

Indicators of Non-formal & Informal Educational Contributions to Active Citizenship

A Paper Prepared for the European Commission by

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Introduction and aim of the paper

This paper addresses the question of what measures can be used to measure the learning of active citizenship. It focuses on the learning of active citizenship through informal and non-formal education. Concepts of citizenship, in particular ‘active’ citizenship, are of course contested; however, we have adopted the definition provided within the project Framework Paper. Learning may be defined generally as all processes that lead to relatively lasting changes of capacity, whether they be of a motor, cognitive, emotional, motivational, attitudinal or social character. Illeris (2002, pp. 13-21) focuses in particular on three dimensions of learning:

Firstly all learning has a content of skill or meaning. The acquisition of this content is primarily a *cognitive process* Secondly, all learning is simultaneously an *emotional process* ... a process involving psychological energy, transmitted by feelings, emotions, attitudes and motivations Thirdly, learning is also a *social process* taking place in the interaction between the individual and its surroundings, and thus in the final analysis a process dependent on historical and societal conditions. (Illeris, 2002, p. 18)

Learning thus occurs in a number of contexts. The most well-recognised context for learning is *formal* education. Formal education¹ refers mainly to processes and institutions which are commonly termed ‘initial education’. These are the activities which occur in schools, colleges and universities, and are undertaken often (though not exclusively) by students who are studying on a full-time basis and have not yet entered the ‘world of work’.

However, learning which occurs in other contexts may also contribute to civic awareness and participation. The notions of *non-formal* and *informal* education were developed in order to address learning which occurs outside the formal educational system (Coombs 1985; Coombs & Ahmad 1974). The classification of education (and more recently increasingly learning) into formal, non-formal and informal has become far more salient

¹ *Formal* education and training occurs in school and post-school institutions, typically in the public sector, and is the major mechanism of public intervention in education. It is characterised by relatively centralised, stable and sequential curricula, and well-established structures of assessment. It is the main locus of most state ‘civic education’ policies and expenditure.

in recent years, with the strong policy emphasis in many countries on lifelong learning and on the recognition of learning undertaken outside the formal education system. This has led both to more sophisticated operationalisations of the typology, and to some serious critique.

Eurostat (2005, pp. 14-15), drawing on the International Standard Classification of Education (ISCED), offers the following definitions:

Formal Education² as “...education provided in the system of schools, colleges, universities and other formal educational institutions that normally constitutes a continuous “ladder” of full-time education for children and young people, generally beginning at age of five to seven and continuing up to 20 or 25 years old. In some countries, the upper parts of this “ladder” are organised programmes of joint part-time employment and part-time participation in the regular school and university system: such programmes have come to be known as the “dual system” or equivalent terms in these countries.”

Non Formal Education³ is defined as “any organised and sustained educational activities that do not correspond exactly to the above definition of formal education. Non-formal education may therefore take place both within and outside educational institutions, and cater to persons of all ages. Depending on country contexts, it may cover educational programmes to impart adult literacy, basic education for out of school children, life-skills, work-skills, and general culture. Non formal education programmes do not necessarily follow the “ladder” system, and may have a differing duration.”

Informal Learning is defined as “...intentional, but it is less organised and less structured ...and may include for example learning events (activities) that occur in the family, in the work place, and in the daily life of every person, on a self-directed, family-directed or socially directed basis”⁴.

Broadly speaking, therefore, non-formal education refers to education which occurs in a planned way, but is directed typically at adult learners studying on a part-time basis. Non-formal education for active citizenship would include programmes of part-time adult education, such as:

- Classes in political and civic education for adults, such as might be offered by local adult education institutes or adult education NGOs.

² ISCED 97 glossary, page 41

³ ISCED 97 glossary, page 41

⁴ As defined in the report of the Eurostat TF/MLLL (paragraph 32, page 12).

- Courses offered by trade unions, employers or NGOs, especially those directed toward increasing participants' capacities to participate effectively in their organisation or society.

