Centre for Instructional Design & Technology (CIDT)

Readability of Modules and its Relationship with Student Performance in Open Distance Learning (ODL)
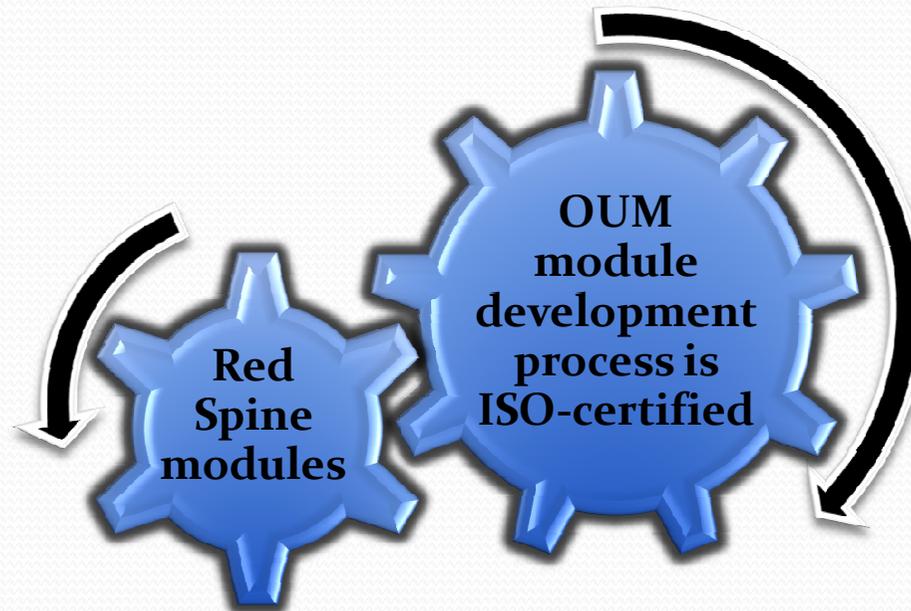
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Quality Assurance of OUM Modules

- Focusing on **content**, **language** and **instructional design**.

