

Consiglio del Collegio dei Docenti Dottorato di Ricerca in Ingegneria dell'Informazione

VERBALE DELLA SEDUTA DEL 30/05/2025

	NOME	PRESENTE	ASSENTE GIUSTIFICATO	ASSENTE	Note
1	Giuseppe Araniti				
2	Martina Bevacqua		X		
3	Francesco Buccafurri		X		
4	Claudia Campolo	X			
5	Riccardo Carotenuto	X			
6	Giuseppe Coppola			X	
7	Mariantonia Cotronei	X			
8	Lorenzo Crocco		X		
9	Dominique Dallet			X	
10	Claudio De Capua			X	
11	Francesco Della Corte			X	
12	Loreto Di Donato	X			
13	Giuliana Faggio	X			
14	Gioia Failla		X		
15	Marco Fisichella			X	
16	Sofia Giuffrè		X		
17	Giorgio Graditi			X	
18	Voicu Groza			X	Fino al 40° ciclo
19	Tommaso Iernia	X			
20	Gianluca Lax	X			
21	Aime Lay Ekuakille		X		
22	Pietro Manzoni		X		
23	Giacomo Messina	X			
24	Massimo Merenda			X	
25	Marina Mistretta		X		
26	Antonella Molinaro	X			
27	Andrea F. Morabito	X			
28	Carlo F. Morabito			X	
29	Rosario Morello		X		

30	Gabriel-Miro Muntean			X	
31	Giuseppe Musolino		X		
32	Roberta Palmeri	X			
33	Fortunato Pezzimenti			X	Fino al 40° ciclo
34	Filippo Pratico'	X			
35	Domenico Rosaci	X			
36	Giuseppe Ruggeri	X			
37	Francesco Russo	X			
38	Mariateresa Russo		X		
39	Alexey Vinel			X	

Il giorno 30 maggio 2025 alle ore 9.00 si è riunito, su piattaforma MS Teams, il Collegio dei Docenti del Dottorato di Ricerca in Ingegneria dell'Informazione per trattare il seguente

ORDINE DEL GIORNO

1. Comunicazioni
2. Questioni riguardanti i cicli precedenti
3. Attivazione del XLI ciclo
4. Varie ed eventuali

Presiede la seduta il Coordinatore, Prof. Tommaso Isernia, e svolge le funzioni di Segretario verbalizzante la Prof.ssa Palmeri. Rilevate le presenze dei membri del Collegio (riportate nel prospetto sopra allegato che costituisce parte integrante del presente verbale) e constatato il raggiungimento del numero legale, il Coordinatore dichiara aperta la seduta alle ore 9.05.

1. Comunicazioni

Il Prof. Isernia comunica di aver ricevuto in data 7 aprile 2025 la nomina a Coordinatore del Dottorato in Ingegneria dell'Informazione da parte del Magnifico Rettore. La nomina è stata successivamente validata dall'ANVUR (comunicazione del 17/4) a valle di un controllo del possesso dei requisiti richiesti al coordinatore.

Come primo atto, il nuovo coordinatore desidera ringraziare sentitamente a nome del Collegio la precedente coordinatrice Ch.ma Prof.ssa Molinaro per l'eccellente lavoro svolto, e si dichiara sicuro che svolgerà un lavoro altrettanto eccellente anche nel suo nuovo ruolo di rappresentante dell'area Ingegneria in Consiglio di Amministrazione, ruolo sfortunatamente non compatibile con il coordinamento del Dottorato.

Un analogo ringraziamento viene rivolto dal Collegio alla vice-coordinatrice, Prof. Claudia Campolo, per il puntuale e prezioso lavoro svolto. La quantità e qualità del lavoro svolto dalla Prof.ssa Campolo già è, e sarà di certo, un punto di forza del Corso di Laurea Magistrale LM27 di cui è adesso coordinatrice.

Il coordinatore comunica poi una serie di recenti iniziative seminariali a vantaggio degli studenti del Dottorato, che includono :

- Seminario del Prof. Marrocco (Univ. Di Roma Tor Vergata) su *'Cyber-Prosthetics as Bodycentric Electromagnetic Devices: From Structural to Metal-free Bio-integrated Antennas'* in data 14/5/2025.
- Seminario del Prof. Merlo (Centro Alti Studi della Difesa, Roma) su *'Surfing, Sailing and Flying in a Vulnerable World'* in data 14/5/2025
- Incontro con lo Spin off innovativo ExAv (Dr. Bruno Vadalà, Torino) in data 28/5/2025
- Seminario del Prof. Monorchio (Univ. di Pisa e CNIT/RASS) su *'Advanced Electromagnetic Technologies in Space and Defence Applications'* in data 29/5/2025.
- Seminario del Prof. Restuccia (Northeastern University) su : *'Toward (Truly) Resilient Neural Networks in High-Stakes Mobile Systems'* in data 3/5/25

A vantaggio della rendicontazione delle attività del Dottorato, e del Dipartimento nel suo insieme, il coordinatore invita i membri del Collegio a voler segnalare a lui ed alla Prof.ssa Palmeri ogni analoga iniziativa.

2. Questioni riguardanti i cicli precedenti (fino al XL)

2a. Approvazione PCPD XL ciclo

Causa scorrimento graduatoria, con conseguente slittamento dei tempi, era rimasta in sospeso la considerazione (ed eventuale approvazione) del PCPD della candidata Shaimaa Elseddiq Abuelsaud Ali Elghetany, di cui risultano tutori il Prof. Di Donato ed il Prof. Isernia. A valle di una breve illustrazione del PCPD in oggetto (allegato 1), e di un chiarimento fornito dal Prof. Di Donato, il Consiglio approva il piano presentato.

2b. Esito esami finali dei candidati del 37° ciclo

Il coordinatore comunica che tutti i sette candidati del 37° ciclo del Corso di Dottorato in Ingegneria dell'Informazione hanno difeso con successo, in data 1/4/2025 la loro Tesi di Dottorato, acquisendo così il titolo di Dottore di Ricerca. Il coordinatore, nel congratularsi con i candidati ed i loro tutor, è inoltre lieto di comunicare che ben tre dei candidati hanno ottenuto, a conferma della validità dei percorsi svolti, il giudizio di 'eccellente con Lode'.

2c. Richieste di Doctor Europaeus

Il Coordinatore richiama quanto previsto dal Regolamento di Ateneo in materia di Dottorato di Ricerca, Art. 21, in base al quale l'Università può integrare il titolo di Dottore di ricerca con la denominazione aggiuntiva di "Doctor Europaeus" nel rispetto delle raccomandazioni e dei criteri stabiliti nel 1991 dalla Confederation of European Union Rectors' Conferences e accolte dall'European Universities Association (EUA).

La qualifica di Doctor Europaeus è rilasciata dall'Università quando sussistano le seguenti quattro condizioni: a) la tesi di Dottorato è programmata quale risultato di un periodo di lavoro e di ricerca della durata di almeno 3 mesi in un Paese dell'Unione europea comunque diverso dal Paese ove è iscritto il Dottorando; b) il lavoro di tesi è sottoposto alla valutazione, attraverso apposito format, da parte di almeno due revisori di due istituzioni universitarie di due Paesi dell'Unione europea, diversi da quello in cui la tesi sarà discussa; c) la Commissione d'esame finale del Corso di Dottorato comprende almeno un componente proveniente da un'istituzione universitaria di un Paese dell'Unione europea diverso dal Paese in cui è iscritto

il Dottorando; d) la discussione del lavoro di tesi può essere svolta anche in video conferenza e avviene, oltre che in lingua italiana, in una delle lingue dell'Unione Europea.

Il Dottorando interessato al conseguimento della qualifica di Doctor Europaeus avanza esplicita richiesta, di norma entro il secondo anno di corso, al Coordinatore e al Collegio dei Docenti del Corso e al Dipartimento di riferimento, il quale, espletata l'istruttoria, la trasmette per il prosieguo agli Uffici competenti.

Il Coordinatore riferisce di avere ricevuto dal dottorando Bruno Pizzimenti, XXXVIII ciclo, richiesta di rilascio del titolo di Doctor Europaeus. Il dottorando sta trascorrendo un periodo di permanenza di 3 mesi presso l'Università Politecnica di Madrid, Spagna, dal 29/04/2025 al 01/07/2025 e poi dal 02/09/2025 al 04/10/2025, per il lavoro di ricerca finalizzato alla preparazione della tesi di dottorato, sotto la supervisione del Prof. Carlos Mariano Lentisco Sanchez. Il tema del lavoro di ricerca riguarda le tecnologie per applicazione di guida autonoma e connessa. La tesi, scritta in inglese, sarà sottoposta al giudizio di due revisori internazionali, da identificare entro le successive scadenze previste dal Regolamento.

Considerato che la richiesta del Dott. Pizzimenti rispetta tutti i requisiti previsti dal Regolamento di Ateneo Art. 21, il Collegio dei Docenti approva all'unanimità la richiesta del dottorando e dà mandato al Coordinatore di comunicare la delibera al Dipartimento DIIES per i provvedimenti di competenza.

2d. Richiesta autorizzazione di lavoro a distanza

Il Prof. Isernia, riferisce di una richiesta pervenuta dai Proff. Campolo e Ruggeri, tutor del Dr. Rashid, di autorizzare il Dr. Hamza Rashid ad un limitato periodo di lavoro a distanza.

Il Consiglio, sentiti i tutor Prof. Campolo e Ruggeri, autorizza il lavoro a distanza per motivi personali per il periodo dal 19 maggio al 20 giugno.

2e. Proposta di Istituzione e svolgimento di un corso (o seminari) sulle soft skills

Facendo seguito ad una proposta in tal senso del Prof. Carlo Morabito, ed in temporanea assenza di iniziative in tal senso a livello di Ateneo, viene proposto lo svolgimento di uno o più seminari, eventualmente organizzati in un minicorso, sulle 'soft skills'. Traendo vantaggio da alcune rilevanti competenze e disponibilità individuate, possibili tematiche per iniziative nel breve termine (allegati 2-6) includono 'Technical Communication', 'Written Communication', 'Public speaking', 'Visual skills mastery', e Gibb's Defensive & Supportive Climates.

A valle di breve discussione, il Consiglio individua come tematiche di maggiore interesse le prime tre su elencate, ed incarica il proponente Prof. Carlo Morabito a voler definire le date della iniziativa e procedere alla sua organizzazione di dettaglio.

2f. Richiesta autorizzazioni per missioni ed accesso al cofinanziamento 10% : modalità

Viste le richieste pervenute al Coordinatore di 'firma' di moduli di richiesta missioni ed accesso ai fondi, il Prof. Isernia ricorda che tale richiesta (di autorizzazione) va necessariamente accompagnata da una dichiarazione del supervisor (di cui è disponibile un format) attestante la necessità e rilevanza dell'oggetto della richiesta.

Al fine di razionalizzare la richiesta e la relativa eventuale autorizzazione risulta poi opportuno che tale richiesta venga consegnata agli Uffici del Dipartimento (D.ssa Lonetto) anziché contattando in prima persona il coordinatore.

3. Attivazione del XLI ciclo

Il coordinatore riferisce in merito alla documentazione, in corso di preparazione, riguardante la richiesta di ri-accreditamento del Corso. In particolare, vengono illustrate e commentate alcune piccole modifiche proposte rispetto alla documentazione presentata lo scorso anno per l'attivazione del XL ciclo. Viene inoltre

proposto dal coordinatore che il Collegio venga integrato dai Professori Marco Mercuri e Nadia Mammone, entrambi già docenti nei corsi di laurea del Dipartimento.

Il Consiglio approva la documentazione illustrata, e le nuove afferenze proposte.

4. Varie ed eventuali

Non essendovi più nulla da deliberare il Coordinatore dichiara chiusa la riunione.

La seduta è tolta alle ore 11.00

Del che è redatto il presente verbale che è approvato seduta stante.

