

<table>
<thead>
<tr>
<th>1</th>
<th>What are the roles of the top management in the formulation and implementation of the institution’s leadership and guidance in the design of the course materials and learning support compared to the roles of staff?</th>
<th>Dewi</th>
<th>Business, Gap</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>What are the qualifications for academic staff? Please include how they are determined and who determines them.</td>
<td>Ida, Ita, Yuni</td>
<td>Business, Gap</td>
</tr>
<tr>
<td>1</td>
<td>Are the qualifications ever revised? If so, how often are they revised and how long does it take to complete the revisions?</td>
<td>Ida, Ita, Yuni</td>
<td>Gap, Cause</td>
</tr>
<tr>
<td>2</td>
<td>What are the qualifications for administrators and supporting staff? Please include how they are determined and who determines them.</td>
<td>Dewi, Anak Agung</td>
<td>Business, Performance, Gap</td>
</tr>
<tr>
<td>2</td>
<td>Are the qualifications ever revised? If so, how often are they revised and how long does it take to complete the revisions?</td>
<td>Dewi, Anak Agung</td>
<td>Performance, Gap, Cause</td>
</tr>
<tr>
<td>2</td>
<td>Does the institution determine the necessary competence for personnel for performing work? If yes, please answer the following questions:</td>
<td>Dewi, Anak Agung</td>
<td>Business, Gap</td>
</tr>
<tr>
<td>2</td>
<td>How are job competencies developed? Please include who develops the job competence and the reference they used.</td>
<td>Business, Gap</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Is every staff member aware of his/her own competency to do his/her own job?</td>
<td>Performance, Gap</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Does the institution have the current profile of the every staff’s competency?</td>
<td>Business, Cause</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>How are the instructional materials designed and developed? Please include who develops and designs the materials, their qualifications, the strategies used in developing and designing, and how much time it takes to develop and design the materials.</td>
<td>Dewi, Ida, Ita, Yuni</td>
<td>Business, Performance, Gap</td>
</tr>
<tr>
<td>2</td>
<td>How are the instructional materials updated? Please include who updates the materials, their qualifications, the strategies used in updating, and how much time it takes to update the materials.</td>
<td>Dewi, Ida, Ita, Yuni</td>
<td>Business, Gap, Cause</td>
</tr>
<tr>
<td>2</td>
<td>Is the material in the modules offered online identical to print-based modules? If not, how does it differ?</td>
<td>Ida, Yuni</td>
<td>Business, Performance</td>
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<tr>
<td>2</td>
<td>6</td>
<td>Does the university have the technological capacity to create online modules as they become necessary?</td>
<td>Dewi, Ida, Yuni</td>
</tr>
<tr>
<td>2</td>
<td>7</td>
<td>What steps has the university taken to prepare for an increase in demand in online modules? What steps are still needed?</td>
<td>Dewi, Ida, Yuni</td>
</tr>
<tr>
<td>2</td>
<td>8</td>
<td>What are some things you would change to improve the instructional materials development and updating process?</td>
<td>Dewi, Ida, Yuni</td>
</tr>
<tr>
<td>2</td>
<td>9</td>
<td>Does the institution utilize instructional media? (If the client answered yes, they were asked questions 29a-29f.)</td>
<td>Dewi</td>
</tr>
<tr>
<td>2</td>
<td>9</td>
<td>a</td>
<td>What types of media are being used?</td>
</tr>
<tr>
<td>2</td>
<td>9</td>
<td>b</td>
<td>How is the instructional media developed (including who develops the media and the strategies used to develop it)?</td>
</tr>
<tr>
<td>2</td>
<td>9</td>
<td>c</td>
<td>What is the skill of staff in developing instructional media and what is the quality of the media?</td>
</tr>
<tr>
<td>2</td>
<td>9</td>
<td>d</td>
<td>How are policies on the instructional media communicated to all management and staff?</td>
</tr>
<tr>
<td>2</td>
<td>9</td>
<td>e</td>
<td>How is the use of the instructional media monitored and evaluated (including the measures used in evaluation)?</td>
</tr>
<tr>
<td>2</td>
<td>9</td>
<td>f</td>
<td>What are the roles of the top management in developing policies in the use of the instructional media compared to the roles of the staff?</td>
</tr>
</tbody>
</table>

