

**Kursus Pengenalan Knowledge
Management JKR Malaysia
22 – 23 MAC 2018**



**KNOWLEDGE MANAGEMENT @
JABATAN KERJA RAYA
MALAYSIA**

Sr ROZNITA BT OTHMAN



Objective 1

- Understand concepts and models relevant to acquisition, development and dissemination of knowledge



Objective 2

- How to apply the tools and techniques of knowledge sharing and transfer

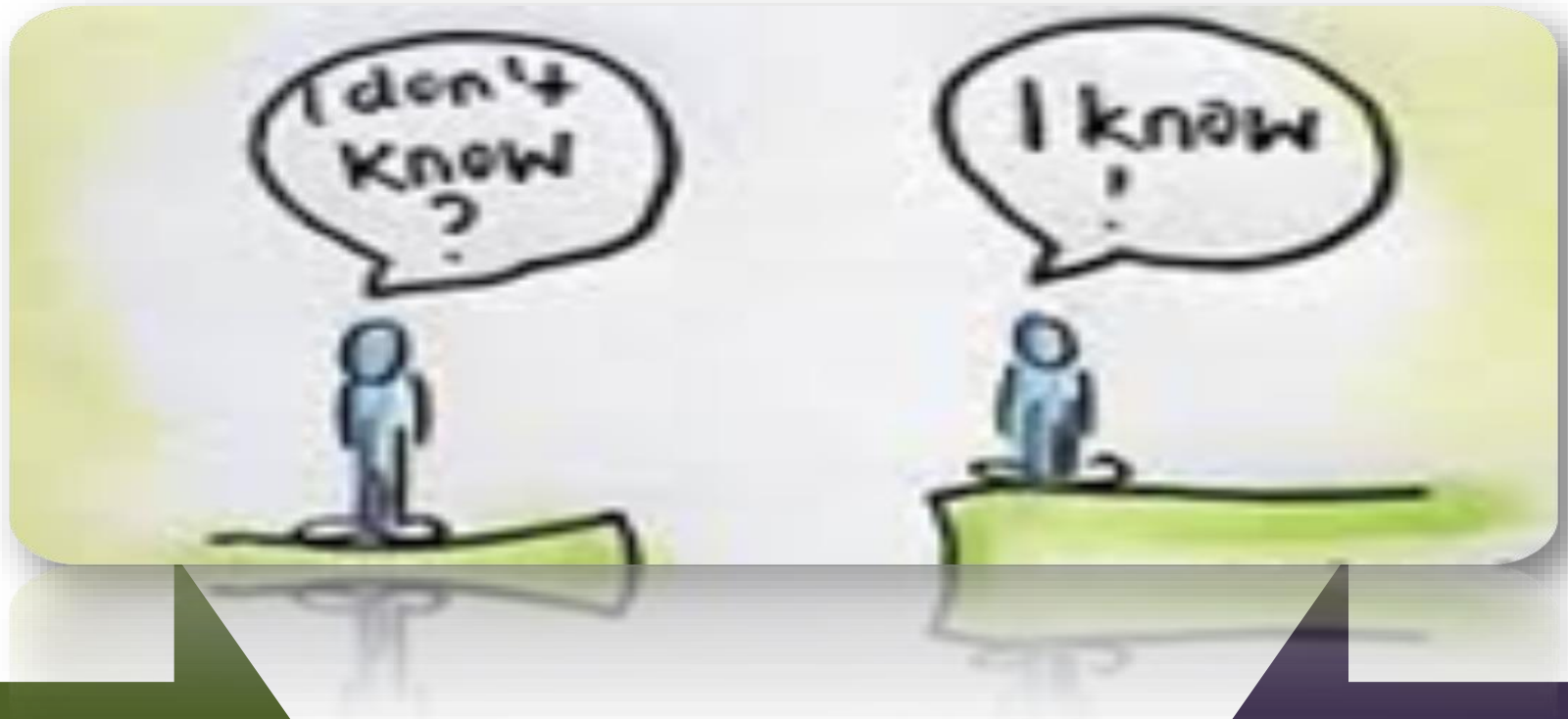
Learning Outcomes

understand different types of knowledge assets

design strategies to leverage on the knowledge assets

Identify and apply suitable KM tools and techniques to transfer knowledge

ICE BREAKING session



Knowledge
seeker

Knowledge
bearer

RESULTS

BEST KNOWLEDGE
SEEKER

BEST KNOWLEDGE
CONTRIBUTOR

Why ECKM matters to us

- 1 Our most critical technical knowledge remains siloed in the organisation – or worse, is heading out the door



- 2 Our people work at different locations and are geographically dispersed. Knowledge sharing across the department becomes more challenging. People are not learning from each other and are reinventing the wheel



result in

lack of trust, limited communication and isolation



Vertical

Across levels and hierarchy



Horizontal

Across functions and expertise



Stakeholder

Beyond boundaries of the company with external partners



Demographic

Across diverse groups (e.g., gender, ethnic, nationality)

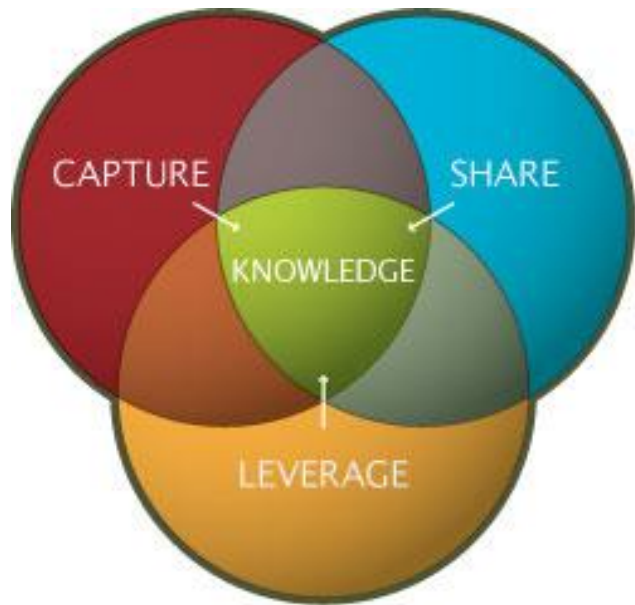


Geographic

Across regions and locality

<http://www.chrisernst.org/why-boundary-spanning-networks/activate-the-network/>

How KM can improve the organisational performance



Easy to find experienced individuals

Enterprise wide knowledge at our finger tips

Improve productivity by reusing “what we know

Improve communication and break down silos

Generate new ideas that can be incorporated into innovative products and processes

ISO 9001:2015 - Clause 7.1.6



Organisations need to determine and manage its knowledge to ensure the operation of its processes and that it can achieve **conformity of products and services**



ISO 30401

The purpose of this ISO standard for knowledge management is **to support organizations to develop a management system that effectively promotes and enables value-creation through knowledge.**

The intent of this standard is to set sound knowledge management principles

- a) As guidance for organizations that aim to be competent in optimizing the value of organizational knowledge
- b) As basis for evaluating and recognizing such competent organizations by recognized audit bodies

GIVING THE BEST KNOWLEDGE TO THE RIGHT PEOPLE AT THE RIGHT TIME
WILL NOT ONLY

PROVIDE PERFORMANCE SUPPORT FOR EMPLOYEES TO DO THEIR JOB
MORE EFFICIENTLY AND EFFECTIVELY BUT WILL ALSO ENHANCE THE
INNOVATION CAPACITY OF THE DEPARTMENT



KNOWLEDGE ASSETS



WHAT ARE YOUR KNOWLEDGE ASSETS?

WHERE ARE THEY LOCATED?

ARE THEY
EASILY ACCESSIBLE?

