

日本化学会 第99春季年会 英語講演へのファーストステップ
主催: 日本化学会国際交流委員会

2019年3月18日(月) 13:30-15:30
甲南大学岡本キャンパス S4会場(5号館1階511教室)

理系英語: 口頭プレゼンテーションと アブストラクトの書き方

野ロジュディー
神戸学院大学 (名誉教授)

How to go beyond 英会話 → ESP

ESP = English for Specific Purposes

「目的別英語教育」=

使用目的に合った英語の教え方、学び方

LSP = Languages for Specific Purposes

ESPの重要な概念

- Discourse community
- Genre: Moves and hint expressions
- OCHA and PAIL
- (Corpus linguistics)

ESPの重要な概念

- **Discourse community**
- Genre: Moves and hint expressions
- OCHA and PAIL

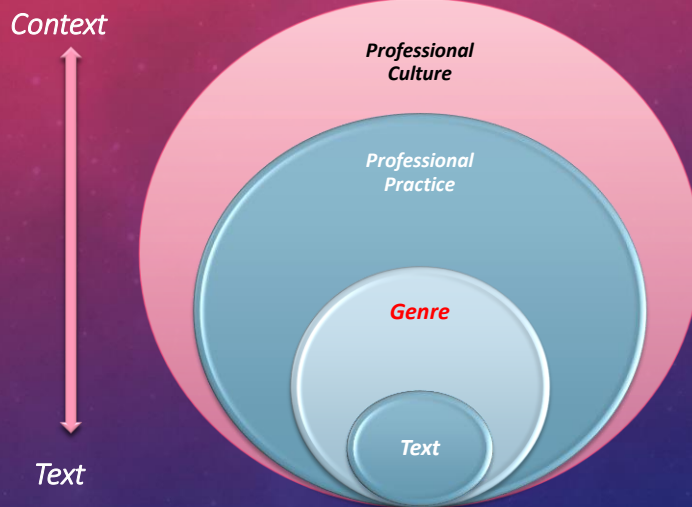
A DISCOURSE COMMUNITY

- Is a group of people who are connected by discourse
- Has means of communication
- Is not bound by location
- Constructs knowledge in the relevant field