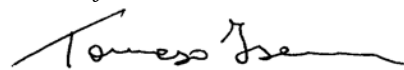
Il Segretario Verbalizzante

Prof.ssa Roberta Palmeri



Il Coordinatore

Prof. Tommaso Isernia



Personal Career Development Plan

PhD program in Information Engineering (XL Cycle)

Name of the PhD student: Shaimaa Elseddiq

Abuelsaud Ali Elghetany

Email address:

Shaimaa.elghetany@unirc.it

Name of the Supervisor(s): Prof. Loreto Di Donato, Prof. Tommaso Isernia

Affiliation(s) and email(s): loreto.didonato@unict.it, tommaso.isernia@unirc.it

Academic year: 2024-2025

Date: 27/2/2025

PhD student signature

Shaimaa E. Elghetany

Section 1. PLANNED RESEARCH AND TRAINING PROGRAM *[to be filled in at the beginning of every academic year]*

1.1 Planned research activity *[Max 1 page]*

Long-term research objectives (over 3 years): *[this section (max half page) can be updated every year with more details. For the first year, it is sufficient to identify the main area of research and the related high-level goals.]*

The planned research focuses on advancing integrated sensing and communication (ISAC) technologies with a strong emphasis on the sensing aspect to enable high-resolution environmental awareness and object detection in wireless networks. By leveraging the dual functionality of ISAC, the research will utilize communication signals not only for data transmission but also for high-resolution environmental sensing and imaging through the solution of an inverse scattering problem (ISP). The communication signals will act as a sensing probes which will be used as a feeder for ISP that work to reconstruct the material properties, geometry, or location of hidden/scattering objects by solving the underlying nonlinear and ill-posed problem. In addition, to enhance the sensing performance, machine learning (ML) techniques will be explored, enhancing reconstruction accuracy, particularly in challenging noisy and dynamic environments. The research will also investigate the integration of reconfigurable intelligent surfaces (RIS) to improve sensing coverage and resolution, particularly in non-line-of-sight (NLOS) scenarios. With potential applications in autonomous driving, smart cities, and industrial automation, this research seeks to contribute novel and effective signal processing methods, ML-driven sensing models, and prototype systems that demonstrate the practical benefits of ISAC to enhance wireless network performance and environmental sensing capabilities.

Short-term detailed research objectives (current year): *[every year the PCPD will include short-term detailed objectives for the current year]*

- Description of planned research goals and activities for the year *[specify more detailed research objectives and activities targeted for the current year]*

The research program this year will focus on the development of the 1D ISP from both methodological as well as practical perspectives, with a particular focus on the profiling of challenging medium, such as plasma. The research will also look forward to implementing ML-enhanced solutions in order to overcome the non-linearity and ill-posed nature of ISPs, which will increase accuracy and robustness of reconstruction. Our primary study interests will include imaging, environmental sensing, and high-resolution material characterization.

- The research activity during the first year will be organized as follows:

Literature Review and Gap Analysis:

- Carry out a comprehensive analysis of current approaches in plasma profiling, 1D ISP
- Identify current challenges in reconstructing material properties from complex-valued scattered field data.
- Analyze performance of machine learning techniques for 1D ISP
- Analyze research gaps in integrating ISP with ISAC systems for dual-purpose communication and sensing applications.

ISP Algorithm Implementation with ML Integration:

- Introduce ML techniques to handle the non-linearity and ill-posedness of the ISPs.
- Investigate hybrid models combining traditional ISP techniques with data-driven ML approaches, emphasizing interpretability and accuracy.
- Experiment with deep learning models, leveraging complex-valued data handling in PyTorch, to link traditional ISP methods with modern ML strategies.

Anticipated networking opportunities and collaborations (if known at this stage) *[optional field]*

Planned experience abroad *[to fill in at the second and/or third year]*

Period:

Hosting university/research institution:

Name of the main supervisor:

1.2 Planned training activities *[specify study plan for the current year] [min 30 ECTS over three years, preferably in the first 2 years]*

- Training program organized by the PhD in Information Engineering for the current year and related number of ECTS

a1. Mini-courses characterizing the PhD program *[min 20 ECTS preferably over two years, min 10 ECTS with evaluation] [this is mandatory to fill in] [Calendar available [here.](#)]*

Title of the course	Instructor(s)	N. of hours/ECTS	Evaluation (Y/N)
Computational Algebra and Geometry: graphs, simplicial complexes, singularities (Part I)	Failla	8/2	Y
Computational Algebra and Geometry: graphs, simplicial complexes, singularities (Part II)	Failla	8 /2	Y
Advanced Techniques in Antenna Synthesis for High-Performance Antennas and Smart Surface Development	Battaglia	8/2	N
Some biomedical applications of microwaves: from imaging to theranostic systems	Bevacqua	8/2	Y
Inverse problems for engineering: fundamentals and recent	isernia	8 /2	N

developments			
Inverse design for electromagnetic devices	Palmeri	8/2	Y
Improving communication efficiency in edge intelligence: a networking perspective	Lia	8/2	N
Advanced Space Communications: Challenges, Deployment and Simulations	Rinaldi	8/2	Y
Smart roads Part II	Praticò	12/3	Y
Wavelets and their applications	Cotronei	8/2	Y
Statistical analysis of experimental data	Di Sanzo	8/2	Y

a2. Seminars organized/advertised within the PhD program in Information Engineering *[no ECTS limits; specify if known at this stage]*

Title of the seminar	Instructor(s)	N. of hours/ECTS
Seeing through walls and underground (and being invisible): from superheroes to actual (and perspective) methods	Isernia	1

a3. MSc courses to fill in gaps in background knowledge *[optional, up to 2 courses] [this is mandatory to fill in only if there is the need to attend these courses]*

Title of the course /Master	Instructor(s)	N. of hours/ECTS

- Common inter-doctoral courses; Soft and transversal skills; Communication and Dissemination [min 5 ECTS per year]

b1. Inter-doctoral courses organized by the PhD School of University Mediterranea (including English courses) [normally, 1 ECTS per 4 hours] [to be filled in with the name of the courses, if known at this stage] [Calendar available [here](#).]

Title of the course	Instructor(s)	N. of hours/ECTS

b2. Planned communication activities (e.g., on social networks, at public events) [if known at this stage, mention e.g., scientific posts on social networks; communication to general public; high-school students, etc.]

Description:

b3. Planned dissemination activities (e.g., seminar/talk/presentation to be given by the PhD student, and tutoring) [if known at this stage; mention e.g., conference presentation; talks/seminars; tutoring and teaching]

Description:

c. External PhD schools and other courses: [optional, up to 10 ECTS over two years] [recurrent summer/winter PhD schools can be identified or other external courses approved by the supervisor] [to be filled in with the name of the courses/schools, if known at this stage, or the high-level description of the planned activity]

Title of the school/course/seminar	Instructor(s)	Location	N. of hours	Link
Microwave Imaging and Diagnostics	Dr. CROCCO Lorenzo, Prof. ESTATICO Claudio, Prof. ISERNIA Tommaso, Prof. LOVETRI Joe, Prof. MASSA	Genova – Italy	30	https://edu.eledia.org/courses/esoa-2025-genova/

	Andrea, Prof. RANDAZZO Andrea			

Description:

Name and Signature of fellow

Shaimaa E. Elghetany

Date: 27/02/2025

Name and signature of supervisor(s)

Prof. G. Randazzo

Date: 27/02/2025

Section 2. RESEARCH AND TRAINING ACTIVITIES *[to be filled in at the end of every academic year before the yearly audition of PhD students]*

2.1 RESEARCH ACTIVITY AND RELATED CREDITS

[Short description of how credits have been achieved; e.g., individual study, bibliographic research, thesis writing, article preparation, periods in external laboratories/institutions...] [Mention here publications, periods abroad etc.]

Short activity description: ***[Max 1/2 page]***

Total N° of Research credits: ____

[This number must be decided by the supervisor(s) considering the research activities mentioned above, and cumulatively with the training credits must reach overall 60 ECTS per year. The assignment must be signed by the supervisor(s)]. [A minimum number of 20 (1st year), 30 (2nd year), and 40 (3rd year) ECTS is expected to be assigned to research activities.]

Signature of the Supervisor(s)

2.2 TRAINING ACTIVITY AND RELATED CREDITS

[min 30 ECTS over three years, preferably in the first 2 years]

- Training program organized by the PhD in Information Engineering for the current year and related number of ECTS

a1. Attended Mini-courses characterizing the PhD program
[all fields are mandatory to specify for the current year] [min 20 ECTS preferably over two years, min 10 ECTS with evaluation; statement of attendance needed and attached]

Title of the course	Instructor(s)	N. of hours/ECTS	Date	With/without evaluation

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a2. Attended seminars organized/advertised within the PhD program in Information Engineering *[no ECTS limits; certificate of attendance needed and attached]*

Title of the seminar	Instructor(s)	N. of hours/ECTS	Date

a3. Attended MSc courses to fill in gaps in background knowledge *[All courses must be listed but max 6 ECTS can be earned] [ECTS are the same as for the Master course (@UNIRC 1 ECTS per 8 hours); certificate of attendance needed and attached]*

Title of the course /Master	Instructor(s)	N. of hours	Date	With/without evaluation

- Common inter-doctoral courses; Soft and transversal skills; Communication and Dissemination *[min 5 ECTS per year]*

b1. Attended Inter-doctoral courses organized by the PhD School of University Mediterranea (including English courses) *[normally, 1 ECTS per 4 hours; certificate of attendance needed and attached]*

Title of the course	Instructor(s)	N. of hours/ECTS	Date	With/without evaluation

b2. Communication activities (e.g., on social networks, at public events) *[mention e.g., scientific posts on social networks; communication to general public; high-school students, etc.] [certificate of event attendance needed and attached]*

Communication event	Location	N. of hours	Date	Other notes

Links to the posts/interview or other pertinent social activity during the year:

Optional Description:

b3. Dissemination activities through given seminar/talk/presentation, and students tutoring.
[mention e.g., conference presentation; talks/seminars; tutoring and teaching, given by the PhD student] [certificate of the activity needed and attached]

Title of the given talk/seminar	Location	N. of hours	Date	Other notes

Tutoring activities (teaching support, project works)	Course	N. of hours	Other notes
Student co-supervising (e.g., thesis)	Thesis title	Degree	Other notes

Optional Description:

- External summer/winter PhD schools and other courses/seminars [mention attended courses, schools, seminars,...] [approval from supervisor needed; certificate of attendance/ECTS needed and attached]

Title of the school/course/seminar	Instructor(s)	Location	N. of hours	Date	With/without evaluation	Other links

Name and Signature of fellow
 Name and signature of supervisor(s)

Date:
 Date:

- ATTACHMENTS –

[to be included with Section II before the yearly auditions]

DETAILED SCIENTIFIC REPORT [2-3 pages]

[mandatory][the PhD has to attach the final report of research activity at the end of every year before the yearly auditions]

LIST OF PUBLICATIONS

[mandatory][Include the list of publications during the year, if any]

CERTIFICATES/NOTIFICATIONS OF ATTENDANCE OR SIMILAR

[the PhD may attach any available attendance/credit certification for the conducted training and research activity]

Technical Presentations



Introduction to Technical Writing

Presentation: Why?

A strong presentation is not only important for communicating the work, but also for communicating one's contribution.

Presentation: Why?

- When contemplating whether to make a scientific presentation- Why not just write a document or post a Web page?

Advantages

- Opportunity to receive and answer questions
- Opportunity to revise on the spot
- Opportunity to use delivery for emphasis
- Ability to incorporate many types of visual aids
- Assurance that audience has witnessed the information

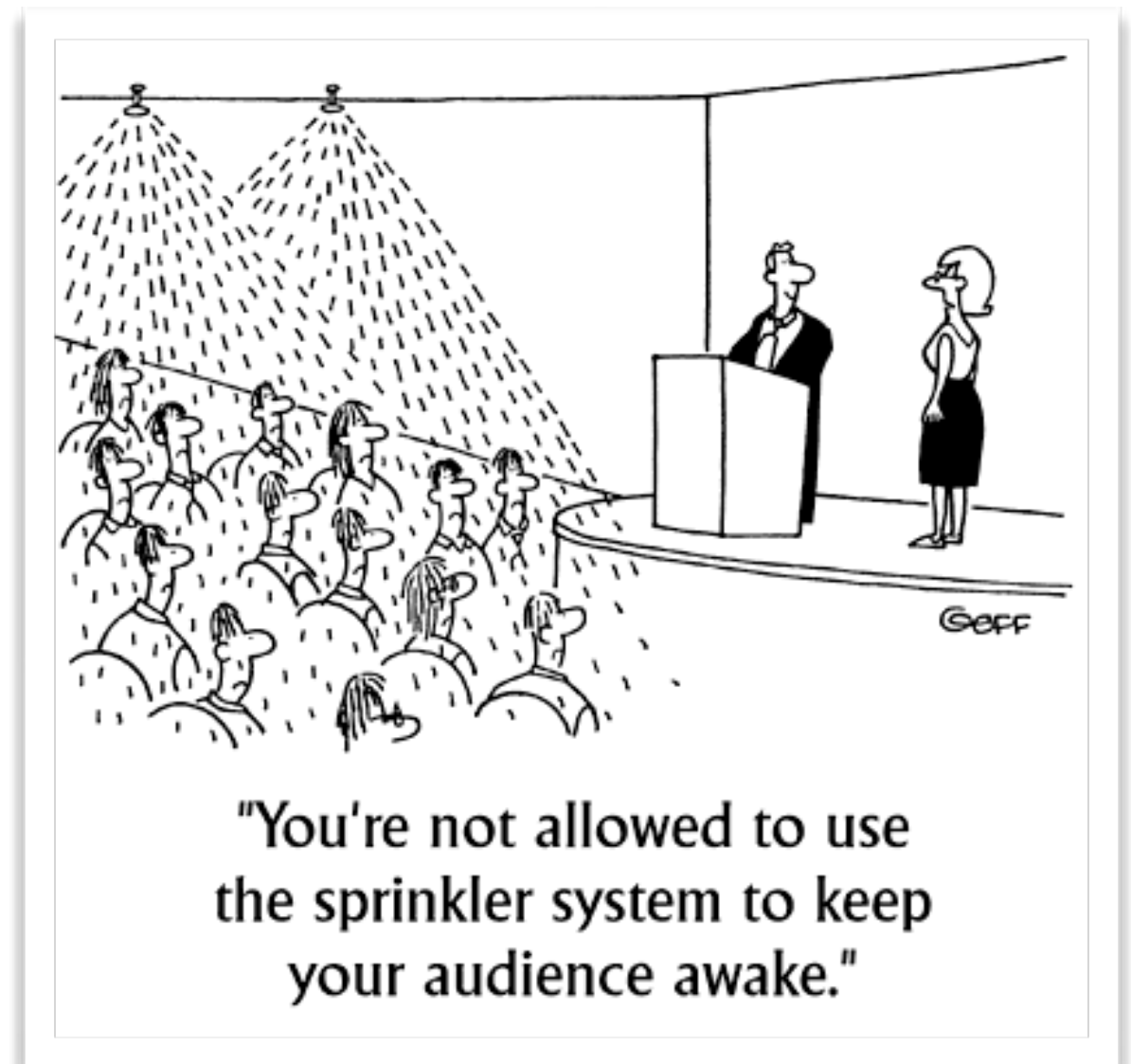
Disadvantages

- One chance for speaker to talk; one chance for audience to hear
- No chance for audience to look up background information
- Audience restricted to pace of speaker

Speech

Speech is what you say in a presentation.

