I. Introduction into Construction Management

Introduction into six different fields of study in Civil Engineering.

Listen and watch the video clip presenting different jobs in civil engineering.

http://www.youtube.com/watch?v=p1nTeN8SDD4&feature=related

1. How are various fields of civil engineering called, and what are they associated with?

1. _______________ deals with costs, estimates, schedules.
2. _______________ is concerned with ________________________.
3. _______________ handles ____________________________.
4. _______________ addresses ____________________________.
5. _______________ relates to ____________________________.
6. _______________ deals with ____________________________.
2. **Name the following items the video deals with:**

   Activities ______________________________________________________

   Facilities ______________________________________________________

   Plants ________________________________________________________
II. Who Is a Construction Manager?

1. Insert a correct word and mind its grammatical form!

underrate through managerial temper underway
point to delays facets entire acquired
face variety obtain fast initial
purchasing contractors considerable intermediary complete
persuade blueprint plumbing suggest familiar
subcontractors codes patience training surveys

Coordinating one aspect of a construction is a difficult task. But coordinating the process, from planning and foundation work, through the final coat of paint in the last room, takes someone with the skills of Lee Iacocca, the force of will of General Patton, and the patience of Job. Being a construction manager demands organization, attention to detail, an ability to see the "big picture," and an understanding of all facets of the construction process, usually through experience. A construction manager is the intermediary between his clients and his workers, between the architect and his subcontractors, and between the project and any regulatory personnel. "It's exciting" and "It's hard" were the two comments that cropped up most often in our surveys. The wide range of
responsibilities that the construction manager ______ 11 means that he should have a wide ______ 12 of skills and knowledge, including basic electrician ______ 13, standard construction techniques, 14 ______ reading, budgeting, and ______ 15. The most ______ 16 skill a construction manager needs is the ability to ______ 17 and persuade. He may have ______ 18 to convince a client that a last minute change ______ 19 by the architect will mean innumerable ______ 20 or cost increases, or convince unmotivated subcontractor to ______ 21 his job as required by a previous agreement. "You can always do your job better if you can make other people do their jobs better," said one manager. The ability to motivate and exact good work has to be ______ 22 with understanding the limits of your workers, and knowing when a change in plans already ______ 23 is worth fighting and when it is not. It helps if a construction manager has experience in ______ 24 permits and certifications for work; "expediters" who promise to obtain permits ______ 25 can charge up to $25,000 for their services, so construction managers ______ 26 with the process who can trek through local bureaucracies can save their clients a ______ 27 amount of money. "Take the time to learn your local building ______ 28 " mentioned one construction manager: "Do it at the beginning so that you don't get surprised in the middle of the job." Aside from the high level of stress the day-to-day occupation fosters, the sense of satisfaction among people in the industry is high. Many ______ 29 the intimate relationships between builder and buyer, between architect and construction crew, and between construction workers and their ______ 30 as positive experiences. People in this profession work hard, but they are ______ 30 for the large burdens they ______ 30.

Adapted from http://en.wikipedia.org/wiki/Construction_management

2. Label the Figures – associate construction managers’ activities with each Figure.

Fig.1 ____________________________

Fig.2 ____________________________
3. Translate the following questions:

Zašto je voditelj građenja najvažnija osoba u gradnji naselja?

Tko je najvažnija osoba za odobravanje projektne dokumentacije?

Da li je arhitekt osoba koja projektira naselja ili je to možda urbanist u gradskom vijeću? Ili je to Vaš davač zajma?

Ne mogu točno procijeniti koliko smo planova pregledali i prezentirali našim graditeljima pri natječajima. Neki dolaze do nas sa potvrdama o odobrenoj građevnoj lokaciji, neki imaju izdane građevinske dozvole – oni su nam najdraži jer imaju plaćene sve pristojbe i namete tako da možemo odmah započeti s gradnjom.
4. Correct the student's homework „How do you become a construction manager“?

First of all I have finished undergraduate study. Then I write my bachelor theses and apply for graduate study. On the end of graduate study I will write master theses.

After finishing my study I will find a company where I will work. My competitions will be managing and running projects. I will be able to design and working on construction site. I must settle disputes. I can work on procurement for materials, and leading human resources.

