# PH13: Determination of Ash and Mineral Contents in Selected Healthy Recipes from Fit, Eat, Active, Training (F.E.A.T) Programme

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**ABSTRACT**

**Introduction:** This study aimed to determine the nutrient contents in healthy dishes from recipe book used in Fit, Eat, Active, Training (F.E.A.T) programme. Ash and mineral contents were parts of the analysed nutrients in the healthy dishes. **Methods:** All 26 sample dishes were prepared at two different times and four replicates were analysed for each food analysis. Ash content in the samples was determined based on AOAC Official Methods (1997). Atomic Absorption Spectroscopy instrument was used to determine potassium (K), calcium (Ca), magnesium (Mg), iron (Fe) and zinc (Zn) contents in all food samples. **Results:** All food samples contained 0.13-6.57% total ash content based on wet weight basis. *Kari Daging* has the highest amount of K and Mg (361.3 mg/100g and 82.7 mg/100g respectively), *Daging Kicap* has the highest amount of Zn (26.4 mg/100g), *Sambal Bilis* has the highest amount of Ca (174.02 mg/100g) and Sambal Udang has the highest amount of Fe (3.4 mg/100g). The content of K and Fe were lowest in *Jus Brokoli Sedap* (32.1 mg/100g and 0.25 mg/100g), while *Jus Epal dan Oat* contained lowest amount of Ca (1.03 mg/100g). *Jus Mangga Oat* and *Sambal Udang* contained lowest amount of Mg (11.6 mg/100g) and Zn (0.19 mg/100g), respectively. **Conclusion:** Most of the analysed food samples contained less than 5% total ash which was the normal range of total ash content in most food. Dishes containing meat and seafood contained high amount of Fe and Zn contents.

**KEY WORDS:**

*Modified, recipe, healthy, total ash, mineral*

# PH14: Development of Assessment Tool for Evaluation of Printed Health Education Materials: Review of Existing Instruments

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**ABSTRACT**

**Introduction:** Printed health education materials are commonly used in promoting health in the community. Therefore, this review paper to evaluate existing instruments based on literatures to develop and validate a systematic assessment tool for evaluation of printed health education materials in Malaysia. **Methods:** Scoping review method were used in this study. The literatures searched using Pubmed, online search of health literacy organizations website and general internet search (Google and Google scholar) from 1990 to 2017. Studies that aimed to develop the instrument to assess the printed education material and describing the validity and reliability of produced instrument, as well as the process of their development were included in the search. Instruments that assessing only the readability of material were excluded in the search. **Results:** Over 160 journals, 8 instruments were found. Instruments reviewed consist of BIDS (Bernier instructional design scale), DISCERN tool, SAM (suitability assessment of materials), TEMPtEd (Tool to Evaluate Materials Used in Patient Education), PEMAT (patient education materials assessment tool), Health Literacy INDEX, EQIP tool, and CDC (Centres for Disease Control and Prevention) Clear Communication Index. The review found that most instruments have not been validated or have not shown inter-rater reliability and were developed with specific topic or aim. Furthermore, most of the instruments were developed to assess the quality of printed education material, only one instrument that measure materials are actionable. Most instrument also were aim to be used only by the healthcare professionals. **Conclusion:** Review indicated that there are a few reliable and valid instruments. Furthermore, there is an insufficient of data on impact of education materials on consumer learning outcome.

**KEY WORDS:**

*Printed educational materials, health education, assessment tool*