

# Markscheme

**May 2025**

**Digital Society**

**Higher and standard level**

**Paper 2**

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1. With reference to Source A, identify **two** ergonomic practices an *MMDA* employee should consider when working remotely from home.

[2]

**Definition** - Ergonomic practice refers to the principles to create safe, more efficient and more comfortable environment to reduce discomfort, minimise physical strain, risk of injury and increase productivity in the workplace.

*Answers may include:*

Posture and workspace setup such as:

- Having a comfortable workspace/accept 'comfort'.
- Use an adjustable chair / ergonomic chair.
- Ensure the computer monitor is at eye level.
- Consider a sit-stand / adjustable desk.
- Consideration of correct/intentional posture for sitting or standing (do not accept relaxed).
- Ergonomic keyboard/mouse.
- Position the keyboard and mouse at a comfortable height.

Others

- Take regular breaks for stretching and movement.
- Use proper lighting to reduce eye strain.
- Use a headset or speakerphone for calls to avoid cradling the phone.
- Use micropause and anti-eye strain breaks/techniques.

*Award [1] for each ergonomic practice identified up to [2].*

2. With reference to Source B:

- (a) suggest **one** reason why employees may use instant messaging (IM) for work communications;

[2]

*Answers may include:*

- Allows for quick and real-time communication
- increasing efficiency in information exchange.
  
- Convenience/accessible on various devices
- enables communication from anywhere.
  
- Informal communication
- fosters a more relaxed and open communication culture in the workplace.
  
- Group Collaboration/supports group chats
- aiding teamwork and project collaboration.
  
- Quick problem solving
- facilitates fast issue resolution and decision-making.
  
- Reducing email overload
- streamlines non-critical communication, reducing email clutter.
  
- File sharing
- easy sharing of files and documents simplifies collaborative work.
  
- Integrate with other productivity tools
- enhancing the work process.
  
- Familiarity with use of instant messaging and “text speech”
- makes communications faster/easier.

*Award [1] for each reason why employees may use IM for work communications and [1] for a development up to [2].*

- (b) suggest **one** negative impact for *MMDA* of employees using instant messaging (IM) for work communications.

**[2]**

*Answers may include:*

- Messages will not be stored on the MMDA server or in the MMDA cloud.
- Meaning these messages will not be available to all staff.
  
- Loss of institutional knowledge.
- Conversations conducted via IM may not be well-documented, potentially leading to the loss of institutional knowledge and critical information.
  
- Productivity loss.
- IM can lead to distractions and decreased productivity, as employees may spend excessive time on non-work-related conversations.
  
- Data security risks.
- IM platforms may pose data security risks, including the potential for data breaches and unauthorized access to sensitive company information.
  
- Compliance issues.
- MMDA needs to ensure that IM usage complies with legal and regulatory requirements.
  
- Overreliance on IM.
- Overuse of IM at the expense of in-person or voice communication may hinder relationship-building and effective collaboration within the company.
  
- Technical challenges.
- IM platforms may experience technical issues or downtime, which can disrupt communication and work processes.
  
- Privacy concerns.
- Concerns about the privacy of IM conversations and data shared through these platforms can lead to employee distrust and potentially legal issues. Use of personal accounts and private information.
  
- Use of informal language/text speech/abbreviations/emojis.
- Concerns about understanding, clarity and appropriateness of communication, instructions.
  
- Misinterpretation of messages/ambiguity of text speech.
- Missing cues from body language, tone, emphasis, facial expressions.

*Award **[1]** for identifying a negative impact for MMDA if employees use IM for work purposes and **[1]** for a development up to **[2]**.*

3. Compare and contrast what Source C **and** Source D reveal about the opportunities **and** dilemmas for MMDA employees when working remotely from home.

[6]

*Answers may include:*

An **opportunity** for an employee could be a chance for personal or professional growth, like taking on new tasks, learning new skills, or getting promoted. In this context the opportunity arises with working from home.

A **dilemma** for an employee could be faced with the difficult choice between two or more alternatives, especially when each option involves undesirable consequences or conflicting values. In this context the dilemma arises from concerns with working from home.

