

TELEVISION COVERAGE OF ISSUES RELATED TO GLOBAL EDUCATION IN GREECE

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Abstract – *Based on the assumption that mass media's role on diffusing information and values as well as developing global consciousness is critical, this article examined the extent to which 10 top-ranked global issues were covered on the six most popular Greek Television stations. We looked at headline content patterns in terms of particular keywords and their descriptors to identify whether global issues are being covered. It was found that the priority of commercial criteria over quality dominates especially in the privately-operated stations. Therefore, although it has been stated that the purpose of Greek broadcasting is to provide information, education and recreation for the people of Greece, it seems that information and education lags much behind and there is a need for a change in the programme policy towards maximising the role of television for increasing global consciousness.*

Introduction

In modern democratic states, citizens largely depend, directly and indirectly, on mass communications media to provide most of the material out of which they construct their understanding and subsequently form their evaluations (Wasburn, 1995). The role of mass media in the contemporary world has generated much debate (Bruce *et al.*, 1998; Lemisb, *et al.*, 1998). There is broad consensus that the mass media exercise a powerful and persuasive influence (Toivonen and Cullingford, 1997; Tiene, 1996; Brothers *et al.* 1991; Curran *et al.* 1987). Television research shows that it is one of the most important agents of socialisation and acculturation and has made a significant impact on students' attitudes and values (Poster, 1995; Baker, 1992; Ostman and Parker, 1987).

It has been noticed that concerns exist, in particular, about the significance of television in children's lives (Toivoe and Culligford, 1997), but no study regarding TV coverage of global issues has been traced through our extensive literature review. This despite the fact that television has been rated as the main source of information on global issues by more than 3000 student-teachers in five countries, namely Finland, Greece, Japan, the Netherlands and Sweden (Makrakis, 1996a). Global issues embrace or link up with a widening range of

interlinking concerns – the environment, human rights, peace, multiculturalism, development, concerns to which ‘education’ is often added (Makrakis, 1996b). Development education stresses an awareness of the nature and causes of injustice and inequality and the requirements of social justice (Osler, 1994; Starkey, 1994; Thyr, 1994). It, thus, overlaps to a considerable degree with environment and human rights. The ‘environment raises practical problems for development, while development provides an overall frame of reference for environmental concerns’ (Zweyacker 1994: 234). As Sinclair points out (1994: 53) ‘...education related to issues such as race, gender, culture, peace, human rights and environment complements and is complemented by education relating to development.’ Acceptance of ‘development’ with ‘justice’ and ‘human rights’ is thus perceived as an integral part to the concept of peace (UNESCO, 1994; Burns and Aspeslagh, 1983) and the content of peace education can be summed up in terms of liberty, development and human rights (Thelin, 1988). Peace education also becomes an important constituent of multicultural education and education for international understanding (Fien, 1991a, 1991b), as well as a state of harmony with the environment and the planet (Brock, 1991; Weil, 1990). As it is rightly put, without peace, development is impossible, without development, human rights are illusory; without human rights, peace is violence (Marks, 1983). Consequently, global education issues overlap in their goals to develop multiple perspectives, strengthen cultural, intercultural and global consciousness, respect human dignity and human rights and eliminate injustice, prejudice and discrimination.

Television and school have been described as two competing learning systems with television becoming ‘the first curriculum’ (Hepburn, 1998). Television presents to its audience a certain image of the world, providing a framework for what is acceptable and what is unacceptable in society. At the same time it sends out implicit and explicit messages that influence significantly people’s attitudes, beliefs, values and behavior (Gunter, 1995; Gunter and McAleer, 1990; van Evra, 1990). It is often claimed that educators should start revising their teaching methods and take into account the extensive direct and indirect effects of mass media on children’s learning.