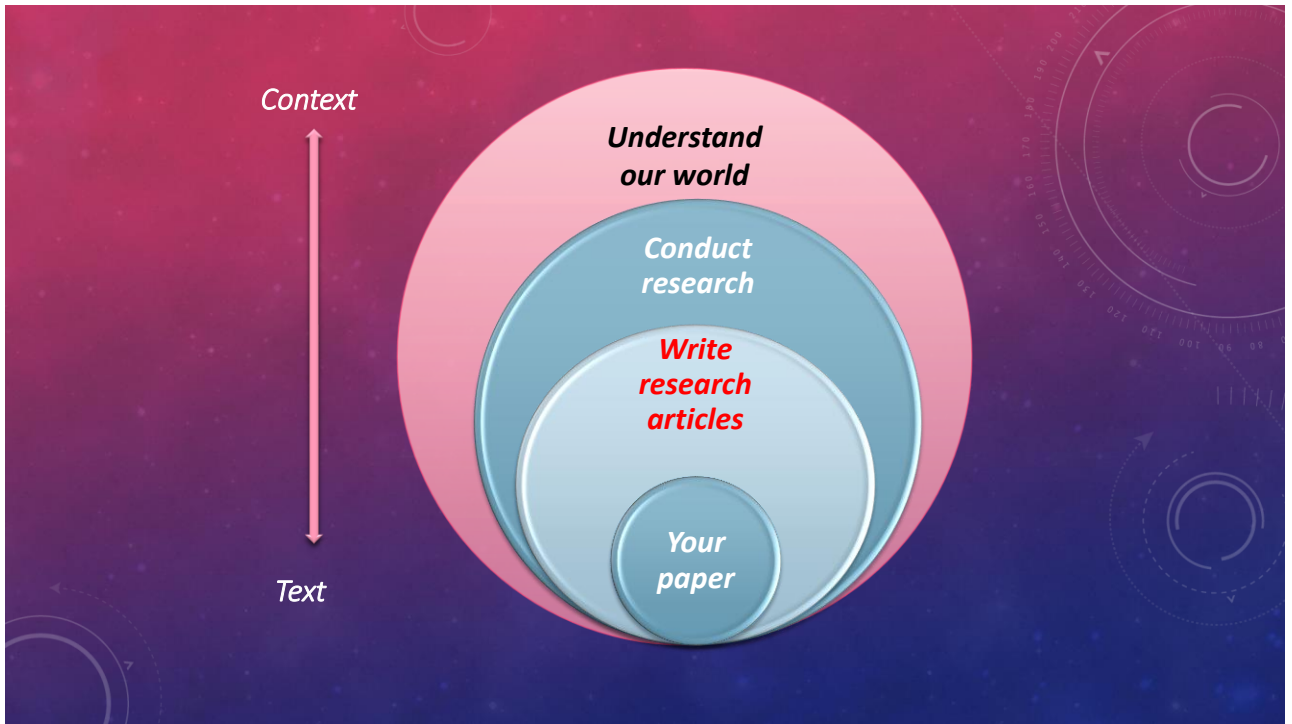
例えば

- **大学の研究者のコミュニティ**
- コミュニケーション手段: 論文、研究報告、学会発表
- 特定の地域ではなく、仕事の領域で世界的に専門家のネットワークを組む
- 専門領域で知識や技術を蓄積する

Perspective view of text and its relationship to the profession



Adapted from Bhatia, V.K. (2011). ESP symposium at the JACET 50th National Conference, Fukuoka, Japan (August 31, 2011), ESP and Professional Practices: insights from theory and practice



ESPの重要な概念

- Discourse community
- **Genre**: Moves and hint expressions
- OCHA and PAIL

**Genre = a repeatedly used communication event
that has
rhetorical and lexicogrammatical patterns**

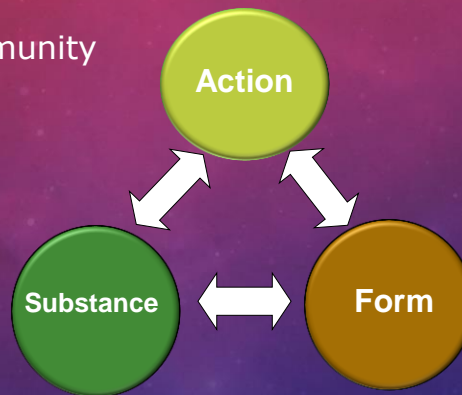
Discourse community が繰り返し使用している

イベント(コミュニケーションの手段)

*スムーズにコミュニケーションができるため
に**パターン化**されている

Visual concept of genre

Effect on the
discourse community



Information for the
discourse community

Linguistic packaging
for genre recognition

Genres = Means of communication

Types of communicative events

(コミュニケーション・イベント)

which connect the members of the discourse community

- Research papers (研究論文)
- Conference presentations (学会プレゼン)
- Patent applications (特許出願書)
- Email messages (研究などのemailメッセージ)

ESPの重要な概念

- Discourse community
- Genre: Moves and hint expressions
- **OCHA and PAIL**

- **O**bserve
 - **C**lassify
 - **H**ypothesize
 - **A**pply
- P**urpose
Audience
Information
Language features
 Rhetorical framework
 Collocations
 Grammar & technical points
 Pronunciation & prosody

Language is composed of patterns
 言語はパターンで構成されている

- **Sound patterns** form words
 - 音のパターンが単語となる
- **Word patterns** form phrases and clauses
 - 単語のパターンが句や節となる
- **Phrase and clause patterns** form sentences
 - 句や節のパターンが文章となる
- **Sentence patterns** form texts
 - 文章パターンがテキストとなる
- **Text patterns** form **genres**
 - テキストのパターンが**ジャンル**となる
- **Pronunciation** (発音、プロソディー)
- **Collocation** (語彙、フレーズ)
- **Grammar** (文法)
- **Rhetorical structure** (情報の述べ方)
- **Text framework** (ジャンル・テキストの構造)

ESPの重要な概念

- Discourse community
- Genre: **Moves and hint expressions**
- OCHA and PAIL

Genres

- Have frameworks of **moves**

Abstract: **Background**

Aim of study

Materials and methods

Results

Conclusions

- Use **hint expressions** to guide the audience

How quickly can you get the gist of this article from the Royal Society of Chemistry journal *Chemical Science*?



