Cover

# Table of Contents

# Chapter 1: Knowledge

## Opening case guide

**Rosie’s first week at Oxford Consulting: accessing organisational knowledge**

### Assignment questions

1. Discuss the type of knowledge Rosie brought to her new job.

2. Discuss the type of knowledge Rosie discovered was owned by Oxford Consulting during her first week.

3. What is Oxford Consulting’s justified true belief about knowledge?

4. What is your advice to Rosie for her second week?

### Teaching outline and analysis

1. Discuss the type of knowledge Rosie brought to her new job.

This case asks students to reflect on what it might be like for them as they begin their careers after graduation. Rosie has the knowledge gained from her university degree. It may be described as technical knowledge. It raises questions about the usefulness of knowledge gained from university, whether this adequately prepares students for work and how much it is valued by employers.

2. Discuss the type of knowledge Rosie discovered was owned by Oxford Consulting during her first week.

Her difficulty in understanding the organisational culture was caused by her lack of organisational knowledge. Her difficulty in getting people to help her was due to her lack of social capital. The only knowledge she found accessible was structural capital, i.e. see this extract:

*She found folders on the intranet which explained the company and its products and services. She read these for the rest of the day.*

3. What is Oxford Consulting’s justified true belief about knowledge?

Oxford Consulting’s focus on structural capital was illustrated when Rose explored the intranet. Students might discover the types of structural capital available. The induction training also focused on the knowledge found online.

4. What is your advice to Rosie for her second week?

This should engage students who can empathise with Rosie’s situation as a new graduate. The case leads students to reflect on the crossroads Rosie has found itself at after just one week. Should she focus on using her existing knowledge and trying to build her career based on technical competence? Should she rely on learning the new knowledge the company made available via the intranet? Or should she try to learn about the organisational culture and build social capital? While students will probably say it is a combination of all three, she should focus on the intranet and try to learn quickly. The best solution in the longer term is to learn how to access social capital.

## Closing case guide

**Integrated case study: knowledge at the case study**

### Assignment questions

1. Discuss the nature of the CSO’s knowledge.

2. What is justified true belief at the CSO?

3. What type of knowledge is being lost at the CSO?

### Teaching outline and analysis

1. Discuss the nature of the CSO’s knowledge.

The question asks students to examine the theory of organisational knowledge and apply this to the case. Therefore, the theoretical lens should be:

Scientific management: control, rules and formal structures.

Human relations theory: morale, a sense of belonging and interpersonal skills improved productivity.

Knowledge-based view of the firm:

* Structural capital
* Tacit social practice

The focus of the case is on the operational requirement set (ORS). The ORS represented the CSO’s collective wisdom. This is scientific knowledge. The case explains how these reports were used to ensure compliance with technical standards. Therefore, the CSO privileged rule-based knowledge.

2. What is justified true belief at the CSO?

The theoretical lens should be:

Justified true belief is knowledge you can trust because you believe the evidence. This should lead students to examine the epistemology of rationalism versus empiricism. While students will probably focus on rationalism due to the CSO’s focus on using evidence-based practice, i.e. the ORSs, to enforce compliance; students should receive higher marks for this question if they recognise two issues from the following extract: (1) the problem with the ORS is that the customer does not trust them (so not their justified true belief) and (b) the CSO staff need more than technical knowledge – their role is also advisory so they need relationship skills, which is social capital.

*The CSO managed customer relationships. SMEs had to respond to customer requests for information or advice. They also needed to monitor customer activities to ensure they were following their technical specifications. In this way, the relationships were advisory and regulatory. However, customers could be very difficult. Some were reluctant to follow the advice and the SMEs and preferred to make their own decisions. The trusted their own judgement. The customer relationship was influenced by CSO staff experience.*

3. What type of knowledge is being lost at the CSO?

This question asks students to examine Stuart McDonald’s knowledge. It is technical knowledge.

Instructor Manual

# Cover

# Table of Contents

# Instructor resources

We strived to achieve four goals in preparing this package of Instructor Resources for you:

1. To equip you with all the resources and pedagogical tools you’ll need to design and deliver a course that is on the cutting-edge and solidly in the mainstream of what students need to know about knowledge management.