### **Autonomy**

- Both sources C and D suggest employees will be more autonomous, both in terms of working hours and degree of oversight by other colleagues (opportunity).
- However, MMDA may track online usage/use monitoring (surveillance) software, and the degree of autonomy could be reduced (dilemma).
- Self-management - balancing flexible work hour (opportunity) however, missing meetings and team co-ordination (disadvantage/dilemma).

### **Productivity**

- Both sources suggest employees may be more productive (opportunity) as they are able to work without distractions/interruption by setting their own work time (Source C – Sam (childcare, doing household chores)) and Source D suggests that employees can set their own work hours outside of 10-2.
- However, if the employees is not sufficiently self-disciplined, s/he may be less productive at home as the distractions provided by colleagues may be replaced with domestic distractions (Source C - Sam (childcare, doing household chores etc)). Source D requires a designated space in the home to use as an office.

### **Responsibility**

- Workers need to be responsible for equipment and keeping data secure (Source D) and this could be hard in a household with children (Source C – Sam) (dilemma) where the children are using the device(s).

### **Trust**

- Both sources C and D suggest employees will feel trusted (Source C – Alex), for example to deal with sensitive data/information outside of the office, use of work resources (opportunity).
- However, if there is a data breach or equipment fails employees may be concerned that they will be blamed/do not want the responsibility outside of the workplace (dilemma).

### **Flexibility**

- Both sources C and D suggest employees will be more flexible as they can choose when they want to work (opportunity). However, if the organisation uses the core time (between 10am and 2pm) for meetings, this additional flexibility may be illusory (dilemma).

### **Financial**

- Source D indicates the organisation provides equipment for employees to use at home can be used for non-work-related tasks (Source C – children's homework) (opportunity) which is a cost to MMDA; however, Source D also highlights the need to take responsibility – raising the question of who pays for or fixes the equipment if it breaks.
- Additionally, from Source D not all homes have space for a designated workspace to safely and securely set up computer equipment [dilemma: responsibility for maintenance and suitability of home environment].

### **Being connected**

- Source D requires them to be available between 10-2 (opportunity). Source C - Alex implies that some more comfortable f2f while some employee may feel socially isolated and one may miss the meeting entirely (Source C Ash) (dilemma/disadvantage)

The following markband should be used with responses to Question 3.

Marks	Level Descriptor
0	The response does not reach a standard described by the descriptors below.
1–2	<p>Opportunities/advantages and/or dilemmas/disadvantages or specific points from each source for MMDA employees working from home are Stated/identified. The response:</p> <ul style="list-style-type: none"> <li>• lacks direct comparison or contrast to link the sources</li> <li>• The reference to the sources may be implicit.</li> </ul> <p>For 1 mark, one opportunity/advantage <b>or</b> dilemma/disadvantage.</p> <p>For 2 marks, at least two opportunities/advantages <b>and/or</b> dilemmas/disadvantages.</p>
3–4	<p>Opportunities/advantages and dilemmas/disadvantages for MMDA employees working from home are outlined (what + one of who, where, when). Comparison/contrasts may use words like whereas, however, while to compare/contrast sources.</p> <p>For 3 marks - response is unbalanced between opportunities/advantages and dilemmas/disadvantages and/or more reliance on one source over the other. Limited attempt/s to compare and/or contrast sources.</p> <p>For 4 marks – balanced outline of opportunities and dilemmas with comparisons/contrasts of points/ideas drawn from C and D.</p>
5–6	<p>Opportunities/advantages and dilemmas/disadvantages for MMDA employees working from home are <b>described</b> (What and 2 of who, where &amp; when).</p> <p>There are explicit references to the sources (Source C and Source D links/connects to description).</p> <p>For 5 marks – Brief descriptions of comparisons/contrasts between Source C and D are linked to the opportunities/advantages and dilemmas/disadvantages for the MMDA employees working from home.</p> <p>For 6 marks – Detailed descriptions of comparisons/contrasts between Source C and D are linked to the opportunities/advantages and dilemmas/disadvantages for the MMDA employees working from home.</p>

