

Using Information

Data 0 7

Information Clyde 0 - Hamilton Accies 7

Knowledge Hamilton Accies are better than
Clyde

Data is raw facts and figures.

Information is data given a meaning and context.

Knowledge comes from information (and can generate new information)

Using Information

Nature

Formal
Informal
Quantitative
Qualitative

Level

Strategic
Tactical
Operational

Source

Primary
Secondary
Internal
External

Time

Historic
Present
Future



Frequency

Continuous
Periodic
Random

Type

Detailed
Sampled
Aggregated

Form

Written
Aural
Visual

Use

Planning
Control
Decision making

Some **N**uts **L**ove **T**o **F**requently **U**se **F**orm **T**ypes

Using Information

frequency
Continuous
Periodic
Random

Continuous

Relational Databases H 1a

name	mark	pass/fail
William McKendrick	12	✓
Stephen Hayton	18	✓
Robert McIlroy	16	✓

Information that is available in real time is continuous. The NAB data shown is updated as soon as a pupil enters an answer to a new question.

Periodic

Periodic information is generated at a specific time interval.

The fantasy football report shown is generated on a weekly basis.

Team Name	EGASA	CHASTON	28/10	04/11	11/11	18/11	Total	
Current Team			Value	4	5	6	7	
113	D James	POR GK	4.5	8	5	8	0	43
305	W Gallas	ARS DEF	5.1	2	11	0	5	29
359	A Ferdinand	WHM DEF	3.5	3	0	0	0	9
367	L Baines	EVE DEF	3.4	6	0	0	0	9
369	Z Knight	AVL DEF	3.3	2	6	5	0	22
501	C Ronaldo	MUN MID	6.0	6	14	22	0	68
502	F Lampard	CHE MID	5.5	15	14	3	0	47
540	M Taylor	POR MID	3.8	0	0	1	0	1
803	D Berbatov	TOT STR	8.0	2	1	12	0	24
809	N Anelka	BOL STR	6.5	6	0	0	0	9
838	C Bellamy	WHM STR	5.4	1	0	0	0	12
				51	51	51	5	273

Random

David McAuley

6Y2

5DH

Exercise 1

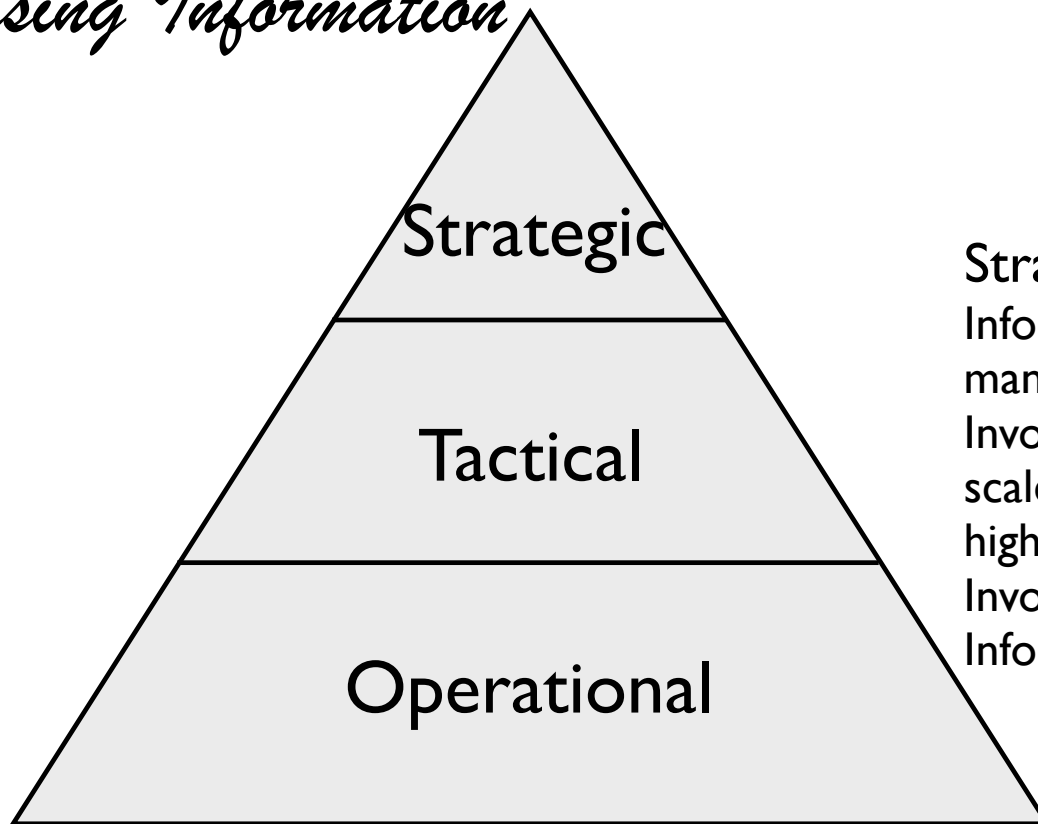
1. Describe the differences between data and information.