OUM module development process is ISO-certified
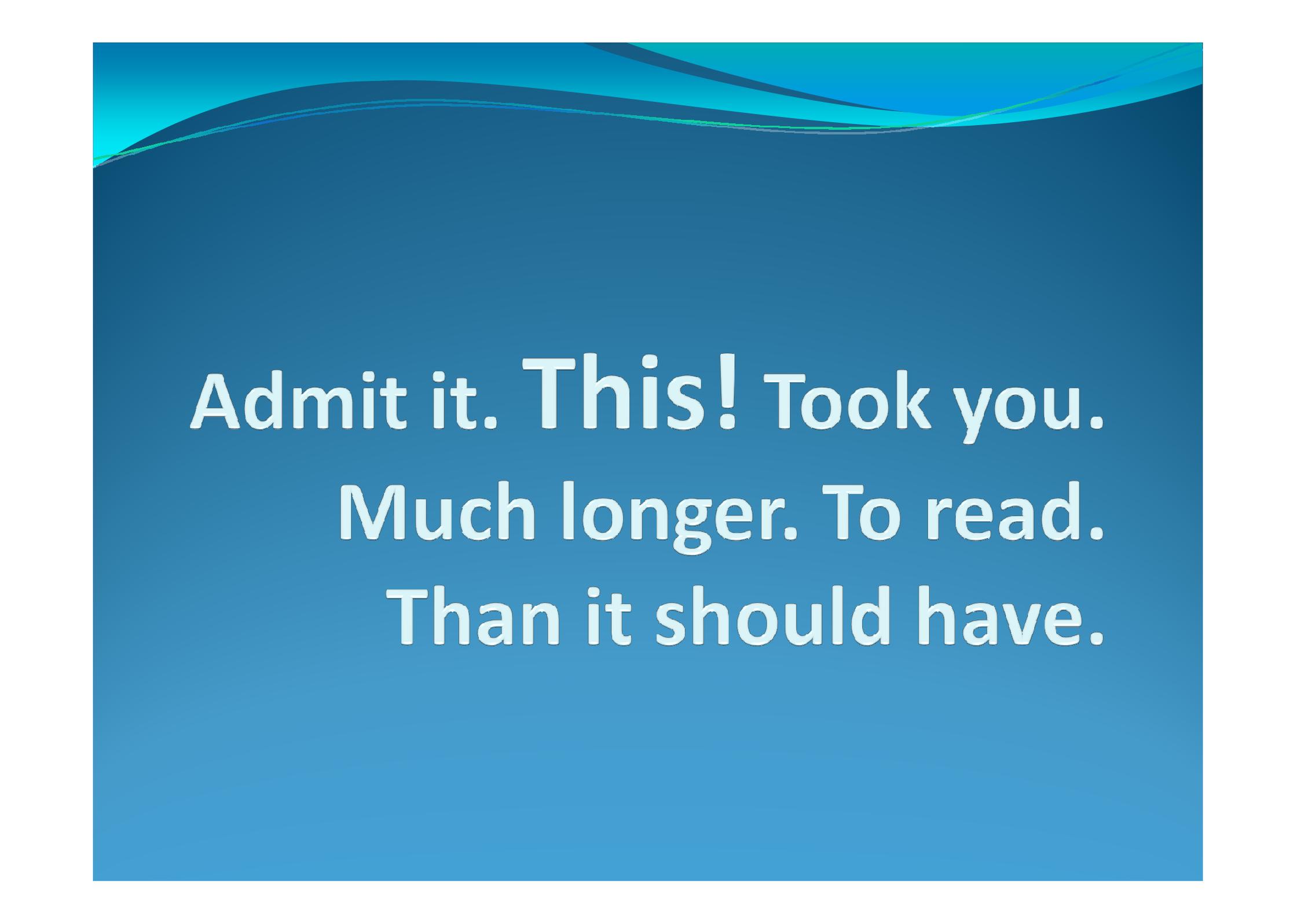
Red Spine modules

- One important attribute of quality yet to be looked into is **readability** of the modules.

What is Readability?