2. To give you wide flexibility in putting together a course syllabus that you are comfortable with and proud of.

3. To give you a smorgasbord of options to draw from in keeping the nature of student assignments varied and interesting.

4. To help you deliver a course with upbeat tempo that wins enthusiastic applause from students.

We believe the contents of the package will be particularly informative and helpful to faculty members teaching the knowledge management course for the first time, but we have also tried to embellish the content with ideas and suggestions that will prove valuable to experienced faculty looking for ways to refurbish their course offering and/or to keep student assignments varied and interesting. The opening and closing cases are particularly interesting and engaging and we have provided case guides, along with suggested answers to each case question, in the accompanying case guide manual (56 pages).

**PowerPoint Slides** To facilitate delivery preparation of your lectures and to serve as chapter outlines, you’ll have access to comprehensive PowerPoint presentations for each of the 13 chapters. The collection includes approximately 400 professional-looking slides displaying core concepts, analytical procedures, key points and all the figures in the text chapters.

# Chapter 1: Knowledge

## Chapter summary

The purpose of this chapter is to explore what is knowledge. While there is widespread agreement that knowledge is important, there is also disagreement about what it is. This chapter explores definitions from a multi-disciplinary perspective, discusses the epistemology of knowledge, contrasts the product and practice-based views of knowledge and looks at the ownership of knowledge in terms of individual, group and organisation. The discussion examines what is meant by the phrase ‘justified true belief’, whether knowledge can be separated from the knower, and knowledge as skilful knowing.

### Definitions of knowledge

Knowledge is an intangible resource and it combines with other firm resources, such as financial and physical, to create capabilities (Grant, 2013). Knowledge resources are often classified as either tacit (implicit) or codified (explicit). Tacit knowledge is the knowledge in an individual’s head (Polanyi, 1967). Codified knowledge is knowledge that is transferable in formal, systematic language, e.g. via reports and databases (Nonaka and Takeuchi, 1995). Tacit and codified knowledge are two sides of the same coin in the sense that you need one to use the other (Massingham, 2014). There are a range of disciplines interested in knowledge and its management, which provide different perspectives on the definition of knowledge. Table 1.1 provides a summary.

Instructors might unpack this table and discuss its themes:

* Epistemology
* Tacit and codified
* Cognitive
* Stages
* Hierarchy
* Types
* Action
* Subjective
* Embedded

### Justified true belief

The key word in this phrase is ‘justified’ . While truth is an objective condition, belief is a subjective condition. You can believe something is true but know it is not. Justified means there is evidence to trust the knowledge. The definition of evidence is explained by rationalism and empiricism.

### Epistemology

Epistemology is the philosophy of knowledge. People have been interested in knowledge at least since the time of the ancient Greek philosophers Plato and Socrates (around 400 BC). Epistemology is explored through the contrasting fields of rationalism versus empiricism.

### Rationalism

Rationalism argues that absolute truth is deduced by ideal mental process (Nonaka and Takeuchi, 1995) by using true judgement together with an account (Jashapara, 2004). The word ‘account’ is the foundation of scientific thought and research and introduces the concept of proof. It is learning by discovery. Rationalism is, therefore, objective knowledge available to all and able to be proved. In organisational terms, it may be described as a single best practice. The importance of evidence led philosophers to question reality.

Phenomenology still argued that the mind was more important than the senses. It contributed to the two most important themes in modern epistemology: consciousness and reality. For the first theme, we will discuss the work of Michael Polanyi, and for the second theme that of Stephen Hawking.

Consciousness: Polanyi’s famous statement ‘we know more than we can tell’ (1967) declared the importance of tacit knowledge or the knowledge inside people’s heads. Polanyi felt that all knowledge was personal and that it was difficult to express and, therefore, share with others.

Reality: Rationalism argues that we can find justification for knowledge through scientific testing. Stephen Hawking, who died in 2018, and his co-author Leonard Mlodinow, stated that the ideas of the ancient Greek philosophers ‘would not pass muster as valid science in modern times’ (2010: 22). They made this claim because ‘their theories were not developed with the goal of experimental verification’ (2010: 22). This is a foundation of modern science’s perception of reality. Ideas or beliefs cannot be accepted as knowledge, i.e. justified as truth, unless they can be observed and proven. In other words, they need to be able to be tested. How then does Hawking and Mlodinow view reality? Science is based on ‘the belief that there exists a real external world whose properties are definite and independent of the observer who perceives them’ (Hawking and Mlodinow, 2010: 43).