**Student Needs**

<p>| | | | |</p>
<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>3</td>
<td>0</td>
<td>What levels of certification (diploma) are students able to graduate with and which are most popular? Technical, Associate, Bachelor, Master, etc. (Indonesia colleges do not offer associate degrees,</td>
<td>Ida, Yuni, Anak Agung, Ita</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>How many credits must the student accumulate for each level of certification? Generally, how many modules does that equal? Must each module be completed in a certain amount of time (i.e., 16 weeks) or does the student work at his or her own pace?</td>
<td>Ida, Ita, Yuni, Anak Agung</td>
</tr>
<tr>
<td></td>
<td>Question</td>
<td>Authors</td>
<td>Categories</td>
</tr>
<tr>
<td>---</td>
<td>-------------------------------------------------------------------------------------------</td>
<td>------------------</td>
<td>-------------------------------------</td>
</tr>
<tr>
<td>3 2</td>
<td>How are the programs designed and developed? Please include who develops and designs the materials, their qualifications, the strategies used in developing and designing, and how much time it takes to develop and design the materials.</td>
<td>Dewi, Ida</td>
<td>Business, Performance, Gap</td>
</tr>
<tr>
<td>3 3</td>
<td>How are policies on program design and development communicated to all management and staff?</td>
<td>Dewi, Ida</td>
<td>Gap, Cause</td>
</tr>
<tr>
<td>3 4</td>
<td>How is the implementation of program design and development monitored and evaluated (including the measures used in evaluation)?</td>
<td>Dewi, Ida</td>
<td>Gap, Cause</td>
</tr>
<tr>
<td>3 5</td>
<td>What are the roles of the top management in program design and development compared to the roles of the staff?</td>
<td>Dewi, Ida</td>
<td>Business, Gap</td>
</tr>
<tr>
<td>3 6</td>
<td>Does the university provide recommended courses of study or minimum requirements for each type of degree? For example: 2 language arts modules, 3 advanced mathematics modules, 2 natural science modules, 2 humanities modules, and XX electives modules are required for a specified degree</td>
<td>Dewi, Ida, Ita, Agung</td>
<td>Business, Performance</td>
</tr>
<tr>
<td>3 7</td>
<td>What is the academic calendar breakdown in the institution? For example, are their semesters, trimesters, etc.</td>
<td>Ita, Anak Agung</td>
<td>Business</td>
</tr>
<tr>
<td>3 7 a</td>
<td>How much in advance of the beginning of each semester can a student order a module? Are there registration windows?</td>
<td>Dewi, Ida, Ita, Anak Agung</td>
<td>Business</td>
</tr>
<tr>
<td>3 8</td>
<td>How many modules are currently offered? Which are most popular?</td>
<td>Dewi, Ita, Anak Agung</td>
<td>Business</td>
</tr>
<tr>
<td>3 9</td>
<td>Does the student receive advisement? Does he or she have a mentor that follows their progression through the modules and advises them on what course to take next? Or, is there another form of support for the student?</td>
<td>Ida, Yuni</td>
<td>Performance, Gap, Cause</td>
</tr>
<tr>
<td>3 9 a</td>
<td>Has this support system been successful? Why or why not?</td>
<td>Ita, Ida, Yuni</td>
<td>Gap, Cause</td>
</tr>
<tr>
<td>4 0</td>
<td>Have you noticed student performance trends in any specific modules? For example, do some courses have more students receiving higher grades than in other courses? Why do you think this is?</td>
<td>Ita, Ida, Yuni</td>
<td>Performance, Gap, Cause</td>
</tr>
<tr>
<td></td>
<td>How are the regional offices staffed? Are there enough employees to fulfill student’s advising needs and questions? Do all regional offices have internet access?</td>
<td>Ita, Ida, Anak Agung, Dewi</td>
<td>Business, Performance, Gap</td>
</tr>
<tr>
<td>---</td>
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<td>---</td>
</tr>
<tr>
<td>4</td>
<td>Ordering System</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>How does a student order a module? Online, telephone, mail order, in person at regional office, etc. Please describe the process.</td>
<td>Dewi, Anak Agung</td>
<td>Business, Performance, Gap</td>
</tr>
<tr>
<td>2</td>
<td>Describe the transportation process used to deliver modules to the students.</td>
<td>Anak Agung</td>
<td>Performance, Gap, Cause</td>
</tr>
<tr>
<td>3</td>
<td>Is the production and transportation time for the more popular modules and less popular modules the same? If not, what is the difference between the two?</td>
<td>Dewi, Anak Agung</td>
<td>Business, Performance, Gap</td>
</tr>
<tr>
<td>4</td>
<td>What would you change anything in the order and delivery process? Why?</td>
<td>Dewi, Anak Agung</td>
<td>Business, Performance, Gap</td>
</tr>
<tr>
<td>5</td>
<td>Would it be possible to send instructional modules via the internet and print them locally (close to the regional office)? How would this affect production and transportation time?</td>
<td>Dewi, Anak Agung</td>
<td>Business, Performance, Gap</td>
</tr>
<tr>
<td>6</td>
<td>Can the regional offices offer used modules for sale at lower prices?</td>
<td>Dewi, Anak Agung</td>
<td>Business</td>
</tr>
</tbody>
</table>
APPENDIX B