Coombs and Ahmad (1974) classically defined informal education as:

The life-long process by which every person acquires and accumulates knowledge, skills, attitudes and insights from daily experience and exposure to the environment – at home, at work, at play; from the example and attitudes of family and friends; from travel, reading newspapers and books; or by listening to the radio or viewing films or television. Generally, informal education is unorganized, unsystematic and even unintentional at times, yet it accounts for the great bulk of any person's total lifetime learning – including that of a highly 'schooled' person. (Coombs and Ahmad 1974, p. 8)

This definition clearly contrasts with the current ISCED view, adopted by Eurostat, which excludes unintentional learning. On this view, informal education for active citizenship would therefore include only **intentional** learning of skills, attitudes or knowledge related to active democratic participation in society, albeit on a relatively , **unorganised and unstructured basis**.

In a major attempt to review and clarify the literature on classifications of formal, non-formal and informal education, Colley *et al.* (2002) argue:

There are three ... problems with many of these competing classifications. Firstly, in many of them (but not all), informal learning is defined by what it is not – formal. Secondly, many of the lists (but not all) carry value assumptions, implicit or explicit, that one form or another is inherently superior – sometimes morally, sometimes in terms of effectiveness. Thirdly, there is an overlapping body of writing about non-formal and informal education, which cannot be easily or clearly separated off from learning. All this throws serious doubts about the possibility and advisability of seeking clear definitional distinctions between these different types of learning or education. (Colley *et al.* 2002, p. 6)

They argue that it is very often the 'blending of formal and informal' which leads to the most significant learning, and that there are 'few, if any, learning situations where either informal or formal elements are completely absent' (p. 6), and that

All the evidence we have analysed suggests that either the boundaries between formal, non-formal and informal learning or education, or the relationships between them, can only be understood within particular

contexts. There are significant differences, for example, between learning and mentoring in the workplace, as part of youth work, in community-based programmes, or in further education. These differences are deep-seated, involving historical, economic, social and political dimensions. (Colley *et al.* 2002, p. 7)

Some of the practical difficulties involved in defining clear boundaries are implicitly acknowledged by Eurostat.⁵ Having established intentionality as central to non-formal and informal learning, Eurostat is obliged to add a category of ‘random learning’, to deal with learning which occurs as an accidental outcome of a ‘non-learning activity’.

In other words a non-learning activity can produce the same type of outcomes as a learning activity. Random learning can be generated as a by-product of a non learning activity in the sense of “improvement in behaviour, information, knowledge, understanding, attitude, values or skills” in terms of “work, societal and personal outcomes”. (Eurostat 2005, p. 9)

Unfortunately, for our purposes, learning of this kind is particularly relevant to learning of citizenship, which is often the result of processes which are unplanned – or at least, whose learning outcomes are unplanned.

So far as the analysis of learning for active citizenship is concerned, defining clear boundaries between categories of learning therefore presents particular challenges. Non-formal education for active citizenship, for instance, clearly encompasses courses offered by NGO or trade unions; community development and education projects, however, while generally directed toward strengthening citizenship, may incorporate both ‘non-formal’ courses and less structured activities. ‘Service learning’ of the kind common in universities in the USA provides a comparable mix of informal and formal learning (Putnam 2000, p. 405). Some interventions may lead to learning of citizenship (such as some advertising, including, but not only, that designed as ‘public information’), but only incidentally to their main purpose. Many people join social movements with intent to change the world; they may find in them a life-changing learning experience; but often learning is not their motive for joining. However, it is important to acknowledge the role and importance of non-formal and informal education in contributing to learning, as

⁵ ‘It is the intention to learn that distinguishes learning activities from non-learning activities. Of course a number of activities whose main purpose is not learning may also produce learning. For example: when entering a sport competition one might improve one’s own performance although there might not be a formulated intention to do that. This case should be considered as a non-learning activity because, although learning may be generated, it is just a by-product of the activity.’ (Eurostat 2005, p. 9)

their on learning have been largely invisible to citizenship research, when compared to the generally much greater focus on formal education.

Bounded definitions of learning and education are essential for establishing indicators and collecting data. Keeping this in mind, our approach in this paper has been to work from the definitions adopted by the project Framework paper (and related official European Commission documents), while acknowledging that these present significant conceptual issues.