Civil engineers write offers and proposals. They must estimate the value of projects and manage the schedule. They must introduce masons, carpenters, and other craftsmen with blueprints of projects. They pay fees for their work.
III. A Day in the Life of a Construction Manager

1. Listen to the following video clip
   http://www.youtube.com/watch?v=5vStHoQJ5vc

2. Which issues are stressed in the video clip?
3. Which words are collocated with the following ones?
   Trades
   Run ______________
   To meet ______________
   Keep ______________
   Hold ______________

Prepositional phrases
Get ______________

Find synonyms for:
Team: Superintendant
Agreement

Participant in the construction process are: ____________, ____________, ____________

4. Which social skills feature in the movie?
   a) ______________
   b) ______________
   c) ______________

5. Translate the following expressions:
   a) Prema vremenskom planu
   b) Prije vremenskog plana
   c) Iza vremenskog plana
6. **Name the following actions the project managers deal with in everyday life:**

   a) ____________________

   b) ____________________

   c) ____________________

   d) ____________________

   e) ____________________

7. **Explain the difference between:**

   Schedule – agenda

   Construction management – project management

   Design – project

   Construction – structure

   Purchasing – procurement
8. Listen to the following conversation; list down the words that you have learned in the lesson above!

IV. A Massive Construction Project

Tony Douglas is redefining how to run massive construction projects

1. Arrange 10 paragraphs of the text into chronological order:
1. Usually, contractors hold a beauty parade, and take on the suppliers who bid lowest. The suppliers rely on problems and delays to bump up the cost. Every time something goes wrong, disputes break out among suppliers and between them and the contractor, work shuts down for weeks on end and a huge slice of the cost ends up in the pockets of lawyers. Once the construction is late, time runs short for the final installation and testing of the electronic systems—which has made so many new airports a nightmare for passengers and staff alike.

2. Big construction projects are always tricky: just look at the mess in Athens, site of Europe's other giant construction project. Airports bring special problems: tricky building techniques, and the need to mesh with other transport links and to install sophisticated electronics to handle passengers and baggage. In Paris, Charles de Gaulle airport's new terminal went hideously wrong.

3. Under the T5 Agreement, BAA carries the risk, putting a precautionary sum into a pot that will be shared out among all its suppliers if the project finishes on time and budget. The site's three largest contractors were simply not large enough to carry all the risk themselves. The effect, says Mr Douglas, has been to change the whole pace and culture of the project, allowing teams of employees from different suppliers to work together and to concentrate on getting things done, not on squabbling.

4. First, BAA is unusual in running the project itself. Mr Douglas insists that outsourcing to a big project-management group such as Bechtel would cost more, not less. Second, as much as possible of the construction—including 60% of all the mechanical and electrical systems—is taking place off-site. This reflects the site's physical constraints: it has only one entry point, through which a 40-foot (12-metre) load must move every 30 seconds for a period of four years. “If you get the choreography wrong, it makes London's motorways on a Friday night look tame,” says Mr Douglas. And the site has capacity for no more than two days of inventory. The solution, he says, has been some “car-industry logistics”—a large investment in computing and training that no individual supplier would have made. The consequence has been
fewer people on the site. And factories are safer places to assemble than building sites. T5’s project director, Andrew Wolstenholme, boasts that the site has not had a single fatality so far.

5. But the biggest novelty is the T5 Agreement. This is a contract with the project’s main suppliers that aims to minimise the conflicts and cost-cuttings that usually plague big building works. The idea draws on “Rethinking Construction”, a paper written six years ago by Sir John Egan, BAA’s former boss, as part of an attempt by the British government to dig the construction industry out of its poor safety and productivity performance.

6. As one example, he cites the elegant steel air-traffic control tower that is rising 87 metres (285 feet) into the sky above the terminal building. When the first two sections were engineered, they were out by 9mm (0.4 inches). “Normally”, says Mr Douglas, “the manufacturers would have blamed the structural engineers, who would have blamed the steel fabricator.” At first, they did just that. Then Mr Douglas said, “Guys, this is my problem,” and sent them off to find a collective solution.

7. A second demonstration of the contract’s power is the installation of the terminal building’s roof sections. Before the task began, BAA took the builders up to Yorkshire and spent £4m ($7m) on a practice run, raising and lowering roof sections half a dozen times (and once in a stiff gale) to make sure that the job ran smoothly. With conventional contracts, argues Mr Douglas, nobody would have invested so much in risk mitigation.

8. If T5 works so well, why isn't BAA building airports elsewhere? A bigger priority, at least for now, is to get permission to build an additional runway at Stansted, London’s third airport. But ultimately, success will surely point to a spin-off business that can build other big projects safely and cheaply.
9. To the west of London, crammed between Europe's busiest stretch of motorway and its busiest international airport, is a vast building site. In the midst of a landscape of mud and men rises a vast glass-fronted box that will soon be Britain's largest free-standing building. This is Heathrow airport's fifth terminal, authorised in 2001 after a long and bitter battle with environmentalists, and destined to cater for 30m passengers a year when it opens in March 2008. It will include not just a terminal that will be the equivalent of Europe's fourth-largest airport in its own right, but also new road, rail and underground links.