All the above justify McLuhan’s thesis and slogan that ‘The medium is the message’. This means that each medium, such as television, changes the environment or creates a new environment and the consequences derived from this change have a more profound effect than the messages carried. Of equal importance is, however, the message conveyed by the media. For example, it has been found that watching multicultural segments on ‘Sesame Street’, a known TV programme, can increase pre-schoolers’ interest in playing with children from different ethnic backgrounds (Adams and Fuchs, 1986). Other research also showed that minority students who watched the programme gained in cultural

pride, self-confidence and interpersonal understanding (Greenfield, 1984). Television thus can be a powerful tool for improving children's images of the groups that make up a pluralist society. The transmission of 'The Day After' film can also be cited as an example that can contribute to the raising of global consciousness. Other studies on the implementation of audio-visual media and international understanding have also documented the positive impact that such media can make on raising pupils' understanding, appreciation and interest in other cultures (Mizoue and Kobara, 1991; Osaka, 1991; Takemura, 1991). These results indicate that there is a dialectical relationship between the medium and the message and the assessment of the first has to be considered with respect to the second and *vice versa*. It has been also found that the time of day when children watch television is important because of the schedule restrictions concerning leisure time, school time and viewing habits (Huston *et al.*, 1990). Children also spend more time watching television than in any other activity (*ibid.*).

Taking into account that television plays a crucial role in children's socialisation process, this paper presents the results of an exploratory study which aimed at investigating television coverage of issues of global concern in Greece. Due to its exploratory nature no particular hypotheses were tested. Of particular interest was the global issue coverage in state-owned and privately-owned television channels, especially as it concerns the differences between the amount of content devoted to each issue per channel, type, year as well as the time of transmission. The major questions addressed were the following:

- Are there any important differences in the global issues covered from privately-owned TV stations and state-owned ones?
- What is the amount of coverage given to global issues?
- Does the amount of coverage of global issues vary from year to year?
- What areas of global issues are most frequently covered?

The answers to these questions can contribute to a better societal understanding and response to global issues as well as to the educational potential of television.

Methodology

As pointed earlier, no study directly dealing with TV coverage of global issues has been traced through our extensive literature review. On the one hand, this gives the present study a challenge to initiate research on this field, but, on the other hand, it constrains it from a theoretical and methodological perspective. Despite that, all efforts were done to overcome these difficulties.

Subjects of the study

The research population consisted of all titles dealing with global issues featuring on six selected TV channels between January 1st 1994 and December 31st 1996. This period was chosen mainly due to the fact that privately-owned TV channels had been established at a nation-wide broadcasting level during that time. TV channels were chosen for the study on the basis of audience attendance and ownership (state-owned and privately-owned stations). From the six TV channels chosen, the two (three in total) are state-owned and the four are privately-owned. The state-owned channels were ET1 and ET2 and the privately-owned were ANT1, MEGA, SKY and STAR. The TV titles on global issues were located using content categories which were appropriate, exhaustive and mutually exclusive.

Creating and applying the global issues categories

The first step was to build a valid argument for choosing a category of the global issues. On the basis of an extensive literature review and discussions with scholars in the field of global education, the following 10-top rank of global issues were identified as mostly cited in the relevant literature (cf. Makrakis, 1996ab; Bybee and Mau, 1986). For every global issue, a number of key-words or sub-categories were devised which give meaning to the main category of the global issue they address. In the following we present the 10-top rank of global issues examined and an indication of the possible sub-categories which define each of them.

1. Population (population growth, overpopulation, infertility, population management and control).
2. Poverty and economic progress (the gap between North and South, East-West, aid, debt).
3. Environment (pollution, ozone depletion, acid rain, green-house effect, global warming, deforestation).
4. Human rights (social justice, self-determination, gender equality, language rights, the right to freedom, health and education, equality).
5. Peace (armament, disarmament, international conflict management, conflict resolution, peacemaking-peacekeeping).
6. Food and hunger (malnutrition, food as a basic human need and right, world hunger, consumerism).
7. Resources (use of natural resources, waste of resources, renewable resources, recycling).

8. Biodiversity (protection of nature and wildlife, endangered species, animal rights).
9. Cultural diversity (multiculturalism, racism, xenophobia, minorities).
10. Science and technology (biotechnology, bioethics, positive and negative aspects of science and technology).

Data analysis procedures

Based on these categories, a thematic analysis of global issues was carried out using as a source one of the major weekly TV magazines, called Radio-Television (*Radioteleorasi*). This magazine provides weekly listings with small summaries of all TV headlines that appear in the nation-wide TV channels. Thematic analysis, a form of descriptive research, has traditionally been used as a data collection technique to answer questions about the quantity and content of communications. This is a technique for making inferences by systematically and objectively identifying certain specific characteristics of themes. The requirement of objectivity is met by the researcher's precise formulation of rules and procedures to conduct the thematic analysis. The process is systematic to the extent that the inclusion or exclusion of themes is done consistently according to predetermined frameworks.

