

Study on suitability of compact disc on food preservation

GITASREE GOSWAMI, SANGHAMITRA MOHAPATRA AND ANITA SINGH

The present research entitled “study on suitability of compact disc on food preservation” was undertaken with the objectives to collect relevant material and develop a CD on food preservation and to assess the effectiveness of the developed CD. The script of the documentary on food preservation was written in Hindi language so that villagers could be benefited like other respondents (staffs and students). According to the story board clippings for the CD were shoot. Voiceover on food preservation was done in studio after the shooting process and Cyber link power director software was used during the editing process of documentary. The study was conducted during the year 2016 in Allahabad district of Uttar Pradesh. A close ended evaluation schedule was prepared to evaluate the developed compact disc. Sixty respondents were selected purposively for the evaluation of the developed compact disc. Data was analyzed by using suitable statistical tools like frequency, percentage and one way ANOVA. One way ANOVA was used to find out the effectiveness of the CD. Ninety per cents of staffs and students were aware about the parameters of the CD and less by the villagers (70%). The CD parameters were divided into six numbers, title of the CD, duration, quality of voice, quality of picture, digital effects and subject matter of the CD. From the tabulated value (3.162), overall results for six parameters were found. The first parameter, title of the CD found significant result with calculated value 10.92. Likewise for duration and digital effect parameters, results were found non-significant with calculated values 0.64 and 1.19, respectively, which were lower than tabulated value of $f(3.162)$. For parameters quality of voice and quality of picture, results were found significant with calculated values 6.45 and 14.35, respectively. The last parameter was subject matter, in which result was found significant with calculated value 3.88. The cost of the compact disc on food preservation is Rs. 135.00 per CD.

Key Words : Compact disc, Food preservation, Evaluation

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INTRODUCTION

Media is the major source of modern culture and entertainment. In the world of today, media has become as necessary as food and clothing. It has played significant

role in strengthening the society. Media is considered as “mirror” of the modern society. In fact, it is the media which shapes our lives now-a-days. Media includes both print and electronic medium such as newspapers, magazines, television, radio, direct mail, telephone, fax and internet (Listeret *et al.*, 2009 and Shakeel, 2010).

The most important use of any media is that it is an opportunity for an action group to learn to tell its story in a progressively building way. Some uses of media are to achieve the communication objectives at the first stage. An action group will probably use meetings, telephone, letters and perhaps email in an informal way to connect with the people immediately (McIaren, 2005).

A compact disc is a type of optical disc. It is flat

MEMBERS OF RESEARCH FORUM

Author for correspondence :

GITASREE GOSWAMI, Department of Home Science Extension and Communication Management, Ethelind College of Home Science, Sam Higginbottom University of Agriculture, Technology and Sciences, ALLAHABAD (U.P.) INDIA
Email : goswamigitasree@gmail.com

Associate Authors' :

SANGHAMITRA MOHAPATRA AND ANITA SINGH, Department of Home Science Extension and Communication Management, Ethelind College of Home Science, Sam Higginbottom University of Agriculture, Technology and Sciences, ALLAHABAD (U.P.) INDIA
Email : sparamguru8@yahoo.co.in; singhanu63@gmail.com

and round, and is used to store digital data. It was first used to store music and other sounds which is also known as audio CD. The sound on a CD is played using a compact disc player. The diameter of a normal CD is 120 mm. The middle hole in a CD is about the size of a five cent coin that is about 1.5 cm.

The term food preservation refers to any one of a number of techniques used to prevent food from spoiling. It includes methods such as canning, pickling, drying and freeze-drying, irradiation, pasteurization, smoking and the addition of chemical additives. Food preservation has become an increasingly important component of the food industry as fewer people eat foods produced on their own lands and as consumers expect to be able to purchase and consume foods that are out of season (Lerner and Lerner, 2003).

Mass communication and media development :

Radesky *et al.* (2015) examined that the use of media such as smart phones and tablets by young children is increasing rapidly. However, research regarding the impact of this portable and instantly accessible source of screen time on learning, behaviour, and family dynamics has lagged considerably behind its rate of adoption. New guidance is needed because mobile media differs from television in its multiple modalities (e.g. videos, games, educational apps), capabilities, and near ubiquity in children's lives. The aim of this commentary is to review the existing literature, discuss future research directions, and suggest preliminary guidance for families.

Compact disc :

Rosser *et al.* (2000) resulted that computer-assisted instruction (CAI) can benefit surgical education by improving efficiency, effectiveness, standardization, and access. This study compares knowledge gains for special skill acquisition following a standardized tutorial delivered via CD-ROM versus live instructor.