10. As a result, BAA hopes never to have a Charles de Gaulle on its hands. Passing risk to suppliers chosen by beauty parade, as in Paris, increases the risk of corner-cutting. And, as T5's suppliers are partners who will work on future projects, they have an urge to do a good job. If something goes wrong later, there may be a debate about negligence, but not about which supplier is to blame. The result, says Mr Douglas, is that Swiss Re, a big insurance firm, was willing to insure the T5 project—the first big British construction project it had covered in a decade.

11. The man in charge of this logistical nightmare, Tony Douglas, looks alarmingly young at 41. Unpromisingly, he comes from a commercial, not a construction background. He came to BAA (a privatised firm, formerly known as British Airports Authority, that owns and manages Heathrow and six other British airports) via jobs in the car and the commercial-jet industries. For three years, he ran BAA's supply chain. He took over T5 (as everyone calls it) after the last boss left suddenly. The risks attached to this vast project are so great that BAA has been forced to tackle it in novel ways. If this giant endeavour is not completed on time and on budget, it could take the whole company down.

2. To cut the long story short write the summary of the article using the following linking words:

Consequently, ...
Correspondingly, ...
For this reason, ...
Furthermore, ...
In addition to, ...
In contrast, ...
In this way, ...
Moreover, ...
Subsequently, ...
Similarly, ...
As we have seen, ...
Accordingly, ...

3. Find the information to complete the following:

1. The principal problems related to building airports
   1. __________________________
   2. __________________________
   3. __________________________

2. British Airport Authority’s options for managing the project
   1. __________________________
   2. __________________________

3. The specific constraints imposed by the nature of the site
   1. __________________________
   2. __________________________

4. The major risks usually involved in managing a project like T5 (para 6)
   1. __________________________
2. ______________________
3. ______________________

4. Look at some of the headlines of news reports about the T5 project and put them in chronological order:

   a) ______________________
   b) ______________________
   c) ______________________
   d) ______________________
   e) ______________________
   f) ______________________
5. Translate into English:

Projekt je složena serija zadataka koji trebaju biti ispunjeni unutar određenog vremena i ograničenih financija. Uspješno vođenje projekta podrazumijeva procjenu i kontrolu resursa, budžeta i rasporeda poslova neophodnih za uspješan završetak. Počevši s podacima o projektu, menadžeri sastavljaju plan koji će omogućiti obavljanje posla na vrijeme i unutar budžeta.


http://www.youtube.com/watch?v=XMGefvGppSE
V. A Day in a Project Manager’s Life

1. Upon listening to the funny video clip retell the story: is the clip dealing with the project manager’s communication with people or is it focused on another aspect? Give your arguments—use as many adjectives as possible in your description!

http://www.youtube.com/watch?v=XMGefvGppSE

What is a collocation?
A collocation is two or more words that often go together. These combinations just sound “right” to native English speakers, who use them all the time. On the other hand, other combinations may be unnatural and just sound “wrong”. Look at these examples:

<table>
<thead>
<tr>
<th>Natural English...</th>
<th>Unnatural English...</th>
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</thead>
<tbody>
<tr>
<td>the fast train</td>
<td>the quick train</td>
</tr>
<tr>
<td>fast food</td>
<td>quick food</td>
</tr>
<tr>
<td>a quick shower</td>
<td>a fast shower</td>
</tr>
<tr>
<td>a quick meal</td>
<td>a fast meal</td>
</tr>
</tbody>
</table>
2. Listen to the conversation on the construction site: find the words that mean:

- započeti
- izvediv
- projektna povelja
- alternativni plan
- raspodjela
- izvršenje
- procjena rizika
- predviđanje
- primopredaja
- resursa
- poslova
- troškova
- projekta

3. Write down what the following words collocate:

<table>
<thead>
<tr>
<th>initiate</th>
<th>feasible</th>
<th>overview</th>
<th>lay out</th>
<th>allocate</th>
<th>forecast</th>
<th>evaluate</th>
<th>develop</th>
<th>on</th>
</tr>
</thead>
</table>

5. Read the sentences and find synonyms in the main text. A Massive Construction Project for the underlined phrases:

a) The company will be in serious difficulties if they don't complete the project within the time schedule and cost estimates. (para 3) e.g. on time and on budget

b) British Airport Authority decided against giving the project to an outside supplier. (para 4)

c) Contractors generally award contracts to the companies that make the least expensive proposals. (para 6)
d) Suppliers who are partners have the motivation to provide quality work (para 9)

e) Getting permission to build an additional runway is a much more important consideration. (para 19)

6. Find the words and phrases that are used to refer to problems and match them with their meanings:

- minor errors
- situations where something is late
- disagreement over minor details
- expires, is not sufficient
- doesn’t happen as planned
- failure to ensure that work is done correctly
- covering efforts taken to reduce either the probability or consequences of a threat
VI. Why Projects Fail