It is apparent that informal and non-formal education for active citizenship might be expected to include a wide range of activities and processes. There is a significant definitional and measurement problem in separating non-formal and informal learning activities from those activities which directly constitute active citizenship. Nevertheless, a limited number of measures are available, and several more exist which might be shaped into appropriate measures in future survey research.

In this paper, we examine ideal indicators which might be used to measure such education, in the context of the overarching domains provided by the Centre for Research on Lifelong Learning (CRELL) for the measurement of active citizenship as a whole. We canvass the possible range of indicators that could be used to measure informal and non-formal citizenship education, and develop estimates of the levels of such education within available European countries. We also develop an index of such measures, to provide some estimate of the relative strength of informal and non-formal education for active citizenship within European countries. Given our limited time and resources and the incomplete nature of the existing data, this index is for illustrative purposes only.

Theoretical Framework

Capturing informal and non-formal skills, knowledge and competencies for active citizenship is a tricky task. Conceiving of suitable items in an abstract sense is difficult. Accurate measurement may ultimately prove to be elusive. Nevertheless, existing theoretical research points the way towards a number of potential empirical indicators. At the outset, then, it is important to make appropriate delineations between the components of active citizenship, in order to clarify the concept for which we are seeking indicators.

Separating Citizenship, Formal, and Non/informal Education Indicators

Educational contributions are seen to fall under a number of domains. The International Civic and Citizenship Education (ICCES, 2006) study gives four quite comprehensive domains for citizenship, which lead on to educational contributions for their promotion:

- Domain 1: Identity and connectedness
- Domain 2: Civic knowledge and understandings
- Domain 3: Citizenship dispositions
- Domain 4: Civic and citizenship competencies

This sets out a list of domains, with considerable overlap across much of the literature. The first domain is associated with a person's sense of identity as a citizen and their belonging to their community and country, and associated civic and social values. This domain is probably most directly associated with actual citizenship – identifying oneself as a citizen – rather than with the education that contributes towards shaping citizenship, and is probably the least relevant to us here.

The second domain is associated with knowledge and understanding of what it means to be a citizen, the relevant institutions, knowledge of roles, responsibilities and powers, and trust in government. Regioplan also identifies skills such as critical reading and debating as important for citizenship, and attitudes such as political trust and interest. Other studies similarly identify the importance of knowledge for citizenship, including political, social and cultural knowledge (Veldhuis 1997; Delli Carpini and Keeter 1996).

The third domain is relevant to holding informed views on social equity and cohesion, and taking action as a participative citizen, which incorporates civic and political activity. This is in line with the Regioplan citizenship criteria of values acknowledging tolerance, human rights, and the rule of law, and Audiger's (2000) capacities to live with others, resolve conflicts democratically, and take part in debate.

The fourth domain is of a higher order, involving organising, governance and pushing for change, and is reflected in Audiger's (2000) idea of cognitive competencies, or knowledge of a legal, political and procedural nature, and Veldhuis' (1997) economical knowledge and training. The study conducted by Regioplan (2005) for the European Commission identifies knowledge, skills and competencies for active citizenship which have much in common with this domain, skills such as critical reading and debating, as does Audigier (2000) who identifies ethical competencies and value choices as important

With the partial exception of the first domain (as noted above), each domain has educational aspects – all the understandings, dispositions and competencies of citizenship are learnt within one context one another. However, all of these domains have the problem of not in themselves explicitly differentiating between aspects that fall under the category of *citizenship* and those which fall under *education*.

An alternative approach to operationalising citizenship education is to look at citizenship as a developmental process. This is the approach taken by CRELL in their background work to this paper. They suggest that citizenship aspects can be divided into a three-part citizenship development process comprised of experiences and *inputs*, *individual outcomes* and *community outcomes*. All four of the domains listed above contain some of these input, and outcome aspects.