STUDENT QUESTIONS

The students of the university were also asked a series of questions to determine their experiences and any problems they perceived while at the university. If the questions were asked in a multiple choice format, the choices of answers are listed below the question. These questions were asked in Bahasa Indonesian. The English translations are italicized in parentheses following the question and answers.

1. Sudah berapa lamakah Anda menjadi mahasiswa Universtas Terbuka? (For how long have you been a student at Universitas Terbuka?)
2. Sejauh ini, sudah berapa matkuliah yang Anda selesaikan? (During this time, how many modules have you completed?)
3. Berapa jumlah matkuliah yang Anda ambil saat ini? (How many modules are you studying right now?)
4. Berapa lama lagi kah Anda dapat menyelesaikan kuliah Anda dan memperoleh ijazah Anda? (How many more months/years do you expect to study before receiving your diploma?)
5. Apakah Anda mempunyai rencana karir tertentu setelah Anda memperoleh Ijazah? (What career do you plan to pursue after receiving your diploma?)
6. Apakah Anda Senang menjadi mahasiswa Universitas Terbuka? (What do you like about being a student at Universitas Terbuka?)
7. Apakah Anda memperoleh penjelasan pada saat awal Anda mengambil mata kuliah yang akan Anda pelajari? (Is there an explanation at the beginning of the course regarding what you will learn?)
   a. Ya (Yes)
   b. Tidak (No)
8. Apakah materi dalam modul yang Anda pelajari memberikan menjelasan yang cukup? (Does the material in the course support the explanation?)
   a. Ya (Yes)
   b. Tidak (No)
9. Apakah Anda dapat memberikan umpan balik untuk setiap mata kuliah yang Anda pelajari? (Is there a way for you to provide feedback on each course you take?)
   a. Ya (Yes)
   b. Tidak (No)
10. Apa kesulitan terbesar yang anda hadapi sebagai seorang mahasiswa? (What are the biggest difficulties you face as a student?)
    a. Tidak memiliki waktu yang cukup untuk belajar karena harus bekerja (Not enough time to study due to work hours)
    b. kesulitan membeli bahan ajar (difficulty paying for materials)
    c. sibuk dengan keluarga (busy caring for children and family members)
    d. sulit memahami materi kuliah (difficulty understanding the material)
    e. sulit menjawab pertanyaan (difficulty getting your questions answered)
11. Berapa lama waktu yang Anda butuhkan untuk memperoleh bahan ajar Anda? (How long does it take for the materials you order to get to you?)