Why Projects Fail through the Medium of Dilbert

http://www.youtube.com/watch?v=52yiQEEdnso

1. Translate the words while listening to the video clip:

| Studija izvedivosti | dohodak | primjena projekta | „kako se projekt odvija?“ | procjena | isporučitelj | postavljanje pretpostavki | postavljanje standarda | odobrenje |

2. Translate the following text:

10 glavnih razloga zašto projekti propadaju:

1. Nedovoljeno obrazovani i /ili neiskusni sudionici

2. Propusti u postavljanju i upravljanju očekivanjima

3. Loše vodstvo na pojedinom ili na svim nivoima.

4. Nesposobnost da se zahtjevi prepoznaju, dokumentiraju i prate

5. Loši planovi i procesi planiranja

6. Loša procjena napora

7. Kulturno i etičko neslaganje

8. Neslanje između sudionika projektnog tima

9. Neodgovarajuće ili loše korištene metode
10. Neodgovarajuća komunikacija, uključujući praćenje napretka i izvještavanje

3. Watch the video clip and describe construction failures:

http://www.youtube.com/watch?v=MjGciHtqStg

<table>
<thead>
<tr>
<th>What is missing?</th>
<th>What is wrong in the structure?</th>
</tr>
</thead>
<tbody>
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<td></td>
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</tbody>
</table>

4. Here are some opinions explaining the reasons of the construction projects failure. Translate the texts:

Upravljanje projektima bio bi super posao – ako bi mogli eliminirati ljude koji su uključeni. Osobito ljude koji su iznad voditelja projekta. Menadžment kaže da mi volimo najbolje vježbe upravljanja projektima, ali oni sami ih ne rade i prisiljavaju upravitelje projekata da ih zaobilaze što uzrokuje propadanje projekata.

Ono što ja mislim da je glavni razlog za nauspjeh građevinskih projekata je loše upravljanje. Loše upravljanje može naglo povećati, bilo troškove materijala bilo rada, a izvođač radova će morati nositi dodatne troškove. To je ono što ja mislim da je glavni razlog za nauspjeh bilo kojeg građevinskog projekta.

Upravljanje je uvijek pod novčanim ograničenjem te treba biti oprezan, ali pravovremena odluka može biti od velikog utjecaja za pravilnu identifikaciju rizika i ublažavanje procesa. Imam neuspjelih projekata koje je oživio tim za upravljanje i nadzornici s istog projekta samo
slijedeći jednostavan sustav upozorenja na predstojeća pitanja (izvrsnost, kvaliteta i trošak ne donošenja odluka).

Translated from http://www.corpedgroup.com/resources/pm/20ThingsPM.asp

**Grammar**

**Active versus passive**

Passive voice is formed by using the verb be in correct form plus the past participle. Passive voice can be used in all tenses. The use of modal verbs in passive sentences is very useful for descriptions and instructions, particularly in technical language.

<table>
<thead>
<tr>
<th>Tense</th>
<th>Active</th>
<th>Passive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present Simple</td>
<td>Contractor removes existing structures.</td>
<td>Existing structures are removed.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Present Continuous</td>
<td>Contractor is performing excavation work.</td>
<td>Excavation work is being performed.</td>
</tr>
<tr>
<td>Past Simple</td>
<td>Contractor laid foundations</td>
<td>Foundations were laid.</td>
</tr>
<tr>
<td>Past Continuous</td>
<td>Contractor was pouring concrete for slab.</td>
<td>Concrete was being poured for slab.</td>
</tr>
<tr>
<td>Present Perfect</td>
<td>Contractor has prepared formwork for ceiling.</td>
<td>Formwork for ceiling has been prepared.</td>
</tr>
<tr>
<td>Going to future</td>
<td>Contractor is going to start brickwork.</td>
<td>Brickwork is going to be started.</td>
</tr>
<tr>
<td>Future Simple</td>
<td>Contractor will finish ground floor walls tomorrow.</td>
<td>Ground floor walls will be finished tomorrow.</td>
</tr>
<tr>
<td>Modal verbs (shall, must)</td>
<td>Contractor must complete</td>
<td>Construction work must be</td>
</tr>
</tbody>
</table>
5. **Exercise: Active versus passive**

Insert the correct verb form into the description of a cavity wall.

The external walls ________ (to make up) of several layers. The load-bearing wall, on the inside, ________ (to make) of 240 mm vertically perforated brickwork. It ________ (to plaster) creating a smooth surface in the interior. The exterior surface of the load-bearing wall ________ (to not render), but a second fair-faced brick wall ________ (to place) at a distance in front of it. The two leaves ________ (to enclose) a partially filled cavity. The cavity ________ (to consist) of a rear ventilation and insulation, which is fixed to the inner leaf. Wall ties ________ (to require) to provide structural stability. They ________ (to embed) into the brickwork at regular intervals. Perpends in the exterior leaf ________ (to leave open) in order to secure ventilation and control moisture.