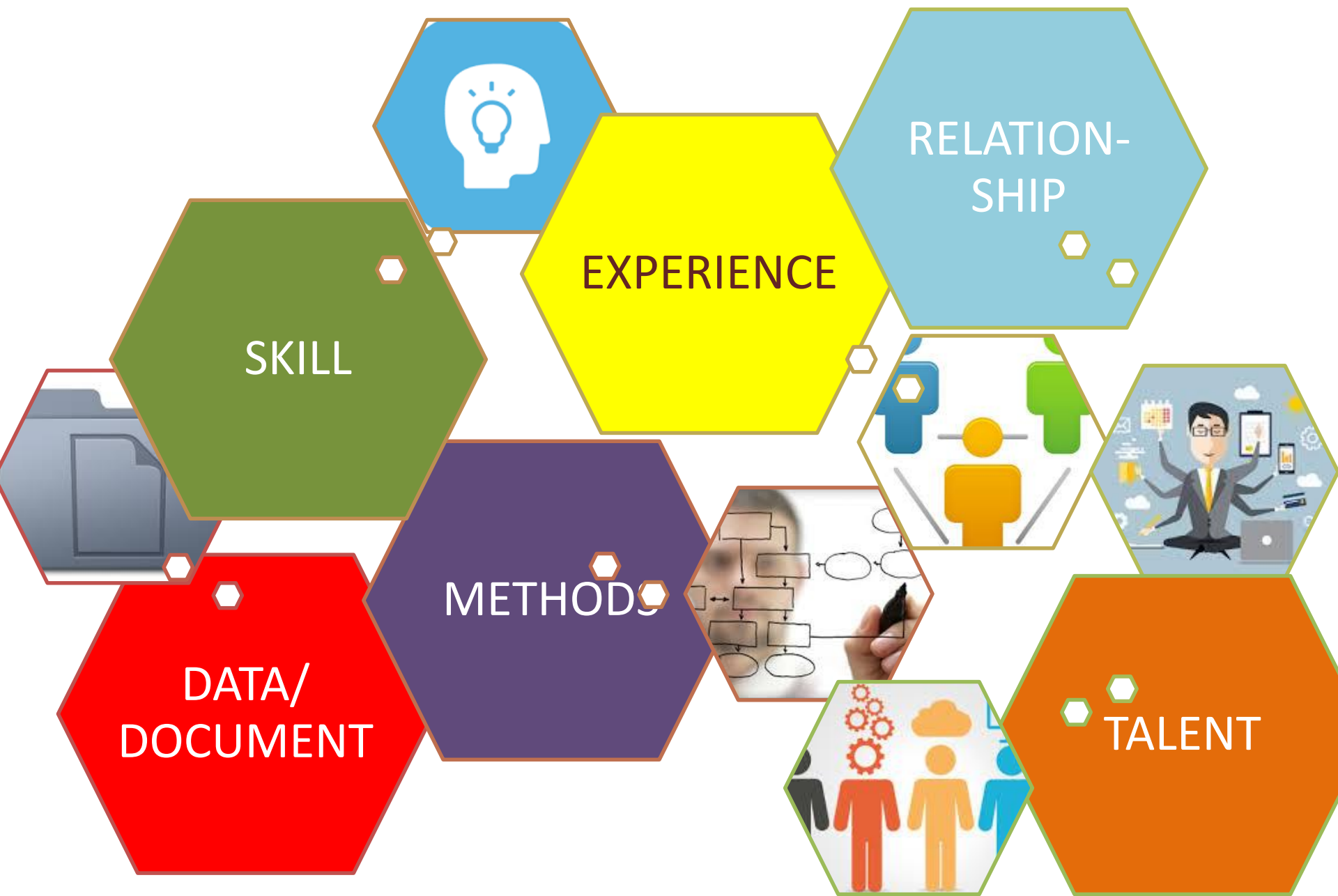


WHO ARE THE KNOWLEDGEABLE PERSONS?

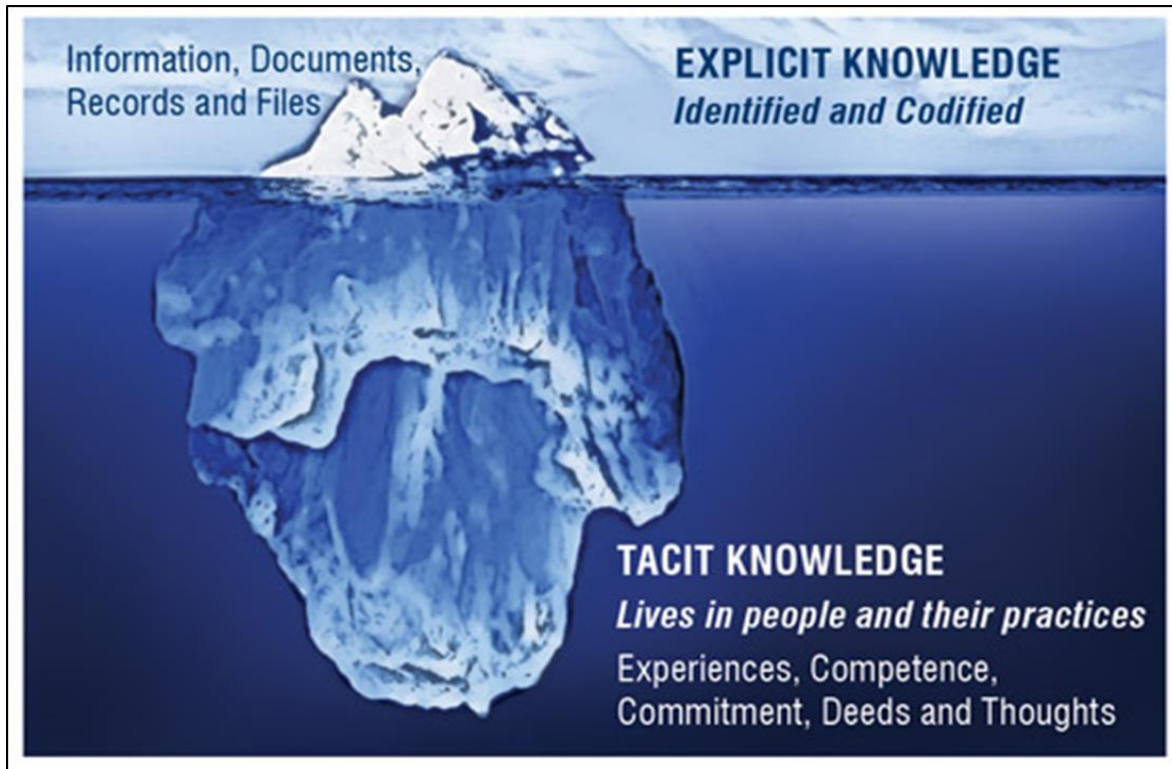
HOW MANY OF THEM WILL BE

RETIRING/LEAVING

THE
DEPARTMENT?



Types of Knowledge



20%

**USE IT OR
LOSE IT**

80%

KNOWLEDGE AUDIT

ANALYSIS

RISK

ACCESSIBILITY

GAP



GROUP WORK:

WHAT ARE THE KNOWLEDGE ASSETS THAT YOU
NEED?



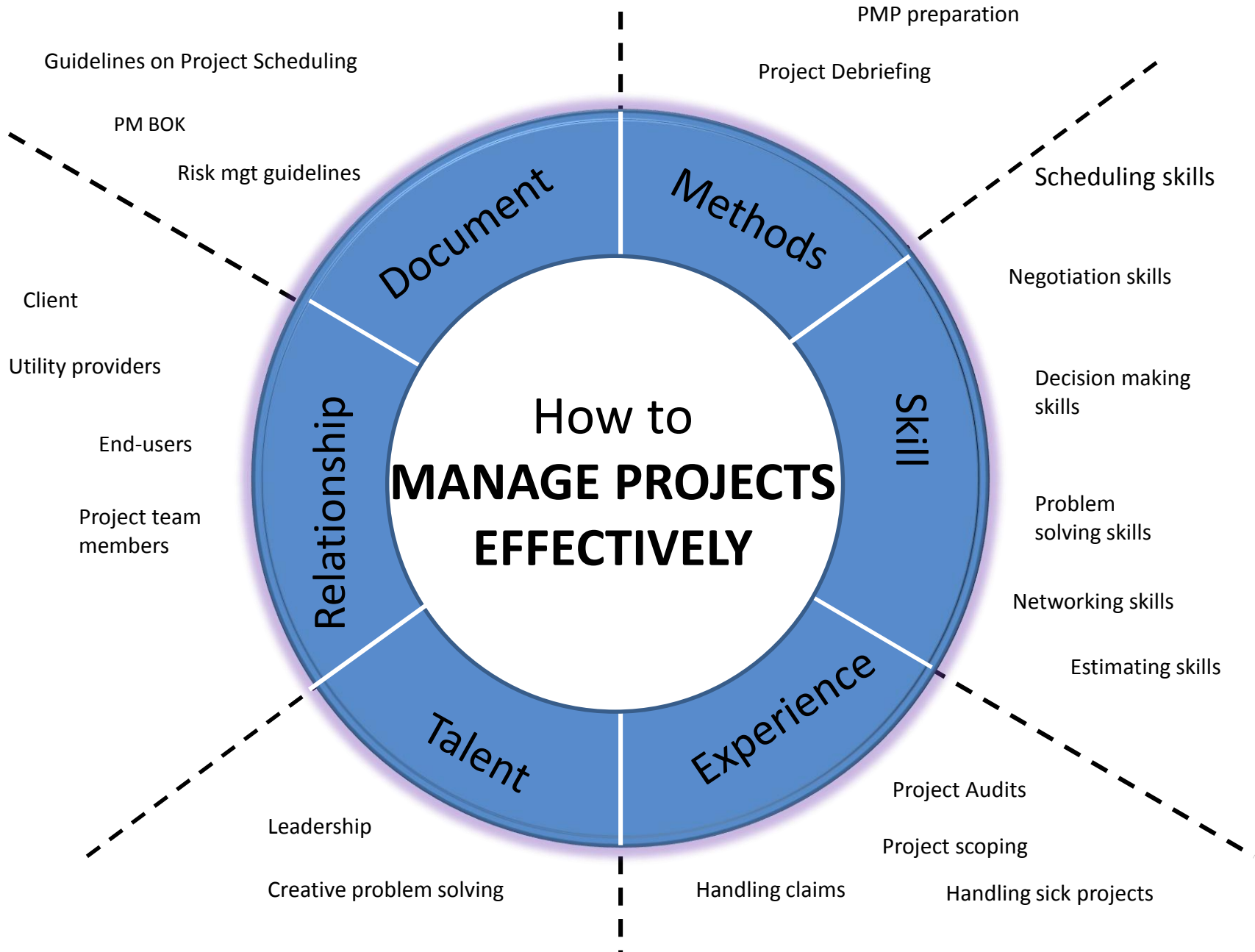
IDENTIFYING KNOWLEDGE ASSETS

HOW TO: *CHOOSE ANY ONE OR SUGGEST*

- 1. MANAGE PROJECTS EFFECTIVELY**
- 2. NEGOTIATE A CONTRACT**
- 3. FINALISE ACCOUNT**
- 4. DESIGN A ROAD**
- 5. ... (group's suggestion)**