- The best speakers flavor their speeches.
- Avoid presenting your work in a dry manner.
- Analogies, examples, stories, and forming a personal connection with the audience.
- Humor adds flavor as well, and can relax and engage an audience.



Speech

Advantages and Disadvantages of Different Sources for Speech

Sources	Advantages	Disadvantages
Speaking from points	<ul style="list-style-type: none">• Credibility• Eye contact• Natural Pace	<ul style="list-style-type: none">• Wording not exact• Long prep time
Memorizing	<ul style="list-style-type: none">• Precision• Smooth delivery• Eye contact• Credibility	<ul style="list-style-type: none">• Potential for disaster• Unnatural pace• Long prep time
Reading	<ul style="list-style-type: none">• Precision• Smooth delivery	<ul style="list-style-type: none">• Credibility undercut• Lack of eye contact• Unnatural pace
Speaking spontaneously	<ul style="list-style-type: none">• No prep time• Eye contact• Natural Pace	<ul style="list-style-type: none">• Potential for disaster• Difficulty organizing• Lack of visual aids

Recognizing the Purpose

Scientific presentations have a variety of purposes

- **Presentations to Inform:** Primary purpose is to inform.
- **Presentations to Persuade:** Primary purpose is to persuade.
- **Presentations to Inspire:** Primary purpose is to inspire an audience.

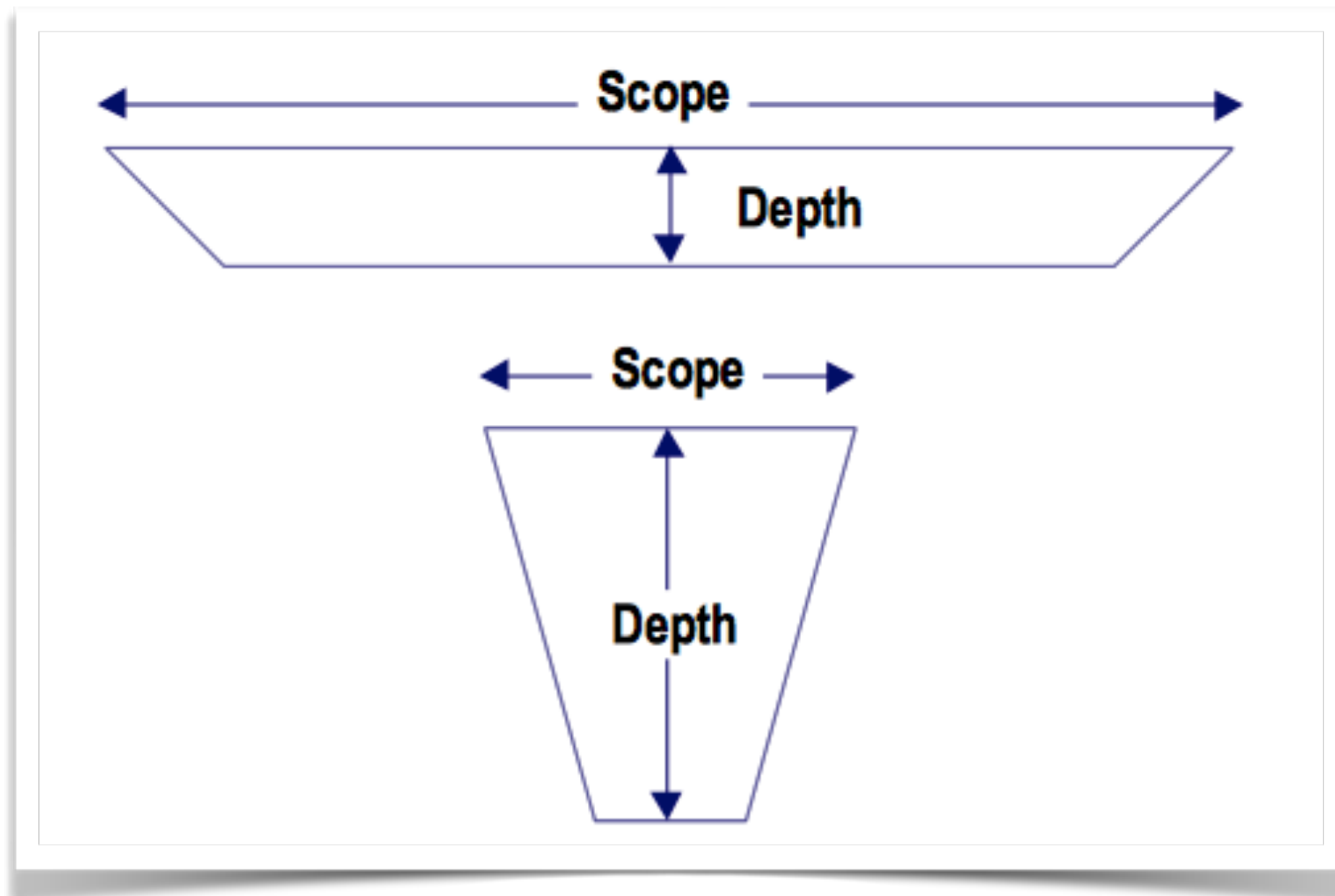
Addressing your Occasion

The occasion is defined by several variables

- **The formality of the presentation:** Conference, business meetings, etc.
- The occasion is also defined by the **time limits**.
- The occasion is also defined by the **time at which the presentation occurs**. Mid-morning or late in the afternoon?
- **Location for the presentation** and the **number of people** in attendance.

Scope & Depth

The depth of your presentation is determined by the scope of your topic



Presentation Components

Introduction

- Purpose/objective
- Highlight topics to be covered
- Present research questions

First major topic

- Present relevant results in appropriate format
- E.g. include graphs, charts and equations where necessary
- Answer research questions

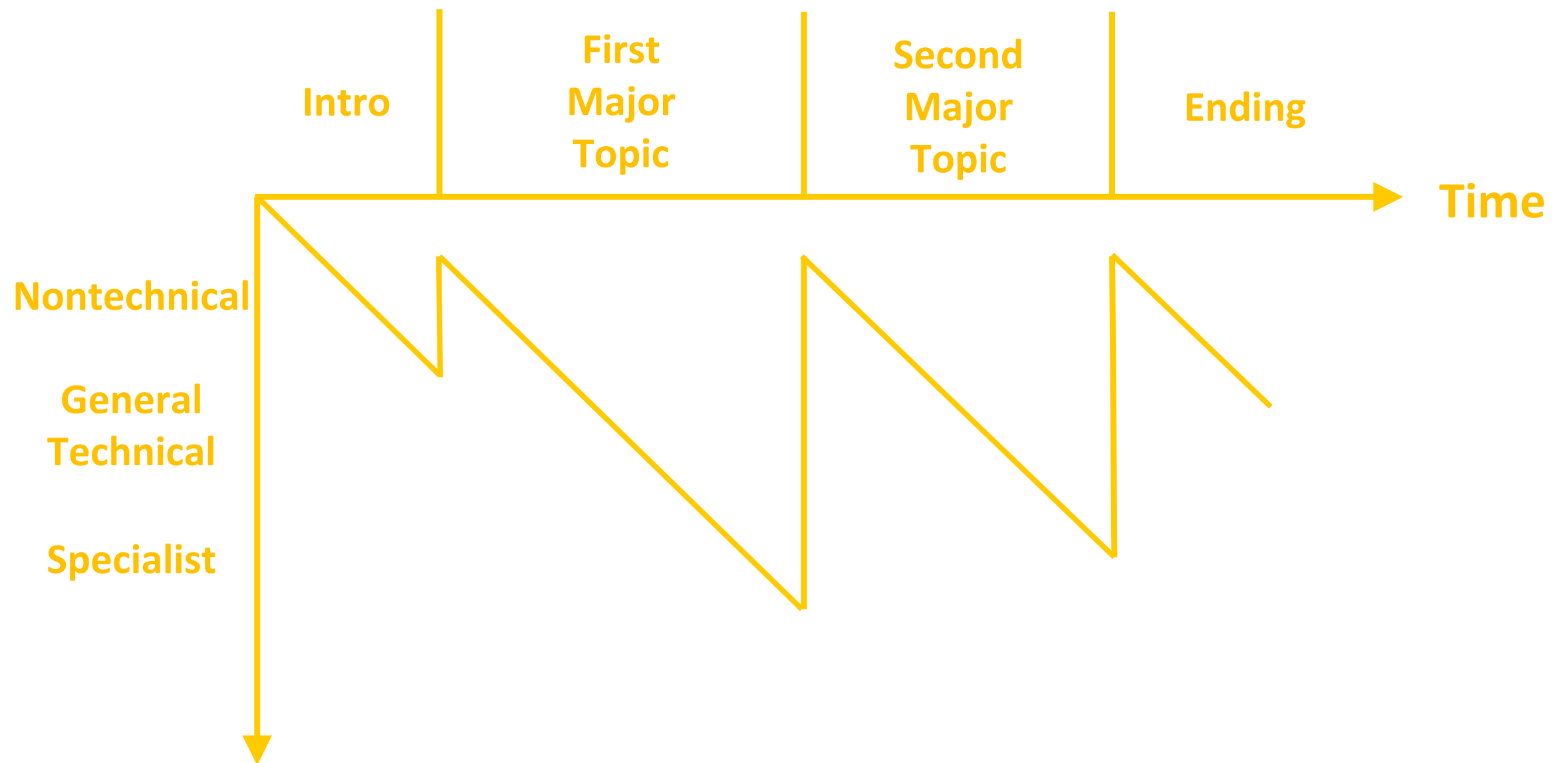
Second major topics

- As above

Ending/Conclusion

- Summarize results
- Discuss possible future work
- Leave the audience with a thought-provoking message

Presentation Components



Presentation Outline

- Introduction
- Background
- Research Questions/Problem
- Computational Results
- Experimental Set-up
- Experimental Results
- Conclusions
- Questions

Presentation: **The Big Picture**

- Think about your main message, structure its supporting points, practice it and time it.
- Create a consistent look and feel throughout your presentation.
- Use related typography, colors and imagery throughout.
- Think about major transitions between slides.
- With text, less is more.
- Create a visual balance and harmony in your slides.

Presentation: **The Big Picture**

Aim to:

- Educate
- Entertain
- Elucidate
- Enlighten
- Most importantly maintain attention and interest.

WRITTEN COMMUNICATION

Prof. R. Kingsley

CSULA 2025



Five steps of writing

1.Preparation

2.Research

3.Organization

4.Writing

5.Revision

I. Preparation

- Identify your readers and your purpose. Who is your reader?
- What do the readers already know about the subject?
Should you define basic terminology?
- Avoid being too general in your purpose.

- Assess your audience and context.
- Clearly define your scope. Project scope can involve determining lists of goals, deliverables, tasks, costs and deadline.
- Effective scope requires good communication; be clear and concise.

2. Research

- Investigate your topic—through interviewing, library, Internet research, not-taking, and document sources.
- Methods of Research—**Primary research and Secondary research.**

3. Organization

- Organization helps with coherence and keeps information under control.
- Understandable writing must be organized and then developed.
- Have a clear purpose that is quickly discernible to the reader.

Methods of Development

- **General to specific development**—takes a general concept, or position and moves to the specifics.
- **Chronological**—is based on time. Used in theoretical and scientific fields where historically documenting the development of technology is concerned.
- **Sequential**—the order of the events determine the structure of writing.