4. With reference to Sources A–D **and** your own knowledge, discuss the impacts **and** implications for *MMDA* of adopting a hybrid work model. **[12]**

*Stakeholders for MMDA would include the managers, technical team and the other employees of MMDA. It would not be the children or spouse of the employee, or the customer/client. Answers that come from the perspective of the employee are acceptable.*

*From Guide page 8: Impacts are effects and outcomes related to digital systems. Implications are opportunities and risks associated with digital systems. Impacts and implications overlap and inform one another.*

*Answers may include:*

*Responses that include content from the background will be accepted.*

### **Background**

- 3-2-2 Hybrid model
- Reference to advertising

### **Source A**

#### **Ergonomics signposted in Q1 (also in Source D)**

- The home office may not be set up to the level of an office, for example, chairs may not be ergonomic, the desk may not be at an appropriate height.
- The employee may not follow good practice, for example, may work from the sofa.
- Additional – if the employee does not follow the ergonomic rules (Source D) and has health issues (e.g. back problems) who is responsible?
- Security and other opportunities/dilemmas may be noted due to the graphics.

### **Source B**

#### **Use of IM**

- The use of IM may mean that confidential information is shared with people or organisations that have not been approved by the company.
- The correspondence carried out using IM will not be served on company servers or in the company's private cloud
- Instant messaging is generally considered to be informal communications this may impact on efficient and accurate communication. This includes the use of "text speech" and abbreviations.
- Implies that employees are always in contact and contactable (change) this may impact on working hours.

### **Source C**

- Hybrid working may give the employee greater autonomy and flexibility, but this could be impacted to the extent the organisation decides to utilise monitoring software.
- Managers may feel there is a disconnect between them and their subordinates.
- Employees may feel there is greater trust in the organisation (i.e., they do not need to be under direct supervision).

### **Source D**

- Hybrid working may have little impact on the hours the employee works if s/he decides to work 'traditional' office hours.
- Employees may feel they cannot ever get away from work (Source C Ash), the distinction between home and work may have disappeared.

**Conclusions**

- The hybrid model may suit some employees but not others which may lead to performance issues.
- The redistribution of power, i.e., the relationship between an employee and his/her line manager may be affected.
- Use of Instant messaging may blur or change the period an employee is contactable, impact on the working day .
- Reliance on Instant messaging can impact messaging and instructions as it misses visual cues, emphasis and use of “text speech” and abbreviation can make messaging unclear.
- For some employees the reduction of direct supervision and f2f contact may be seen as an affirmation of the work they are doing/they are trusted.
- Some employees may feel disempowered by the shift to hybrid working and their reduced access to their line manager and other work colleagues.
- Some employees may feel a sense of isolation and not part of the team as they did in a f2f environment, this may impact their performance.
- The success of hybrid working may be dependent on the values of the senior managers.
- The IT systems may not be able to facilitate the same level of work, the ability to carry out the same tasks as in a f2f environment.

**Developing a common understanding of the 3Cs in the context of this question.**

The 3Cs are usually embedded in discussions, with ideas that frequently intersect within the same C and across other Cs. e.g. ethics/values and privacy, privacy and data (ownership)

3Cs	From the guide	Suggestions of what we are looking for in the response
Content	<p><b>Data, Algorithms, Computers, Networks and the internet, Media, AI Robots and autonomous systems</b></p>	<p><b>The technology that underpins ... includes:</b></p> <p><b>Data:</b> hacking, privacy, security of data, security issues arising from home office like data breach/ lack of home security, synchronous and asynchronous communications (e.g. Instant Messaging), data encryption, data masking, file formats and compatibility.</p> <p><b>Algorithms (including software):</b> Malware, blockchain, productivity tools, antivirus, video conferencing systems, communication tools (including translation tools).</p> <p><b>Computers:</b> ergonomic peripherals e.g. keyboards, mouse, laptops (mobility) vs desktop, office set up (e.g. monitors), smart phones.</p> <p><b>Internet:</b> access to the application, equity of access, digital divide, security of data, utilise monitoring software, VPN, wifi, conferencing tools (e.g. Zoom, Google Meet, face time, VoIP etc), access to the application, equity of access, digital divide, networking and cloud-based services, firewall, two-factor authentication, IOT/Smart devices that are relevant to use of home as office.</p>