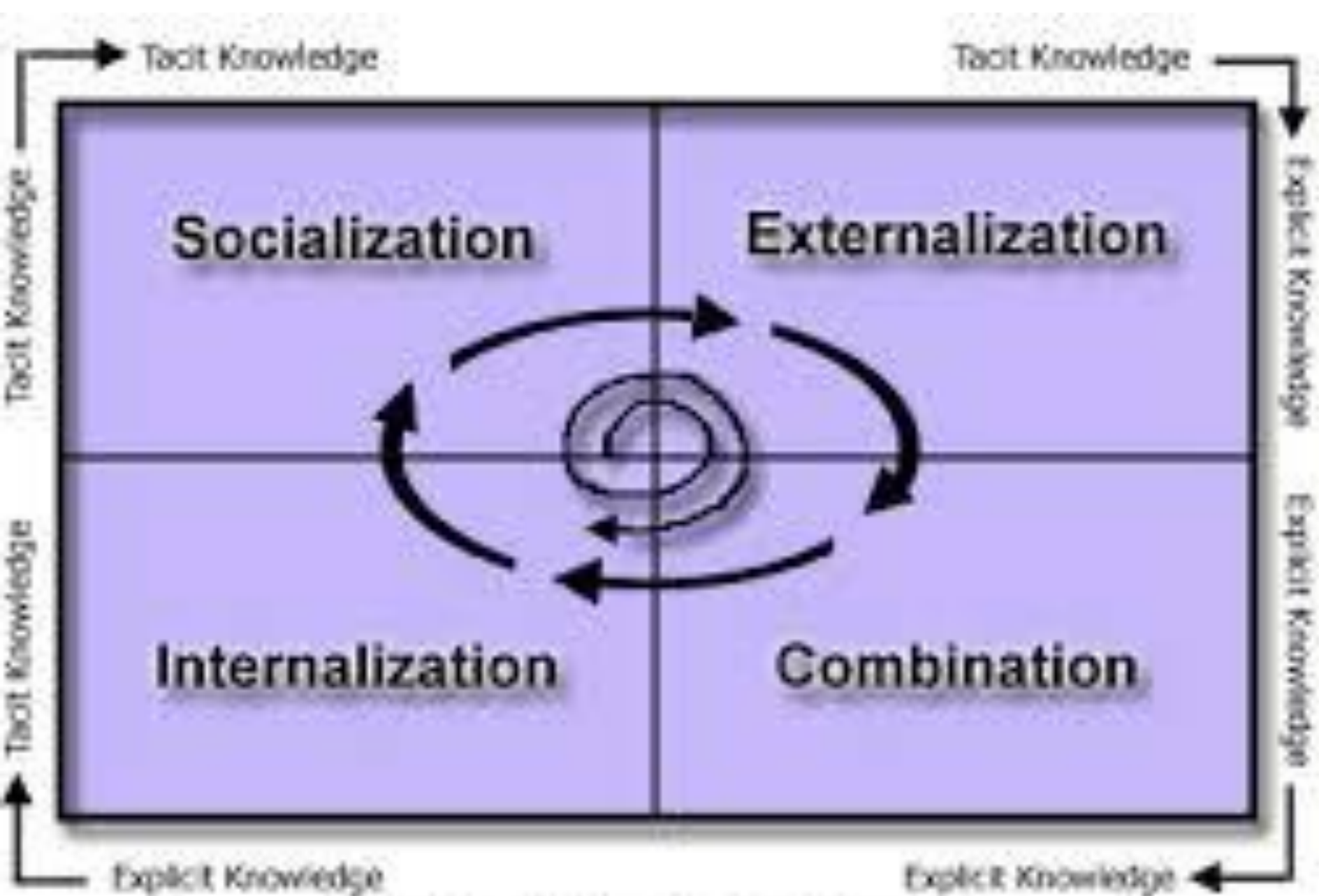
EXAMPLE

IDENTIFYING KEY KNOWLEDGE ASSETS



EXPLICIT vs TACIT KNOWLEDGE

**How to create and transfer
explicit and tacit Knowledge?**



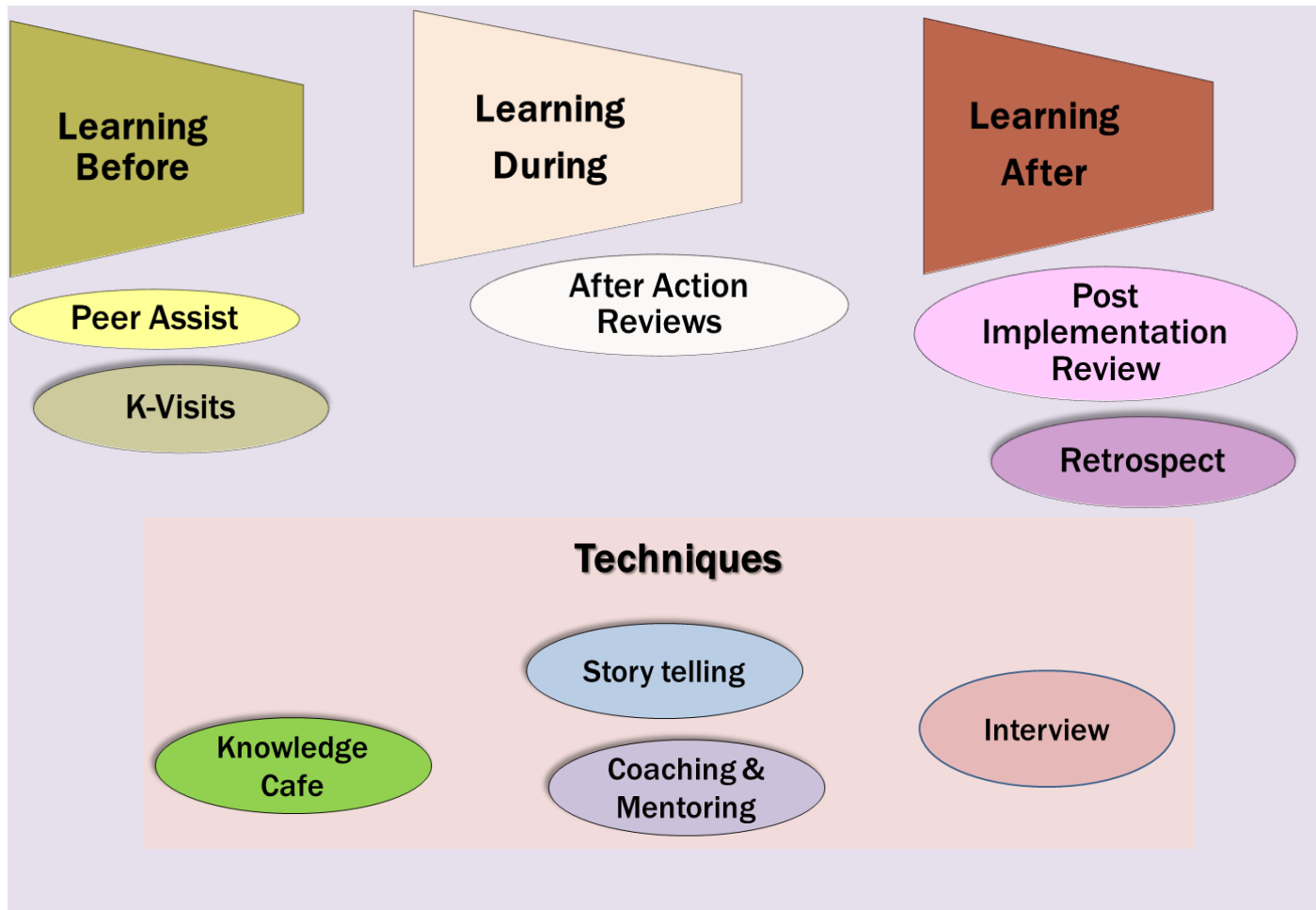
Spiral of Knowledge Creation
by Nonaka & Takeuchi (1995)