Date is simply just plain facts or figures - example, "5006" or "red" - but doesn't have context, whereas information includes date but has context and meaning, example - There are 5006 red beads in that box.

There is no set time period for such information. The exercise above can be completed at any time, for example.

Using Information

Level
Strategic
Tactical
Operational



Strategic

Information used by the top level of management.

Involves decisions with a long term time scale, e.g. up to 5 years, which can involve a high degree of risk.

Involves a lot of external information.

Information is often of a summary nature.

Mr Macdonald operates at a strategic level in Johnstone High.

He considers issues such as changing from S4 pupils doing Standard Grades to doing Intermediates.

This would be a large change affecting all aspects of the school (scope) and would be require much planning before implementation.

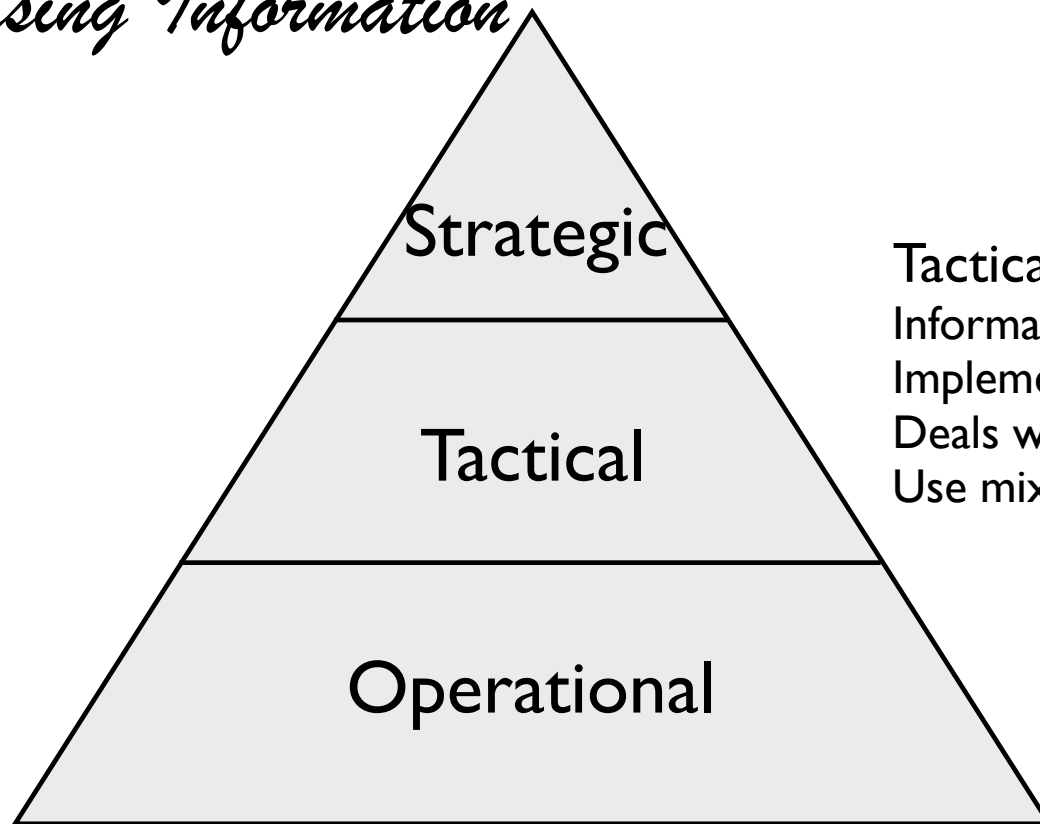
He would consider how well other schools had done (external) before making a decision.