Methods of Development

- **Cause and Effect** — emphasizes a process in which one element causes the next. Highly scientific and highly technical experiments and process depend on this type of development for explanation.
- **Comparison** — shows how things are alike as well as different from each other. It is useful in explaining unfamiliar concepts by comparing the new concept to a familiar one.

Outlining

- Outlining is the skeleton of the document.
- Treat visuals as an integral part of your outline, plan when and where each should appear.
- You can use Arabic numbers, Roman numerals, capital letters, bullets, and decimal numbering system for outlining.

Types of Outlining

Outlines should list the main topics and subtopics of your subjects in a logical method of development.

1. Topic outline

- Consists of short phrases (emails, letters, memo).

2. Sentence outline

- Summarizes each idea into a complex sentence.

3. Paragraph outline

Use major or minor division headings to arrange your ideas and develop your outline. Label the headings using Roman numerals.

Example of major division heading:

- I. Advantages of outlining
- II. Types of outlining
- III. Creating an outline

Example of minor division heading:

- II. Types of outlining
 - A. Topic outline
 - B. Sentence outline

4. Writing

- Identify your objective.
- Expressing versus Impressing. Keep it simple.
- Clarity in expression.
- Shorter sentences.
- Active language.

- Avoid redundancy.
- Keep one-time sentences that are clear without repeating.
- Avoid the “it...that” syndrome.
 - *It has been shown that...*
 - *It can be proven that...*
 - *It is a known fact that...*

General Guidelines on the use of Tense

- Rely on **past tense** to narrate events and to refer to an author or an author's ideas as historical entities.
- Use **present tense** to state facts, to refer to perpetual or habitual actions.
- **Future tense** is for future actions including the use of will, shall, is going to, are about to, tomorrow.

Examples:

- E.g. **Past Tense:** *Five of the tests showed weak patterns.*
- E.g. **Present Tense:** *The Doppler effect shows a red color shift for stars moving away from our position in the galaxy.*

Use the Active Voice

Business writing leans heavily on the active voice because it is shorter, clearer, and easier to understand.

Use the Active Voice

- Business communication prioritizes clarity over sophistication, the active voice is preferred.
- Be simple & direct

Example: John delivered the report to Brenda.

Avoid Passive Voice in Business Writing

- The passive voice is a longer, denser verb structure in which the subject of the sentence is receiving the action, not doing it.

Example: The report was delivered to Brenda by John.

- **Avoid adverbs (and choose stronger verbs)**

Example: *She talks loudly during meetings.* (Loudly describes talks)

- **Choose a stronger verb.**

For example: *shout, yell, screech, shriek, holler, and squawk* are all more descriptive and give you a fuller picture of how exactly she talks during meetings.

- **Keep your sentences short**

A. **Example:** *John needs to prepare the executive summary, and Xian needs to prepare the presentation materials.*

B. **Example:** *John needs to prepare the executive summary. Xian needs to prepare the presentation materials.*

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- **Don't use five words when two will get the same message across.**
- **Avoid idioms in your writing is because they are so contextually dependent for their meaning.**
- **Avoid Jargon**
- **Use Descriptive Verbs to Create Impact**

Incorporate Punctuation Effectively



Writing Inclusively for Diverse Audiences

- The Role of writing at work and why inclusivity matters
- How we write and speak about one another influences how we view one another
- Using Inclusive Titles & Pronouns
- Avoid using gendered terms by choosing neutral terms that allow people to identify with the word but not the gendered nature of the term.

5. Revision

Check for:

- punctuation
- redundancy
- active voice and passive voice
- Clarify the writing
- Simplify the writing

5. Revision

- Keep down sentence and word length
- Check for run-on sentences
- Check for consistency: Tense etc.
- Watch out for the “it...that” syndrome

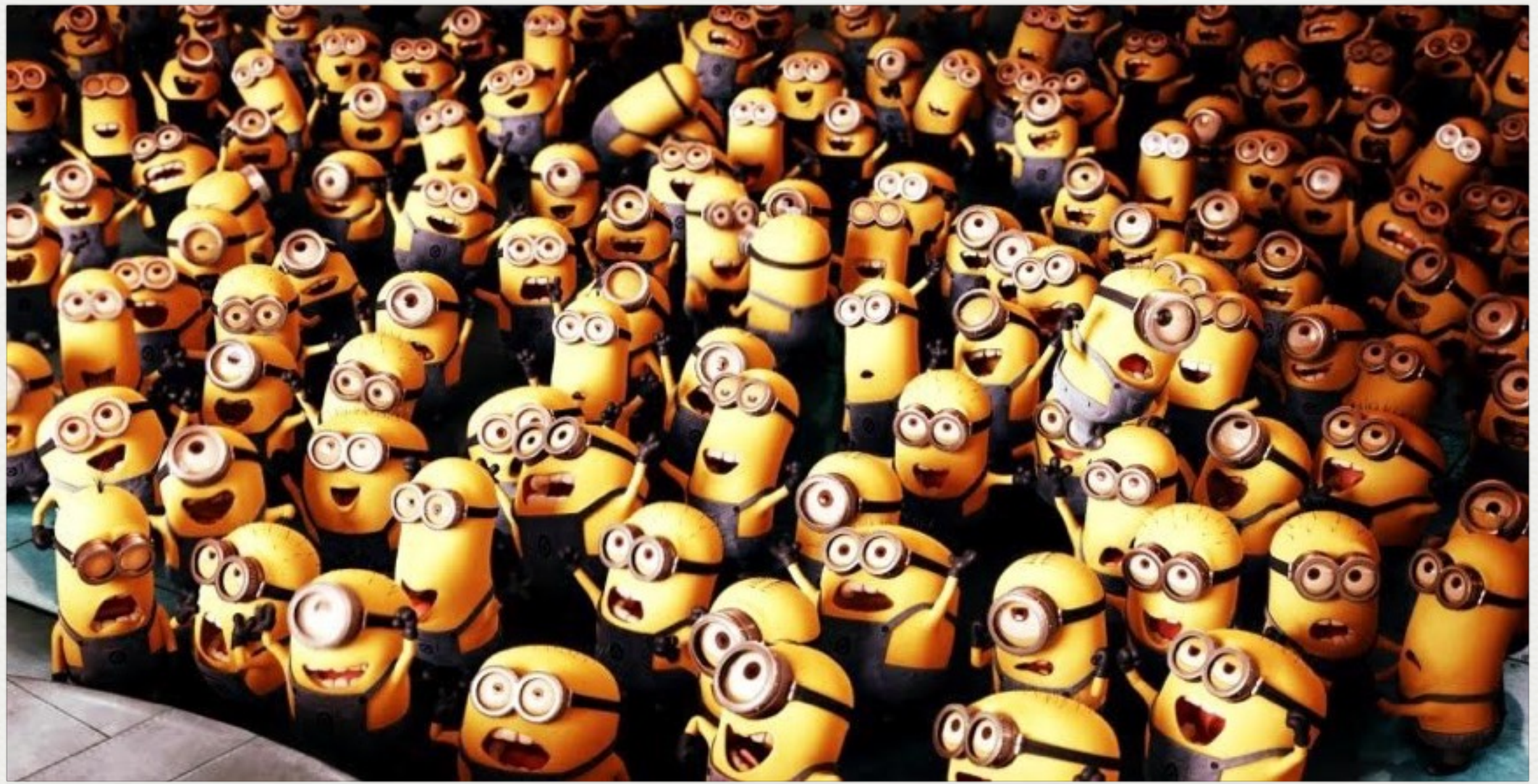
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The Final Draft

- Allow for generous use of white space.
- Finish up *introduction* and *conclusion*.
- Use topic heads often.
- Use listing.

The Final Draft

- Use illustrations effectively.
- Include adequate appendixes.
- Include references if applicable.
- Check for consistency in style.



Public Speaking

The Audience Centered Approach

Presented by Prof. Remy Ashe

Introduction

Introduction

Public Speaking is the process of presenting a message to an audience, small or large.

Public Speaking - “*The Language of Leadership*”

James Humes

Former U.S. Presidential Speechwriter

Public Speaking & Conversation: Key Differences

- Public speaking is more prepared than conversation.
- Public speaking is more formal than conversation.
- Public speaking involves clearly defined roles for the speaker and the audience.

Benefits

Benefits of Public Speaking

- **Empowerment** - Gain confidence and skill in communicating with others.
 - ◎ Critical Thinking
 - ◎ Auditioning for leadership
- **Employment** - You will enhance your career and leadership opportunities.
 - ◎ Being able to communicate effectively with others is the key to success.

Benefits of Public Speaking

“If you improve your communication skills, I guarantee that you will earn 50% more money over your lifetime”

- Warren Buffet
Billionarie Investor

The Communication Process

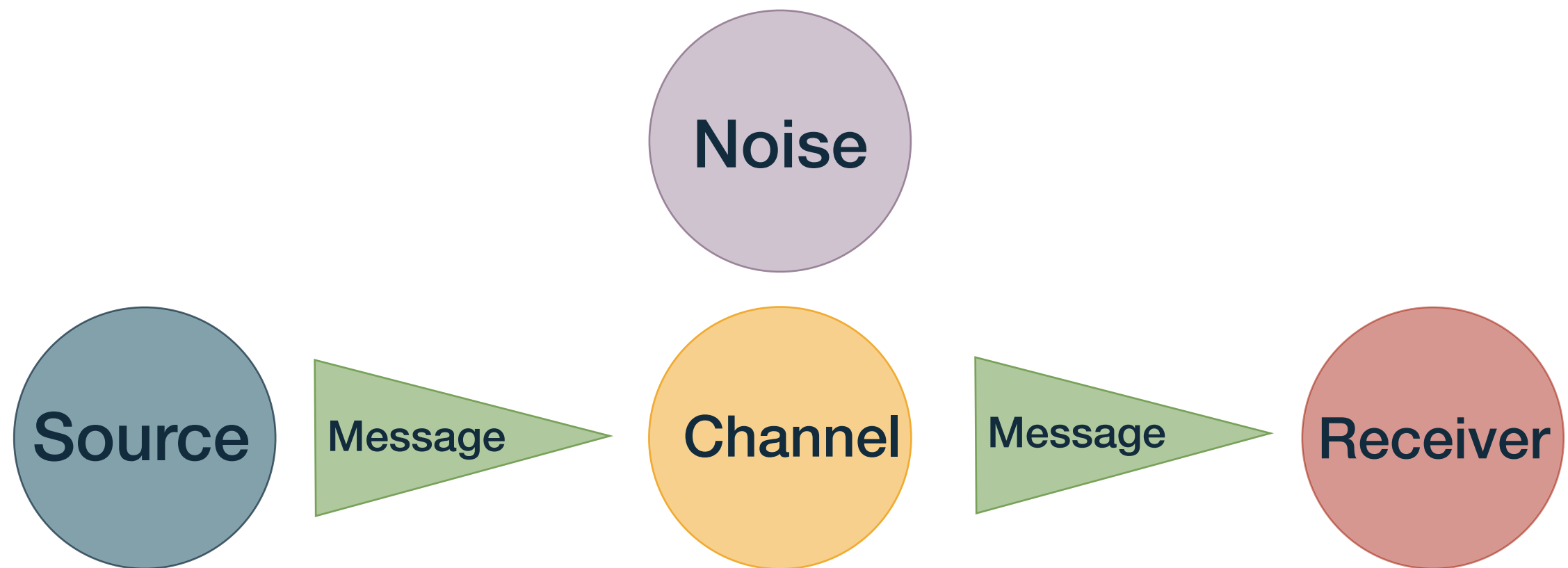
Public Speaking as a Communication Process

Communication as Action

- **Source** - A public speaker is the source of information.
- **Message** - The message in public speaking is the speech itself.
- **Channels** - Message is transmitted via two channels:
 - ◉ Visual and Auditory.
- **Receiver** - The receiver of the message is the audience member.
- **Noise** - Anything that interferes with the message is called *Noise*.
 - ◉ Noise can be External, Physiological, or Internal.