Although, thematic analysis has been used extensively, there is insufficient literature that outlines the pragmatic process of such a type of analysis. This implies that research designs are adapted to the nature and the specific characteristics of the topic under investigation. The thematic analysis applied in this study was to identify all TV titles/headlines that relate to the already classified taxonomy of global issues presented previously by using the key-words that define each of them. All of the TV titles that fit under the specific category of the global issue were identified and coded. For example, first we were examining whether a TV title included any key-word or sub-category that defined a global issue. Besides the title, the short summary accompanied the title was read in order to have a clear opinion. Once the information provided proved to support the relevance of the content to a global issue (e.g. environment), a coding sheet for each global issue was used to record its case and the related variables studied. From the quantitative perspective, items were examined in terms of: the period, year, time and type of transmission as well as the type of TV channel. The operationalisation of the period was done on the basis of: month (12 months), year (1994-96), time (before 13.00 p.m., from 13.01 to 20.00 p.m. and 20.01 to the end) and day (school day and school holiday). The operationalisation of the type of transmission was based on two programme types: (a) series/films and (b)

documentaries/educational programmes. This categorisation was the authors' based on the specific context of the study. Reality shows were excluded from the analysis as they did not fit the nature of the present study. As we pointed earlier, our source of data were the TV titles and their accompanied summaries found in the weekly TV magazine used. Reality shows do not explicitly define the content of discussion and, in general, these types of TV transmissions need a discourse analysis rather than a quantitative thematic analysis. Documentaries were considered to be educational programmes, in so far as their content includes an educational purpose and value, whether directly or indirectly. Educational programmes were defined as those that have a direct educational value and purpose. The quantitative analysis of the 730 titles or headlines identified falling into the top-10 rank of global issues included the calculation of univariate and bivariate non-parametric statistics, using the SPSS statistical program. All coding of global issues into the chosen categories was done by the authors of the present study, and two research students. There was a 95 percent agreement between the researchers and the assistants in the coding. Since we recognise the shortcomings of quantitative thematic analysis as a research tool, a qualitative approach was used as a supplement, with the aim of throwing light on the quantitative results by providing the context for the coverage. Informal open-ended interviewing, linked to 'recycling analysis' was used as the main technique for the qualitative part of the study, targeted at five, highly-specialised media experts. 'Recycling analysis' involves going back to the subjects with tentative results of the study, refining conclusions in the light of their responses (Makrakis, 1988). The informal interviewing provided a context for understanding, validating and interpreting the quantitative data.

Results of the study

The thematic analysis revealed 730 relevant headlines/titles on the six TV channels during the three (1994-1996) period. In an analysis by category it was found that 63% or 466 global issues headlines featuring on both state-owned and privately-owned television channels fell into the categories of environment (29%) and biodiversity (34%). The categories of peace (0.5%), poverty (1%), hunger (2%) and resources (4%) together accounted for less than 8 percent of all headlines. Population issues had not received any coverage, while human rights received 7%, cultural diversity 9% and science and technology issues 13%.

The greatest part of these headlines concern television programmes mostly transmitted via the state-owned educational TV broadcasting. We found that messages expressed in the headlines tended to focus on global issues rather than

local ones. This is indicated by the keywords 'planet', 'global', 'earth', 'nature', 'world', 'survival' that mostly appeared in the headlines or titles. Increasing use of these concepts is indicative of a rising consciousness that global problems such as the environment and biodiversity transcended geographic boundaries.