The SECI Model

Ikujiro Nonaka & Hirotaka Takeuchi

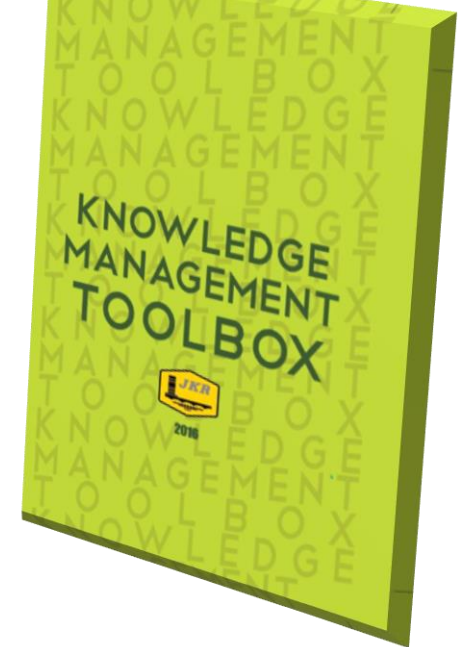


Tools to capture/harvest Knowledge





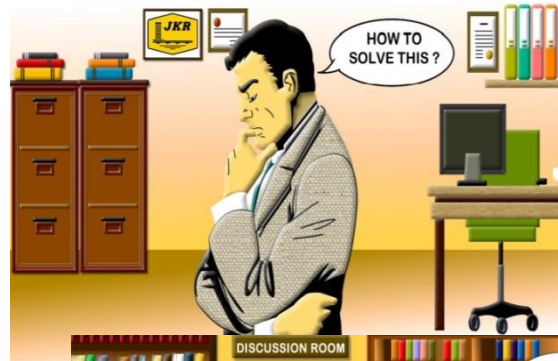
Peer Assist brings together a group of colleagues to elicit feedback on a problem, project, or activity, and draw lessons from the participants' knowledge and experience to support 'learning before doing' process



HOW TO USE



HOW TO USE ... Cont'd



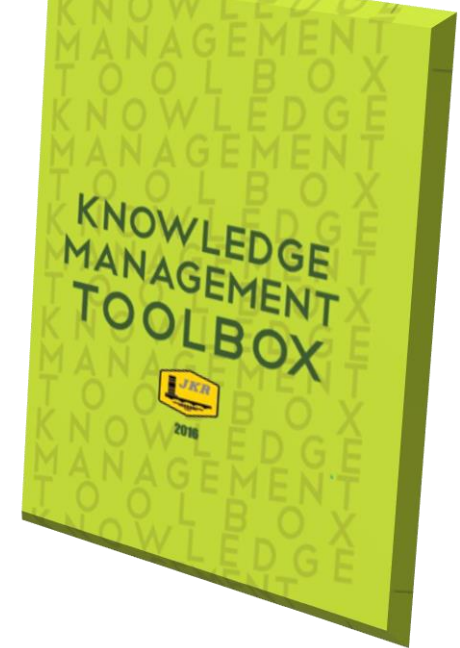
Step 3: Discuss problem with facilitator



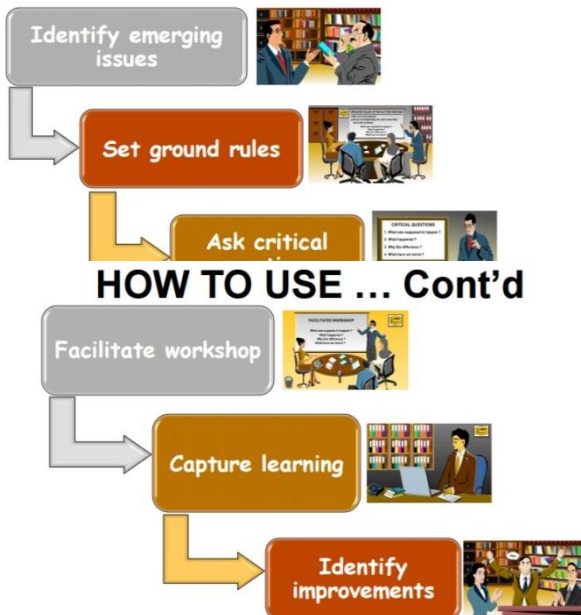
Step 8: Select the best solution



After Action Review is a structured review or de-brief process for analysing what happened, why it happened and how it can be done better, by the participants and those responsible for the project or event.



HOW TO USE



HOW TO USE ... Cont'd



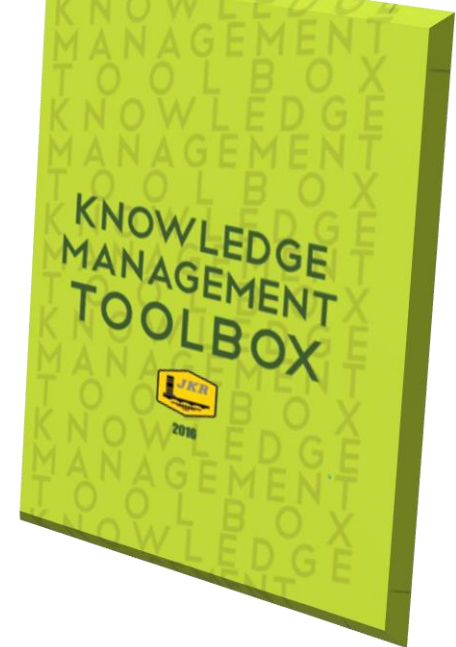
Step 2: Set ground rules



Step 6: Identify improvements



Fish Bowl technique is used to manage a group discussion and involve a small group of people seated in circle and having conversation in full view of a large group of listeners.



HOW TO USE

Identify experts



Explain the fishbowl process



Set up chairs in two concentric



HOW TO USE ... Cont'd

Facilitator start session with expert



Facilitator swap experts with participants



Facilitator summarises discussion

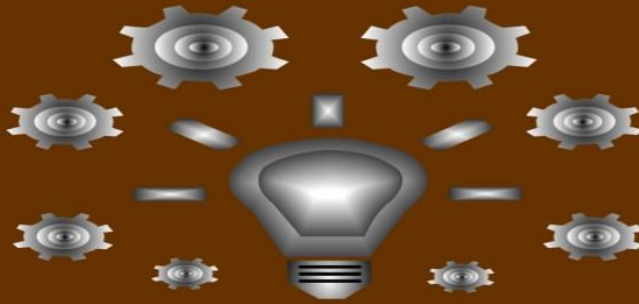


Step 3: Set up chairs in concentric circles

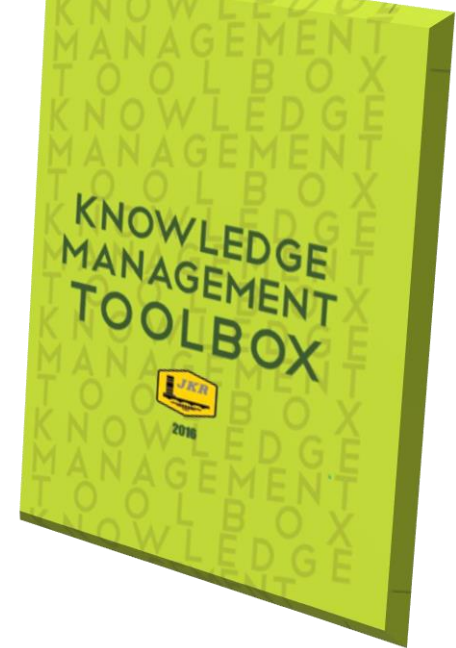


Step 6: Facilitator summarise the discussion

POST IMPLEMENTATION REVIEW



Post Implementation Review evaluates whether the project's objectives were met, how the project was run and to learn lessons for the future to ensure the greatest possible benefit is derived from similar projects.



HOW TO USE



HOW TO USE ... Cont'd



Step 2: Discuss approach and review documents

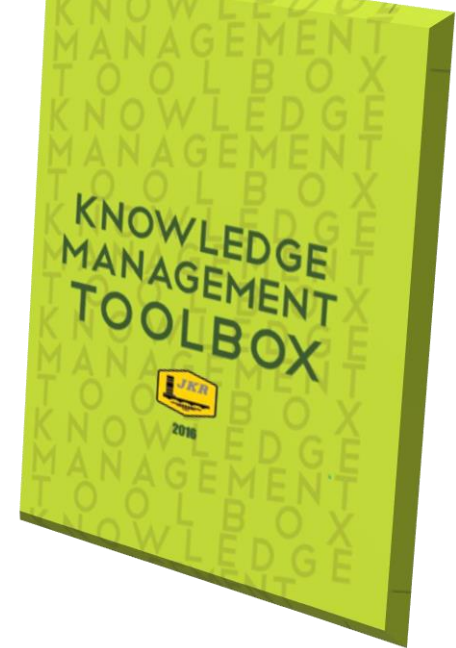


Step 6: Share recommendations for improvement

KNOWLEDGE CAFE



Knowledge café is used as a creative conversation technique in which a group of people share ideas and gain a deeper collective understanding of the subject and the issues involved.