Context	Cultural, economic, environmental, health, human knowledge, political, social	<p><b>Cultural</b> – gaming, work culture, collaboration.</p> <p><b>Economic</b> – change in working practices (remote working, design home vs office environment), operation of business (e.g. savings in reduction in office space, on-site support employees vs costs of setting up home offices (MMDA and employee).</p> <p><b>Health</b> - the human body – ergonomic, wellbeing/mental health, reduced stress due to flexibility.</p> <p><b>Social</b> – families and relationships, social interaction, social isolation, interaction between team members impacted, Shift to digital interactions rather than F2F.</p>
Concepts	Change, identity, expression, power, space, systems, value and ethics	<p><b>Change:</b> : impact on working hours/environment, employee greater autonomy and flexibility, transformation of workday and work expectations, outcome rather than time-based work.</p> <p><b>Expression:</b> changes in communication using synchronous and asynchronous tools, formal to informal, different forms of digital expression, shift from F2F to online.</p> <p><b>Identity:</b> Change in identity with change in work environment – team member to individual worker, group/team member, blurring of employee’s work and personal roles.</p> <p><b>Power:</b> MMDA utilise monitoring software, shift in team dynamics, greater trust in the organisation (employee), change in influence and control as time management shifts to employee within restrictions of rules. Rules set by MMDA .</p> <p><b>Space</b> – needs to be a digital society context – online working space vs physical space (e.g. online conferencing tools), digital divide, change of physical space to accommodate working from home, change to office structure like hot desking etc.</p> <p><b>Systems:</b> Consideration of unintended consequences, human elements of system (e.g. company policies/processes (Source D), systems for hybrid model.</p> <p><b>Value and ethics:</b> Licencing, distraction/gaming/entertainment during work hours, self-management (Time –management, distraction, use of device for entertainment),, self-organisation, use of computer by other people, following procedures set by employer (source D rules).</p>

**Keywords:** VPN, network, bandwidth, Wi-Fi, trust, transparency, change, power, space, systems, ethics, values

*Marking notes:*

*It is not necessary to explicitly refer to each source to achieve the highest mark band. To achieve the highest marks the sources must be synthesized in an integrated manner rather than a systematic analysis of each individual source.*

The following markband should be used for responses to Question 4.

<b>SL and HL Paper 2, question 4</b>	
<b>Marks</b>	<b>Level descriptor</b>
0	<ul style="list-style-type: none"> <li>The work does not reach a standard described by the descriptors below.</li> </ul>
1–3	<ul style="list-style-type: none"> <li>The response shows a limited understanding of the demands of the question.</li> <li>There is limited relevant knowledge.</li> <li>Evidence from sources is not integrated with the response.</li> <li>The response has limited organization.</li> </ul>
4–6	<ul style="list-style-type: none"> <li>The response shows some understanding of the demands of the question.</li> <li>Some knowledge is demonstrated but this is not always relevant or accurate.</li> <li>Evidence from sources is partially integrated into the response.</li> <li>The response is partially organized.</li> </ul>
7–9	<ul style="list-style-type: none"> <li>The response shows adequate understanding of the demands of the question.</li> <li>Relevant and accurate knowledge is demonstrated with some lapses.</li> <li>There is adequate integration of evidence from the sources, but this is not always sustained.</li> <li>The response is adequately organized.</li> </ul>
10–12	<ul style="list-style-type: none"> <li>The response is focused and shows an in-depth understanding of the demands of the question.</li> <li>Relevant and accurate knowledge is demonstrated throughout, adding insight to the response.</li> <li>There is consistent and effective integration of evidence from the sources.</li> <li>The response is well-structured and effectively organized.</li> </ul>

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