Inputs:

- Background variables such as personal factors (demographics), socio-familial factors, educational factors, area factors and access to learning opportunities
- Experiences including network participation and learning, policy input,
- Media inputs

Individual Outcomes:

- Formal education and training processes, and informal education and training processes
- Outlooks and dispositions
- Personal knowledge, skills, competencies, attitudes, values and identity

Community Outcomes:

- Political participation
- Social participation
- Cultural participation

On this basis, we can start to separate education and citizenship measures. We can see that education emerges more clearly early on - as input and process aspects - whilst citizenship itself is more accurately experienced as an outcome aspect. Thus measures of educational contribution to citizenship should focus on the following:

- Background variables
- Network and learning experiences
- Media inputs
- Education and training processes
- Outlooks and personal knowledge and attitudes.

Studies such as the Civic Education Survey and PISA survey gather large amounts of information which could be used to measure these aspects. However, these surveys focus almost entirely on learning related to *formal* education into citizenship. Few comparative studies have concentrated upon indicators of *non-formal* and *informal* education in promoting active citizenship. Holford and van der Veen (2006, p. 96) have argued for the importance of conducting further research into informal learning, and note that institutional arrangements that support informal learning are poorly understood.

Separating formal education from the two other channels of learning for active citizenship represents a further challenging task for the empirical analyst. The indicators must be indicative not just of education (or being within an environment where one is

able to learn), but of non-formal and informal education, and more specifically of informal and non-formal education connected to *active citizenship*. This restriction means that a number of potential indicators can be eliminated at the outset:

- Background variables – Many background variables will be related to the learning of active citizenship through formal and informal channels. However, many will be connected in only rather indirect ways and their inclusion might well confuse both cause and effect and the different channels through which learning can happen.
- Formal education and training processes – should not be included, as we are only interested in non-formal and informal education towards citizenship in this paper.
- A number of outlook, personal knowledge and attitude variables – the use of many of these types of indicators is problematic because (a) many are measures of active citizenship, and not simply of *learning* for citizenship, and (b) we are not able to differentiate the channel of learning through which they emanate (formal, non-formal or informal).

This leaves us with four remaining areas to examine – network and learning experiences; media inputs; non-formal education and training processes; and those remaining attitude, outlook, and personal knowledge items which are clearly associated with non-formal or informal education toward citizenship. The question then becomes, how can these remaining areas be used as measures of non-formal and informal education?

Although the extent of non-formal education which strengthens active citizenship is potentially very wide, it is in principle possible to define it through the notion of *curriculum*. Non-formal education for active citizenship has a curriculum, the aims and content of which are intended to strengthen the capacity of men or women to participate effectively in democratic society, or to develop knowledge about its functioning. It may be possible to define in principle. The variety of educational activities it potentially encompasses is, however, very broad and diverse, and it is therefore not easy to measure in terms of volume, quality or impact.

In principle, 'ideal' indicators of non-formal education for citizenship might include some or all of the following:

- The extent *per capita* of provision of and/or attendance at part-time educational classes on aspects of political and civic affairs (whether provided under government or non-governmental auspices).
- The extent *per capita* of provision of and/or attendance at educational activities in or related to the workplace which develop skills relevant to citizenship (such as speaking in public, negotiation, organisation); these may include courses offered by the state, by employers, or by trade unions or other NGOs.
- The extent *per capita* of provision of and/or attendance at courses related to personal or social development, in particular those which develop skills and capacity among socially excluded groups (however, the latter would have to be related to measures of social exclusion).
- Information of a civic-related kind picked up in non formal activities and interactions.
- Involvement and participation in extra-curricular activities in and around school

If it is difficult to specify clearly what is involved in informal education for citizenship, it is still more difficult to measure. While formal and non-formal education are, at least in principle, susceptible to measurement of inputs, this is hardly the case with informal education. While measurement of outputs of informal education might be possible in principle (if one assumes that, by definition, what people learn, they learn from one or more of formal, non-formal or informal education), in practice there are very severe, if not wholly intractable, difficulties in separating out the multiple causes of what is learned.