Food preservation :

Ali (2007) reported that jams, jellies and marmalade can be made from a variety of fruits and some vegetables such as carrot and pumpkin; they are sometimes referred collectively as preserves. The products are typically luxury items that are purchased by consumers in affluent urban areas. As with all food products, it is essential to carry out a market and technical feasibility study before starting

to make preserves, to assess the level of demand for the products in your area. Jam making requires a large amount of sugar and making a high quality product requires some technical knowledge, the correct equipment and good packaging materials.

Objectives :

- To develop a suitable compact disc (CD) on education for food preservation.
- To evaluate the developed compact disc (CD) as an educational tool.

METHODOLOGY

The study was conducted in Allahabad district of Uttar Pradesh which was purposively selected. One industry named Poorva Pratishthan, Tagore Town, Department of Horticulture, SHIATS, Industrial area, Mahewa, Naini, Civil lines, Rambagh of Allahabad district of Uttar Pradesh were selected for shooting. The places were selected purposively. The respondents were selected purposively as they had knowledge about Compact Disc. There are a total of 60 respondents were selected for present study. The first part of the evaluation schedule was formulated for collecting the general data of the respondents about food preservation CD and the quality of CD in various observations. Second part of evaluation schedule was formulated for assessing the knowledge and attitude of the respondents towards food preservation technique and marketing. As per the requirement of the data, frequency, percentage, one way ANOVA and other appropriate statistical techniques was used. The collected data from the respondents were edited, scored, tabulated and analyzed using following statistical tools. Scoring procedure was adopted to evaluate the CD. A five point scale procedure (Likert Scale) was used to get the effectiveness of the CD (Likert, 1932).

OBSERVATIONS AND ASSESSMENT

The Table 1 shows the different parameters of the compact disc on food preservation and the three different groups (staffs, students and villages) with scores obtained regarding evaluation of the CD. The first parameter title shows that the total arithmetic mean of title is 12.55 and standard deviation is 2.43. The arithmetic mean of students is 4.65. Since the students category (C2) were having greater score than the average scores of staffs

and villagers as students had found the title of the CD “food preservation” more appropriate for the CD, So there was a greater effect of this parameter on the students compared to the two groups (staffs and villagers). The second parameter duration shows that the total arithmetic mean of duration is 12.05 and standard deviation is 2.56. The duration is more effective on students than staffs and villagers. The arithmetic mean of students is 4.15. This parameter shows the non- significant difference between the three groups which was found in the result. In the third parameter quality of voice, total arithmetic mean of quality of voice is 12.05 and standard deviation is 2.45. The quality of voice is more effective on students than staffs and villagers. The arithmetic mean of students is 4.5. Since the students category (C2) were having greater scores than the average scores of staffs and villagers. So there can be greater effect of this parameter on students compared to the two groups (staffs and villagers). Different scores from the fourth parameter quality of picture were 12.7 and standard deviation is 2.13. The quality of picture is more effective on students

than the staffs and villagers. The arithmetic mean of students is 4.9. Since the students category (C2) were having greater scores than the average scores of staffs and villagers. So there can be greater effect of this parameter on students compared to the two groups (staff and villagers). Digital effect is the fifth parameter that shows the total arithmetic mean of digital effects is 13.5 and standard deviation is 2.25. The digital effects are more effective on villagers than the staff and students. The arithmetic mean of the villagers is 4.65. This parameter shows the non-significant difference between the three groups. The last parameter is subject matter which shows the total arithmetic mean of subject matter is 13.05 and standard deviation is 1.78. The subject matter is more effective on villagers than the staffs and students. The arithmetic mean of the villagers is 4.65. Since the category (C3) villagers were having greater score than the average scores of staffs and villagers. Thus, the Table 1 shows the different parameter of CD on food preservation and scores obtained by three respective categories staffs, students and villagers.

Table 1 : Distribution of respondents according to their opinion regarding evaluation of the CD

				(n=60)	
Sr. No.	Variables	Categories	Mean	Standard deviation	
1.	Title	Staffs	4.4	0.82	
		Students	4.65	0.67	
		Villagers	3.5	0.94	
		Total	12.55	2.43	
2.	Duration	Staffs	3.85	0.81	
		Students	4.15	0.81	
		Villagers	4.05	0.94	
		Total	12.05	2.56	
3.	Quality of voice	Staffs	3.55	0.94	
		Students	4.5	0.60	
		Villagers	4	0.91	
		Total	12.05	2.45	
4.	Quality of picture	Staffs	3.6	0.88	
		Students	4.9	0.30	
		Villagers	4.2	0.95	
		Total	12.7	2.13	
5.	Digital effects	Staffs	4.25	0.91	
		Students	4.35	0.67	
		Villagers	4.65	0.67	
		Total	13.05	2.25	
6.	Subject matter	Staffs	4.15	0.67	
		Students	4.25	0.63	
		Villagers	4.65	0.48	
		Total	13.05	1.78	

Distribution of respondents according to the parameters Title and Quality of picture that are very important parameters of compact disc on food preservation:

Title of the CD:

Title is a term describing the craft and design of a documentary. Since the beginning of the documentary, title has been an essential part of a documentary picture. The title is a means for guiding the reception and interpretation of a text either by stressing a specific point of view or by giving an abstract of the documentary.

