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EDUCATION
REPUBLIC OF SOUTH AFRICA

BUSINESS STUDIES

GRADE 10

TERM 3

CHAPTER 10

CREATIVE THINKING AND PROBLEM SOLVING

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This chapter consists of 10 pages

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CONTENT DETAILS FOR TEACHING, LEARNING AND ASSESSMENT PURPOSES

Learners must be able to:

- Explain the meaning of creative thinking.
- Describe/Explain/Discuss the advantages/benefits of creative thinking in the work place.
- Explain how businesses can use creative thinking to generate entrepreneurial qualities, e.g. designing environments that stimulate creative thinking.
- Discuss/Describe/Explain how business can use creative thinking to solve business problems.
- Elaborate on the meaning of problem- solving.
- Explain/Discuss the differences between problem solving and creative thinking
- Outline/Mention/Discuss/Explain the problem-solving cycle.
- Explain/Discuss/Describe how businesses can apply the problem-solving techniques to solve business problems.
- Recap the meaning of business opportunity
- Briefly explain the purpose of the eight business functions
- Describe/Explain/Explain how businesses can use mind-mapping, brainstorming to identify innovative and entrepreneurial business opportunities.
- Recommend/Suggest ways in which creative business opportunities can realistically be implemented.

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1 The meaning of creative thinking

- Creative thinking is the ability to think original, varied and innovative ideas.
- It focuses on exploring ideas/generating possibilities/looking for many possible solutions.
- Thinking in a way that is unconventional and original
- It is the act of producing new ideas and making them real.
- Generating new ideas and being open to new ideas.
- Focuses on exploring ideas/generating possibilities and looking for many possible answers.

1.1 Advantages/Benefits of creative thinking in the workplace

- Creative thinking improves the quality of solutions to business problems
- Products and services can be marketed creatively
- Stimulates profitable new ideas for products/marketing campaign and public relations.
- Managers can come up with creative strategies for the business
- Employees can think for themselves and come up with creative solutions.
- Motivates employees and improves their skills resulting to a happy workforce.
- Improves productivity and reduces voluntary turnover.
- Creative public relations strategies can be designed and implemented.
- Helps businesses to respond to the threat of competition and to remain leaders in the field.
- Helps businesses to provide its clients with the best possible products or services, which improves client loyalty.
- Leads to the development of better methods of production to save on costs.
- Allows businesses to extend its range of services like offering better customer services or credit facilities.
- New products/services can be designed to meet changing needs of customers.
- Managers can motivate and manage staff in creative ways to get the best from them.

1.2 Ways in which businesses can use creative thinking to generating entrepreneurial opportunities

- Successful entrepreneurs use creative thinking to come with new products/services.
- They create a new market for their products that never existed before.
- Creative thinking can be applied to continuously improve products and to stay ahead of competition.
- Designing environments that stimulate creative thinking

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1.3 Ways in which businesses can use creative thinking to solve business problems

- Existing products can be adapted creatively to meet changing tastes and demands
- Employees can think for themselves and come up with creative solutions to all kinds of business problems
- Encourage a spirit of play and experimentation in the workplace.
- Give feedback on employees' performance
- Provide time/resources/opportunities for creative problem solving
- Encourage brainstorming sessions for employees
- Train employees on creative thinking and problem-solving techniques.
- Recognise and reward achievement
- Encourage employees to express their ideas and take risks in a safe/non-threatening environment.

2 The meaning of problem-solving

- Problem solving is the ability to search for and find information relating to the problem
- It is a process of identifying and analysing the problem and coming up with the solutions.

2.1 Differences between decision making and problem solving

DECISION MAKING	PROBLEM-SOLVING
Often done by one person or senior management	Carried out by a group of people
Existing alternative are considered and choosing a best solution to a problem.	Encourages creative thinking since it aims at finding a new solution to a problem.
It does not form part of the problem solving since decisions need to be taken for each step of the business process.	Innovative solutions are generated, implemented, and evaluated.