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6. **Listen and watch:**

*Interviewing a construction manager:*

[http://www.youtube.com/watch?v=vWY2TjDq1z0](http://www.youtube.com/watch?v=vWY2TjDq1z0)

a) **Which prepositions come with the following verbs you hear in the video?**

Get insight ________

BAM construction industry sponsored me ________
I got the job _____ the BAM industry

I came ____ with an idea.

b) Complete the following expressions you heard in the video:

Massively ___________ job

Well __________job

__________ technology

__________ communication

Construction ______________

c) Listen once again to the video and put the right word in the gaps:

It is possible for students to spend the third year on a supervised work __________within a relevant sector of the computer industry.

Indeed anyone who will have a leadership role in an it project will find this course____________.

I did the _______ ___________ at the Welsh University.

Role-play Activity

7. Job Fair –Re-play the interview you have just heard

Vocabulary Items:

Placement (internship), beneficial, general manager
8. **Correct the summary of the video clip:**

This video is about a boy who graduated on Construction management and now is employed as a sight manager. At this moment he is working on a project of new hospital that is estimated on hundred and thirty million. In this interview he is talking about importance of communication in construction management because on construction site we can meet people that we don't necessarily don't know. He also took a placement year which helped him a lot to see the core of civil engineering. In that time he did a little bit of everything in each different department. He thinks that the main interesting things in constructing are no typical working day and new technology.
VII. Business Model of Construction Management

The text deals with several parties usually involved in the construction process: an owner, a designer (architect or engineer), the builder (usually called the general contractor) and construction project management company.

1. Fill in the gaps, and add one more party in the process: general contractor, design-builder, owner, designer, contractors, design team, builder

Typically the construction industry includes three parties: ____________, a______________,______________. Traditionally, there are two contracts between these parties as they work together to plan, design, and construct the project.

The ________________ becomes an additional party engaged in the project to act as an adviser to the________, to which they are contractually tied. The construction manager’s role is to provide construction advice to the______, on the owner’s behalf, design advice to the______, again on the owner’s behalf, and other advice as necessary.

* Design, bid, build contracts

*Design, bid, build* describes the prevailing model of construction management in which the ________ is engaged through a tender process after the designs have been completed by the architect or engineer.

* Design and build contracts*
Many _____ – particularly government agencies – have let out contracts which are known as design-build contracts. In this type of contract, the construction team is known as the design-builder. They are responsible for taking a concept developed by the_____, completing the detailed design, and then, depending on the _____ approval on the design, they can proceed with construction. Virtual Design and Construction technology has enabled much of the ability of ______ to maintain tight construction time.

There are two main advantages to using a design-build contract. First, the construction team is motivated to work with the ______ to develop a design with constructability in mind. In that way, it is possible for the team to creatively find ways to reduce construction costs without reducing the function of the final product. The______ can expect a reduced price due to the increased constructability of the design.

The other major advantage involves the schedule. Many projects are given out with an extremely tight time frame. By letting out the contract as a design-build contract, the _____is established, and early mobilization and construction activities are able to proceed concurrently with the design. Under a traditional contract, construction cannot begin until after the _____ is finished, the project is bid and awarded, and the team can mobilize. This type of contract can take months off the finish date of a project.

The third major advantage is the design-build ______will always be working with a fixed budget. The DB contractor utilizes its experience to make sure the design and construction are kept within the budget requirements as set forth by the_____.

Figure 5
The major problem with design-build contracts is the inherent conflict of interest. In a standard contract, the ______ is responsible to the owner to review the work of the ______ to be sure the products and methods meet specifications and codes. The _____ as a construction professional experienced working with many _____ is attuned to picking up design flaws which would go uncaught or unmentioned when _____ is also designer. The ______ may be more likely to get a building that is over-designed in order to increase costs and profits for the__________, or built with lesser grade products to maximize profits. If time is of the essence, design and construction contracts can be awarded separately, with bidding taking place on preliminary plans in a not-to-exceed contract instead of a single firm design-build contract.