Information he would consider would be exam results (summary).

He would not involve himself in the period by period teaching of classes to evaluate success.

Using Information

Level
Strategic
Tactical
Operational



Tactical

Information used by mid-level management.
Implement aims set by strategic level.
Deals with medium time scales, e.g. 1 to 3 years.
Use mixture of internal and external sources.

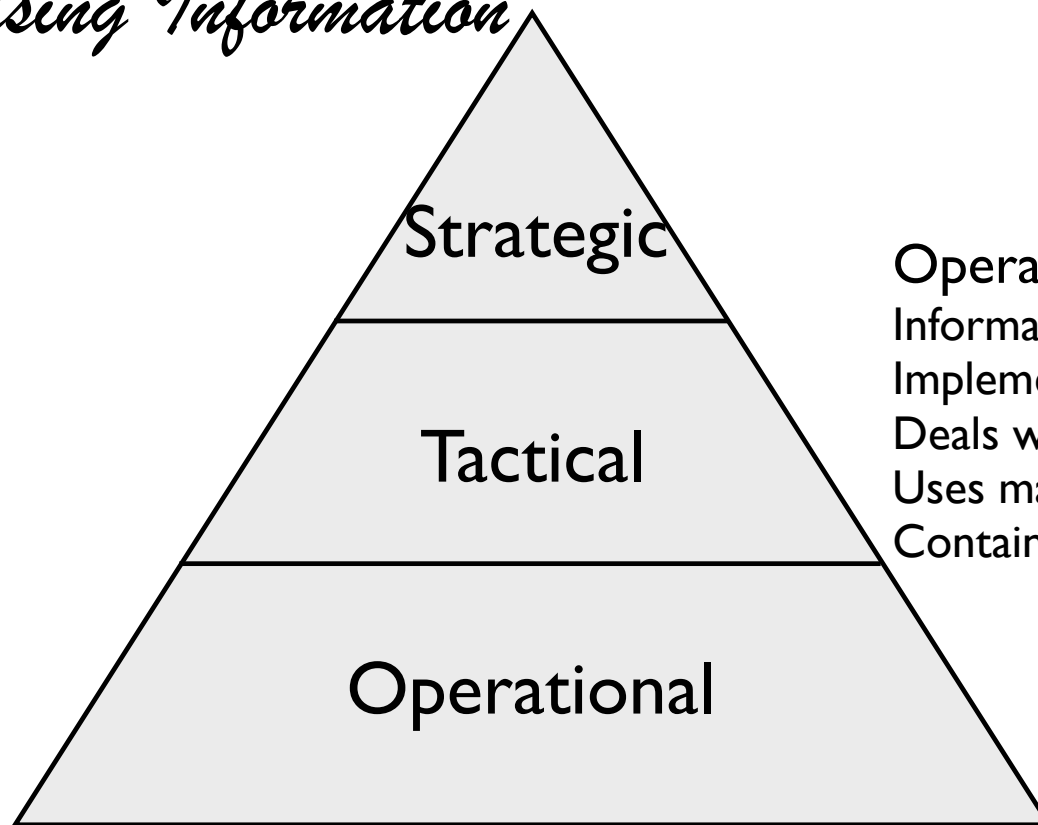
Principal teachers work at a tactical level. They would implement the change from Standard Grade to Intermediates within their own department.

The effects of these changes would be felt within the department and not the whole school (less scope than at tactical level).

Consideration of results in similar departments in other schools (external) would be considered as well as internal information coming from strategic management.

Using Information

Level
Strategic
Tactical
Operational



Operational

Information used by low level management.
Implement aims set by tactical level.
Deals with short time scales, e.g. daily, weekly.
Uses mainly internal sources.
Contains a great deal of detail.

Classroom teachers work at an operational level. They would teach new Intermediate courses as set out in departmental handbook (internal) in accordance with detailed arrangements documents (external) and schemes of work (internal).

They are concerned with knowing exactly the content of detailed course notes, and ensuring pupils accomplish tasks on a daily, weekly etc. basis.

Using Information

Planning

Providing a frame work outlining for an organisation:

what to do

how to do it

when to do it

who is to do it

Control

Ensuring that a plan is on target. If not, take action.

The plan is to pass Higher Information Systems.

Information shows a failure to pass NABS.