A chemical reaction controlled by light-activated molecular switches based on hetero-cyclopentanediyls

Jonas Bresien, Thomas Kröger-Badge, Stefan Lochbrunner, Dirk Michalik, Henrik Müller, Axel Schulz and Edgar Zander (University of Rostock, Germany)

A chemical reaction controlled by light-activated molecular switches based on hetero-cyclopentanediyls

Molecular switches are molecules that can reversibly be shifted between at least two stable states with different physical and chemical properties, making them interesting for application as chemical sensors or molecular machines. We recently discovered that five-membered, cyclic biradicals based on group 15 elements are efficient and robust photochemical switches that can be activated by red light. The quantum yield of the photo-isomerization is as high as 24.6%, and the thermal equilibration of the photo-activation product proceeds rapidly at ambient temperature. The fully reversible process was studied by experimental and high-level *ab initio* techniques. We could further demonstrate that the biradical character could be completely turned on and off, so the system could be applied to control chemical equilibria that involve activation products of the cyclic biradicals.

A chemical reaction controlled by light-activated molecular switches based on hetero-cyclopentanediyls

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- **Background information**
- **Path to current study**
- **Materials and methods**
- **Concluding statement**

A chemical reaction controlled by light-activated molecular switches based on hetero-cyclopentenediyls

Molecular switches **are** molecules **that can** reversibly be shifted between at least two stable states with different physical and chemical properties, **making them interesting for application as** chemical sensors or molecular machines. **We recently discovered that** five-membered, cyclic biradicals based on group 15 elements **are efficient and robust** photochemical switches that can be activated by red light. The quantum yield of the photoisomerization is as high as 24.6%, and the thermal equilibration of the photoactivation product proceeds rapidly at ambient temperature. **The** fully reversible **process was studied by** experimental and high-level *ab initio* **techniques**. **We could further demonstrate that** the biradical character could be completely turned on and off, so **the system could be applied to control** chemical equilibria that involve activation products of the cyclic biradicals.

Google Scholar search results

- "making them interesting for application as" 1 result
 - "making them interesting for" 927 results
- "for application as" 86,500 results
- "We recently discovered that" 5,870 results
- "are efficient and robust" 1,180 results
- "The * process was studied by" 3,670 results
- "We could further demonstrate that" 532 results
- "the system could be applied to control" 2 results
 - "the system could be applied to" 735 results

Useful Websites

Manchester Academic Phrasebank	http://www.phrasebank.manchester.ac.uk/	アカデミック表現のフレーズ
AntConc	http://www.antlab.sci.waseda.ac.jp/	コンコーダンスソフトのサイト; WindowsもMacも使いやすくなりました。
	http://language.sakura.ne.jp/s/corpus.html	日本語でのコンコーダンスツールの紹介
CasualConc	https://sites.google.com/site/casualconc/	Mac用のコンコーダンスツールです
Punctuation Guide	http://www.thepunctuationguide.com/	句読点の名前がわからなくても調べられるサイト

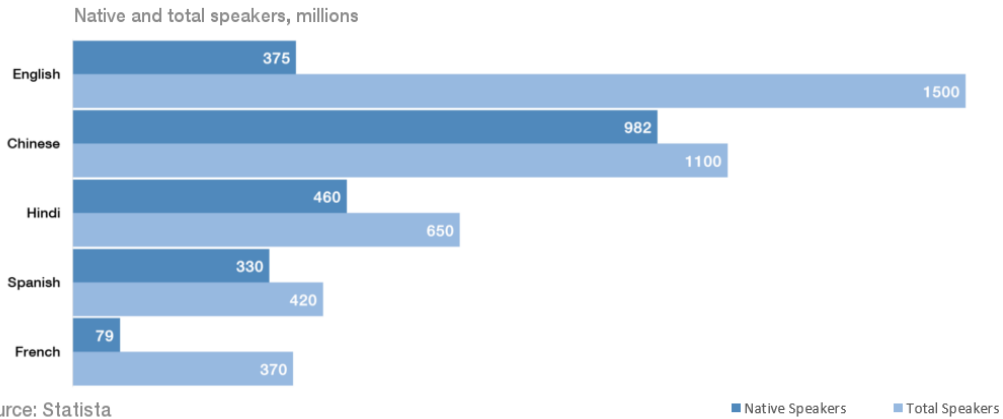
Ideas for improving your presentation skills

Once again:

- Discourse community → ELF speakers
- Genre → Useful example: science newscasts
- OCHA and PAIL

Who is your audience?

