

RESEARCH METHODS

ICT 392

REFERENCING

Definitions

Citation

- The process of identifying the sources of information included in an academic / research document / report.
 - Also referred to as in-text citation

Referencing

- The process of giving detailed information about the citation in an academic / research document / report
 - Listed towards the end of the document in alphabetical order.

Why Referencing

- Proves the level of reviewed literature done in support of the research
- Gives credit to other researcher's work
- Avoids plagiarism
- Used to indicate the origin of materials & source of research and further reading

What is Referencing Style

A referencing style is a specific / standardized format for presenting in-text references and bibliography. Examples

- American Psychological Association Style (APA),
- Harvard style of referencing
- Vancouver style
- Modern Language Association (MLA)
- The Chicago manual style
- Royal Society of Chemistry Style

American Psychological Association

APA Style

In-text citation

- Author, Year
- Only the lastname or surname of the author is used
- Abdulai (1999) or (Abdulai, 1999)

In-text citation

- APA Citation – Always use the surname / lastname
- Eg.
- Solomon Sarpong (2016) Sarpong (2016)
- Bernard Dumah (2024) Dumah (2024)
- Kelvin Oduro (2000) Oduro (2000)
- Vida Williams (2003) Williams (2003)
- Rockson Anyane (1997) Anyane (1997)

In-text citation

One (1) Author

- Anyane (1997) or (Anyane 1997)

Two (2) Authors

- Anyane and Williams (2013) or (Anyane and Williams 2013)

Three (3) Authors [E.g. Anyane, Dumah and Williams (2019)]

- Anyane et al., (2019)

In-text citation

Citation in a secondary source

- Citation of a work discussed in another (secondary) source
- A study by Aseidu and Ntow (2000) (as cited in Abdulai, 2010).
- **NB**
- Abdulai, (2010) will be listed in the Reference section.

In-text citation

Parenthetical Citation

- (Author, Year)

There has been an increase in the advertisement by telecommunication providers in Ghana (**Dumah 2024**)

Narrative citation

- Author (year)

Dumah (2024), . . . there has been an increase in the advertisement by telecommunication providers in Ghana

In-text citation

Use of Quotations

Parenthetical

“ ” (Author, year, page number)

“There has been an increase in the advertisement by telecommunication providers in Ghana” (**Dumah 2024, p. 3**).

Narrative

According to Author (Year), “ ” Page number

According to **Dumah (2024)**, “there has been an increase in the advertisement by telecommunication providers in Ghana”, **p. 3**.

Books

- Author / editors with initials or forenames
- Title (underlines or in italics)
- Edition (unless it is the first)
- Publisher
- Date of publication
- Page numbers (if needed)

Books (Cont'n)

Single Author

- Surname, First name. Middle name. (Publication year). Title (*Italics*).
Name of Publisher.

Dumah H. K. (2024). *Animals are beautiful people*. Ananse Publications

CITE: **Dumah (2024)**.

Books (Cont'n)

Two Authors

- Surname 1, First name 1. Middle name 1 and Surname 2, First name 2. Middle name 2. (Publication year). Title (*Italics*). Name of Publisher

Williams V. A. and Oduro T. Y. (2022). *Taming a bear*. Kingdom Publications.

CITE: **Williams and Oduro (2022).**

Books (Cont'n)

With Editions

- Surname 1, First name 1. Middle name 1 (Year). Title (*italics*) (Number of Edition). Publisher Name.

Dumah H. K. (2024). *Animals are beautiful people*, (2nd Ed.). Ananse Publications

CITE: **Dumah (2024).**

Books (Cont'n)

With Editions and DOI Numbers

- Surname 1, First name 1. Middle name 1 (Year). Title (*italics*) (Number of Edition). Publisher Name. DOI

Dumah H. K. (2024). *Animals are beautiful people*, (2nd Ed.). Ananse Publications. Doi/10.12292/S.228970

CITE: Dumah (2024).

Books (Cont'n)

Chapters in Books

- Surname, First name. Middle name (Year). Title of chapter. In Editor first initial. Surname (Ed.), Title of Book (in italics) (pages of chapter). Publisher.

Dumah H. K. (2024). How to tame a bear. In J. Baba (2nd Ed.), *Animals are beautiful people*, (pp. 23-45). Ananse Publications. Doi/10.12292/S.228970

CITE: Dumah (2024).

Journals

- Author / editors with initials or forenames
- Title (underlines or in italics)
- Full journal title (underline / in italics)
- Volume number
- Date of publication
- Page numbers
- DOI

Journals (Cont'n)

One *Authors*

- Surname, First name. Middle name (Year). Title. Journal Title (in Italics), volume(issue), page numbers. DOI.

Karim, A. (2013). Usage of mobile phones among JHS students in KTK. *Social Science in Perspective*, 88(2), 101-117. DOI/10.12292/S.228970

CITE: **Karim (2013).**

Journals (Cont'n)

Two Authors

Karim, A. and Williams V. (2013). Usage of mobile phones among JHS students in KTK. *Social Science in Perspective*, 88(2), 101-117. DOI/10.12292/S.228970

CITE: Karim and Williams (2013).