Significant differences were found on both the state-owned (95%) and privately-owned TV channels (5%) among the category issues. These findings indicate that state-owned TV channels seem to be more concerned more with issues of global concern than similar privately-owned stations are. The structure of their programmes is directed rather to a more qualitative perspective. As Cheretakis (1997) has pointed out, they are directed to cater for the needs of a small audience, while at the same time paying due emphasis on informational and educational programmes. It is worth mentioning that comparable situations exist in other countries – such as France, Poland, Spain, Sweden, Finland - where the main function of publicly-owned stations is to enlighten and educate people (cf. Trohalitou, 1998; Alasutari, 1992). Concerning Greek TV broadcasting, differences have also been found in terms of the themes/global issues covered by the news in publicly-owned and privately-owned stations (Ahimastos and Komninou, 1998). More specifically, the previous study showed that newscasting in publicly-owned stations deal more with issues of global concern than do similar privately-owned stations.

The bivariate statistical analysis between global issues categories and the type of the TV channel in the present study shown in Table 1 indicates that privately-owned TV channels focused mainly on global issues concerning human rights (32%) and the themes of poverty, peace and world hunger (29%). These three global issues were grouped together to facilitate the analysis, due to their very low coverage.

TABLE 1: Media Coverage of global issues by category and TV channel

Global Issues	% of Media Coverage		No of Headlines
	State-owned	Privately-owned	
Population	—	—	—
Poverty/Peace/Hunger	71	29	21
Environment	99	1	213
Human Rights	68	32	53
Resources	100	—	27
Biodiversity	99	1	253
Cultural Diversity	92	8	65
Science & Technology	96	4	98

The analysis of data also revealed that 60% of the headlines concerned with global issues were transmitted during school working days and the remaining 40% during school holidays. In an analysis by category, it was found that only resources and biodiversity issues had higher percentage of media coverage during school working period, while most of the rest were transmitted during school holidays (Table 2). No explanation of this pattern has been revealed, possibly indicating that this may be a matter of coincidence.

TABLE 2: Media coverage of global issues by category and period of transmission

Global Issues	% of Media Coverage		No of Headlines
	School days	School holidays	
Population	—	—	—
Poverty/Peace/Hunger	24	76	21
Environment	26	74	213
Human Rights	42	58	53
Resources	67	33	27
Biodiversity	58	42	253
Cultural Diversity	23	77	65
Science & Technology	29	71	98
Chi-square	D.F	Significance	
76.18	6	.0001	

It is interesting to note, however, that when such findings are examined across programme type it is noticeable that a little more than half (56%) of all global issues were transmitted between 13.00 and 20.00 p.m., 35% before 13.00 p.m., and 31% after 20.00 p.m. (which is considered the prime time fare). The bivariate analysis between time of transmission and category, shown in Table 3, indicates that issues concerning environment, resources and biodiversity, are mostly transmitted in the afternoon hours, human rights in the evening, cultural diversity and science/technology issues in the morning hours.

In an analysis by year of transmission, 50 percent of the headlines/titles concerned with global issues were covered in the years 1994 and 1995, while the remaining 50% in 1996 (Table 4). This is a quite considerable increase within a span of a year, one which needs further examination since it could possibly indicate that quality criteria are beginning to dominate the viewing habits of Greek people. The bivariate analysis by category (Table 5) shows that the bulk of these

TABLE 3: Media coverage of global issues by category and time

No of Global Issues	% of Media Coverage			No of Headlines
	>13.00	13-20	20-end	
Population	—	—	—	—
Poverty/Peace/Hunger	47	5	48	21
Environment	27	70	3	213
Human rights	13	28	59	53
Resources	15	85	—	27
Biodiversity	37	62	1	253
Cultural diversity	48	40	12	65
Science & Technology	55	40	6	98
Chi-square	D.F	Significance		
283.60	12	.0001		

broadcasts were confined to environmental issues in 1994, while human rights, resources, biodiversity and cultural diversity indicated a significant successive increase across this time span.

TABLE 4: Yearly growth of media coverage of headlines concerned with global issues

Year	Headlines		
	Observed	Expected	Residual
1994	197	243.33	-46.33
1995	169	243.33	-74.33
1996	364	243.33	120.67
Total: 730			
Chi-square	D.F	Significance	
91.367	2	.000	

TABLE 5: Media coverage of global issues by category and year

No of Global Issues	% of Media Coverage			No of Headlines
	1994	1995	1996	
Population	—	—	—	—
Poverty/Peace/Hunger	38	29	33	21
Environment	48	16	36	213
Human rights	9	28	62	53
Resources	15	7	78	27
Biodiversity	13	30	57	253
Cultural diversity	6	26	68	65
Science & Technology	41	19	40	98
Chi-square	D.F	Significance		
115.21	12	.0001		

It was also found that 12% of the global issues categories was identified within the area of series/films, and the remaining 88% in the area of documentaries. The bivariate analysis shows that with the exception of human rights issues, the percentage of media coverage of all other issues is significantly higher on the area of documentaries rather than on series/films (Table 6).