Examples of this can be seen in the work of a major contribution to the literature in this field. Verba, Schlozman and Brady (1995) show, for instance, that people learn skills relevant to politics in a range of informal voluntary civic activities and meetings (planning or attending informal meetings, writing a letter, conversations with peers, and so forth):

‘Non-political institutions offer many opportunities to acquire, or improve, organizational or communications skills in the context of activities which have nothing to do with politics’ (1995, p. 310).⁶

They argue, moreover, that how much people learn depends on the kind of organisation they associate with: ‘a job in a public relations firm rather than a hairdressing salon or membership in a fraternal association rather than a softball league is more likely to yield resources relevant to political participation’ (1995, p. 311). Ideal indicators of informal education for citizenship might, we propose, include:

- Circulation or readership of newspapers *per capita*, perhaps distinguishing relatively ‘serious’ newspapers, or excluding those with no discernible ‘civic’ content.
- Use of the internet for certain forms of activity or interaction, perhaps distinguishing activities with a more clearly ‘civic’ role – though this is by no means unproblematic.
- Extent of audiences for certain kinds of programme on television or radio (e.g., political or current affairs).
- Involvement in formally organised civic activities from which civic information can be learned.
- Membership of organised voluntary associations; perhaps distinguishing those with a more clearly ‘civic’ role (e.g., women’s organisations rather than sports clubs) – though this is by no means unproblematic.
- Information of a civic-related kind picked up in informal conversation with family and friends.
- Involvement in informal associations, networks, and activities.

This leaves us with several sub-domains of interest which may be investigated. Each falls into a category of either non-formal or informal education, or as in the case of networks

⁶ Formally organised voluntary organisations might count as non-formal educational vehicles. Many meet on a regular basis, have structured processes and learning resources, and might meet within school grounds and community centres after hours. However, a number of others do not have such a formally organised structures, they many are evolve from informal get-togethers of friends. Given the inability to assert that voluntary organisations all incorporate ‘organised and sustained educational activities’, we have chosen to err on the side of caution, and categorise membership in associations as informal activity.

and network based learning experiences, both (see Table 1 in the next section for a more formal layout of sub-domains and indicators):

- Education and training processes – (1) course attendance and content (non formal)
- Attitudes, outlooks and personal knowledge – (2) political and civic awareness from courses and associations (non-formal) and (5) from peers, friends, family (informal)
- Network and learning experiences – (3) association membership and (6) participation with peers, friends, family (informal)
- Media inputs – (4) reading newspaper, viewing internet and television, and media content (informal)

These aspects then form two overarching domains of education – non-formal and informal – and six sub-domains. In the following section we will discuss operationalisation and potential data sources for these measures.

Ideal Indicators for Informal and Non-formal Education

In this section of the paper, we outline ideal indicators for measuring informal and non-formal educational contributions to active citizenship. In Table 1 below, we present indicators according to the two major domains of interest, the breakdown of these domains into the various sub-domains suggested above (each combining inputs and processes), and suggest the ideal data that should be gathered to address these domains.

Table 1 – Ideal Indicators

Domain (Sub-domains)	Ideal Indicators
Domain 1 – Non-formal education	
(1) Courses/Training	Attendance in non-formal courses contributing to active citizenship Structure/content of non-formal courses contributing to active citizenship
(2) Learning from non-formal conversations (knowledge/attitudes)	Levels of political and civic awareness gained from non-formal courses
(3) Learning from educational extra-curricular activities	Membership in school and extra-curricula based organisations and activities conducive to civic education
Domain 2 – Informal Education	
(4) Media Input	Exposure to media conducive to developing civic awareness and participation Content of media contributing to active citizenship
(5) Learning from informal conversations (knowledge/attitudes)	Levels of political and civic awareness gained from civic activities (demonstrations, petitions, etc) Levels of political and civic awareness gained from informal sources (family, friends)
(6) Learning from involvement within informal social network	Membership within formal voluntary or political organisations Participation in civic-type activities with groups and informal peers (friends, family, etc.)

These are ‘ideal indicators’ only – they represent what we would wish to have, rather than what we currently do have in terms of data. We next review the types of data and questions actually available for each of the identified aspects to be measured.