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2.3 Problem solving cycle/steps

- Businesses need to have a process that can be used to solve their problems.
- The problem-solving cycle/steps consists of the following aspects:

(a) Identify the problem

- Businesses must first know and understand the problem.
- The problem must be defined accurately.
- Businesses should get the opinions and suggestions of everyone involved.
- Collect as much information as possible and study the problem

(b) Define the problem

- This step can only take place once a business knows and understands its problem.
- Generate a definition that is concrete and specific
- The nature of the problem must be precise.
- They must define the possible causes of the problem.
- Define the problem so that it becomes easier to find a solution

(c) Formulate a strategy

- A strategy is a plan of action that requires further investigation before a decision is reached.
- Businesses need to use problem solving techniques to find solutions.
- Use the problem-solving techniques to formulate relevant the strategies
- Consider different solutions for the problems by using creative thinking techniques
- The solution must be realistic and executable

(d) Choose the best solution/strategy

- Businesses must set criteria for the best solution/strategy, in terms of aspects such as time/cost/risk involved.
- The best solution/strategy should match the size and the resources of the business.
- If the solution is not appropriate, they should go back to defining the problem.

(e) Allocate the resources

- Resources include money/staff members/time/equipment etc.
- Plan carefully so that you do not interrupt the normal running of the business
- Consider buying affordable and effective resources
- Communicate with employees so that they understand the strategy and know who will do each job
- This process requires good planning, communication and organisational sk

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(f) Implement the strategy

- Put the strategy into action and have necessary resources to implement the strategy.
- Plan the steps required to implement the strategy.
- Implement the strategy according to the plan
- The method and time of implementation be considered

(g) Monitor the problem solving

- Monitor whether the strategy is solving the problem as defined in step one.
- If the strategy is not working, then return to step 3 and come up with an alternative strategy.

(h) Evaluate the problem-solving process

- Businesses must use critical evaluation and analytical skills to evaluate the strategy.
- Once the strategy has been implemented, evaluation process must be done to identify areas that were effective and areas where improvement can be made
- Monitor if the strategy was successful or not in solving the problem
- Evaluate the entire process that was used to reach the strategy
- Get the views of all the people involved in the process

2.4 Problem-solving techniques

- Nominal group technique
- Brainstorming
- Force field analysis
- Delphi technique
- Chair technique
- Empty chair
- Mind mapping
- SCAMPER

2.4.1 Nominal group technique

- The nominal group technique is used to avoid the disadvantages of group discussions.
- There is always one or two dominant people who take over while the rest of the group members keeps quiet.

Application of the nominal Group technique

- The group is divided into a smaller group of 5 or 6 people around the table
- The problem is defined clearly.
- Each individual silently brainstorms as many ideas as possible and write them down
- One by one, each person in the group gives one of their solution and someone writes them all down on a big sheet of paper.

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- Everyone gives a second solution, and so on until all possible solutions have been recorded.
- No one is allowed to criticize, but participants may ask questions to understand the suggested solution more clearly.
- Each person reads through all the suggestions and anonymously rates them giving the highest points for the best solution, down to the lowest point for the one they like the least.
- The ratings are collected, and the points collected and calculated.
- The group is given the results of which idea received the most points, the second most points, and so on.
- Each group presents the solution that was deemed the best according to the votes.

2.4.2 Brainstorming

- Businesses use brainstorming when they want to involve employees/team in the decision-making process.
- It needs to be managed by a facilitator to ensure that the best result is achieved.

Application of brainstorming

- The problem must be defined clearly
- People in the group suggest ideas and solutions at random.
- All ideas must be written on a flip a chart
- The facilitator must encourage everyone to participate and ensure that no-one criticizes any suggestions.
- When the time is up/no one has any more ideas, the sheets with suggestions are hung around the room.
- Similar ideas are grouped together using coloured pens
- The group evaluates the ideas and rates them according to how successful they think each idea will be.
- A plan of action is discussed to put the best ideas into practice.

2.4.3 Force field analysis

- It is aimed at facilitating change in the business.
- People are often resistant to change and will act against change taking place.
- Management is a force acting for change, while the employees are a force acting against change.

Application of force field analysis
Option 1

- Change should be communicated effectively to employees.
- Stop all change for a while until proper communication has been done
- Explain the reasons and benefits of the changes to all staff.
- Ensure that everyone understands how the change will affect them.
- Ensure that all questions are dealt with effectively
- Do not make any more changes in the organization for a while so that it can stabilise and employees can get used to the changes.

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Option 2

- The business should describe the current situation and the desired situation.
- Write a plan/proposal for change in the middle.
- List all the forces driving (positive) and resisting (negative) change
- List all forces in support of the change in one column.
- Assign a score for each, from 1 (weak) to 5 (strong)
- Determine if change is viable. If not, check which resisting forces can be influenced/mitigated/avoided to make the change possible.
- If so, find ways to increase the forces for change and diminish the forces against change.
- Based on this outcome, come up with a strategy to help reduce the resisting forces and ensure that the changes can be done.