### Empiricism

Empiricism argues that knowledge can be attained inductively from sensory experiences (Nonaka and Takeuchi, 1995: 21). The founder of empiricism was Aristotle. Plato (384–322 BC) used metaphysics to question underlying assumptions (Nonaka and Takeuchi, 1995). The word ‘question’ is the foundation of philosophy and introduces the concept of opinion. It is learning by doing. Empiricism is, therefore, subjective knowledge created by the individual and dependent on context. In organisational terms, it may be described as multiple best practices.

Dewey (1859–1952) developed our awareness of knowledge in practice, by arguing that knowledge is closely bound with activity (Jashapara, 2004). He introduced the relationship between learning and doing.

Wittgenstein (1953) examined the role of language as a theory of meaning (). He regarded words and sentences as the way the mind determines facts and meaning. These combine to form our mental models of the world. The importance of Wittgenstein’s work is that it introduces us to the idea of cognition and how the mind works.

### Knowledge as a product

This perspective is called knowledge as a product because it is seen as something that can be produced. Researchers exploring this perspective have called knowledge ‘structural’ (Newell et al., 2002), an ‘asset’ (Empson, 2001) and an ‘object’ (Hislop, 2011). The epistemological assumption is that knowledge is an objectively definable commodity (Jasimuddin, 2012: 15). In seeing knowledge as a thing, this perspective enables knowledge management to look for ways to separate knowledge from the knower via codification (Hislop, 2011: 17). Cook and Brown (1999) refer to this perspective as the epistemology of possession, as knowledge is regarded as an entity that people or organisations possess.

The product perspective is based on rationalism and this means knowledge is deduced by the individual. It is not owned by the individual; it is discovered by the individual and is owned by all, i.e. it is objective knowledge. The objectivist perspective proposes that knowledge is owned by the organisation, not the individual.

### Knowledge as practice

The idea of knowledge as practice is grounded in Polanyi’s concept of ‘skilful action’ (Polanyi, 1962). This perspective emphasizes that knowledge is ‘embedded within and inseparable from work activities or practices’ (Hislop, 2011: 31). Researchers exploring this perspective have described knowledge as ‘know-how’, i.e. it may require practice or discussion (Edmondson et al., 2003), as a ‘process’ (Empson, 2011), ‘socially constructed’ (Newell et al., 2006), ‘context-sensitive’ (Sabherwal and Becerra-Fernandez, 2003) and ‘embedded’ (Lambe, 2007).

This view holds that knowledge cannot be separated from the knower (e.g. see Tsoukas, 2003). In seeing knowledge as personal (Polanyi, 1962), this perspective enables knowledge management to develop skilful knowing in the act of doing (Tsoukas, 2003). Skilful action means that knowledge emerges in the act of doing something. It is only in the act of doing that the individual becomes fully aware of the knowledge necessary to complete the activity. It is at this point that conscious learning occurs. This theory of skilful knowing sees work as an adaptive process where the individual tries to turn given situations into preferred situations (Aakhus, 2007).

### Individual knowledge

All knowing is personal knowing (Polanyi and Prosch, 1975).

At the individual level, this raises important questions about how people work and learn how to do their work better. Traditional views of knowledge as an informational product present a technocratic conceptualisation of work (Aakhus, 2007). This conceptualisation sees work as information-seeking behaviour.

An alternative view of knowledge is as an organisational system driven by the individual. This conceptualisation sees work as an adaptive process where the individual tries to turn given situations into preferred situations (Aakhus, 2007). This individual uses their experience to make sense of the work situation. In this way, professional knowledge involves technical knowledge but also judgement, i.e. the competence of handling complexity, instability and value-conflict when engaging people and problem situations at work (Schon, 1983). This view privileges individual knowledge because it allows the individual to learn from their experience, i.e. reflect-in-practice, and to apply this to a new work situation.

### Technical knowledge

Knowledge is commonly represented as technical knowledge. This is the knowledge the individual needs to do their job. It involves discipline-related knowledge, such as qualifications and training. It also involves knowledge gained from on-the-job learning, i.e. experience, related to technical aspects of work.