Adapted from: http://en.wikipedia.org/wiki/Construction_management#Business_model

2. Which construction management phase belongs to which block?

<table>
<thead>
<tr>
<th>a) Planning</th>
<th>b) Preconstruction</th>
<th>c) Construction</th>
<th>d) Project Completion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site and Building Studies</td>
<td>Conceptual Budgeting</td>
<td>Architect Selection</td>
<td>Cost Analysis</td>
</tr>
<tr>
<td>Constructability Analysis</td>
<td>Scheduling</td>
<td>Contractor</td>
<td>Procurement/Bidding</td>
</tr>
<tr>
<td>Budget Analysis</td>
<td>Contractor Coordination</td>
<td>Project Management</td>
<td>Supervision</td>
</tr>
<tr>
<td>Estimating Quality</td>
<td>Punch List</td>
<td>Systems Start-up and Testing</td>
<td>Acceptance and Turnover to Client</td>
</tr>
<tr>
<td>Control Assurance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Close-out Documentation</td>
<td>Final Payments</td>
<td>Shop drawings</td>
<td>Safety and Inspection</td>
</tr>
<tr>
<td>Project management methodology</td>
<td>Work breakdown</td>
<td>Project network of activities</td>
<td>Critical path method (CPM)</td>
</tr>
</tbody>
</table>
3. Add the suitable preposition

Advise ____
Attuned ____
Important ____
Relative ____
Depend ____

4. Find the words that mean:

To invite to attend ______________
To present for consideration; propose ______________
To run a project ______________
Beind schedule ______________
On budget ______________
To design too specifically or to too great an extent ______________
To meet ____

5. Give synonyms for the following words and expressions

a) To run a project _______________________

b) Constraints __________________________

c) Behind schedule _____________________

d) Bidding ____________________________

e) Dispute _____________________________

f) Consent ______________________________
6. Who is a Construction Superintendent?

http://www.youtube.com/watch?v=KY_UOXuankk

7. Join each question to the corresponding paragraph:

1. What is a Construction Team?
2. Why is the Construction Team formed?
3. What aspects do the construction manager's experience and knowledge encompass?
4. What does the Construction Manager do during the Planning and Design Phases?
5. What does the Construction Manager do during the Construction Phase?
6. What qualifications should an Owner consider when selecting a Construction Manager?

a) He will consult with, assist and make recommendations to the Owner and Architect on all aspects of planning for the Project's construction, provide input for life cycle cost studies and energy conservation requirements. He will make budget estimates based on the Owner's program. As working drawings and specifications are completed, he will take competitive bids on the work.

b) Involvement of the Construction Manager during the planning and design provides the Owner with reliable current information about probable costs and schedules, then, the order of long-delivery material items before the total design is completed allows the Owner beneficial use of the Project at the earliest possible date.

c) The members of the group are the Construction Manager, the Architect and the Owner. It is important to the success of the Project that the owner assign to the
Construction management

Group competent personnel with the authority to make timely decisions concerning budget and program.

d) The owner believes that his interest will best be served if he has available to him, from the very conception of a project, the services of a Construction Manager in addition to the services of a competent Architect. These persons will then work together, under the Owner’s direction, to develop the best and most economical construction program.

e) He will maintain competent supervisory staff to coordinate and provide general direction of the work and progress of the contractors on the Project. He will observe the work as it is being performed, until final completion and acceptance by the Owner, to assure that the materials furnished and work performed are in accordance with working drawings and specifications. He will schedule and conduct appropriate meetings to review costs.

f) Major considerations will be given to his financial strength, bonding capacity, and ability to assume a financial risk, as well as to his ability to perform projects comparable in design, scope and complexity.

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Translate

Translate the following text about some issues in building the Channel Tunnel:

U svibnju 1974. godine cijena željezničke mreže narasla je na 375 mil. £. Do takve dramatične promjene došlo je zbog nekoliko stvari kao što su: dodatna postrojenja, infrastruktura, projektiranje, razvoj i briga o zaštiti okoliša. Zbog vrlo visoke nove cijene koja se činila pretjeranom, 6 mjeseci kasnije Wilsonova vlada odustala je od projekta visoko brzinske pruge, usmjerivši se na sporiju i jeftiniju alternativu. Kada je do siječnja 1975. godine već bilo prokopano nekoliko stotina metara tunela sa obje strane kanala, Laburistička vlada odustala je od samog projekta tunela prvenstveno zbog troškova izgradnje. (Velika je vjerojatnost da bi stvarna cijena izgradnje tunela i visoko brzinske pruge značajno premašila najnovije
Zbog odustajanja od projekta, investitorima britanskih i francuskih kompanija bilo je potrebno isplatiti kompenzaciju od 250 mil. £.


9. Correct the following sentences; in some sentences there are no mistakes!

Have you bought the blue Chinese antique vase?

I saw rainbow after the rain.

There is no allotted budget for brand-new office equipments.

On January each year, Chinese people celebrate the Spring Festival.

We enjoy to swim in the river near our hometown.

My mother in the US said, “move to southwest and take care of your aunt Betty.”

He wore lose shirts when he was overweight.

A man who delivered this box said that it is for you.

We boarded the plane after waiting for a hour.

I did good on the test.

10. Insert the preposition:

I’m all ____ helping out the poor when in need. (U KORIST)

She was a fearless woman who acted _____ her health. (BEZ OBZIRA NA)
1. Divide the following text into small entities regarding Amy's a) education, b) travelling, c) leisure time. Match each of these sections with appropriate titles such as School days, A day in the life, etc.