HOW TO USE

Explain concept



Initiate conversation



Members switch tables except table host



HOW TO USE ... Cont'd

Continue process as instructed by facilitator



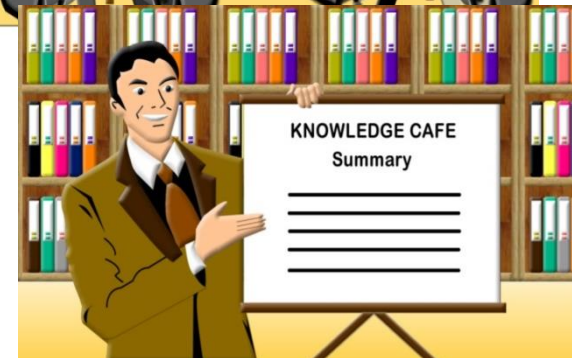
Synthesise ideas



Summarise and present



Step 2: Initiate conversation in groups around key question



Step 6: Summarise findings and present


KNOWLEDGE CAFÉ SESSION

**FOR EACH GIVEN SCENARIO, SUGGEST TOOLS/
APPROACHES THAT CAN BE USED TO CREATE
AND TRANSFER KNOWLEDGE**

- 1. MORE THAN 50% OF TECHNICAL PROFESSIONALS ARE NEARING RETIREMENT**
- 2. NEW INEXPERIENCED STAFF IS PUT ON A PROJECT HAVING CONTRACTUAL PROBLEMS**
- 3. WIDE KNOWLEDGE GAP BETWEEN STAFF IN HEADQUARTERS AND THOSE IN DISTRICTS
DUE TO GEOGRAPHICAL FACTORS**
- 4. THE MANAGEMENT IS TRYING TO GET BEST IDEAS TO TRANSFORM THE DEPARTMENT
INTO AN AGILE AND DYNAMIC ORGANISATION**




Knowledge Managers Roles & Responsibilities



Accountable for improving the circulation of knowledge throughout the organization.



Responsible for applying new knowledge to improve behaviors.



Responsible for creating awareness and conducting at least five knowledge sharing sessions per year.




Act as resources to help manage/leverage knowledge content




Implement and monitor KM strategy and activities



Promote awareness and understanding of KM



Improve processes and practices for collection, safekeeping, disseminating and sharing of knowledge assets to ensure their quality and availability



Reports to J/K Pelaksanaan dan Pemantauan Pembudayaan Ilmu on knowledge and learning activities conducted at the Branch/State level

The KM Agenda



*To cultivate **knowledge sharing and learning culture** across department through the use of proven **effective knowledge sharing tools***

MAJOR KM INITIATIVES (since 2008)

1



JPedia, an online repository to share knowledge-in-context)

2



Communities of Practice to share domains of knowledge

3



JCoP, an online platform to ask and discuss

4



Project Lessons Learned System to share key project learnings

5



KM Toolbox, set of tools and techniques to capture and share insights and ideas

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JKR Yellow Pages to locate experts within the department

7



E-Learning to provide 24 x 7 learning environment

JKR Knowledge Transfer Strategies and Initiatives

Personalisation Strategy

Uses technology to provide information of "what, when, where, who, how" means.

Connecting
People to People

Communities of Practice

JCoP

JKR Yellow Pages

Codification Strategy

Detaches knowledge from context and codifies it into explicit knowledge by articulating it into articles, manuals, etc.

Connecting
People to Content

JPedia

E-Learning

Project Lessons Learned

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E-Learning to provide 24 x 7 learning environment

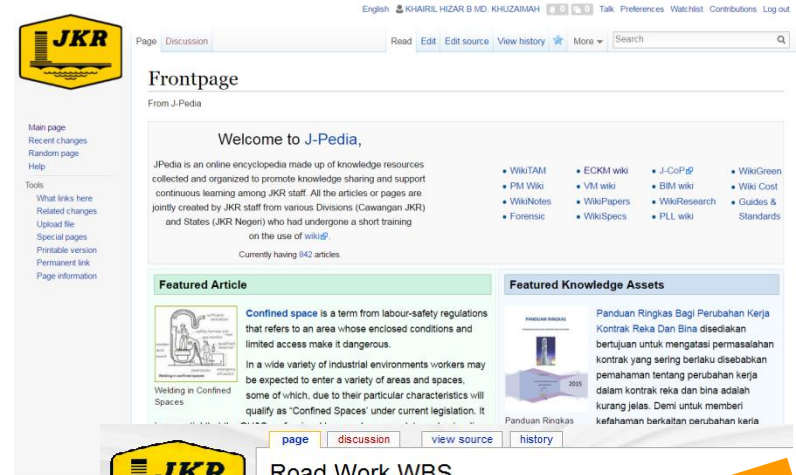
JKR KM Online Tools

JPedia

Online Knowledge Repository

- Best Practices
- PM Competency Framework
- Project Lessons Learned
- Technical References and Guides
- Presentations
- Conference Papers

Connect People to Content



English KHARIL HIZAR B MD KHUZAIMAH Talk Preferences Watchlist Contributions Log out

Page Discussion Read Edit Edit source View history More Search

Frontpage

From J-Pedia

Welcome to J-Pedia,

J-Pedia is an online encyclopedia made up of knowledge resources collected and organized to promote knowledge sharing and support continuous learning among JKR staff. All the articles or pages are jointly created by JKR staff from various Divisions (Cawangan JKR) and States (JKR Negeri) who had undergone a short training on the use of wiki@.

Currently having 842 articles.

- WikITAM
- ECKM wiki
- J-CoP@
- WikiGreen
- PM Wiki
- VM wiki
- BIM wiki
- Wiki Cost
- Wikinotes
- WikiPapers
- WikiResearch
- Guides & Standards
- Forensic
- WikiSpecs
- PLL wiki

Featured Article

Confined space is a term from labour-safety regulations that refers to an area whose enclosed conditions and limited access make it dangerous.

In a wide variety of industrial environments workers may be expected to enter a variety of areas and spaces, some of which, due to their particular characteristics will qualify as "Confined Spaces" under current legislation. It

Featured Knowledge Assets

Panduan Ringkas Bagi Perubahan Kerja Kontrak Reka Dan Bina disediakan bertujuan untuk mengatasi permasalahan kontrak yang sering berlaku disebabkan pemahaman tentang perubahan kerja dalam kontrak reka dan bina adalah kurang jelas. Demi untuk memberi kefahaman berkaitan perubahan kerja



Road Work WBS

The hand auger is very simple hand tool used for drilling into soft soils down to a maximum depth of 1.5m. Different steel augers (drill bits) can be attached at the bottom end of the drill rods. The auger is used to drill the borehole and is then emptied. A different auger can be used for each formation (soil) type. Hand augering is used for soft soils and is not suitable for hard soils.

Above the water table, the borehole generally stays open without the need for support. Below the water table, the borehole will collapse and the permanent casing is then installed. The permanent casing is then installed in support for the borehole as the permanent casing (direct installation), although in the case of hard soils, the casing is installed in silt and soft clay.

1) SURVEY WORK

2) SOIL INVESTIGATION

- In-situ Test
 - Borehole
 - JKR Prc
 - Hand Auger
 - Trial Pit
 - Cone Penetration Test
 - Vane Shear Test
 - Plate Bearing Test
- Site Laboratory Test
 - Sieve Analysis
 - Moisture Content
 - Modified Proctor



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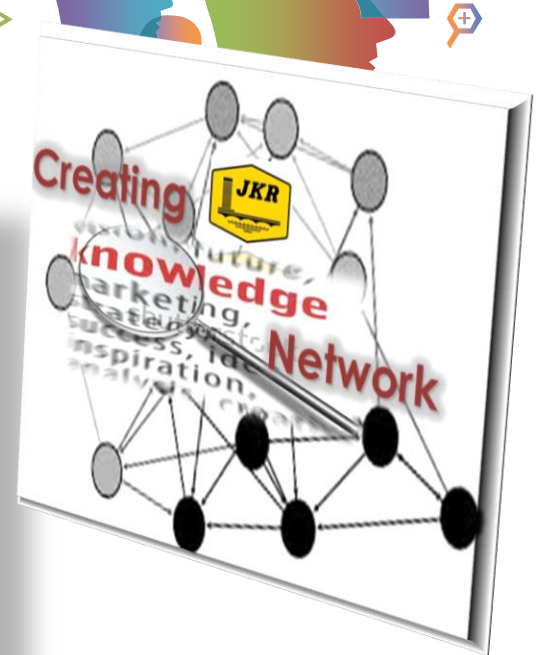
JKR Yellow Pages to locate experts within the department

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E-Learning to provide 24 x 7 learning environment



JKR CoPs



Peer networks of practitioners **within JKR** who help each other to **perform better** by **sharing knowledge and experience**.
Through this collaborative environment,
new knowledge is created and will help
spark innovation



CoP Domains @ JKR



JCoP & Communities Of Practice

Salam sejahtera!

Setelah beberapa bulan merancang, akhirnya terbitlah e-risalah JCoP yang pertama. Tentunya ramai yang bertanya-tanya apa itu JCoP dan apa pula *Communities of Practice* (CoP).