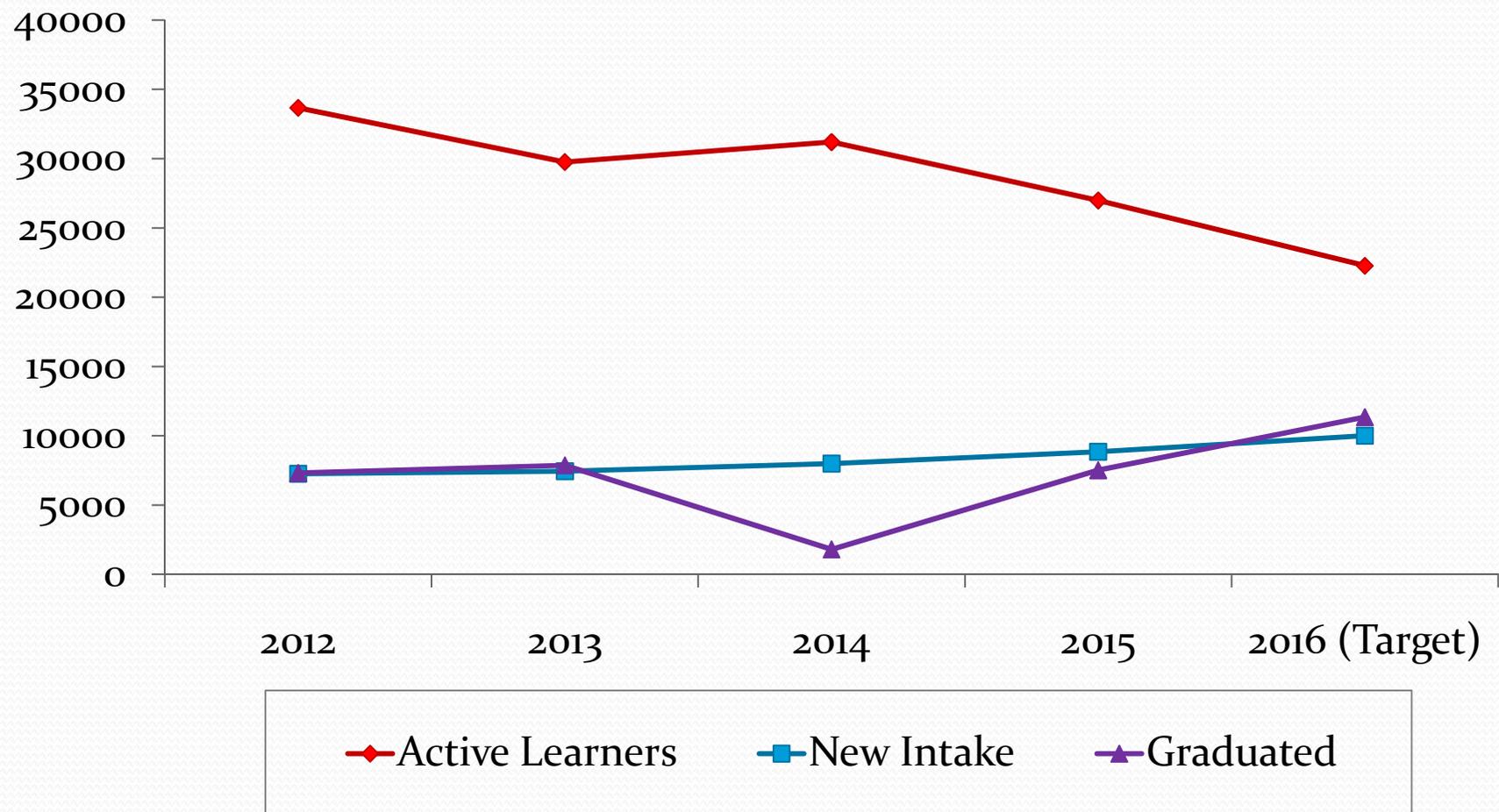It is NOT legibility, or how well you see the letters and read the words.

What is Readability?

Readability is a measure of how easily a reader understands a text. It depends on:

- Passage lengths;
- Choice of words; and
- Level of experience of the reader.

Background to the Study—
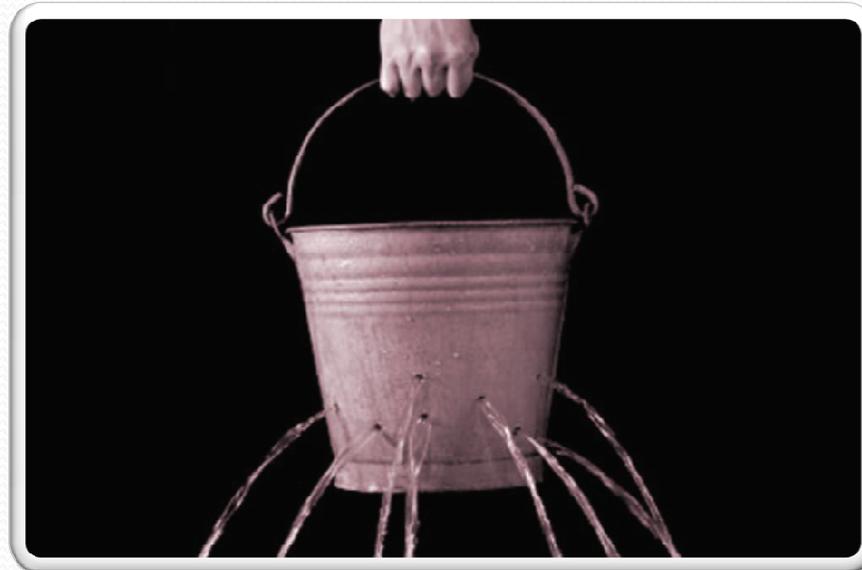## OUM Trend: New Intake v Active Learners

The Challenges to Overcome

- Growing attrition of OUM learners
- Is "readability" one of the contributing factors?