12. Proses pemilihan matakuliah yang akan Anda ambil: Jelaskan pendapat anda (The process of selecting courses is: Please explain)
   a. Sangat sulit (Very difficult)
   b. agak sulit (somewhat difficult)
   c. biasa (average)
   d. mudah (easy)
   e. sangat mudah (very easy)

13. Apakah Anda memperoleh bantuan dalam memilih matakuliah yang akan Anda ambil? Apakah Anda ingin memperoleh bantuan atau nasihat? Apakah Anda mengetahui matakuliah apa yang akan Anda ambil setelah semester ini? (Did someone help you in selecting your courses? Would you like to receive more advice? Do you know which modules you will order next?)

14. Berapa sering anda mengunjungi UPBJJ? (How often do you visit your regional office?)

15. Bagaimanakah cara Anda untuk memperoleh jawaban pertanyaan-pertanyaan Anda? Apakah cara yang Anda gunakan memuaskan Anda? (How do you get answers to your questions? Is this method satisfactory for you?)

16. Modul-modul pembelajaran: (The learning modules:) The following questions were scaled with the answers:
   a. sangat setuju (strongly agree)
   b. setuju (agree)
   c. ragu (undecided)
   d. tidak setuju (disagree)
   e. sangat tidak setuju (strongly disagree)

17. Bahan ajar diterima tepat waktu (Arrive on time)

18. Informasi yang terdapat dalam modul memberikan informasi yang saya butuhkan untuk karir saya (Provide me with information I need for my future career)
   a. Mudah untuk dimengerti (Are easy to understand)
   b. Terstuktur dengan baik (Are well organized)
   c. Menyenangkan untuk dipelajari (Are enjoyable)
   d. Menarik (Are interesting)

19. Berikanlah penjelasan mengenai setiap peringkat yang Anda berikan untuk tiap pernyataan diatas (Please provide any explanations or clarifications to your ratings above)

20. Apakah ada hal-hal lain yang ingin Anda sampaikan mengenai pengalaman Anda sebagai mahasiswa? (Is there anything else you would like to say about your experience as a student?)


22. Bila Anda berpartisipasi dalam tutorial online, apakah Anda memiliki bantwith yang cukup atau kecepatan internet yang Anda menggunakan cukup memadai untuk dapat
mengakses tutorial online? (Do you have enough bandwidth and/or internet speed to access the module and use the course functions as fast as you would like to? If you are participated in online tutorial, Do you have enough bandwidth and/or internet speed to access the online tutorial website.)

23. Ya (Yes)
Tidak (No)

Apakah kecepatan komputer yang Anda gunakan cukup memadai untuk dapat mengakses tutorial online seperti yang Anda harapkan? (Is your computer fast enough for you to access the module and use the course functions as fast as you would like to? Is your computer fast enough for you to access the online tutorial as fast you would like to?)
Ya (Yes)
Tidak (No)

Apakah Anda mengetahui cara untuk memperbarui browser sehingga Anda dapat mempunyai seluruh fungsi dari tutorial online? (Do you know how to update your browser so you can have all the functions of the online course (online tutorial)?)
Ya (Yes)
Tidak (No)

Apakah Anda merasa perlu untuk mengetahui lebih banyak tentang komputer agar dapat memanfaatkan tutorial online sebaik mungkin? (Do you think you need to learn more about computers in order to take full advantage of online course (online tutorial)?)
Ya (Yes)
Tidak (No)

Apakah dalam tutorial online tersedia bantuan untuk masalah teknis? (Does your course have a help desk for technical problems?)
Ya (Yes)
Tidak (No)

Apakah Universitas Terbuka menyediakan pelatihan untuk dapat mengikuti tutorial online? (Does Universitas Terbuka offer a training course for you to learn how to use the computer in your online course (online tutorial)?)
Ya (Yes)
Tidak (No)

Apakah navigasi dalam tutorial online cukup jelas untuk Anda? (Is navigation within the course clear for you?)
Ya (Yes)
Tidak (No)

Apakah semua hyperlink yang tersedia dapat bekerja dengan baik? (Do all the hyperlinks work?)
Ya (Yes)
Tidak (No)