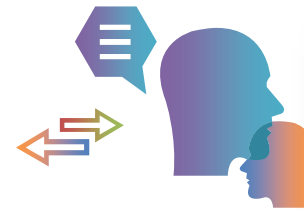
CoP adalah kumpulan orang yang mempunyai minat/kecenderungan yang sama, yang berkongsi ilmu di antara satu sama lain. Sejumlah lima (5) domain CoP telah diwujudkan. [Klik di sini](#) untuk mengetahui lebih lanjut.

JCoP adalah satu wadah perkongsian pengetahuan online untuk memudahkan CoP berinteraksi. Melalui JCoP, warga JKR boleh saling bantu sesama sendiri dalam pelaksanaan kerja dengan mengajukan pertanyaan untuk mendapatkan pandangan atau nasihat daripada mereka yang berpengalaman.

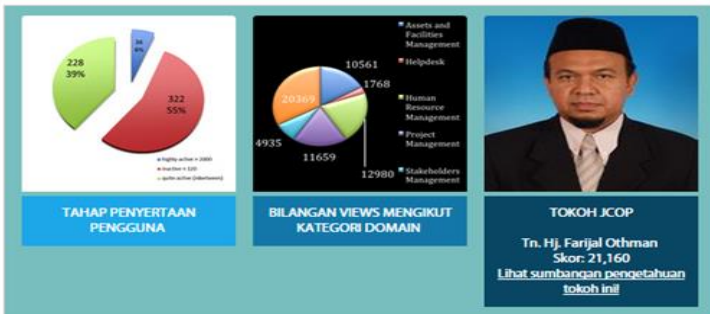
Baca Seterusnya...

JCoP Newsletter

CoP Publications



CoP Starter Kit



CoP Facilitation Guide



CoP Awareness Training Manual



CoP Sustenance Guide



Seminar on CoP for Top Management and Pengarah JKR and CoP Launch on 25 November 2013



Seminar KConnect 2016

17/5/2016 @ Sasana Kijang, Bank Negara



Seminar Communities of Practice JKR 2015

24 Februari



Seminar CoP JKR 2016

6/9/2016 @ PPAS, Shah Alam, Selangor



JKR KM Online Tools

JCoP

Virtual Communities of Practice

- CoP Domains
- Subject Matter Experts Profile
- Ask and Discuss Online Platform



Connect People to People

Connecting People – The **BEST** Way

Keretakan tembok

+5
votes

asked Mar 25, 2014 In Structure by Mastura (170 points)

Bangunan asal sekolah ini empat tingkat dan hanya satu tangga disediakan. Kemudian, tangga tambahan dibuat pada bangunan tersebut. Sekarang, ada keretakan diantara bangunan asal dengan tangga tambahan tersebut.

Bagaimana?

commented Apr 1, 2014 by Rosli (4,750 points)

Dinding untuk koridor perlukan stiffener dan dowel bar. Begitu juga dinding tangga baru dengan blok sekolah. Jika tidak disediakan stiffener + dowel bar, bermaksud dinding tersebut bergantung harap kepada sambungan mortar dan berat sendiri (self weight) dan berisiko kepada horizontal loading.. i.e pelajar / murid sekolah bertolak-tolakan (bergurau) antara satu sama lain pada dinding tersebut. Untuk info, minimum requirement bagi horizontal loading ini boleh dirujuk dalam Table 4 BS6399.

Share Tacit Knowledge

Struktur tangga baru dan bangunan asal (structural) dan Encik Harjit.

keretakan yang dibuat kepada semua sambungan antara slab tangga dengan lantai koridor pada setiap tingkat. Kemungkinan ada yang retak banyak dan ada juga sedikit pada sambungan antara tangga baru dan blok sekolah. Dikhuatiri pecahan mortar yang jatuh boleh mencederakan kepala pelajar / murid yang melalui di kawasan tangga baru tersebut.

Punca kenapa berlaku "gap" tersebut perlulah diketahui supaya pembaikan dibuat tidak berulang. Sekiranya atas desakan PPD / Pengetua / Guru Besar supaya ambil tindakan segera bagi elak persepsi kurang baik dari ibu bapa / masyarakat setempat, dinding dipecahkan sebahagian kecil sahaja yang berhampiran blok sekolah. Drill rasuk dan masukkan rebar sebagai stiffener dan sediakan dowel bar. Perbetulkan kembali construction joint.

Sekadar pandangan saya. Terima kasih.

Table 4 – Minimum Horizontal Imposed Loads For Parapets, Barriers and Balustrades, etc

TYPE OF ACTIVITY/OCCUPANCY FOR PART OF THE BUILDING OR STRUCTURE	EXAMPLES OF SPECIFIC USE	HORIZONTAL UNIFORMLY DISTRIBUTED LINE LOAD (kN/m)	A UNIFORMLY DISTRIBUTED LOAD APPLIED TO THE RUFILL (kN/m)	A POINT LOAD APPLIED TO PART OF THE INFILL (kN)
A Domestic and residential activities	(i) All areas within or serving exclusively one dwelling including stairs, landings etc. But excluding external balconies and edges of roofs (see C3.1a)	0.36	0.50	0.25
B and E Offices and work areas not included elsewhere including storage areas	(ii) Other residential (but also C3) (iii) Light access stairs and gangways not more than 600mm wide (iv) Light pedestrian traffic routes in industrial and storage buildings except designated escape routes (v) Areas not susceptible to overcrowding in office and institutional buildings also industrial and storage buildings except as given above	0.74 0.22 0.36 0.74	1.0 N/A 0.5 1.0	0.5 N/A 0.25 0.5
C Areas where people may congregate	(vi) Areas having fixed seating within 530mm of the barrier, balustrade or parapet	1.5	1.5	1.5
C1/C2 Areas with tables or fixed seating	(vii) Restaurants and Bars	1.5	1.5	1.5
C3 Areas without obstacles for moving people & not susceptible to overcrowding	(viii) Stairs, Landings, Corridors, Ramps (ix) External balconies and edges of roofs. Footways and pavements within building carriages adjacent to basements/unken areas	0.74 0.74	1.0 1.0	0.5 0.5
C5 Areas susceptible to overcrowding	(x) Theatres, cinemas, discotheques, bars, auditoria, shopping malls, assembly areas, studio. Footways or pavements greater than 3m wide adjacent to sunken areas	3.0	1.5	1.5
D Retail areas	(xi) All retail areas including public areas of banks/building societies or betting shops. For areas where overcrowding may occur, see C5	1.5	1.5	1.5
F/O Vehicular	(xii) Pedestrian areas in car parks including stairs, landings, ramps, edges or internal floors, footways, edges of roofs (xiii) Horizontal loads imposed by vehicles	1.5 See clause 11	1.5	1.5



keretakan yang dibuat kepada semua sambungan antara slab tangga dengan lantai koridor pada setiap tingkat. Kemungkinan ada yang retak banyak dan ada juga sedikit pada sambungan antara tangga baru dan blok sekolah. Dikhuatiri pecahan mortar yang jatuh boleh mencederakan kepala pelajar / murid yang melalui di kawasan tangga baru tersebut.



Connecting People and Content – The **BEST** Way!



- collaborative tool
enables people to share data, information and knowledge in real time
- facilitate exchange of ideas and solutions as well as track members' participation



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E-Learning to provide 24 x 7 learning environment