Public Speaking as a Communication Process

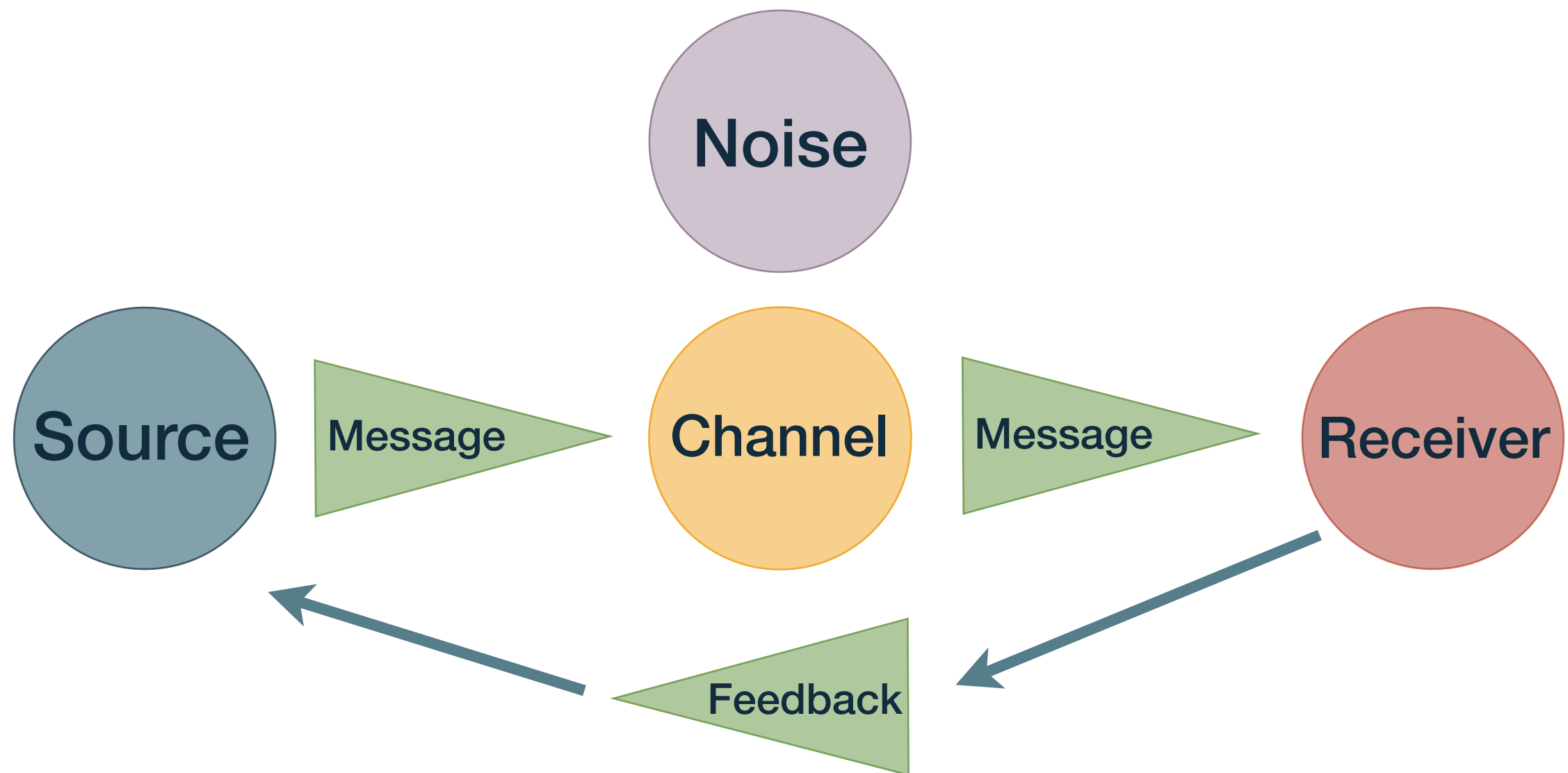
Communication as Action



A Model of Communication as Action

Public Speaking as a Communication Process

Communication as Interaction



A Model of Communication as Action

Public Speaking as a Communication Process

Communication as Transaction



A Transactive Model of Communication

Public Speaking as a Communication Process

Summary

- The public speaker is the source of information.
- The message is the speech.
- The Message is transmitted through Auditory and Visual channels.
- The receiver decodes the message.
- Noise interferes with the message.

Personality Types

Public Speaking based on Personality Types

Personality Types	Priorities	Strengths	Weaknesses
The Coach	Pictures, Words, Structures	Passion, Energy, Audience Interaction	Too Quick, get too wrapped up
The Counselor	Words, Structures, Pictures	Eloquent and Confident, Logical, and easy to follow	Too wordy, Dry and Clinical
The Inventor	Pictures, Structure, Words	Building Slideshow, Organization, Q&A	Struggle with Memorization
The Storyteller	Words, Pictures, Structures	Feeling & Rhythm, Entertain with stories	Lack Organization
The Teacher	Structures, Words, Pictures	Explain Complex Ideas, logical steps, Memorization	Can get dull without visuals
The Producer	Structures, Pictures Words	Meticulous, Well-structured, meet audiences need	Struggle to speak spontaneously

Ease and Confidence

Speaking with Ease and Confidence

- The Growth Mindset Approach
- Avoiding the the Three P's
- Speaking from a State of Presence
- Choosing Courage over Self-preservation

Speaking with Ease and Confidence

THE GROWTH MINDSET APPROACH

Fixed Mindset

**Intelligence is
a fixed trait**

Growth Mindset

**Intelligence is a malleable
quality, a potential that can
be developed**

Research by Dr. Carol Dweck
Mindset and Self-theories

Speaking with Ease and Confidence

THE GROWTH MINDSET APPROACH

Fixed Mindset

Student says, “looking smart is more important.”

Growth Mindset

Learning is most important

Research by Dr. Carol Dweck
Mindset and Self-theories

Speaking with Ease and Confidence

THE GROWTH MINDSET APPROACH

Fixed Mindset

“I want when I do my school work is to show how good I am at it.”

Growth Mindset

“It’s much more important for me to learn things than it is to get the best grades.”