Domain 1 - Non-formal education

Courses/Training

As mentioned above, ideal measures would include asking about participation in non-formal learning activities, the degree to which such participation encourages people to learn and participate in civic activity, and measurements of the course quality of such activities. However, such measures are largely unavailable.

The IEA Civic Education Study (CIVED) has a few questions which would be useful for measuring the effect of non formal civic education, including a question related to whether teacher respondents have participated in in-service professional development activities or training in a discipline related to civic education (Teacher Q8). Such a question may not be appropriate however, in that whilst it might be indicative of the teacher's desire to learn such things, it is also likely to be an aspect of the curriculum, and therefore of formal education.

We eventually settled on using the measure of participation in adult learning available from Eurostat and the EU Labour Force survey. The measure is as follows:

- life-long learning, persons aged 25 to 64 who stated that they received education or training in the four weeks preceding the survey, % of the population (EU Labour Force Survey)

This measure is not perfect. It captures non-formal education, but not the degree to which non-formal education contributes to active citizenship. However, there does not seem to be a better measure available. We considered calculating a better statistic using Time Use Data. The idea was to run separate regressions for each country using Time Use data to estimate the extent to which participation in education out of school predicted participation, civic, and social activity. The coefficient (or odds ratio) obtained for each country would then be multiplied by the Adult Education Rate for each country to give an effective rate of Adult Education contributing to civic and social activity. The resultant figures might not be reliable as stand-alone measures in themselves, but for the purposes of ranking countries, this approach might be appropriate dependent upon model goodness of fit and rates of error.

However, coverage limitations with the Time Use data made this calculation impossible. The Multinational Time Use Study (MTUS) dataset would allow such analysis to be conducted, but only nine European countries are included in this dataset. The Harmonised European Time Use Study (HETUS) includes more countries, but unit-record data for these countries has not yet been made available from Eurostat.

The questions on which we have settled are indicative rather than ideal. Preferably, new data would be gathered asking precise questions to gain information on the contribution of courses and training to active citizenship. We outline some examples of ideal questions in the table below, and note the future survey it would be most appropriate for placement in.

Domain 1 – Non-formal education	Ideal Indicators	Question	Appropriate Future Survey
(1) Courses/Training	Attendance in non-formal courses contributing to active citizenship	Have you attended any adult education courses? or non-formal learning? For how much time? (E.g. MTUS, HETUS) Do you feel that you learnt about the following civic skills and knowledge during your course (e.g. CIVED)	OECD - PIAAC (using reference to adult education courses) IEA - ICCES (using the reference to non-formal training courses), MTUS, HETUS
	Structure/content of non-formal courses contributing to active citizenship	Did your course involve components to teach you any of the following civic skills and knowledge (e.g. CIVED)	ICCES

Learning from non-formal conversation (knowledge and attitudes)

Ideal measures for this sub-domain include looking at the levels of political and civic awareness gained from non-formal courses and learning. This would require measuring people’s level of political and civic awareness, and then asking them to ascribe such awareness to specifically non-formal sources. Such measures are not available.

There are some good measures of political and civic awareness in general in the CIVED survey. There are numerous questions devoted to measuring civic and political knowledge, including questions asking students to choose between accurate statements

about the law, political rights, discrimination, organisations, parties, the UN, democracy, competition, political campaigning, equal opportunity, and content and factual analysis (CIVED Q2-38). There are also further knowledge and attitude-based questions about democracy (Q A), adult citizenship (B), government responsibilities (C), trust in institutions (D), the nation and its opportunities (E-H), immigration (H), and politics (I).

All of these questions would be useful to ask respondents to gauge their levels of civic awareness. However, these questions are not appropriate for this measure in themselves for two reasons. First, it is hard to tell to what extent these answers are attributable to non-formal education *per se*.⁷ Secondly, these questions overlap with personal knowledge and attitudes markers of active citizenship itself. It is too difficult to discern which of these questions would be indicative of education contributing to active citizenship rather than to active citizenship in itself. We are thus unable to develop any indicators for this sub-domain, and note that this is an area in which more appropriate questions need to be asked and more data gathered.