2.4.4 Delphi technique

- The Delphi technique is uses to when trying to solve a big problem of which there seem to be no previous examples.
- Businesses use this technique to obtain group input from experts on a specific issue
- The experts are intentionally kept apart so that their responses are not influenced by other experts taking part in the process.

Application of Delphi technique

- A panel of experts is invited to participate in the process.
- Experts do not have to be in one place and will be contacted individually.
- A questionnaire is designed and distributed to the panel
- The panelist responds to the questionnaire individually and return it to the organisation.
- The feedback report and a second set of questions/questionnaire related to the feedback are sent to the panelists.
- The panelists read the feedback report and decide if they wish to change their initial ideas/suggestions/solutions.
- They then complete the second questionnaire
- A final summary and feedback report are prepared.
- Consensus is reached and the best solution is chosen.

2.4.5 Chair technique

- It is a method of weighing up the pros and cons of an idea/decision.

Application of a chair technique

- People consider a problem or idea.
- They take turns to sit in one chair and list all the pros/positive points about the idea/decision
- They then move to another chair and list all the cons /negative points about the idea/decision
- Someone acts as a scribe and writes down each person's pros and cons.
- The lists are discussed and the pros and cons weighed up against each other.
- The final decision is taken

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2.4.6 Empty chair

- This technique can be used when a person must make decisions alone.
- The participant speaks to and empty chair where he/she imagines another person is sitting
- He/she may decide to take the position of the other imaginary person and respond

Application of empty Chair

- One person sits facing an empty chair and imagines that someone he/she respects is sitting in the chat chair.
- Explain the problem to them in detail, out loud.
- Describe all the angels of the problem
- Tell them what you think the possible solutions are and how you think each of the solutions will work out.

2.4.7 Mind-mapping

- Mind maps are diagrams that represent ideas or concepts.
- Their strength is that they work like our brain works.
- They are useful for generating new ideas, problem solving, making notes to organise thoughts and summarising when studying.
- Mind mapping is a simple technique for drawing information in diagrams instead of writing it in sentences.
- The diagrams always take the same basic format of a tree with a single starting point in the middle that branches out, and divides again and again.

Application of mind mapping

- Decide on the central problem or topic
- Find a word/picture that captures the problem/topic
- Break down the central theme into main ideas/points.
- Put these points o the main branches
- Break the ideas down further into sub-points
- Use colour and shapes to help sort ideas logically.
- Use few words where possible

2.4.8 SCAMPER

- Offers simple guidelines to help see things differently
- Scamper stand for Substitute, Combine, Adapt, magnify, put to other use, Eliminate and Rearrange
- Each letter stands for a way to change an existing product/service
- Generate new ideas and solve problems

Application of SCAMPER

- Substitute: Replace part of then problem with something new
- Combine-mix: Arrange parts of a problem in a creative way to cancel out the problem
- Adapt: Look at existing solutions and adapt them to solve the current problem.
- Modify-Exaggerate the problem and see if that can be adjusted to solve the whole problem

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- Put to other use: Use part of the problem for something else
- Eliminate: Get rid of some parts of the problem
- Rearrange: Push the idea around and rearrange so that it can be seen differently.

3. The use of indigenous knowledge to solve problems and identify business opportunities

- Indigenous knowledge refers to the knowledge/practice and skills that were develop by indigenous people to improve their quality of life.
- It is important to use indigenous knowledge when identifying business opportunities if the success of the business will depend on a local sales.
- Businesses need understand their markets before they identify a business opportunity.
- The knowledge of the history, culture, traditions, norms and values of the market is important
- The entrepreneur must be motivated to know about the indigenous knowledge in the business environment
- Gather insight into the indigenous knowledge
- Indigenous knowledge systems can give rise to economically efficient ways of doing things.
- Develop a strategy to incorporate the indigenous knowledge into the business
- Implement the strategy into the business

4 Ways in which creative business opportunities can realistically be implemented.

- People have to be prepared tom pay enough for the product to cover the production costs.
- There has to be a demand for the product/service
- Introduce the new product to the consumers and educate them on how it could be useful to them.
- The entrepreneur must first identify a business opportunity to implement
- Develop a realistic plan
- Plan the activities to be conducted with reasonable deadlines and resources
- People in the business must also be identified and given tasks and activities of the plan
- The entrepreneur must motivate the workers to implement the plan
- Put control measures in place to ensure that workers are implementing the plan

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