The main title design consisted of the documentary studio's name, logo and the presentation of the main characters along with the documentary name. Titles are important and not enough importance is placed on that in today's documentary marketing world.

The Table 2 shows that maximum number of staff members (55%) opined that the title is more appropriate followed by 35 per cent of staff members opined to be very good and 5 per cent observed that it is good and rest 5 per cent opined it is average. The maximum number of students (75%) opined that the title is excellent and appropriate to the target group followed by 15 per cent opined to be very good followed by 10 per cent opined that it is good. The maximum number of villagers (60%) opined that the title is very good followed by 20 per cent of villagers opined to be good followed by 10 per cent opined to be average followed by 5 per cent opined that it is excellent and rest 5 per cent opined it is poor.

The above ANOVA table reveals that the calculated value of F (10.92) due to categories is greater than the table value of F (3.162) at 5% probability level and on 2, 57 degrees of freedom. Since the students category (C2) were having greater score than the average scores of staffs and villagers as students had found the title of the CD food preservation more appropriate for the CD, So there was a greater effect of this parameter on the students compared to the two groups (staffs and villagers).

Quality of the picture:

Video quality is a characteristic of a video passed through a video transmission processing system, a formal or informal measure of perceived video degradation (typically, compared to the original video). Video processing systems may introduce some amount of distortion or artifacts in the video signal, which negatively impacts the user's perception of a system. Video quality is performed to describe the quality of a set of video sequences in a documentary. Video quality can be evaluated objectively (by mathematical models) or subjectively (by asking users for their rating).

The Table 3 shows that maximum number of staff members (50%) opined that the picture quality of the CD is good followed by 35 per cent of staff members opined to be very good followed by 10 per cent observed that it is excellent and rest 5 per cent opined that it is poor. The maximum number of students (90%) opined that the quality of picture is excellent to the target group followed

Table 2 : Distribution of respondents according to their opinion regarding title of the CD

(n= 60)

Sr. No.	Scale (1-5)	Staffs		Students		Villagers		F cal	F tab
		F	%	F	%	F	%		
1.	Excellent (5)	11	55	15	75	1	5		
2.	Very good (4)	7	35	3	15	12	60		
3.	Good (3)	1	5	2	10	4	20	*10.92	3.16
4.	Average (2)	1	5	-	-	2	10		
5.	Poor (1)	-	-	-	-	1	5		

*Significant

Table 3 : Distribution of respondents according to their opinion regarding quality of picture of the CD

(n=60)

Sr. No.	Scale (1-5)	Staff members		Students		Villagers		F cal	F tab
		F	%	F	%	F	%		
1.	Excellent (5)	2	10	18	90	10	50		
2.	Very good (4)	10	50	2	10	5	25		
3.	Good (3)	7	35	-	-	4	20	*14.35	3.16
4.	Average (2)	-	-	-	-	1	5		
5.	Poor (1)	1	5	-	-	-	-		

*Significant

by 10 per cent opined to be very good. The maximum number of villagers (50%) opined that the quality of picture is excellent followed by 25 per cent of villagers opined to be very good followed by 20 per cent opined to be good and rest 5 per cent opined that quality of picture is average.

The above ANOVA table reveals that the calculated value of F (14.35) due to categories is greater than the table value of F (3.162) at 5% probability level and on 2, 57 degrees of freedom. Therefore, it can be concluded from the above data on quality of the picture parameter that there is a significant difference between the three groups. Since the students category (C2) were having greater scores than the average scores of staffs and villagers because students observed the quality of the picture of CD on food preservation was consisting high definition (HD) and clear image. So there can be greater effect of this parameter on students compared to the two groups (staff and villagers).

Conclusion :

It is concluded from the study that the parameters of the CD had significant difference among the three groups. CD has played a major role in education of students and villagers. This CD was developed on food preservation.

There were significant results for title and quality of picture. The students were having high level of responses to title than staff members and villagers. The main

objective of the CD was fulfilled as all the three respective groups gained the required information of importance and need through the CD on food preservation.

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