These languages have the most speakers



<https://www.weforum.org/agenda/2015/10/which-languages-are-most-widely-spoken/>

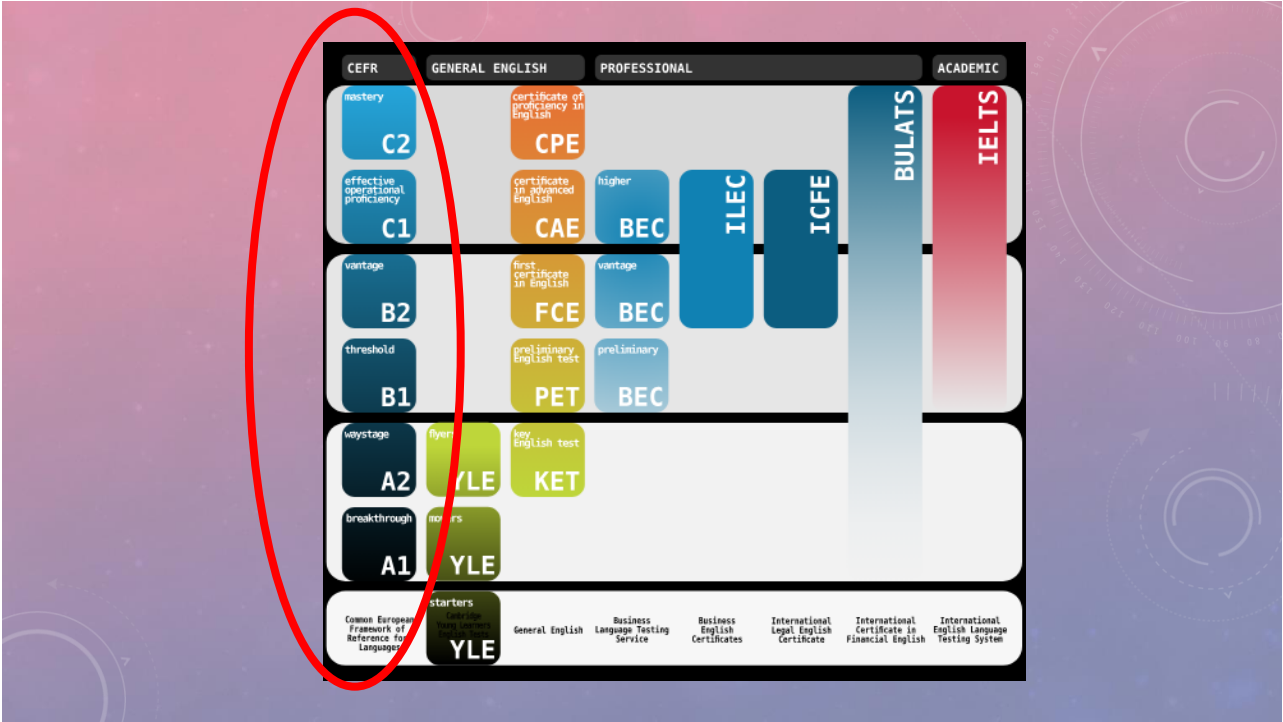
Audience: ELF speakers

- Only about 25% of those using English are native speakers of English
- Your audience will most likely be non-native speakers of English = speakers of **English as a Lingua Franca (ELF)**
- **CEFR**: Changes to Descriptors

Common European Framework of Reference for Languages: Learning, Teaching, Assessment

Companion Volume with New Descriptors, 2018

<https://rm.coe.int/common-european-framework-of-reference-for-languages-learning-teaching/168074a4e2>