### Cognitive knowledge

This is the individual’s process of making sense of the world and may include judgement, intuition and perception. Cognitive knowledge may include other non-technical knowledge unique to the individual’s work context such as behaviours, attitudes and social capital. Researchers have examined these processes using a socio-cognitive approach, suggesting that meaning is mediated by private and cultural models generated by the individuals’ own cognitive dispositions, including memory and emotions, as well as socio-cultural interaction (Ringberg and Reihlen, 2008). This socio-cognitive approach to knowledge explains that the individual’s environment, conceptualised as organisational systems, helps define the individual’s knowledge. As the individual performs their work, cognitively processes exchange within the broader strategy, structure and culture of their organisation to help them find meaning.

### Group knowledge

Knowledge may be created by groups. This has encouraged thinking about knowledge as social practice. When people work together in groups, they have the opportunity to share knowledge and to create new knowledge as a group. This knowledge may be shared work practices and routines (Hecker, 2012) and shared assumptions, perspectives and mental models (e.g. see Senge, 1990).

There are three schools of thought about group knowledge. The first school of thought sees social practice knowledge as the codified outcomes of the group’s work, e.g. reports, presentations and meeting minutes.

The second school of thought sees social practice knowledge as shared mental models. It is an informal way of doing business that the group develops over time and that works for them. Spender (1996) calls this collective tacit knowledge.

The third school of thought sees social practice knowledge as social capital. From this perspective, knowledge emerges as people interact recurrently in the context of established and novel routines and procedures, i.e. in the act of doing work (Newell et al., 2006).

### Organisational knowledge

Organisational knowledge is knowledge owned by the organisation.

Scientific management was founded by Taylor who was obsessed with increasing worker efficiency. Taylor saw workers’ knowledge as an opportunity to capture experience and skills and convert them into objective knowledge (Taylor, 1911). The idea was that management could capture this knowledge by analysing what workers do and finding more efficient ways of doing it. It emphasized control, rules and formal structures. It was the basis of a rationalist, positivist view of management which led to bureaucratic control as a form of organising.

Human relations theory developed in the 1920s and 1930s in opposition to scientific management. Led by Mayo (1933), this field showed that social factors such as morale, a sense of belonging and interpersonal skills improved productivity. It contrasted the view of scientific management of workers as machines with a new view of workers as social beings. It led to a humanistic view of management which argued that knowledge emerges from social practice, and that by understanding the social needs of workers, knowledge could be increased. This encouraged attitudes and behaviours, such as cooperation, collaboration and teamwork, which develop a work environment desired by the 21st century’s knowledge workers.

The knowledge-based view of the firm (e.g. Nelson, 1991) laid the foundation for researchers (e.g. see Tsoukas, 1996) to argue that most organisational knowledge did not reside in the heads of individuals, but as situated in organised contexts of action. In organisational settings, i.e. when performing work, human action draws upon something outside the individual. This is generic rules and routines produced by the organisation and, therefore, knowledge is essentially tied to context (Newell et al., 2006).

This led to two views of organisational knowledge:

(a) Structural capital is part of intellectual capital (IC) theory (e.g. see Dumay, 2014). IC is a popular example of trying to break knowledge down into manageable chunks. IC’s key attributes are its three types of capital, such as human capital, structural capital and customer capital. Structural capital is codified knowledge owned by the organisation, such as policies, procedures, systems and products.

(b) Tacit social practice is organisational knowledge found within unique organisational context and work situations. Tsoukas and Valdimirou (2005) call this a corpus of generalisations. It is ‘how we do business around here’. But it is much more than the norms and values of organisational culture. It is a secret recipe of business success within this unique organisational context. It is secret because only organisational members can access it and it is usually not written down in any codified form such as policies or procedures, otherwise, it would be structural capital.

### Conclusion

Knowledge therefore begins with the individual. Knowledge may be created and owned by groups and organisations but the outcomes are the work of the individuals within that social practice. Knowledge is information until individuals can make sense of it and make it their own knowledge. Finally, individuals develop levels of knowledge. In managing knowledge in organisations, the practical questions are how to enable someone to first gain competence and second gain expertise. The first is about learning and the second about experience. These are explored in Chapter 2.