TABLE 6: Media coverage of global issues by category and type

Global Issues	% of Media Coverage		No of Headlines
	Series/Films	Documentaries	
Population	—	—	—
Poverty/Peace/Hunger	38	62	21
Environment	14	86	213
Human Rights	53	47	53
Resources	—	100	27
Biodiversity	2	98	253
Cultural Diversity	11	89	65
Science & Technology	6	94	98
Chi-square	D.F	Significance	
152.50	12	.0000	

Summary and discussion

A starting point for many discussions in relation to issues of public awareness and concern is that the mass media and television in particular serve as a primary source of information concerning global issues. No studies, however, have been found to address the issue of media coverage of global issues, although media have been the focus of continued and increasing study.

Virtually all social scientists have acknowledged that attitudes, values and behaviour of any individual may be developed, at least in part, through mass media or observational learning (Lowery and De Fleur, 1988; Toivonen and Cullingford, 1997). The steadily increasing influence of communication and information media in daily life have made people aware of the role of such media as sources of information and agents of socialisation. As Mouzelis (1998: 17) has aptly put it 'Murdoch-type figures play a greater part in the construction of young people's identities than do teachers, intellectuals, priests or artists'. At the same time, international research on the educational potential of television for raising primary and secondary school children's global consciousness and understanding is increasing. This study examined the extent to which 10-top ranked global issues were covered in six major Greek TV channels. The global issues topic was chosen for several reasons, including the range of debates it has spurred among the public, on the mass media and through the scientific community – even though this might not be the case in Greece. We looked at headline content patterns in terms of particular keywords and their descriptors to identify whether global issues are being covered or not in the Greek television stations examined.

The findings presented here suggest that there was a discernible pattern of increasing coverage of 'the environment' and 'biodiversity' as a global issue. The prominence of these two categories in television coverage may not necessarily tell us much about the extent to which television authorities are consciously placing such issues on the media. Several factors may have led to the rise of the environmental and biodiversity global issues on the top of television coverage, such as: the accumulation of scientific evidence about environmental deterioration, political initiatives, reactions of public and pressure groups, the degree of environmental destruction and public concern about environmental issues. These events are seen by many media specialists as an important turning point in the media coverage of environmental and biodiversity global issues. Indeed, issues such as global warming and ozone depletion have raised considerably popular interest in environmental issues, particularly in Western countries (Hicks, 1994). Similarly, unrestrained consumption of the earth's resources is beginning to produce irreversible damage to the biosphere and a major loss of biodiversity, on land, air and water (Horst Grimme, 1992). In general, most

of the global issues programmes transmitted through the six Greek TV channels investigated for the period of 1994-1996 were imported. This is also substantiated by others who argue that the production of educational broadcasting programmes by the Greeks is minimal and the imported educational programmes are overwhelming (Metallinos and Meimaris, 1996). Generally speaking, media coverage of environmental and conservation issues provided continual stimulation for the activists' commitment to keep fighting and to campaign for change (Anderson, 1991). This is also reflected by the recent attempts of introducing segments dealing with global issues on newscasting, mainly on the two major, privately-owned channels in Greece (Mega and Antena 1). It has been shown that television coverage of environmental problems has increased dramatically in the past few years (Hausebeck *et al.*, 1992). Environment is a social construction and the media play a crucial role in defining how we view our relationship with nature (Burgess *et al.*, 1991; Hansen, 1991).