Research by Dr. Carol Dweck
Mindset and Self-theories

Speaking with Ease and Confidence

THE GROWTH MINDSET APPROACH

Fixed Mindset

Effort is negative

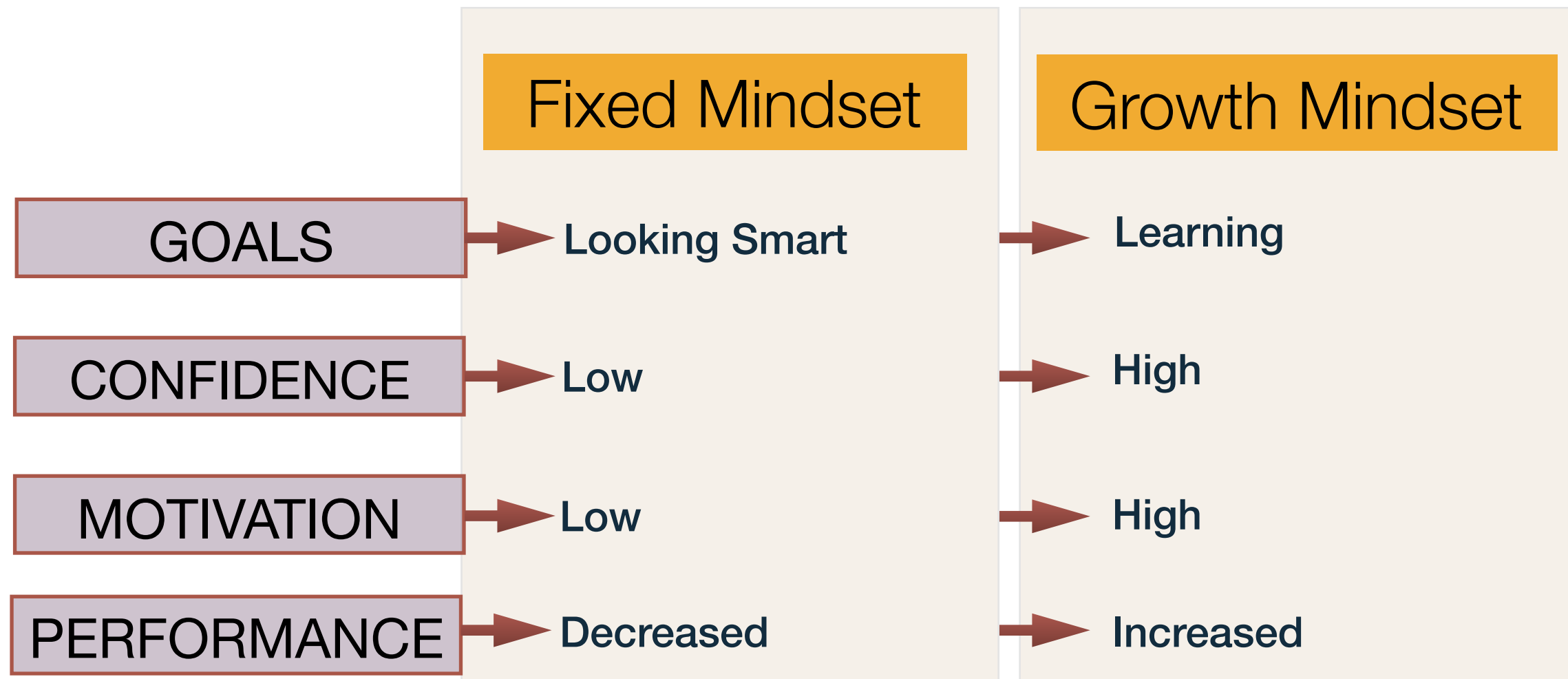
Growth Mindset

Effort is positive

Research by Dr. Carol Dweck
Mindset and Self-theories

Speaking with Ease and Confidence

THE GROWTH MINDSET APPROACH



Research by Dr. Carol Dweck
Mindset and Self-theories

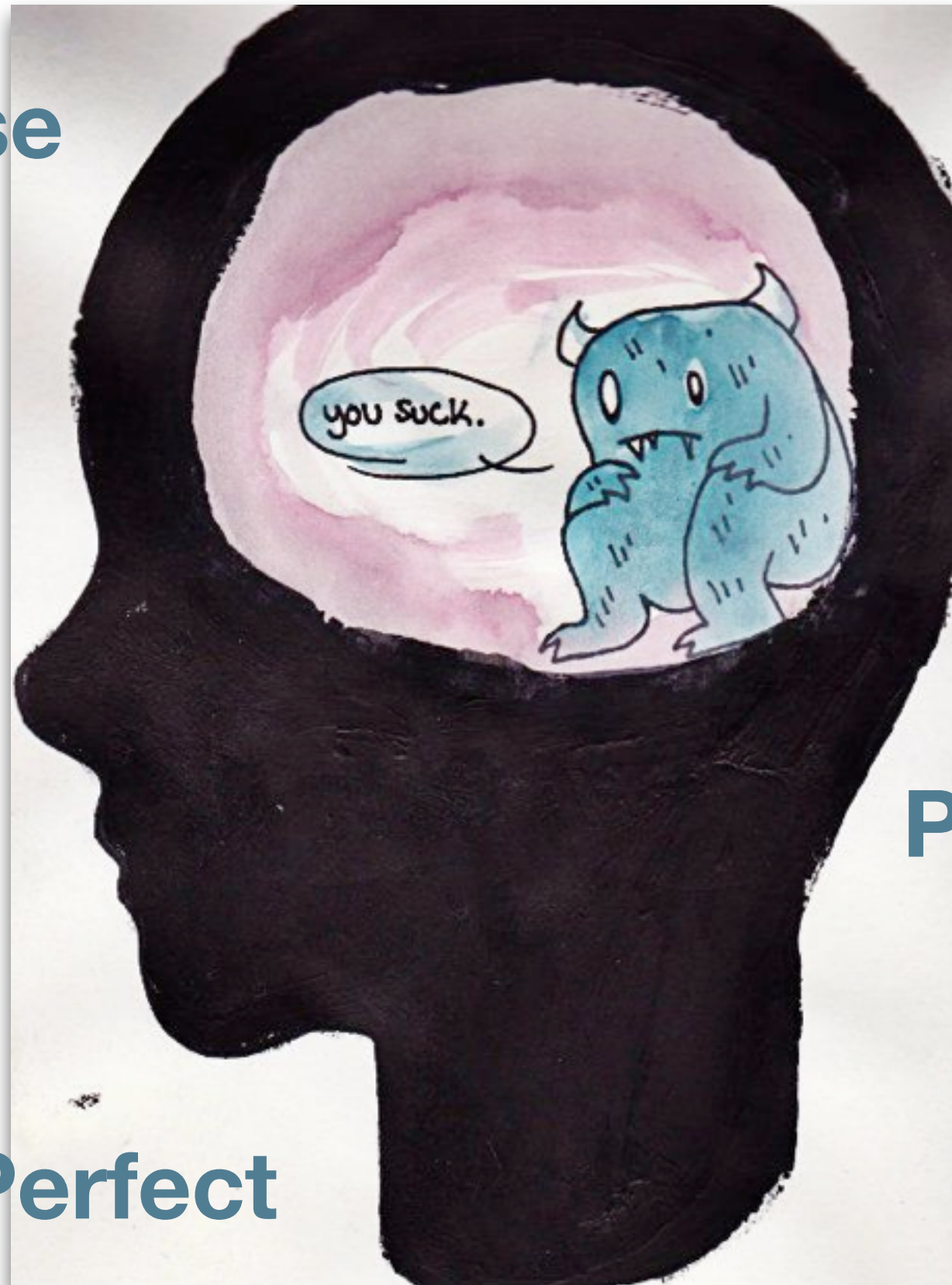
Speaking with Ease and Confidence

Avoiding the Three P's

- To Please
- To Perform
- To Perfect

The Three P's - Root cause of Anxiety

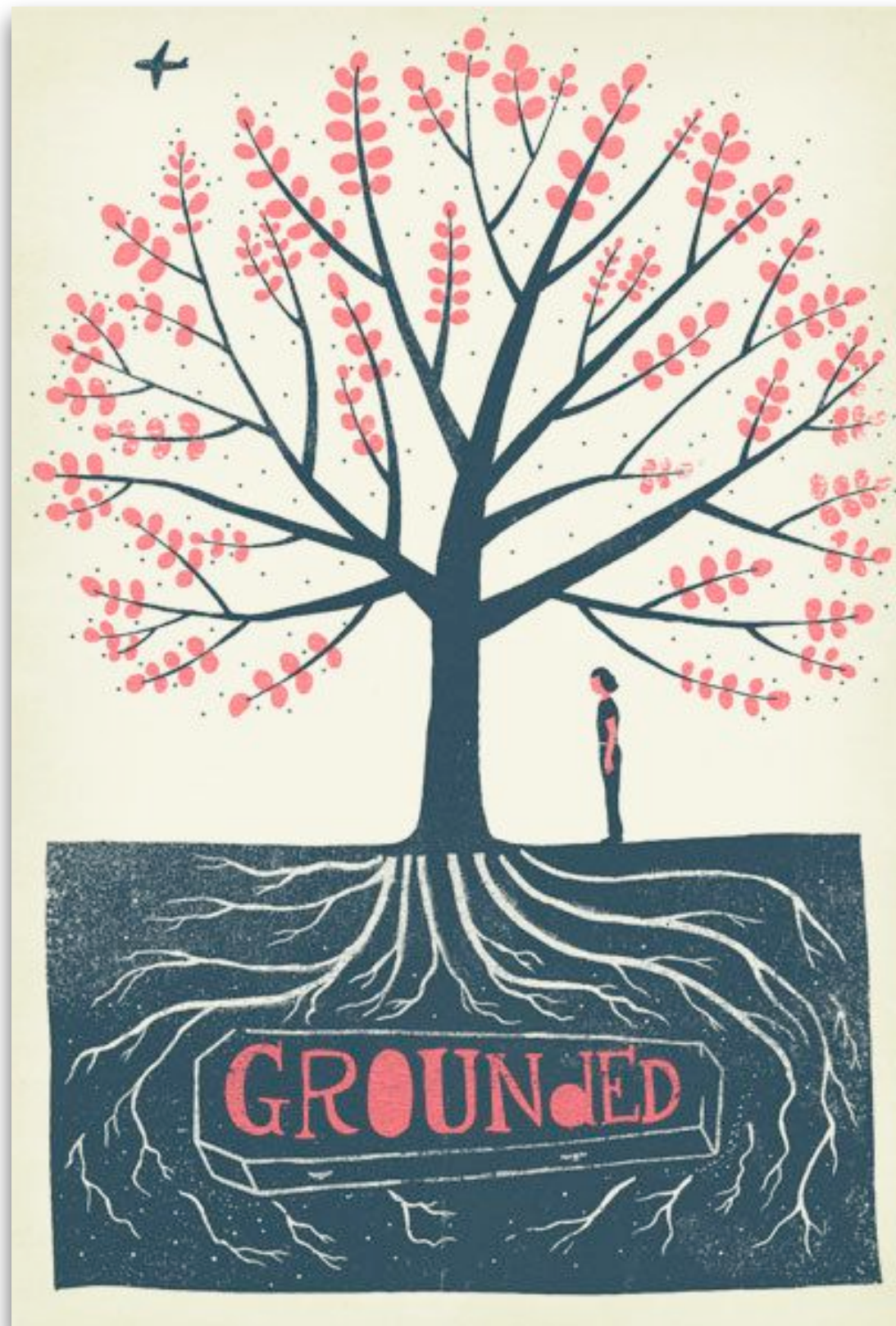
Please



Perform

Perfect

Speaking from a State of Presence



Choosing Courage over Self-Preservation

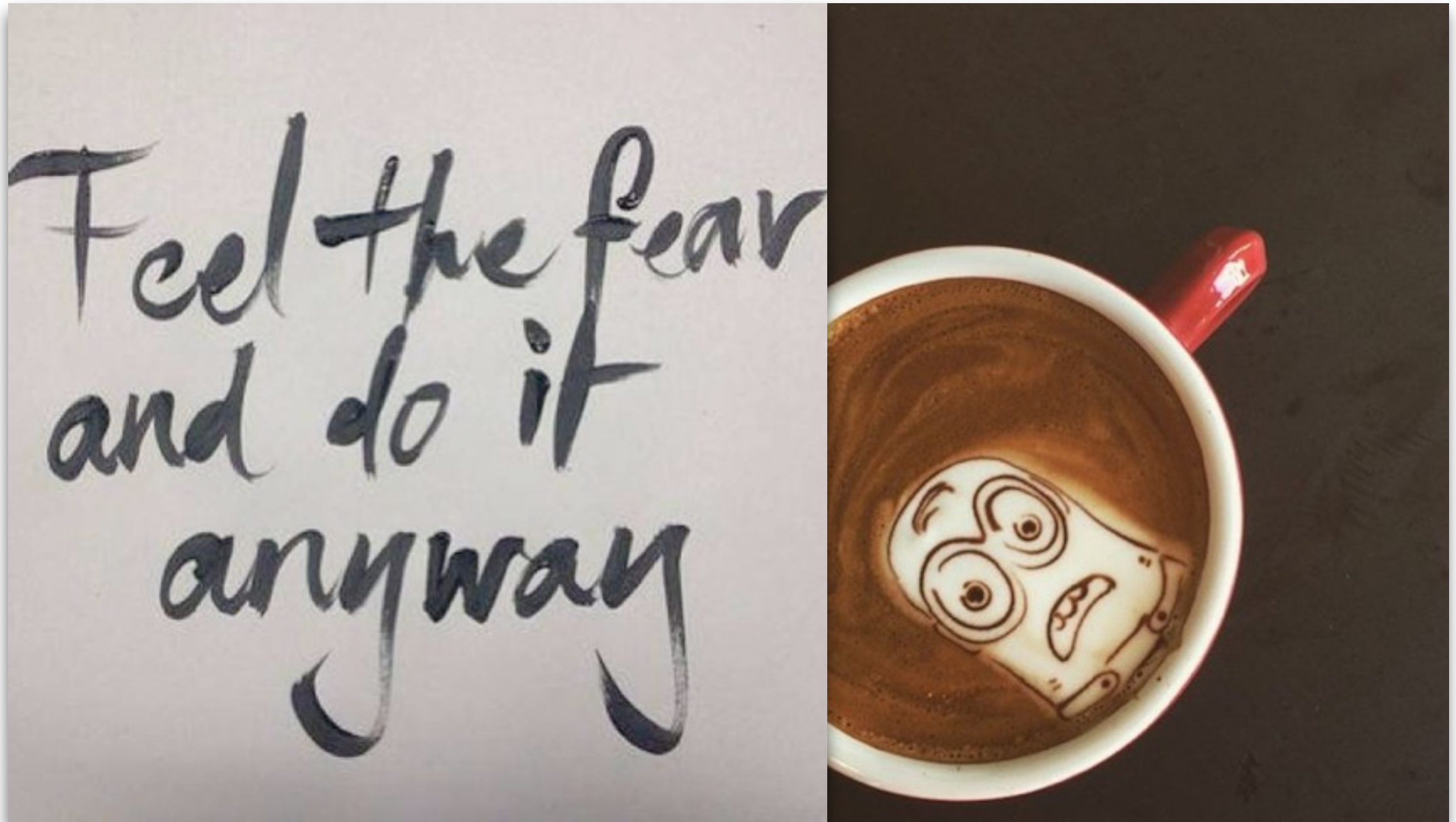
**She took
the leap
and built
her wings
on the
way down**

Slow
down &
lighten
up.



Reducing Anxiety

Anxiety Reducing Strategies - Core Beliefs



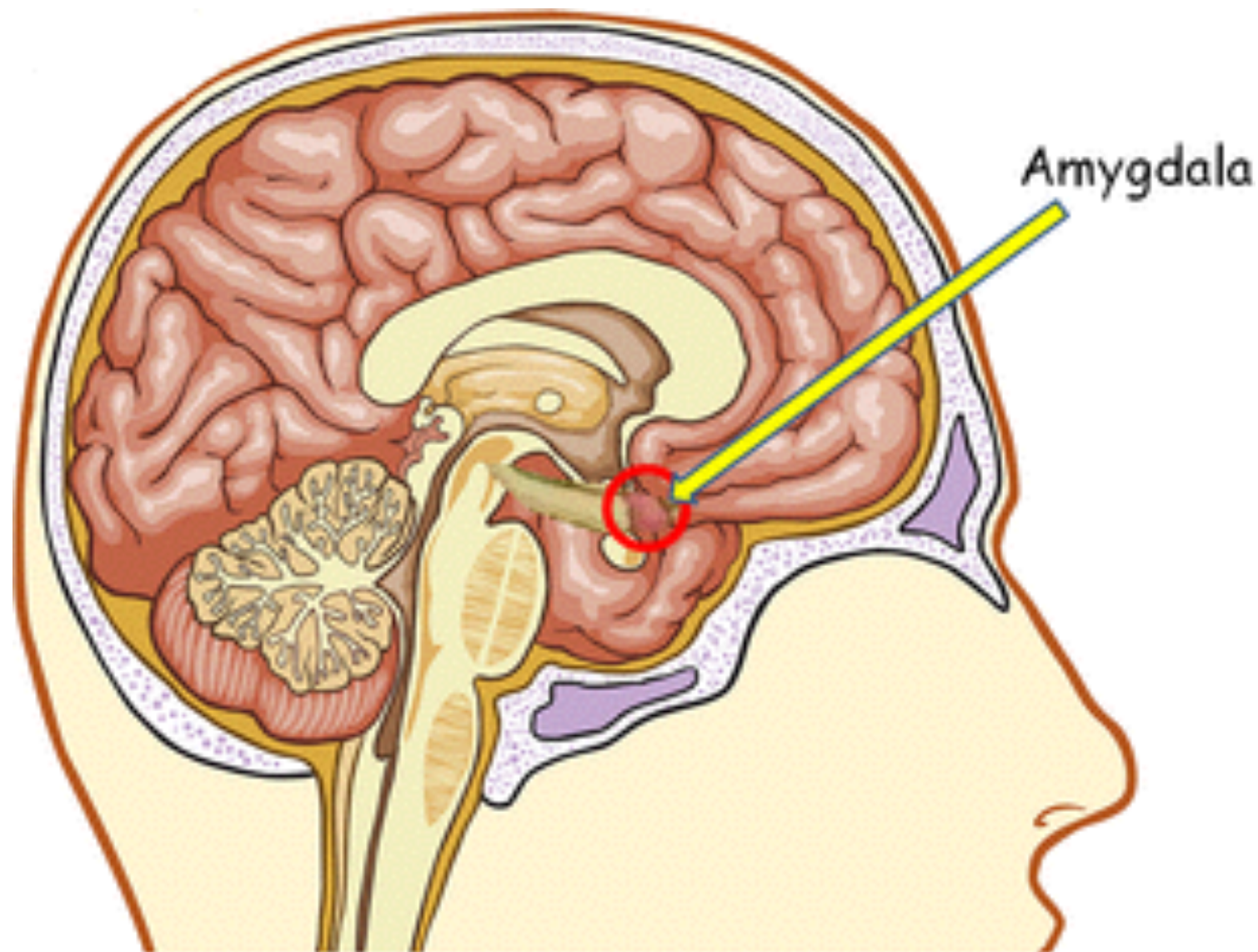
Anxiety Reducing Strategies - Core Beliefs