Project Lessons Learned

1. KPI



2. Awareness Workshops



3. PLL Workshops



4. PLL Guide

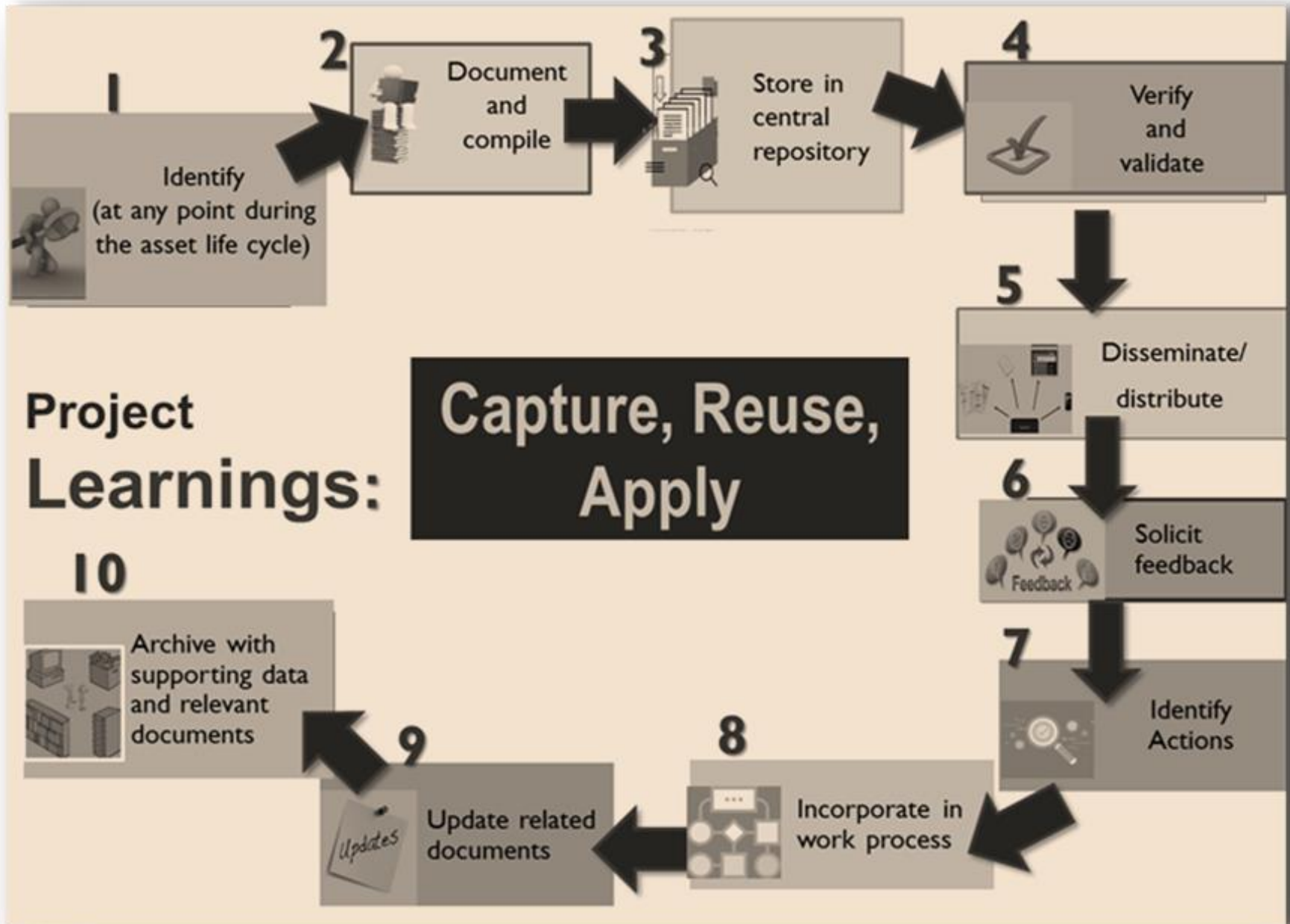


5. PLL Compilation

Project Lessons Learned Reports



PLL processes

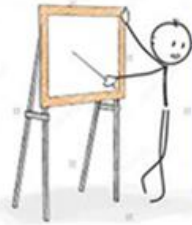


ROLES AND RESPONSIBILITIES



Project Team

- Identify and capture **PLL**



Project Office at Branches and State Offices

- Facilitate and coordinate preparation of **PLL**



Portfolio Office (CPAB)

- Verify with SME
- Approve **PLL**
- Upload **PLL** to JPedia
- Analyse **PLL**
- Escalate critical issues to top management for decision if necessary



SME

- Verify **PLL**
- Review existing procedures/processes and recommend improvements if necessary
- Refer to process owners for decision



Users

- Give feedback
- Send queries



Process Owners

- Decide whether existing documents need to be revised

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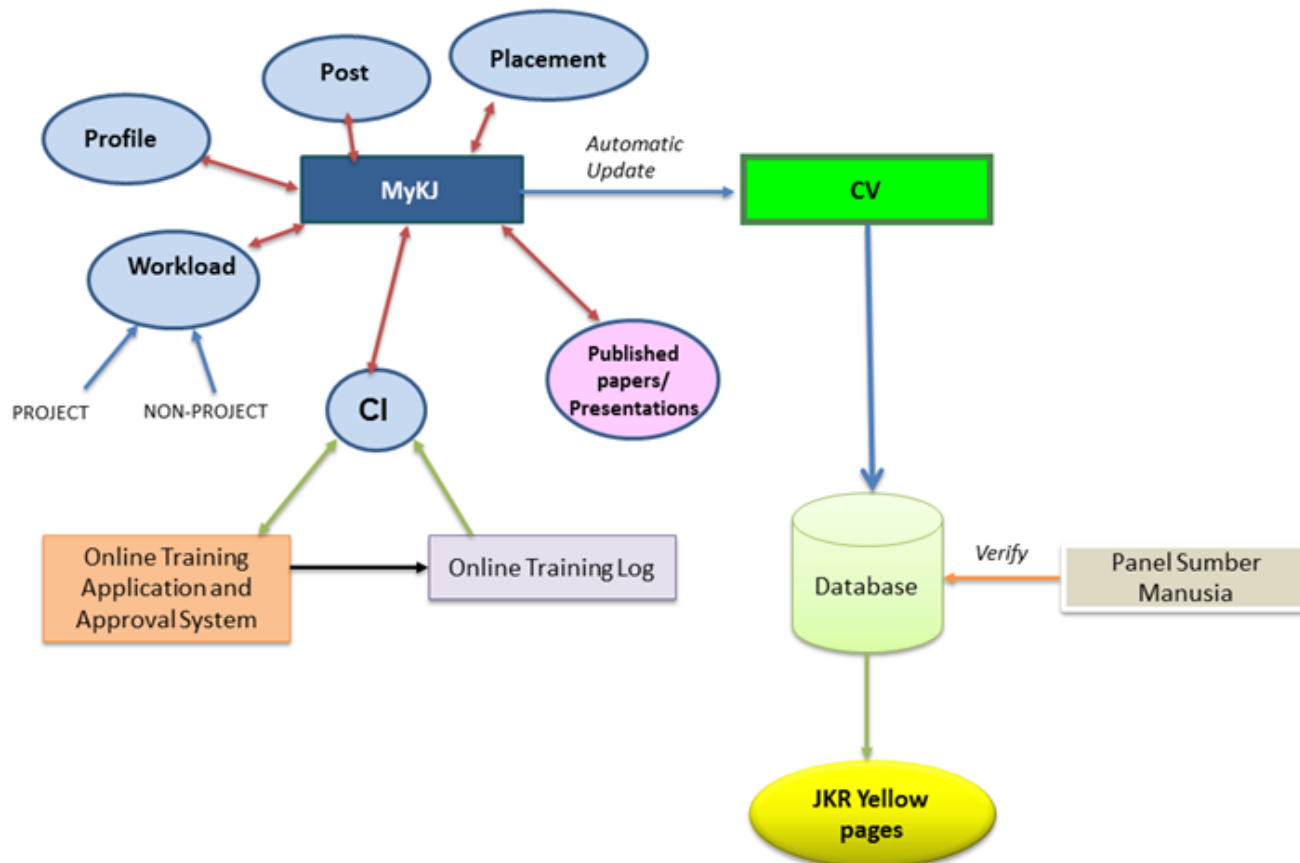
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E-Learning to provide 24 x 7 learning environment

Proposed System

JKR Yellow Pages: Expert Directory



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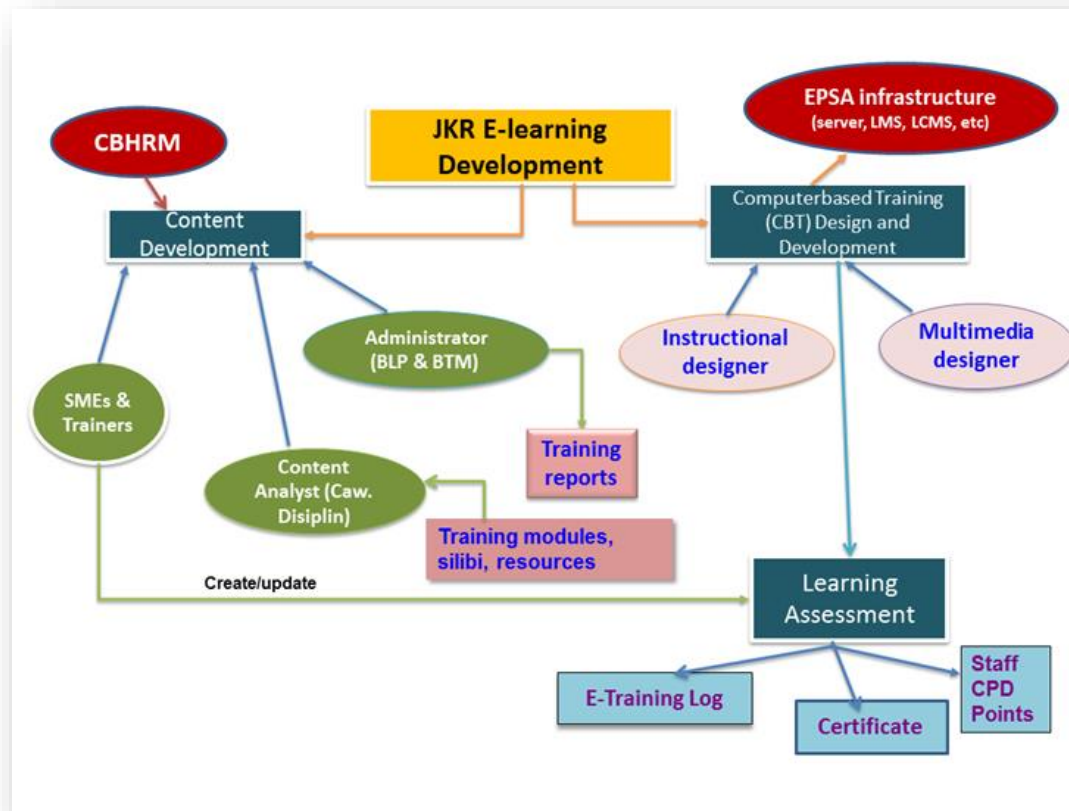
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E-Learning to provide 24 x 7 learning environment