It is interesting to find out that the issue of peace, which is one of the hottest issues in the area of Balkan peninsula, was greatly underrepresented among all issues, both on the state-owned and privately-owned TV channels. The same holds true for cultural diversity, although the presence of ethnic minorities has become an integral part of Greek society. It is known that television can play a considerable role in encouraging individuals to discover others, to respect differences, to eliminate stereotypes and prejudices, to combat racism and xenophobia (cf. Le Thanh Khoi, 1994). The media should deal with issues of multicultural education and peace education with the aim of promoting intercultural understanding. Programmes in educational TV could place an emphasis on the need to respect 'Otherness', on conflict resolution, peacemaking and peacekeeping approaches, on the role, actions and outcomes of various global issues' movements. Global education programmes through television should aim at raising the awareness of young people and the public in general about issues of global concern.

Informal interviews with media specialists have confirmed the basic patterns and trends identified in the present study and emphasised that the relation between society and media is reciprocal. In other words, society influences its media, but the media can also modify society. The media's reflection of the wider socio-cultural milieu can be seen, for instance, in the fact that cultural diversity has appeared to be unworthy of coverage because it has not, until recently, emerged as an issue of global and political concern in Greek society. The fact that global issues at large have appeared to be unworthy of coverage in the Greek television can be related also with what happens to other social institutions (e.g. education).

In the present study it was found that distribution of global issues categories vary greatly between state-owned and privately-owned TV channels, with the latter lagging far behind. It seems that this trend is largely explained by the misuse of mass media for commercial purposes and for obtaining large profits by broadcasting advertisements and light programmes. It is clear that the dominant role of communication media throughout the world has been shaped far more by the dual imperatives of capital accumulation and instrumental rationality than by any particular aspirations for 'democracy' (Calabrese and Borchert, 1996). The role of State television is different from that of privately-owned TV. More specifically, the former is more concerned with quality rather than achieving high degrees of viewing, by transmitting light programmes. However, commercial logic no longer exempts the state-owned channels from financial considerations, although public television still remains the main source of documentaries and educational broadcasting. Here, it should be mentioned that recently there have been attempts at introducing segments dealing with global issues on newscasting, particularly in the two major privately-owned channels in Greece. Since global education can be understood as a social learning process which can take place in the family, the school and the wider society, educational TV efforts should be appropriately and effectively utilised in combination to increase global understanding. Taking also into consideration the fact that the media help to form the public's perceptions of the world and to influence views about which issues are most important at any given time, there is a need to initiate policies towards the triad 'inform, educate, entertain' that is frequently invoked by media specialists.

The results of this investigation provide evidence that there are no policies for organised educational programmes in the television media, especially among the privately-owned TV channels. It is, therefore, urgent to take actions towards organised media education experiences that would foster global consciousness and sensitivity. Instructional, or educational, television can be an effective tool if lesson plans are developed that promote interactive viewing and involve the students in a variety of integrated learning activities. Since – as far as we know – no study has addressed the quality and accuracy of media coverage of global issues in Greece, the present study represents a useful starting point for integrating media coverage of global issues. Due to its exploratory nature, further research is needed to address a number of questions such as: What is and what should be the role of media in shaping social responses to issues of global concern? How can the communication of global societal problems and concerns through the media be improved?

Notes

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References

- Adams, D. and Fuchs, M. (1986) 'How television is changing thinking patterns as we move toward computer controlled global communication networks.' *Educational Technology*, Vol. 26 (3), 26-29.
- Ahimastos, M. and Komninou, M. (1998) 'The type agenda-setting of news: the press and television in Greece'. In R. Panagiotopoulou, et al. (eds) *The 'Construction' of Reality and the Mass Media*. Athens: Department of Communication and Media Studies, National and Capodistrian University of Athens and Alexandria Publications, 403-417. (in Greek)
- Alasuutari, P. (1992) 'I'm ashamed to admit it but I have watched Dallas: the moral hierarchy of television programmes'. *Media, Culture and Society*, Vol. 14 (4), 561-582.
- Anderson, A. (1991) 'Source strategies and the communication of environmental affairs.' *Media, Culture and Society*, Vol. 13 (4), 459-476.
- Baker, C. (1992) *Attitudes and Language*. Clevedon: Multilingual Matters Ltd.
- Brock, L. (1991) 'Peace through Parks: the environment on the peace research agenda.' *Journal of Peace Research*, Vol. 28 (4), 407-423.
- Brothers, C. et al. (1991) 'The impact of television news on public environmental knowledge.' *Journal of Environmental Education*, Vol. 22 (4), 22-29.
- Bruce, E. et al. (1998) 'Relationships of media use and political disaffection to political efficacy and voting behavior.' *Journal of Broadcasting and Electronic Media*, Vol. 42 (1), 34-49.
- Burgess, J., Harrison, C. and Maiteny, P. (1991) 'Contested meanings: the consumption of new about nature conservation.' *Media, Culture and Society*, Vol. 13 (4), 499-519.