The plan is not on track - take action.

(Study notes more, do more revision examples etc).

Use
Planning
Control
Decision making

<u>Assessment</u>	<u>Score</u>	<u>Pass/Fail</u>
Relational Databases H 1a	14	✓

<u>Assessment</u>	<u>Score</u>	<u>Pass/Fail</u>
Relational Databases H 1a	10	x
Relational Databases H 1b	10	x

Decision Making

Examining available options, and carrying out the most appropriate.



I Choose A

Using Information

Detailed

Type
Detailed
Sampled
Aggregated

The amount of detail decreases as levels of management increase.

At a strategic level, a head teacher would be interested in knowing how many pupils are awarded standard grade computing at the various levels.

Standard Grade Computing	
Credit Awards	57
General Awards	38
Foundation Awards	5

At a tactical level, a head of department would want to know exactly how awards are arrived at, considering practical grades as well as exam results.

SG Computing S3/4																			
fullname	Code	Reg	Prac	NP1	NP 2	Prog 1	Prog 2	Project	practical grade	S3 Nov				S3 Easter					
										KU	PS	KU	PS	KU	PS	KU	PS		
	04/002	4B1	4H2	2	3			3	3	56	43	3	4	G	62	54	F	4	6
	04/005	4B1	4H1	1	1			3	2	84	96	1	1	C	78	93	C	1	1
	04/007	4B1	4G1	1	2				2	96	74	1	1	C	63	52	C	2	2

	p	m	a	m	comment
1. DESIGN SOLUTION A1, A2, A3	all pages included - 1; links - 2 content outline - 1	4	2		help given no table on design sheet.
2. DRAW GRAPHIC A2, F1	6 coloured rectangles - 1 Same size and neat - 1	2	2		
3. CREATE PAGES F2, F3, F4	Each page as design - 1 each	8	7		no table on design sheet.
4. INSERT TABLE F5, F1	table - 2; data entered correctly - 2	4	2		help given in creating table
5. INSERT LINKAGE F2, F3	Text links: All work - 2; <3 - 1 Hotspots: All - 3; 4, 5 - 2; 3 - 1	5	3		help given in creating hotspots
6. SUGGEST IMPROVEMENT F3		2	0		
7. JUDGE PERFORMANCE F1		2	0		
DISCUSS STRATEGIES A4, F5	Discussion throughout the task should be assessed.	2	0		
	total	29	16		

At an operational level, a classroom teacher look at the information in minute detail, considering exactly how each practical grade is awarded, and how each exam percentage mark is given.

Using Information

Sampled

Information regarding how many million people watch a particular TV show is created by asking a relatively small number of people and applying the results from the sample across the wider population.

Finding out from every single household what they watch would be too expensive.

Samples tend to be a reliable way of producing summary information, that is most used at strategic and tactical levels.

Aggregated

Aggregated information lacks detail, and involves summarising information such as by presenting statistics representing a calculation of totals etc.

The last line of the report shown is aggregated information, as is the information showing the activity revenue for each activity, where the individual revenues for, say, the 16 fishing choices are not represented.

Type
Detailed
Sampled
Aggregated

Session 1 Premium Activities		
Activity	Number of Selections	Activity Revenue
Fishing	16	£800.00
Golf Clinic	10	£220.00
Riflery	9	£405.00
Power Boating	9	£315.00
Horseback Riding	9	£855.00
Sailing	8	£120.00
Lifeguard Course	8	£304.00
Go Karts	7	£350.00
Nature Hiking	6	£72.00
Arts & Crafts	6	£210.00
Water Skiing	4	£200.00
Kayaking	4	£140.00
Session 1 Premium Activities Revenue		£3991.00

Using Information

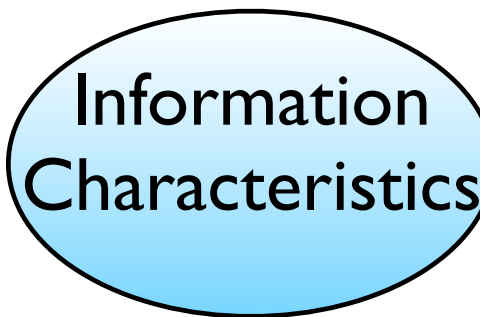
Accuracy

Completeness

Relevance

Reliability

Value and cost



Timing

Availability

Presentation

Level of detail