My job is with a consulting engineering company called Arup. I am in the Project Management group, but currently I am involved with the Civils / Infrastructure group.

I went to a girls school and studied Maths, Physics, English ad French A-levels. I chose civil engineering because I enjoyed the logical side to physics and maths at school and I was keen to do a vocational degree.

The journey so far am discovering that engineering is such a flexible job, so I can turn it into the career that I want. I have worked for the government helping the National Health Service make operational efficiencies. I have worked with the London underground helping the public travel. I have worked on re-designing Kings Cross station. Currently I am working out gas and electricity demands for a regeneration of a city. This range of experience is very exciting for a two and a half year career. All my work is project based so I am always moving around. In just over two years at Arup I have been based in four different offices around London, some with the client and some with Arup.

I work with The Infrastructure group; which has a large age range, but I am lucky there are lots of people my age. The great thing about Arup is that every year our firm recruits about 100-150 graduates, so there is always someone to have lunch or to swap work stories with.
Construction management

The best thing about engineering is that it is a service to the public. I love that in civil engineering everything is so tangible and at such a large scale. I know that the day when I can stand and look at a structure and say "I helped build this" will make me incredibly proud and make all the years of study at school and university worthwhile! I work on the client side of the project management group at ARUP, checking that contractors are doing what they are supposed to be doing and ensuring that the client is getting exactly what they want. My work ranges from walking around site and compiling risk registers to working on contracts, explaining work to the client and liaising with the local community. For example, for the project I am working on in central London one of my roles is to keep all the neighbours of the project informed about its different stages. I see engineering as a service to the public and so it is important to maintain good relations.

I love running; I have completed one London Marathon and am planning to run again this year. I also play the Cello in a band; we play gigs in bars in London. I was lucky to go travelling between university and work and spent most of my time in India, which I really enjoyed. It has helped me focus on the importance of what I do in the UK and set it in a global perspective. It has helped me understand that those responsible for building in the developed world must take account of the needs of the future. I hope to use my civil engineering experience abroad at some point in my career.

My view on the future of civil engineering. Sustainability and the use of sustainable objects in all senses needs to become a household topic of conversation. I want to show that civil engineering can be the promoter of this and the civil engineers can help lead the way in turning our country into a sustainable environment. I recommend Civil Engineering to anyone seeking a range of opportunities, whether they are male or female. I believe that a great engineer, needs to respect and appreciate all team members and to have an even balance of women and men within the team is vital.

I see an engineering team as being a jigsaw puzzle to make the finished picture you need different pieces from different backgrounds.

http://upgrade.ice.org.uk/getattachment/fa051dbb-001f-4198-ba97-a95e87a9c359/Amy-Sebba-Profile.aspx
2. **Arrange in the Table:**

<table>
<thead>
<tr>
<th>Who</th>
<th>hobbies</th>
<th>vocation</th>
<th>where</th>
<th>professional focus</th>
<th>big picture</th>
</tr>
</thead>
</table>

3. **Role-play activity**

3. Reshape the text as the conversation between a journalist and an engineer, e.g.


4. **What is wrong in the following drawing?**
5. Give your comment on each of the illustrations in the following cartoons:

a) Figure 8


6. What are the issues in the following cartoon?
"We've decided to add forty floors."
Figure 9

Source: http://www.cartoonstock.com/directory/c/civil_engineering.asp

Listen

7. Listen to the story in Croatian language: sum up the text in English and revise the rules of the tense shifting from direct into indirect speech!

Putnik u balonu

Putnik u balonu sa vrućim zrakom je izgubio orijentaciju. Spustio je balon niže i ugledao jednu ženu na tlu. Spustio se još niže i pozvaо ženu: "Oprostite, možete li mi pomoći? Obećao sam jednom prijatelju da ću se naći sa njim,ali ne znam gdje se nalazim." Žena mu odgovara: "Nalazite se u balonu, otprilike 10 met. iznad zemlje, 49 stupnjeva 28 minuta i 11 sekundi širine, te 8 stupnjeva, 28 minuta i 58 sekundi dužine." "Vi ste sigurno inženjerka" kaže čovjek u balonu. "Jesam", potvrdi žena, "ali kako to znate?" "Pa, sve što ste mi rekli je tehnički korektno, ali nemam pojma što da radim sa tim informacijama, a činjenica je da još uvijek ne znam gde sam. Otvoreno govoreći, niste mi bili od prevelike pomoći, samo ste mi produžili putovanje." Žena mu na to odgovori: "Vi sigurno radite u menadžmentu!"
"Da", odgovara čovjek iz balona "ali kako to Vi znate??" "Tja", odgovara žena "niti znate gdje ste, niti kuda idete. Dospjeli ste na visoku poziciju prije svega „napuhavajući“ vlastitu važnost. Dali ste obećanje prijatelju, a da nemate pojma kako ćete ga održati, a očekujete od ljudi ispod vas da riješe vaš problem. Činjenica je da ste sada u istoj izgubljenoj poziciji kao i prije našeg susreta, ali sada nekako ispadne kao da sam ja kriva za to!"

