



FSAEJ

Design Judges to Teams

2022.04.18

Design Judges

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1. “Design Report”から
“Design Briefing”へ

2. Design Briefingの言語

1. “Design Report”から”Design Briefing”へ

1. “Design Report”から”Design Briefing”へ フォーマット変更の意図

皆さんご存じの通り、Formula SAE® Rules 2022ではこれまでのDesign ReportがDesign Briefingに変更されました。

その意図は、

**『実社会で使われているフォーマットに変更し、
資料作成のスキルを身に付けることを期待する』**

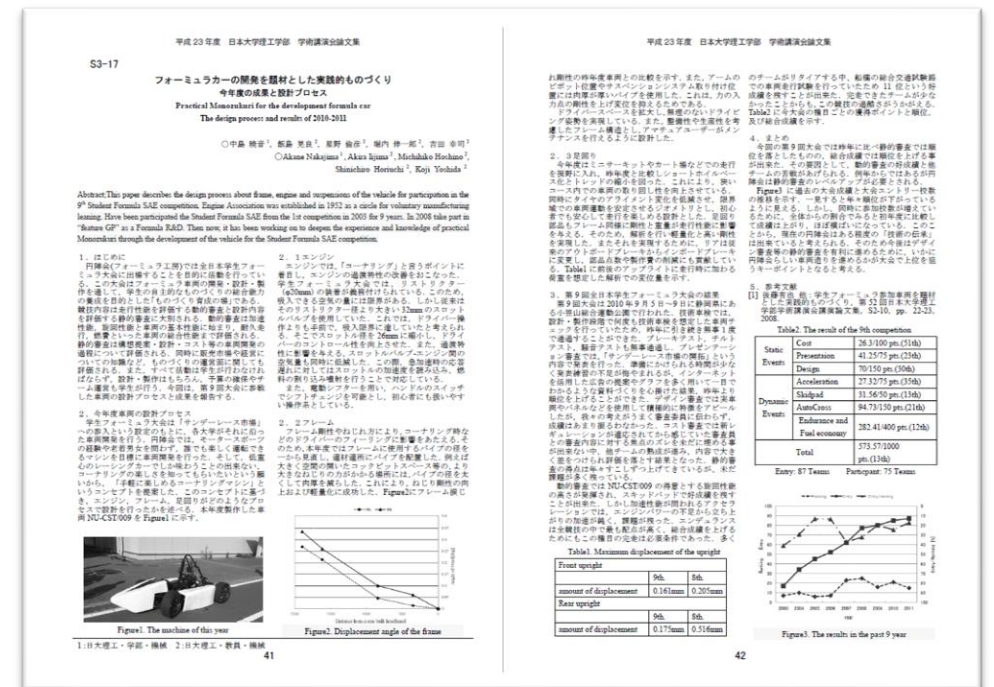
です。

1. “Design Report”から”Design Briefing”へ Design Reportのフォーマット

Design Reportのフォーマットは、学術論文の形式でした。
主に文章とそれを補助する図表やグラフを用いた資料です。

世界中で広く知られている資料の形式であり、理工学者として身に付けるべきフォーマット、まとめ方だと思います。

文章とそれを補助する図表を読むことにより、筆者の伝えたいことを理解することができる資料と言えます。



1. “Design Report”から”Design Briefing”へ Design Briefingのフォーマット

Design Briefing(以下、DB)のフォーマットはスライド形式

主体：図表やグラフ等の**データ**

文章は目的に応じて最小限に

| 目的の例 | 文章や文字の使い方の例 |
|----------------|---|
| プレゼンテーション用スライド | 重要なメッセージ、要点、結論等 ※主な説明は口頭、 視覚的に 伝えたいことに集中した資料。 |
| 配布資料用スライド | 上記+繋がりの説明、資料の流れを補う ※ <u>資料のみで理解ができる</u> ように文章で補助する。 但し、口頭で説明するような内容、文章にしない。 |

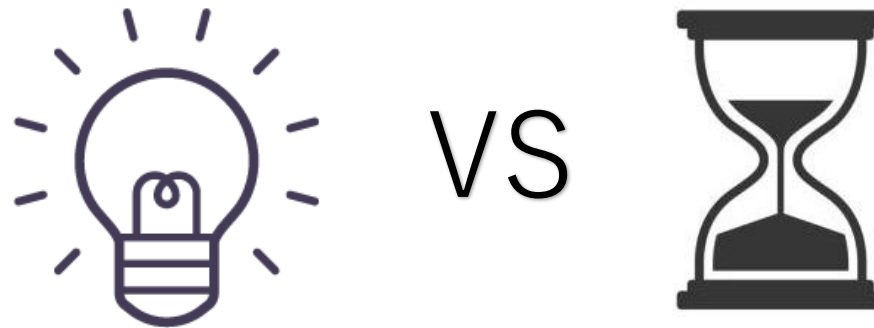
資料を見ることにより短時間で効率的に理解できる資料

1. “Design Report”から”Design Briefing”へ Design Briefingへの期待

『Design審査はDesign Review、提出するDBは配布資料！』

DBは最大で98ページ ➡ 少ない量の資料ではない

“図表やグラフを効果的に活用し理解できた内容” = “採点対象”