- Burns, R. and Aspeslagh, R. (1983) 'Concepts of peace education: a view of western experience.' *International Review of Education*, Vol. 29 (3), 311-330.
- Bybee, R.W. and Mau, T. (1986) 'Science and technology related global problems: an international survey of science educators.' *Journal of Research in Science Teaching*, Vol. 23 (7), 599-618.
- Calabrese, A. and Borchert, M. (1996) 'Prospects for electronic democracy in the United States: rethinking communication and social policy.' *Media, Culture and Society*. Vol. 18 (2), 249-265.
- Cheretakis, M. (1997) *Trends of Mass Media in Greece*. Athens: Institute of Audiovisual Means. (in Greek)
- Curran, J., Gurevitch, M., and Woollacott, J. (1987) 'The study of the media: theoretical approaches.' In O. Boyd-Barrett and P. Braham (eds) *Media, Knowledge and Power*. London: Croom Helm.
- Fien, J. (1991a) 'Commitment to justice: a defence of a rationale for development education.' *Peace, Environment and Education*, Vol. 2 (4), 35-50.
- Fien, F. (1991b) 'Education for peace in the secondary schools: the contribution of one subject to an across-the-curriculum perspective.' *International Review of Education*, Vol. 37 (3), 335-350.
- Glenn, L. (1998) 'Switching channels: the effects of television channels on the mental representations of television news.' *Journal of Broadcasting and Electronic Media*, Vol. 42, (1), 21-38.
- Greenfield, P.M. (1984) *Mind and Media: The Effects of Television, Video Games and Computers*. Cambridge, Massachusetts: Harvard University Press.
- Gunter, B. and McAleer, J. (1990) *Children and Television*. London: Routledge.
- Gunter, B. (1995) *Television and Gender Representation*. London: John Libbey.
- Hansen, A. (1991) 'The Media and the social construction of the environment.' *Media, Culture and Society*, Vol. 13 (4), 443-458.
- Hausebeck, K. (1992) 'Environmental knowledge, awareness and concern among 11th grade students: New York State.' *Journal of Environmental Education*, Vol. 24 (1), 27-34.
- Hepburn, M. (1998) 'The power of the electronic media in the socialisation of young Americans: implications for social studies education.' *The Social Studies*, March/April, 71-76.
- Hicks, D. (1994) 'Reclaiming the future: what every educator needs to know?' In D. Hicks (ed.) *Preparing for the Future*. London: Adamantine Press Limited.
- Horst Grimme, L. (1993) 'Why maintain biological biodiversity?' European Conference 'Touch 92' *Breaking through Barriers. A European Initiative on Environmental Education*, Loutra Sidirokastrou, 29 March-4 April Serres, Greece.
- Lemisb, D. et al., (1998) 'Global culture in practice.' *European Journal of Communication*, Vol. 13, (4), 539-556.
- Le Thanh Khoi (1994) 'Intercultural education.' In L.F.B. Dubbeldam et al. (eds) *Development, Culture and Education*. Paris: UNESCO.
- Lowery, S. A. and De Fleur, M. L. (1988) *Milestones in Mass Communication Research: Media Effects*. New York: Longman Inc.