E-Learning



Portal EPSA

- Pengurusan Kenderaan
- Rekabentuk Pencahayaan
- Penggunaan Aplikasi MySPATA (Modul Pendaftaran) – Aset Bangunan
- Fundamental of Project Management
- Pengumpulan Data Aset Tak Alih (PeDATA) – Aset Bangunan
- Asas Pengiraan Beban Elektrik

Dalam Pembangunan

- Value Management Awareness In Public Project
- Cara Merawat Jalan Rosak
- Reinforced Concrete: Workmanship Issue at Site Identified During Construction

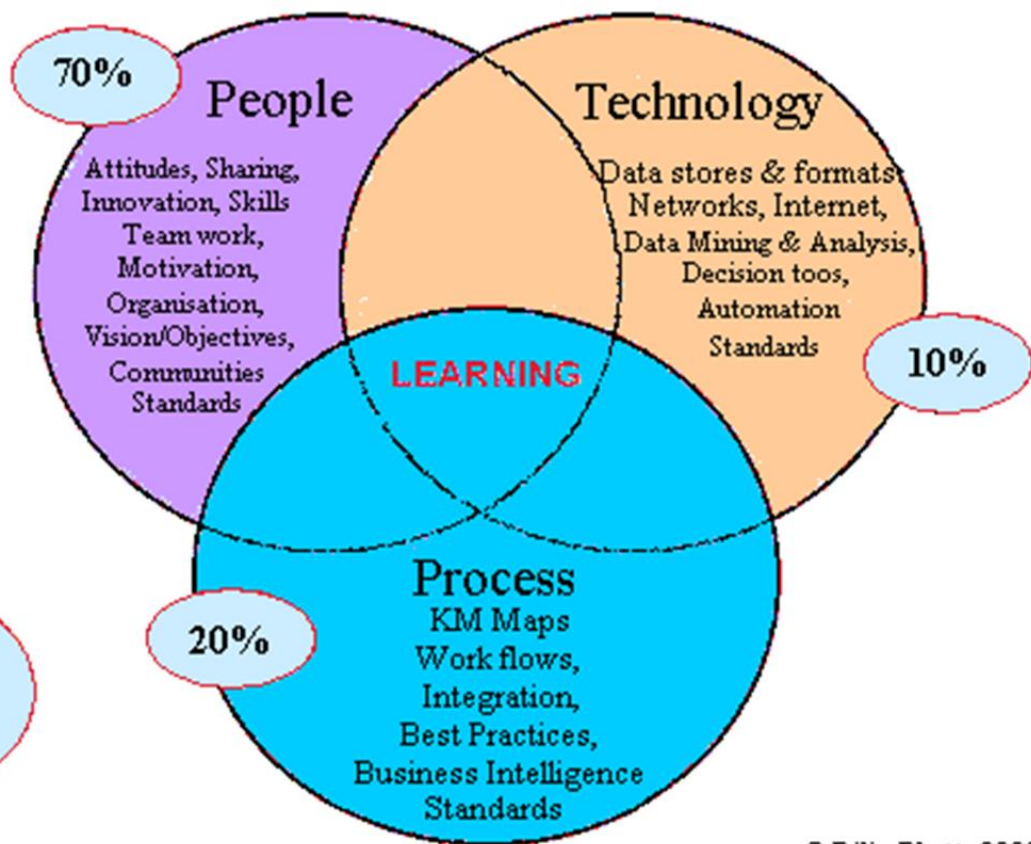
Portal EPSA MOOC

- Managing Knowledge In JKR: Implementation Insights

Expert Talk Series

- Section D: Concrete Works, Ir Mohd Noor Azudin Mansor
- Penilaian Tuntutan Akibat dari Lanjutan Masa, Sr Amran Mohd Majid
- Concrete Durability, Ir Dr Lim Char Ching

Knowledge Components



n% =
effort
required

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ECKM products (2009-2017)

2009

Handbook on Enterprise Content and Knowledge Management

2010

ePSMG

2012

JPedia

2011

KM Readiness Assessment



2013



Communities of Practice



2014

Facilitating Cultivating Communities of Practice

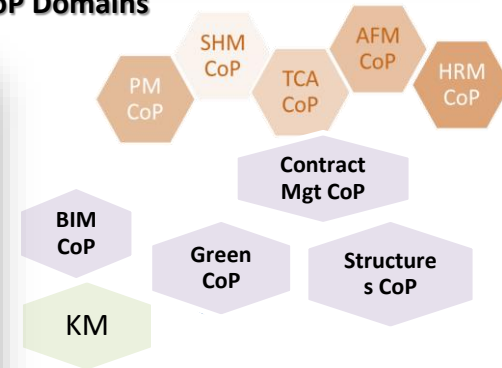
Training Manual for Communities of Practice (CoP) Awareness Course

2015

COMMUNITIES OF PRACTICE SUSTENANCE GUIDE

2013

CoP Domains



JABATAN KERJA RAYA

STARTER KIT FOR COMMUNITY OF PRACTICE (CoP)

2016

Project Lessons Learned: JKR Practical Guide

Knowledge Management Toolbox

Knowledge Audit



2017

Expert Tech Talk series



E-Learning



KM Events & Activities

KM Audit Workshop 13 – 14 Feb 2017

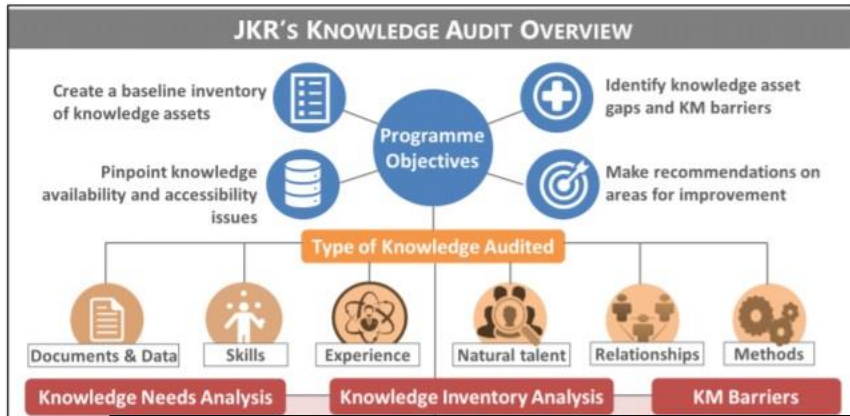
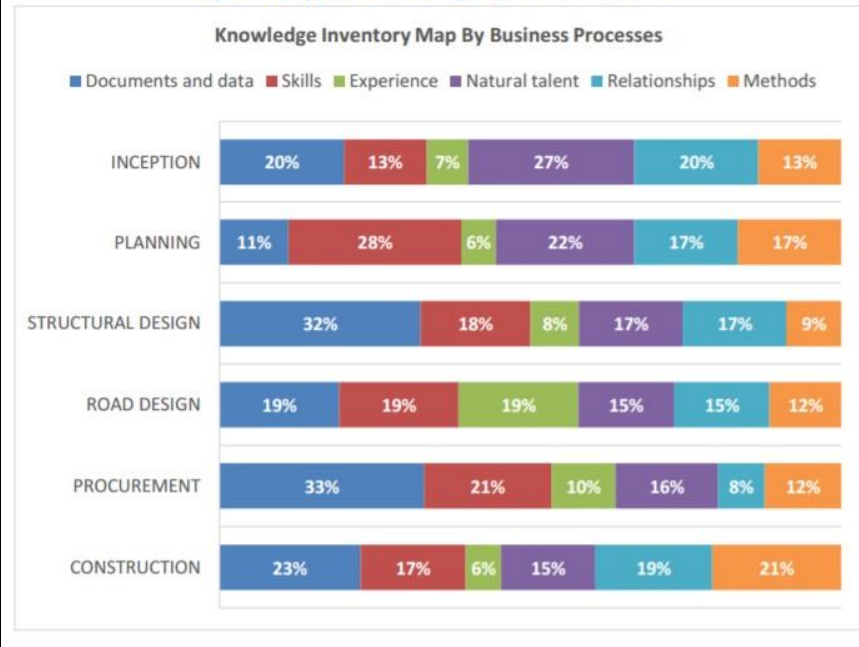


Figure 11: Types of Knowledge by Business Processes



KM Events & Activities

Bengkel & Mesyuarat Project Lessons Learned



KM Events & Activities

Mesyuarat JKPPPI



KM Events & Activities

Program K-Visit



KM Events & Activities

Program Persada Minda JKR



Thank you for your attention

Mobile- 019 603 6464
roznita@jkr.gov.my