- 短時間で効率よく伝える：理解度/時間
- 要点がわかり易い・読み手側になる = 伝わる資料
- “情報量が多い”は必ずしも良い資料ではない

2. Design Briefingの言語

2. Design Briefingの言語 DB英語化の意図

『日本だけでなく、世界で活躍する人材になって欲しい！』

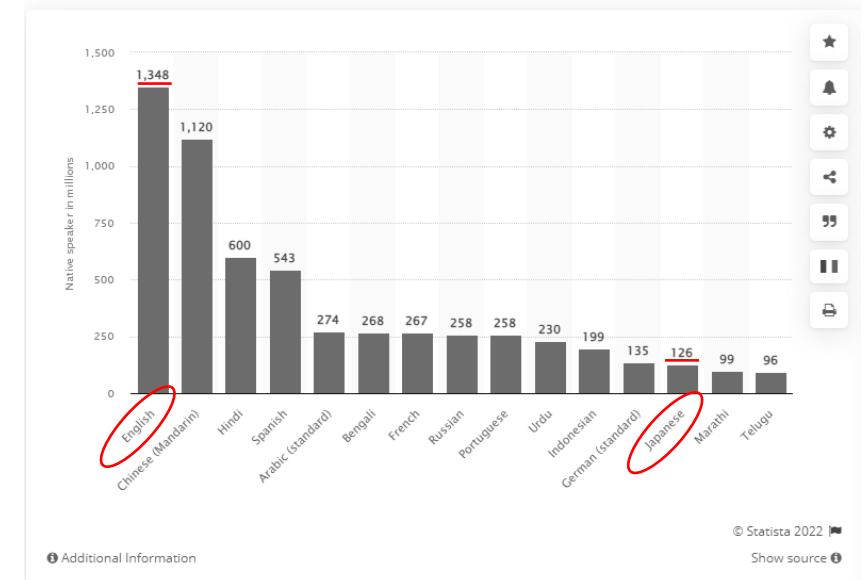
世界共通言語は『英語』であり、エンジニアの世界でも同じ。
FSAEJデザイン審査として英語を使う機会を創る。

英語のDBで海外大会のOnline審査の参加も可能。

→英語が使えることで更にチャンスが広がる！
長年FSAEに関わってきたベテラン審査員
海外企業のエキスパートと話せる機会

英語を話す人の数は日本語を話す人の10倍以上！

The most spoken languages worldwide in 2021
(by speakers in millions)



2. Design Briefingの言語 英語がもたらす機会

There are further information and discussion groups like overseas event homepages, seminars, Youtube and so on.

Thus, if you cannot communicate **in English**,
information and opportunities would be
less than 1/10.

Expand your potential!!!



Design event FSAEJ2022



FSAEJ

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1. From “Design Report”
to “Design Briefing”

2. Language of Design Briefing

1. From "Design Report" to "Design Briefing"

1. From "Design Report" to "Design Briefing"

Intention of format change

As all you know, Design Report is changed to Design Briefing in Formula SAE[®] Rules 2022.

The purpose is,

“Change to the format which is used in real businesses and expect teams to learn how to build the documents”.

1. From "Design Report" to "Design Briefing"

Format of Design Report

Design Report was in a format of technical papers.

It is a document composed of sentences mainly and figures/charts as supports.

It would be understood as a widely known format of documents, and it should be learned as an engineer.

It can be said as a document to understand what a writer would like to tell by reading sentences and support materials.

平成 23 年度 日本大学理工学部 学術講演会論文集

S3-17

フォーミュラカーの開発を題材とした実験的ものづくり 今年度の成果と設計プロセス Fractal Manufacture for the development Formula car The design process and results of 2010-2011

○中島 雅彦¹, 飯島 寛良², 野村 敏彦¹, 堀内 伸一郎¹, 吉田 幸司¹
○Akane Nakajima¹, Akira Iijima², Michihiko Nomura¹, Shun-ichiro Horiuchi¹, Koji Yoshida¹

Abstract: This paper describes the design process about frame, engine and suspension of the vehicle for participation in the 9th Student Formula SAE competition. Engine Association was established in 1932 as a circle for voluntary manufacturing learning. Now, they participated the Student Formula SAE from the 1st competition in 2003 for 9 years. In 2009 they put in "Bonne GP" as a Formula R&D. Then now, it has been working on to deepen the experience and knowledge of practical Manufacture through the development of the vehicle for the Student Formula SAE competition.