Positive Visualization

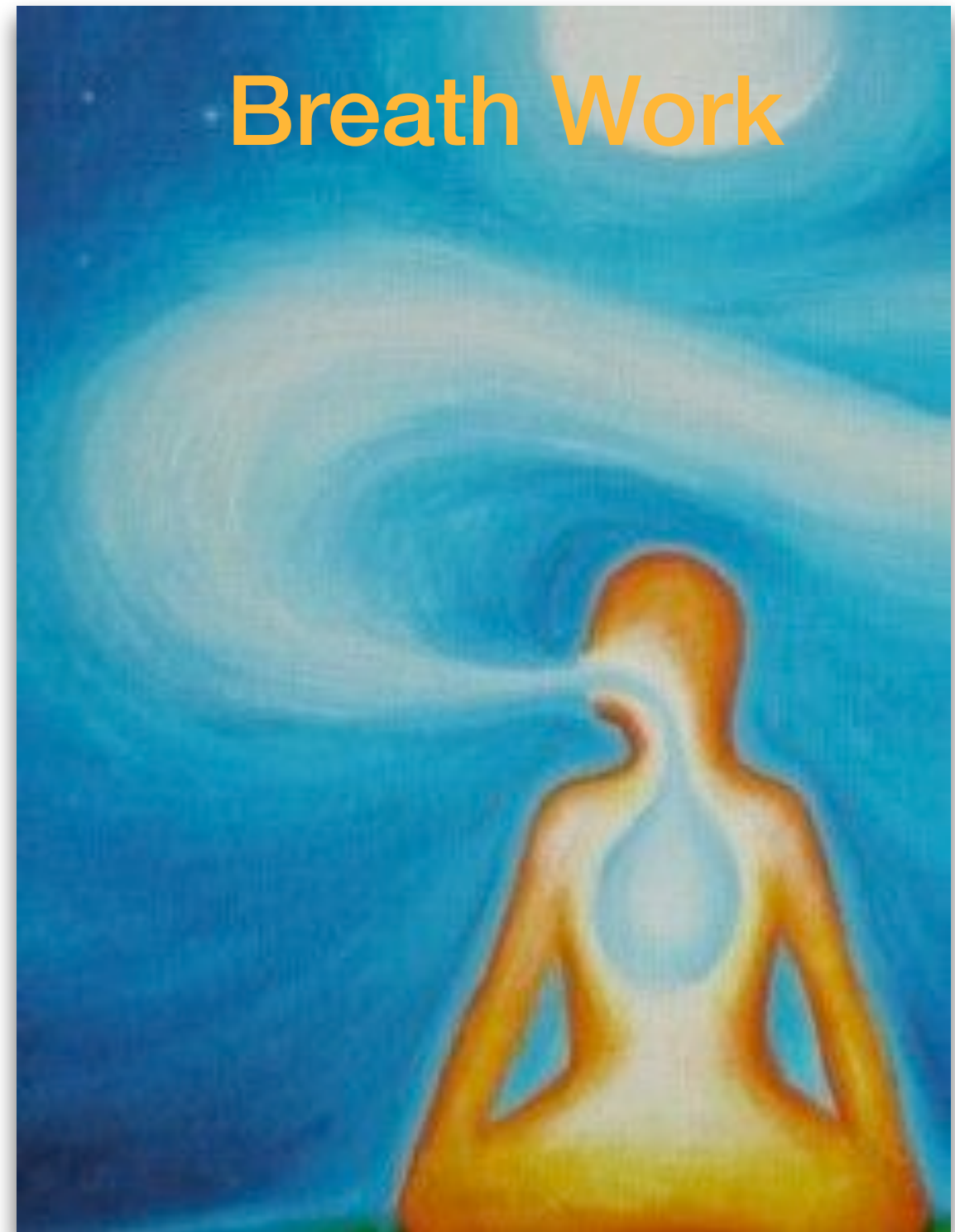
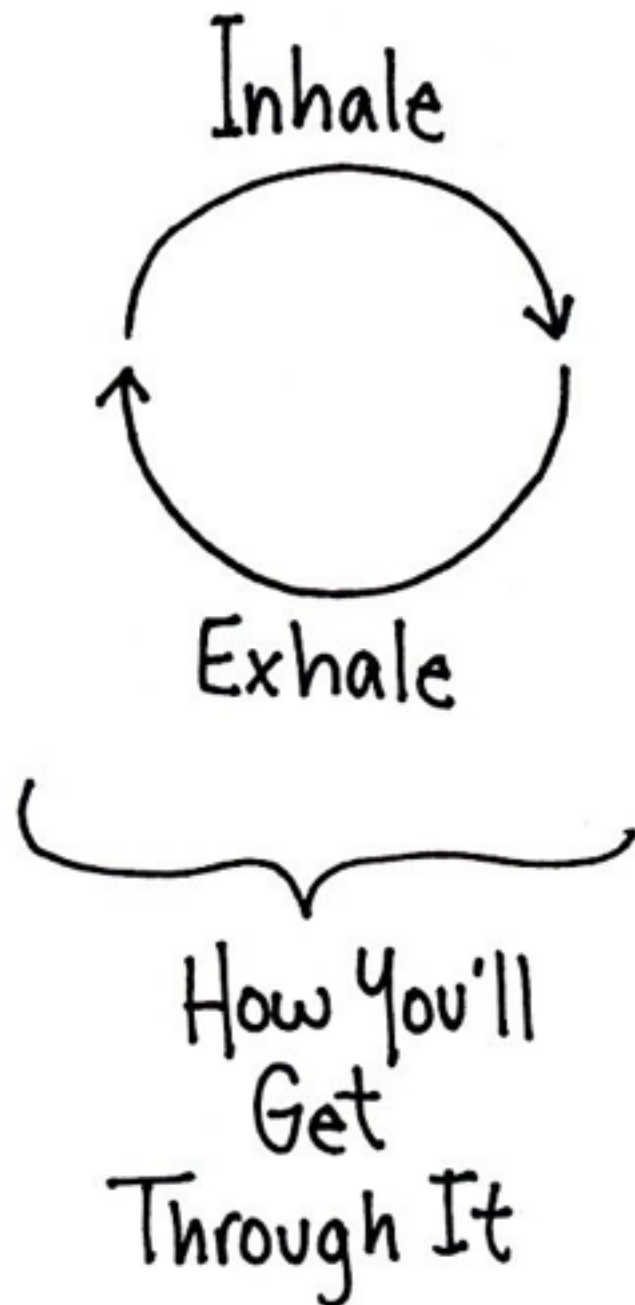


Anxiety Reducing Strategies - Flight, Fright, Freeze

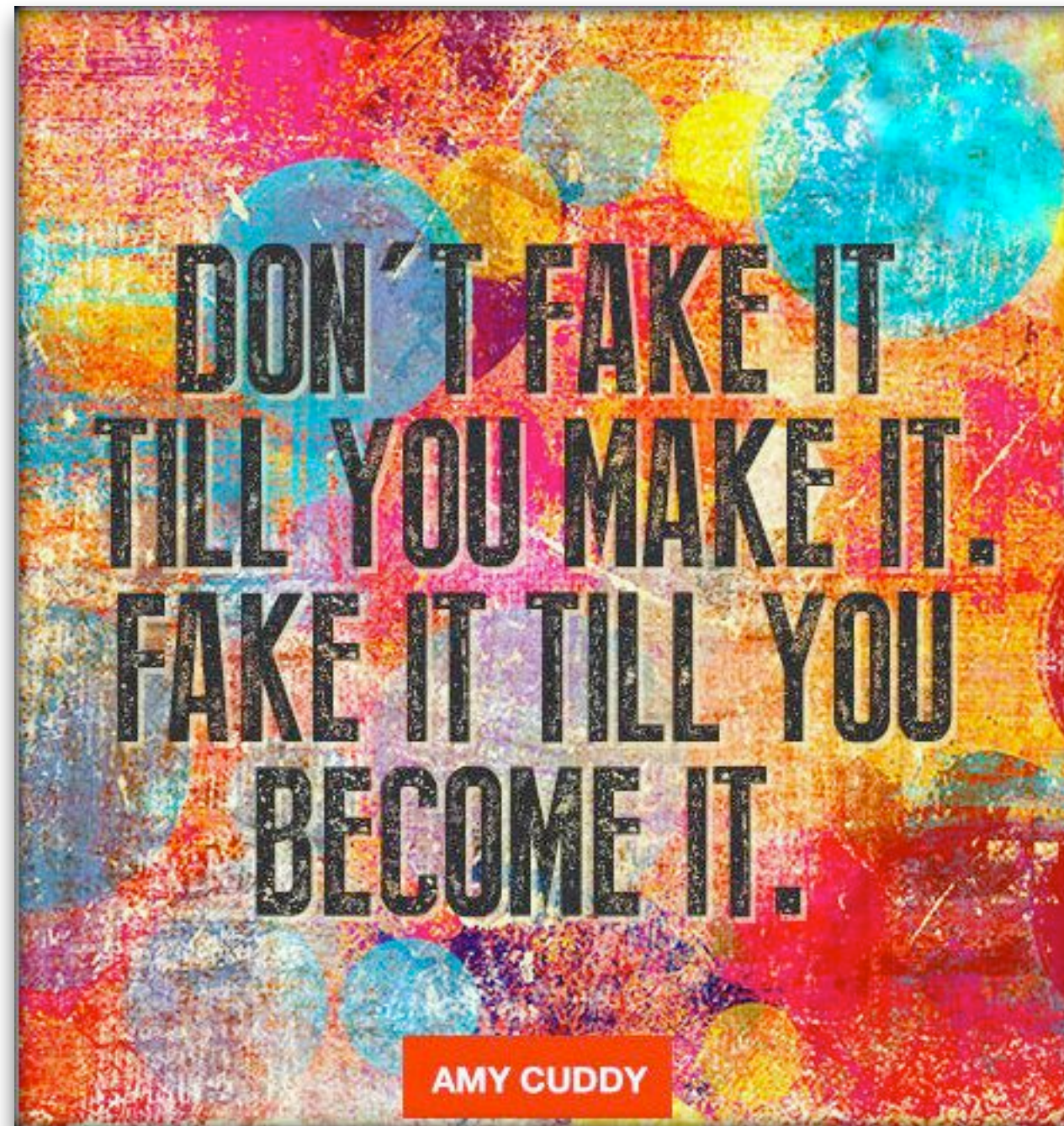
The Neuroscience Perspective of the Brain



Anxiety Reducing Strategies



Anxiety Reducing Strategies - Power Poses



Anxiety Reducing Strategies - Power Poses



Anxiety Reducing Strategies - Power Poses



Anxiety Reducing Strategies - Power Poses



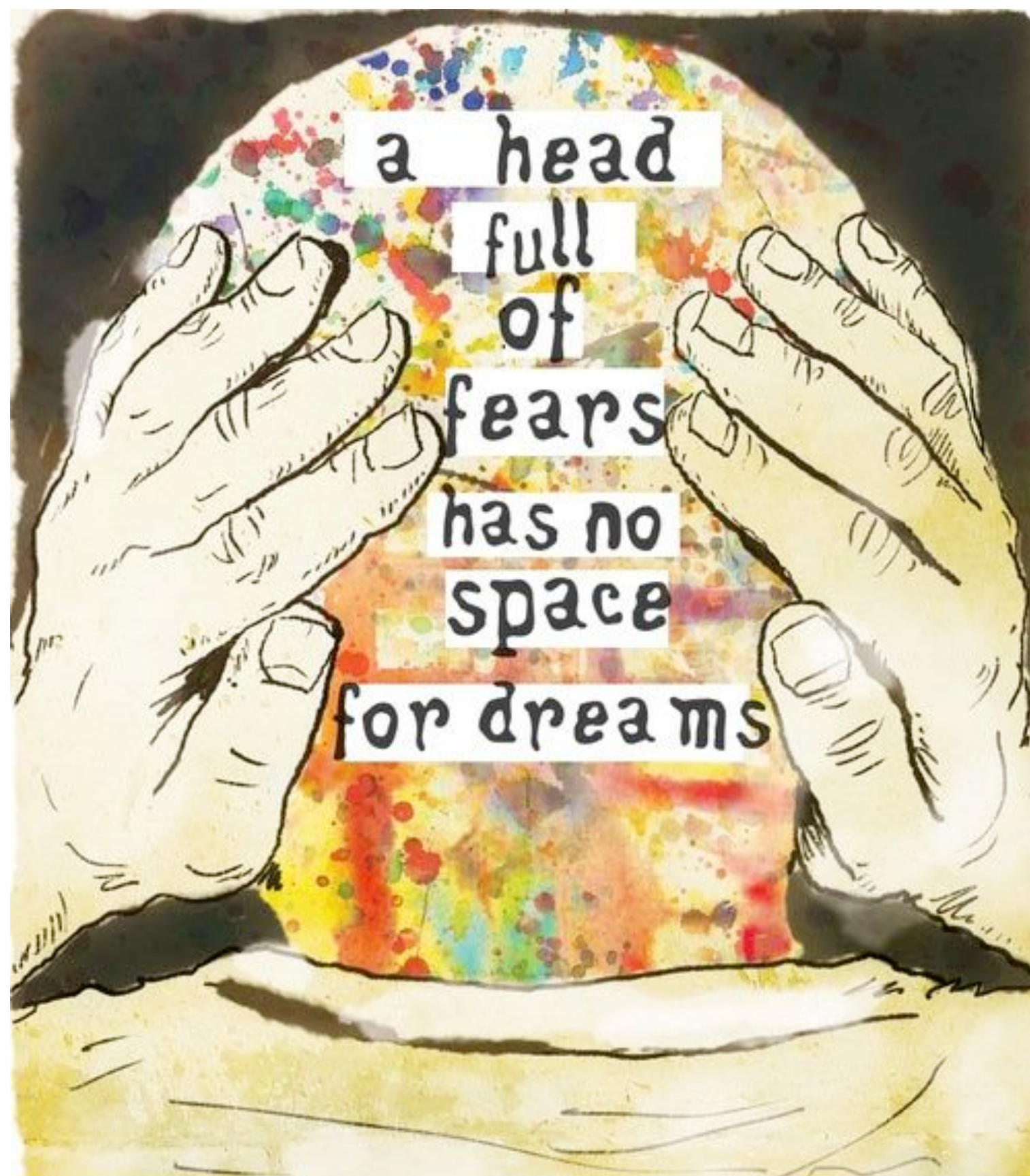
Anxiety Reducing Strategies

Rehearse!