Research Questions:

What do we want to find out?

- **RQ1:** What is the readability level of OUM modules?

- **RQ2:** Is there a significant relationship between readability level of OUM modules and students' performance?

Sampling

18 Modules chosen based on:

- Exam scores: High scores=11; Low scores=7
- Language: English
- Content: Text heavy

Instrumentation:
How to test for Readability?

Flesch Reading Ease (FRE)

Score	Readability Level	Education Level (in Malaysia) and/or Example of Publication
0 – 29	Very difficult	Postgraduate
30 – 49	Fairly difficult	Tertiary education; Harvard Law Review
50 – 59	Difficult	Form 4 – 6 (16 – 19 year-olds); Time magazine
60 – 69	Standard	Form 1 – 3 (13 – 15 year-olds); Reader's Digest
70 – 79	Fairly easy	Year 6 (12 year-olds)
80 – 89	Easy	Year 5 (11 year-olds)
90 – 100	Very easy	Year 4 (10 year-olds)

Data for Analysis

- Pick from the first, middle and end sections of modules.
- 100 words per section for analysis.
- Average score is taken to indicate readability.

Findings (RQ1)

- What is the readability level of OUM modules?

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Course	FRE Scores of Modules		Mean of Students' Exam Marks	
	Raw Score	Rank	Raw Mark	Rank
(h) English for Science and Technical	58.7	1	60.21	9
(i) English for Workplace Comm	49.2	2	52.79	11
(m) Introductory Finance	49	3	47.64	14
(q) Operational Research	48.6	4	47.71	13
(c) Hazard Management	46.8	5	75.71	6
(d) Action Research in Early Child Ed	43.9	6	85.04	1
(g) Clinical Practice 1	43.3	7	83.25	3
(l) Management Accounting	42.8	8	38.9	18
(r) Ed Psychology	42.6	9	45.45	17
(n) Basic Financial Acc	41.9	10	45.9	15
(b) Mgmt of Innov & Creativity in Ed	38.3	11	75.58	7
(f) Clinical Practice 12	38.1	12	83.47	2
(j) Mgmt and Medico Legal St B	37.5	13	45.68	16
(e) Clinical Practice 14	36.3	14	80.66	4
(a) Management of Resources Centre	33.5	15	76.82	5
(p) Environmental and Occup Toxicology	32.8	16	66.37	8
(o) Introduction to Multimedia Tech	28.4	17	50.92	12
(k) Industrial Hygiene	28.1	18	58.9	10

Findings (RQ2)

- Is there a significant relationship between readability level of OUM modules and students' performance?

- Spearman rank order correlation was used

- $rs = 0.0898$, $df=16$, $p=0.72$

- Readability levels of modules do not seem to have a significant relationship with the students' performance

Findings based on Visual Inspection

Readability Level	Module with high attrition	Rank (Exam marks)	
Tertiary	*Action Research in Early Childhood Education*	1	Best
Tertiary	*Clinical Practice 12*	2	Best
Form 4 to 6	*English for Science and Technical Purposes*	9	Around median rank
Post Grad	*Introduction to Multimedia Technology*	10	Around median rank
Tertiary	*English for Workplace Communication*	11	Around median mark
Post Grad	*Industrial Hygiene*	12	Around median mark
Tertiary	*Educational Psychology*	17	Worst
Tertiary	*Management Accounting*	18	Worst

- ✓ Generally, OUM modules are pitched at the instructional and independent levels appropriate for the intended learners.

- ✓ Readability is an aspect of quality that is already incorporated into the quality assurance process at CIDT.

- ✓ Based on this study, readability does not seem to be a cause for concern for poor students' performance.

CONCLUSION

Where do we go from here?

Further research needed to achieve a more definitive conclusion.

- Larger, more representative sample;
- Inclusion of diverse instruments; and
- Complemented by actual assessment of learner's readability level.

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