Appendix 7 – List of changes to specific 2001 Descriptors

OVERALL LISTENING COMPREHENSION	
C2	Can understand with ease virtually Has-no-difficulty-with any kind of spoken language, whether live or broadcast, delivered at fast native-natural speed.
UNDERSTANDING CONVERSATION BETWEEN OTHER NATIVE SPEAKERS	
B2+	Can keep up with an animated conversation between native-speakers of the target language .
B2	Can with some effort catch much of what is said around him/her, but may find it difficult to participate effectively in discussion with several native speakers of the target language who do not modify their language speech in any way.
LISTENING AS A MEMBER OF A LIVE AUDIENCE	
C2	Can follow specialised lectures and presentations employing a high-degree-of colloquialism, regional usage or unfamiliar terminology.
OVERALL READING COMPREHENSION	
C2	Can understand and-interpret-critically virtually all forms of the written language including abstract, structurally complex, or highly colloquial literary and non-literary writings.
OVERALL SPOKEN INTERACTION	
B2	Can interact with a degree of fluency and spontaneity that makes regular interaction, and sustained relationships with speakers of the target language native-speakers quite possible without imposing strain on either party. Can highlight the personal significance of events and experiences, account for and sustain views clearly by providing relevant explanations and arguments.
UNDERSTANDING A NATIVE SPEAKER AN INTERLOCUTOR	
C2	Can understand any native-speaker interlocutor, even on abstract and complex topics of a specialist nature beyond his/her own field, given an opportunity to adjust to a non-standard accent or-dialect .
CONVERSATION	
B2	Can sustain relationships with speakers of the target language native-speakers without unintentionally amusing or irritating them or requiring them to behave other than they would with another native-proficient speaker.
INFORMAL DISCUSSION (WITH FRIENDS)	
B2+	Can keep up with an animated discussion between native speakers of the target language .
B2	Can with some effort catch much of what is said around him/her in discussion, but may find it difficult to participate effectively in discussion with several native speakers of the target language who do not modify their language-speech in any way.
FORMAL DISCUSSION (MEETINGS)	
C2	Can hold his/her own in formal discussion of complex issues, putting an articulate and persuasive argument, at no disadvantage to native other speakers.
INTERVIEWING AND BEING INTERVIEWED	
C2	Can keep up his/her side of the dialogue extremely well, structuring the talk and interacting authoritatively with complete effortless fluency as interviewer or interviewee, at no disadvantage to native other speakers.
SOCIOLINGUISTIC APPROPRIATENESS	
C2	Appreciates virtually all the sociolinguistic and sociocultural implications of language used by-native proficient speakers of the target language and can react accordingly.
B2	Can sustain relationships with speakers of the target language native-speakers without unintentionally amusing or irritating them or requiring them to behave other than they would with another native-proficient speaker.
SPOKEN FLUENCY	
B2	Can interact with a degree of fluency and spontaneity that makes regular interaction with speakers of the target language native-speakers quite possible without imposing strain on either party.

Aim for ELF proficiency

- **Do NOT need** to aim for native speaker proficiency
- **Do need** to aim for ELF proficiency
 - Clear enunciation of sounds
 - Awareness of syllable stress
 - Usage of appropriate pausing
 - Usage of suitable prosody (word stress and intonation)

Good for practicing specific sounds

- Peter Piper/ pick^{ed} a peck / of pick^{ed} peppers
 A peck of pick^{ed} peppers / Peter Piper pick^{ed}
 If Peter Piper / pick^{ed} a peck / of pick^{ed} peppers
 Where's the peck / of pick^{ed} peppers/ Peter Piper pick^{ed}?
- Amidst the mist^s / and cold^{est} frosts,
 With stout^{est} wrist^s / and loud^{est} boasts,
 He thrust^s his fist^s / against^t the post^s,
 And still insist^s / he sees the ghost^s.

Useful Websites

Phonetics	http://soundsofspeech.uiowa.edu/index.html#english	発音の仕組みがわかる
Howjsay	http://www.howjsay.com/	単語の発音サイト
60-second Science	http://www.scientificamerican.com/podcast/60-second-science/	最新科学技術研究を一般の聴衆が理解できるように2分ぐらいで紹介
Nature Podcast	http://www.nature.com/nature/podcast/	最新の科学技術研究をラジオ番組風に一般の聴衆がわかるように紹介
TED Corpus Search Engine	http://yohasebe.com/tcse/	TED Talksのコーパス検索サイト
JECPRESE	http://www.jecprese.sci.waseda.ac.jp/	口頭発表で使用された日英表現の事例の検索サイト
OnCAL	http://www.oncal.sci.waseda.ac.jp/index.aspx	理工系分野のMIT、スタンフォード大学のレクチャー検索サイト
Breaking News English	http://www.breakingnewsenglish.com/	ニュースを短く伝えて、Exerciseをやって勉強できるようになっています。記事の読み上げスピードを選択でき、Levelは0から6まで

Use ESP concepts and tools to polish your ESP

- Discourse community
- Genre: Moves and hint expressions
- OCHA (observe, classify, hypothesize and apply)
- PAIL (purpose, audience, information, language features)

This is an abbreviated form of the original lecture.

THANK YOU!

If you have any questions, please
send me a message:
jnoguchi@gc.kobegakuin.ac.jp