Anxiety Reducing Strategies

- Know that the audience wants you to do well.
- Focus on the message instead on yourself.
- Practice breathing exercises.
- Use your body to relax with exercise
- Use the power pose.
- Practice positive visualization.
- Try to speak from a state of presence
- Avoid the three P's
- Stay authentic
- Feel the fear and do it anyway.
- Turn your fear into enthusiasm and excitement.
- Rehears, rehearse, rehearse!



a head
full
of
fears
has no
space
for dreams

Speaking Ethically

Speaking Ethically

Ethics is the moral dimension of human conduct.

Ethics is derived from the Greek word **ethos**, meaning “Character.”

Speaking Ethically

Responsible Knowledge

- Make a strong effort to acquire responsible knowledge.
- Responsible knowledge requires you to know more about the topic than your audience.
- Knowing the main points of concern.
- Understanding what experts believe about them.
- Being aware of the most recent literature concerning the issue.
- Realizing how these points affect the lives of listeners.

Speaking Ethically

Concern for Listeners

- Realize the power of communication and how words affect the lives of listeners.
- Avoid egocentrism, or excess preoccupation with the self.
- Any speech should be audience centered.
- Respect audience values even when you do not share them.

Speaking Ethically

The Ethical Use of Language

- Do not offer listeners distorted deception of reality.
- Use language to strengthen the ties of community, not divide people.
- Avoid language that is melodramatic that reduces complex issues to good and evil.

Speaking Ethically

Ethical Listening

- Give speakers your undivided attention.
- Keep your mind open to new ideas and keep personal biases aside.
- Avoid being judgmental.
- Provide honest feedback to the speaker.

Speaking Ethically

- At the practical level, you **must establish credibility** with listeners. Credibility is based on trust, honesty and believability.
- You also have a **moral obligation to treat your listeners with respect** and to behave ethically toward them.

Communicate & Connect

Speaking: To Communicate and Connect

- Aim to **communicate** your message effectively.
- Aim to **connect** with the audience.
- **Ways to connect** - Eye contact, knowing your audience, use of story, humor etc.

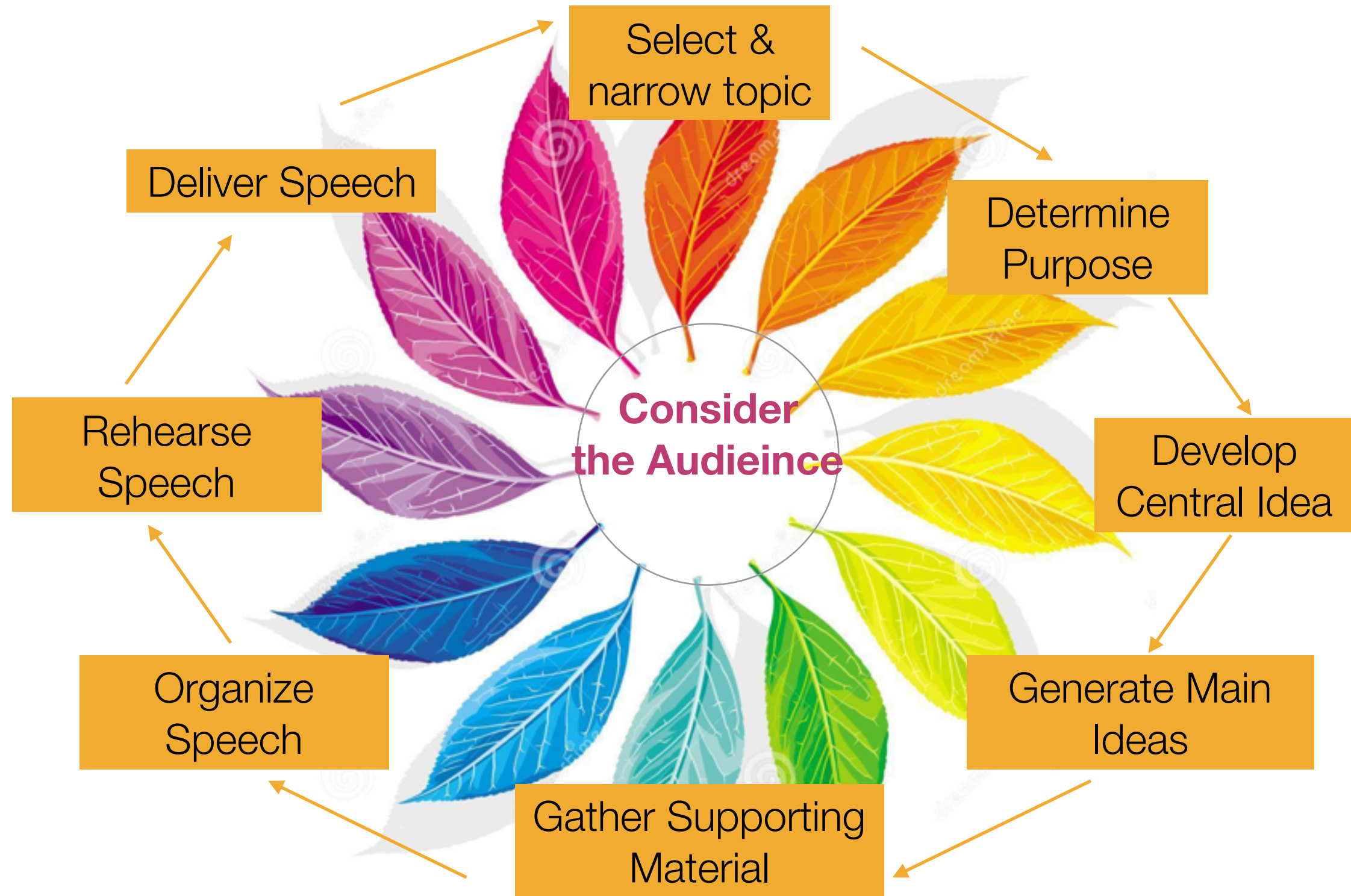
Types Of Speeches

Types of Speeches

1. **Introductory Speech** - To introduce oneself or another person.
2. **Informative Speech** - To inform, educate on a topic.
3. **Persuasive Speech** - To persuade the audience to for a specific outcome.
4. **Special Occasion** - Speeches on occasions.

Speech Outline

Outlining and Organizing a Speech - **Informative**



Key Terms

- **Thesis** is the Central Idea of your speech/topic
- **General purpose:** To Inform, to persuade, to entertain
- **Specific Purpose:** To list, to describe a process, a function etc.
- **Significance:** Why is the topic important? What are the effects?

Outlining and Organizing a Speech - Informative

1. Attention Getter
2. Significance (Source?)
3. General Purpose
4. Thesis - (Central Idea)
5. Preview
6. Body - Consists of main points
 - 6.a. - Main Point 1 + supporting evidence (2 sources)
 - 6.b. - Main Point 2 + supporting evidence (2 sources)
 - 6.c - Main Point 3 + supporting evidence (2sources)
7. Re-state thesis
8. Conclusion (Summary of the body)
9. After thought for the audience (A powerful take away message)

Outlining and Organizing a Speech - **Persuasive**

1. Attention Getter
2. Significance (1 Source)
3. General Purpose
4. Thesis - (Central Idea)
5. Preview
6. Body - Consists of main points
 - 6.a. - **ILL** Main Point 1 + supporting evidence (2 source)
 - 6.b. - **BLAME** Main Point 2 + supporting evidence (2 source)
 - 6.c - **CURE** Main Point 3 + supporting evidence (2 source)
7. Re-state thesis
8. Conclusion (Summary of the body)
9. After thought for the audience (A powerful take away message)

Language & Style

Language and Style

- Speech needs to be in a formal style
- Avoid slang words
- Speak with grace
- Avoid slandering or attacking
- Be sensitive to audience differences
- Use movement with grace
- Use gestures meaningfully
- Always define concepts and terms
- Define acronyms

Voice Quality

Voice Quality

- Voice Projection
- Modulate your voice
- Avoid monotone

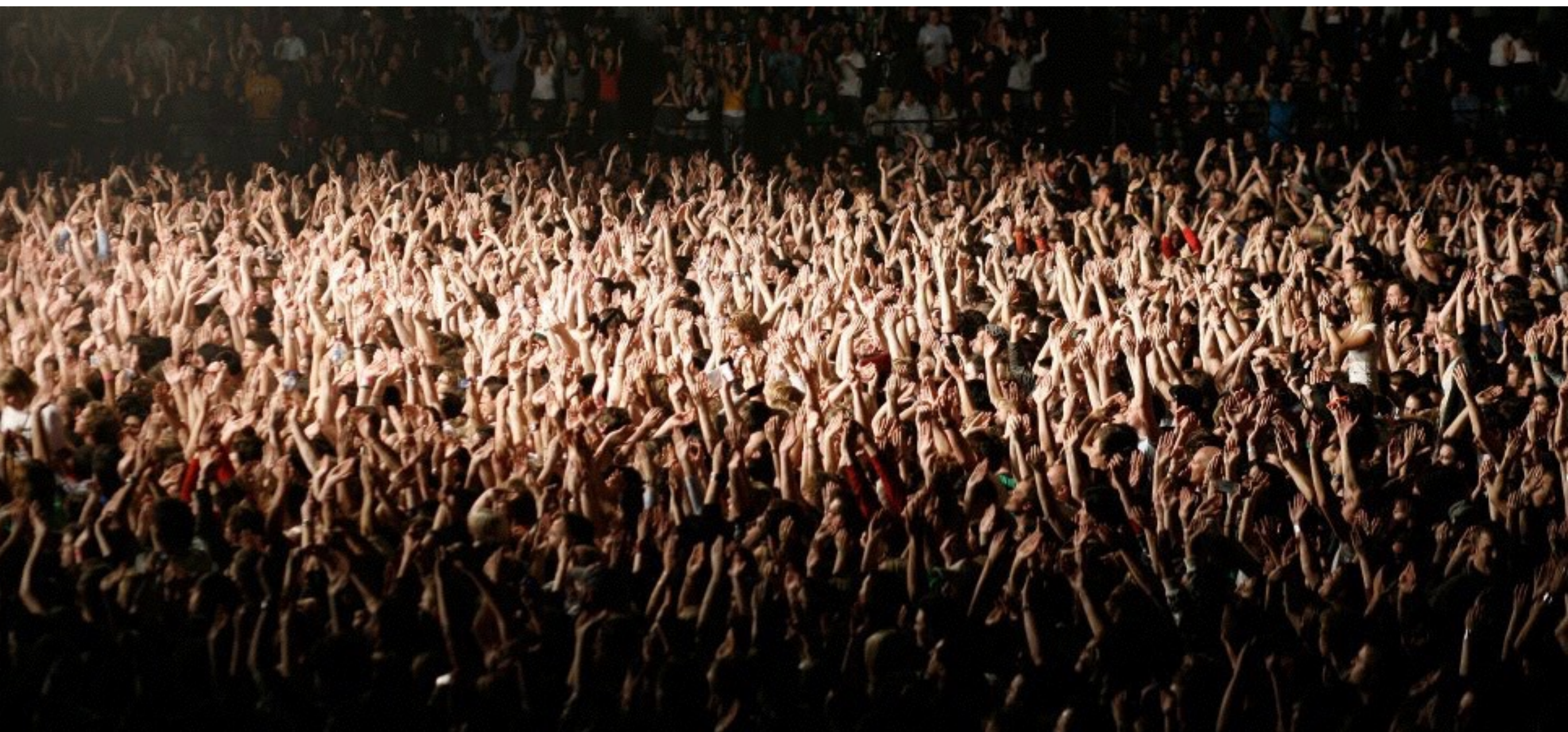
Speech Delivery

Delivering your Speech

- Avoid reading your speech
- Give eye-contact
- Maximize audience engagement
- Never apologize for being nervous
- Use humor sparingly, appropriately
- Use visuals carefully
- Use clear visuals
- Don't use the table or the wall as a crutch
- Avoid too many visuals on one slide

Speech Acts

Thank you



TedTalk Video Links

**[https://www.ted.com/talks/julian_treasure_how_to_speak_so_that_people_want_to_listen?
language=en](https://www.ted.com/talks/julian_treasure_how_to_speak_so_that_people_want_to_listen?language=en)**

https://www.ted.com/talks/joe_kowan_how_i_beat_stage_fright