More than Two Authors

Karim et al. (2013). Usage of mobile phones among JHS students in KTK. *Social Science in Perspective*, 88(2), 101-117. DOI/10.12292/S.228970

CITE: Karim et al., (2013)

Theses / Dissertations

- Author Surname, First name (Initials). (Year). Title [Type – doctoral / masters etc., name of university] University URL

With URL

Oduro, M. (2023). Cleanliness is next to Godliness [Master's Thesis, University of XYZ]. University of XYZ. URL

Without URL

Oduro, M. (2023). Cleanliness is next to Godliness [Master's Thesis, University of XYZ]. University of XYZ.

Reference List

Reference List

- A list of sources cited in a text arranged in an order (alphabetical).
- Usually put at the end of the text or work

Reference List

Books

One author

- Lastname, Abbreviate other names (Year). Full title of the book. Place: Publisher.

Creswell J. W. (2009). Research Design. Singapore: Sage Publications Inc.

Reference List (Cont'n)

Two authors

- Lastname, Abbreviate other names & Lastname, Abbreviate other names (Year). Full title of the book. Place: Publisher.

Schonhoff T. and Giordano A. A. (2007). Detection and estimation – Theory and its Applications. Beijing: Pearson Education Asia Limited.

Reference List

More than two authors

- Lastname, Abbreviate other names, Lastname, Abbreviate other names (Year) & Lastname, Abbreviate other names . Full title of the book.
Place: Publisher
- Gordor B. K., Akar I. G. and Howard N. K. (2006). A guide to questionnaire survey. Cape Coast: Ghana Mathematics Group.

Reference List

Journal

- Lastname, Abbreviate other names (year). Title of the article . Name of the journal, volume (Number), pages.

Do, T.-N. (2021). Training neural networks on top of support vector machine models for classifying fingerprint images. Computer Science Journal, 2(5), pp. 1–12.

Reference List

Journal Article

- Lastname, Abbreviate other names & Lastname, Abbreviate other names (year). Title of the article . Name of the journal, volume (Number), pages.

Liau H. F. and Isa, D. (2011). Feature selection for support vector machine based face-iris multimodal biometric system. Expert Systems with Applications, vol. 38, no. 9, pp. 11105–11111.

Reference List

Webpages

- Lastname, Abbreviate other names (year). Title of the webpage.
Retrieved from <https://www.website.com>
- Lastname, Abbreviate other names (n.d.). Title of the webpage.
Retrieved date from <https://www.website.com>.
- NB
- If there is no date of publication given, state the date of retrieval.

Reference List

- Boneh, D., Gentry, C., & Waters, B. (2006). Collusion resistant broadcast encryption with short ciphertexts and private keys. *Lecture Notes in Computer Science (Including Subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 3621 LNCS, 258–275. https://doi.org/10.1007/11535218_16
- Chang, C. C., Lat, Y. W., & Yang, J. H. (2010). An efficient authenticated encryption scheme based on elliptic curve cryptosystem for broadcast environment. *ICIC Express Letters*, 4(1), 95–99.
- Dodis, Y., & Fazio, N. (2003). Public Key Broadcast Encryption for Stateless Receivers. In J. Feigenbaum (Ed.), *Digital Rights Management* (pp. 61–80). Springer Berlin Heidelberg.
- ElGamal, T. (1985). A Public Key Cryptosystem and a Signature Scheme Based on Discrete Logarithms. In G. R. Blakley & D. Chaum (Eds.), *Advances in Cryptology* (pp. 10–18). Springer Berlin Heidelberg.
- Fiat, A., & Naor, M. (1993). Broadcast Encryption. *Advances in Cryptology - CRYPTO '93, 13th Annual International Cryptology Conference, Santa Barbara, California, USA, August 22-26, 1993, Proceedings*, 773, 480–491. https://doi.org/10.1007/3-540-48329-2_40
- Gopalakrishnan, P., & Sakthivel, s. (2014). Improving the Security of Smart Cards through Multi- Curve ECC. *International Journal of Applied Engineering Research*, 9, 17601–17611.
- Halevy, D., & Shamir, A. (2002). The LSD broadcast encryption scheme. *Lecture Notes in Computer Science (Including Subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 2442, 47–60. https://doi.org/10.1007/3-540-45708-9_4

RESEARCH DESIGN

RESEARCH DESIGN

- Meaning of research design
- Features of a research design
- Types of research design

Meaning of research design

- A research design is the plan or framework used to conduct a research study.
- It involves outlining the overall approach and methods that will be used to collect and analyze data in order to answer research questions or test hypotheses.

Elements of Research Design

- Clear purpose – well definition of research question and hypothesis.
- Sampling – decision of sample size, sampling methods, inclusion or exclusion criteria.
- Data collection – what data to collect, how to collect, and tools / instruments
- Data analysis – statistical tests / methods that will be used to analyze the data

Elements of Research Design

- Types of methodology – decision about the overall approach for the study
- Time frame – duration of the study
- Ethical considerations – informed consent, confidentiality and participant protection
- Resources – budget, staffing, and other things needed to carry out the study

Characteristics

- Neutrality - the researcher should not have any pre-conceived notions, expectations and beliefs
- Reliability – there should be consistent measurements; there should be few random errors
- Validity – systematic errors should be minimal
- Generalizability - the outcome should be applicable to a larger population
- Flexibility – should allow for changes to be made to the research plan

Types of Research Design

- Qualitative Research
- Quantitative Research

ASSIGNMENT 2

State and explain the differences and similarities between

Qualitative Research and Quantitative Research.

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