1. はじめに
2. 1. コンジション
3. 2. フレーム
4. 3. エンジン
5. 4. サスペンション




Figure 1. The machine of this year

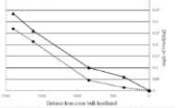


Figure 2. Displacement angle of the frame

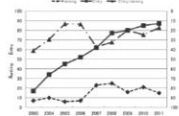


Figure 3. The results in the past 9 year

| Upright | 9th | 8th |
|---------------|---------|---------|
| Front upright | 0.161mm | 0.207mm |
| Rear upright | 0.171mm | 0.516mm |

| Item | Value |
|----------------------------|------------------------|
| Cost | 26,310 yen (15th) |
| Preparation | 41,257 yen (13th) |
| Design | 70,150 yen (10th) |
| Acceleration | 27,327 g (15th) |
| Max speed | 131.56 km/h (11th) |
| Max G | 94.713 G (10th) |
| Endurance and Fuel economy | 382,414 km (17th) |
| Total | 573,571,000 yen (11th) |

Entry: 87 Teams; Participant: 75 Teams

平成 23 年度 日本大学理工学部 学術講演会論文集

1. From "Design Report" to "Design Briefing"

Format of Design Briefing

Design Briefing; DB is in a format of slides.

Main : Data such as figures, graphs, charts etc.

➔ Sentences are minimally used depending on purpose.

| Purpose example | Usage of sentences and words as examples |
|---------------------------------|--|
| Slides for presentation | Important messages, summary, conclusion etc. ✘ Main explanation <u>by verbal</u> , focusing on visual expressions |
| Slides for distributed document | Points above + explaining connections, supporting a stream of documents ✘ Sentences support document to be understood only by documents itself. Thus, sentences should not be like what you say in a presentation. |

Document to be understood efficiently by “looking” on it.

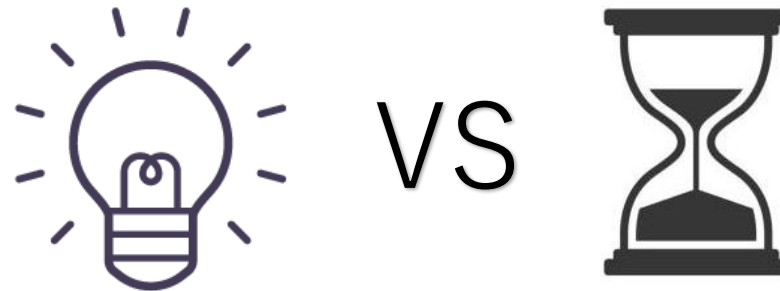
1. From "Design Report" to "Design Briefing"

Expectation on Design Briefing

**“Design judge is Design Review,
submitted DB is distributed material!”**

DB has 98 pages in max → Not a small amount document

“Understood contents efficiently by figures and graphs= scored area”



- Be understood in a short time efficiently: Level of understanding/time
- Simple and easy summary, reader-friendly
= Understandable document.
- “A lot of information“ is not always good.

2. Language of Design Briefing

2. Language of Design Briefing

Intention of DB in English

“Want you to become an engineer who can play an active role not only in Japan but also all over the world”

The world common language is “English”, and it is the same in engineering society.

FSAEJ Design Event gives an opportunity to use English.

DB in English can be judged in online events of overseas competitions.

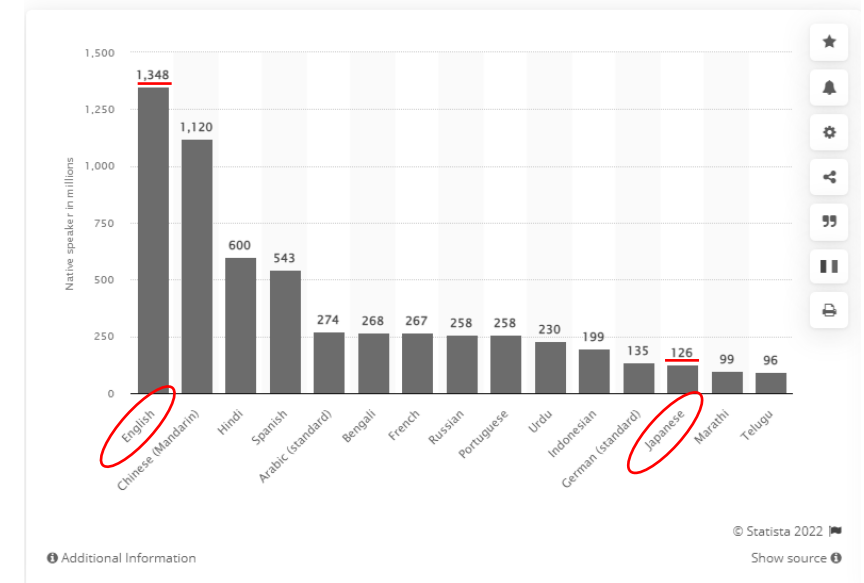
→English skill gives more opportunities!

Judges with many experiences in FSAE

Opportunity to talk with overseas experts

Population of English speakers are more than 10 times of that of Japanese speakers!

The most spoken languages worldwide in 2021
(by speakers in millions)



2. Language of Design Briefing

Opportunities given by English

There are further information and discussion groups like overseas event homepages, seminars, Youtube and so on.

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