**Grammar – Tense Change**

As a rule when you report something someone has said you go back a tense: (the tense on the left changes to the tense on the right):

<table>
<thead>
<tr>
<th>Direct speech</th>
<th>Indirect speech</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Present simple</strong></td>
<td><strong>Past simple</strong></td>
</tr>
<tr>
<td>She said, &quot;It's cold.&quot;</td>
<td>She said it was cold.</td>
</tr>
<tr>
<td><strong>Present continuous</strong></td>
<td><strong>Past continuous</strong></td>
</tr>
<tr>
<td>She said, &quot;I'm teaching English online.&quot;</td>
<td>She said she was teaching English online.</td>
</tr>
<tr>
<td><strong>Present perfect simple</strong></td>
<td><strong>Past perfect</strong></td>
</tr>
<tr>
<td>She said, &quot;I've been on the web since 1999.&quot;</td>
<td>She said she had been on the web since 1999.</td>
</tr>
<tr>
<td><strong>Present perfect continuous</strong></td>
<td><strong>Past perfect continuous</strong></td>
</tr>
<tr>
<td>She said, &quot;I've been teaching English for seven years.&quot;</td>
<td>She said she had been teaching English for seven years.</td>
</tr>
<tr>
<td><strong>Past simple</strong></td>
<td><strong>Past perfect</strong></td>
</tr>
<tr>
<td>She said, &quot;I taught online yesterday.&quot;</td>
<td>She said she had taught online yesterday.</td>
</tr>
<tr>
<td><strong>Past continuous</strong></td>
<td><strong>Past perfect continuous</strong></td>
</tr>
<tr>
<td>She said, &quot;I was teaching earlier.&quot;</td>
<td>She said she had been teaching earlier.</td>
</tr>
<tr>
<td><strong>Past perfect</strong></td>
<td><strong>Past perfect continuous</strong></td>
</tr>
<tr>
<td>She said, &quot;The lesson had already started when he arrived.&quot;</td>
<td>NO CHANGE - She said the lesson had already started when he arrived.</td>
</tr>
<tr>
<td><strong>Past perfect continuous</strong></td>
<td><strong>Past perfect continuous</strong></td>
</tr>
<tr>
<td>She said, &quot;I'd already been teaching for five minutes.&quot;</td>
<td>NO CHANGE - She said she’d already been teaching for five minutes.</td>
</tr>
</tbody>
</table>

You can use the present tense in reported speech if you want to say that something is still true i.e. my name has always been and will always be Lynne so:-

<table>
<thead>
<tr>
<th>Direct speech</th>
<th>Indirect speech</th>
</tr>
</thead>
</table>
"My name is Lynne", she said.

She said her name was Lynne.

She said her name is Lynne.

You can also use the present tense if you are talking about a future event.

Direct speech (exact quote)  \n"Next week's lesson is on reported speech", she said.

Indirect speech (not exact)  \nShe said next week's lesson will be on reported speech.

Time change

If the reported sentence contains an expression of time, you must change it to fit in with the time of reporting.

For example we need to change words like here and yesterday if they have different meanings at the time and place of reporting.

Now  \n"Today’s lesson is on presentations."

+ 24 hours - Indirect speech  \nShe said yesterday’s lesson was on presentations.

or  \nShe said yesterday’s lesson would be on presentations.

Source: http://www.studyandexam.com/indirect-speech-for-tense.html

8. Correct the following composition—pay attention to the word order:

I can't exactly remember when was it that I first decided to become a dentist. I just know that I have always wanted to be in the field of health care. My friends ask me why did I want to be a dentist, and I tell them that "There's nothing more beautiful than a healthy smile." Also, dentists have more regular hours than doctors. I can't imagine what did people
do before the dentistry profession came along. People must have had terrible breath and missing teeth as they aged. Kissing was probably just for the young!

In fact, no one knows exactly who was the first dentist. In the old days, people used to go to the barber shop to get a tooth pulled. The only pain killer was a shot of whiskey. Can you imagine what was that like? One minute the barber was cutting hair and the next minute he was pulling a tooth out. It must not have been a very sterile place to do oral surgery.

Dentistry has progressed a lot. Now, patients receive much better care. I'm always glad to see my patients return with a big, white smile. What's that? Did you want to say something? I can't understand what are you're saying.

9. Discuss the following cartoon. What is the origin of the title „civil engineer“?

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