- Makrakis, V. (1988) *Computers in School Education: The Cases of Sweden and Greece*. Stockholm: University of Stockholm.
- Makrakis, V. (1996a) 'Effects of mass media and non-Media consumption on globalmindness and knowledge of global issues in Greece, Holland, Japan and Sweden.' Paper presented at the 17th CESE Conference, Athens, 13-15 October.
- Makrakis, V. (1996b) 'Global education in school education: an approach.' In P. Kalogiannakis and V. Makrakis (eds) *Europe and Education*. Athens: Grigoris. (in Greek)
- Marks, S. (1983) 'Peace, development, disarmament and human rights education: the dilemma between the status quo and curriculum overload.' *International Review of Education*, Vol. XXIX (3), 289-310.
- Metallinos, N. and Meimaris, M. (1996) 'Educational broadcasting in Greece.' *Journal of Educational Media*, Vol. 22 (3), 175-182.
- Mizoue, Y. and T. Kobara (1991) 'A survey on the implementation of audio-visual media among pupils, students, and teachers in New Zealand: especially on the development of educational audio-visual software in social studies.' In S. Takemura (ed.), *A Research on Implementation of Japanese Audio-Visual Media and International Understanding Among Primary and Lower Secondary School Children in Pacific Circle Countries*. Hiroshima University.
- Mouzelis, N. (1998) 'Multi-cultural Europe: conceptualising complexity on the socio-cultural and educational levels.' In A.M. Kazamias and M.G. Spillane (eds) *Education and the Structuring of the European Space*. Athens: Serios Editions.
- Osaka, T. (1991) 'Educational media technology and international understanding: a pilot study focusing on the film about Japanese gardens.' In S. Takemura (ed.) *A Research on Implementation of Japanese Audio-Visual Media and International Understanding Among Primary and Lower Secondary School Children in Pacific Circle Countries*. Hiroshima University.
- Osler, A. (1994) 'Introduction: challenges of development education: global perspectives in the curriculum.' In A. Osler (ed.) *Development Education: Global Perspectives in the Curriculum*. Council of Europe. London: Cassell and Council of Europe.
- Ostman, R.E. and Parker, J.L. (1987) 'Impact of education, age, newspapers, and television on environmental knowledge, concerns and behaviors.' *Journal of Environmental Education*, Vol. 19 (1), 3-9.
- Poster, M. (1995) *The Second Media Age*. Cambridge: Polity Press.
- Sinclair, S. (1994) 'Introducing development education to schools: the role of non-governmental organisations in the United Kingdom.' In A. Osler (ed.) *Development Education: Global Perspectives in the Curriculum*. Council of Europe. London: Cassell and Council of Europe.
- Starkey, H. (1994) 'Development education and human rights education.' In A. Osler (ed.) *Development Education: Global Perspectives in the Curriculum*. London: Cassell and Council of Europe.
- Takemura, S. (1991) 'Enhancing international peace and understanding through audio-visual media.' In S. Takemura (ed.) *A Research on Implementation of Japanese Audio-Visual Media and International Understanding Among Primary and Lower Secondary School Children in Pacific Circle Countries*. Hiroshima University.

- Thelin, B. (1988) 'Peace education.' *Western European Education*, Vol. 20 (3), 76-94.
- Thyr, M. (1994) 'Environment and development: a cross-curricular project in a Swedish school.' In A. Osler (ed.) *Development Education: Global Perspectives in the Curriculum*. London: Cassell and Council of Europe.
- Tiene, D. (1996) 'Educational television in the nineties: a global survey.' *Journal of Educational Media*, Vol. 22 (3), 151-159.
- Toivonen, K. and Cullingford, C. (1997) 'The Media and information: children's responses to the Gulf War.' *Journal of Educational Media*, Vol. 23 (1), 51-64.
- Trohalitou, L. (1998) 'Cultural changes and the role of public television in Europe.' In R. Panagiotopoulou *et al.* (eds.) *The 'Construction' of Reality and the Mass Media*. Athens: Department of Communication and Media Studies, National and Capodistrian University of Athens and Alexandria Publications. (in Greek)
- UNESCO (1994) *First Consultative Meeting of the Culture of Peace Programme. Final Report*. Paris: UNESCO.
- van Evra, J. (1990) *Television and Child Development*. Hillsdale, NJ: Lawrence Erlbaum.
- Wasburn, P. (1995) 'Democracy and media ownership: a comparison of commercial, public and government broadcast news.' *Media, Culture and Society*, Vol. 17 (4), 647-676.
- Weil, P. (1990) *The Art of Living in Peace: Towards a New Peace Consciousness*. Paris: UNESCO.
- Zweyacker, A. (1994) 'Development education in France: the role of UNESCO clubs.' In A. Osler (ed.) *Development Education: Global Perspectives in the Curriculum*. London: Cassell and Council of Europe.