Again, the questions we have settled are indicative rather than ideal. Preferably, new data would be gathered asking precise questions to gain information on the contribution of non-formal conversations, knowledge and attitudes to active citizenship. We outline some examples of ideal questions in the table below, and note the future survey it would be most appropriate for placement in.

Domain 1 – Non-formal education	Ideal Indicators	Question	Appropriate Future Survey
(2) Learning from non-formal conversations (knowledge/attitudes)	Levels of political and civic awareness gained from non-formal courses	What are your opinions about the following questions (CIVED): democracy (Q A), adult citizenship (B), government responsibilities (C), trust in institutions (D), the nation and its opportunities (E-H), immigration (H), and politics (I). To what extent did you form these opinions and knowledge in adult education?	ICCES

⁷ The same consideration would apply in relation to using this as an indicator of informal education for citizenship.

Learning from educational extra-curricular activities

Ideal measures for this sub-domain would include asking people in a population based survey whether they are or were involved in any extra-curricular activities, and to what extent did those activities lead them to develop a greater civic awareness? Such precise measures are not available.

There are, however some measures of participation in extra-curricular activity available from the CIVED survey. These measures ask students whether they have participated in after-school and extra-curricular activities such as student councils, youth organisations, scouts etc. As with Adult Education above, we are inferring that participation leads to increased civic awareness and education, rather than being able to measure it explicitly. We chose not to include membership in computer clubs, art, music and drama groups, and sports organisations, as these groups do not usually have a civic content. The measure we were left then was as follows:

- Arithmetic mean number of memberships amongst any of the following extra-curricular groups: student council, youth organisation, school newspaper, environmental organisation, UN club, student exchange, human right group, voluntary group, charity, scouts, cultural association, religious group.

Again, the questions we have settled are indicative rather than ideal. Preferably, new data would be gathered asking precise questions to gain information on the contribution of non-formal extra-curricular activities to active citizenship. We outline some examples of ideal questions in the table below, and note the future survey it would be most appropriate for placement in.

Domain 1 – Non-formal education	Ideal Indicators	Question	Appropriate Future Survey
(3) Learning from educational extra-curricular activities	Membership in school and extra-curricula based organisations and activities conducive to civic education	Have you participated in any extra-curricular activity (e.g. CIVED) Do you feel that you learnt about the following civic skills and knowledge during your course (e.g.	ICCES, ESS

		CIVED)	
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Domain 2 - Informal education

Media Input

Measures for media influence are more readily available than many of the other domains. Ideally, we would be interested in information about television, radio, newspapers and internet use. We would also be interested in the degree to which this educates in regard to citizenship, so some kind of measure of content would also be desirable.

There are a number of sources of information about incidence of media viewing. The Time Use surveys offer information on incidence and time spent watching TV, reading newspapers, listening to radio, and using the internet. However, no questions are asked in these surveys relating to content.

The CIVED survey offers better information, both concerning incidence of media participation, and content. CIVED asks respondents how often they read articles or stories in a newspaper, what is happening in their country and in other countries, and how often they listen to news broadcasts on the radio and on television. The cross-national results from these CIVED question have been published in the IEA report on civic education in 28 countries (Torney Purta *et al.*, 2001), and we are able to reproduce these figures here, along with a variable to capture reading news about other countries. The report publishes frequencies on the proportion of people in each country who ‘sometimes’ or ‘often’ report reading newspapers about their own country, listening to news on radio, or watching news on the TV. We reproduce this format here.

It should be noted that this indicator gives only a limited measure of content, concentrating on general news, and missing a range of other media inputs that might relate to civic and political awareness (such as special reports, programme or information listings, etc). A more precise measure would cover a greater range of content.

The World Values survey also offers some potential information in this area. It lists variables asking what sources people use to gather information about their country and the world (v223-229). Importantly, a question is asked about a broad range of media, distinguishing those offering ‘surface-level’ coverage – daily newspaper and news

broadcasts on radio or TV – from those offering more ‘in-depth’ analysis – printed magazines, in-depth reports on radio or TV, and books. This distinction enables a more fine-grained analysis of the role of content in educating people in civic and political awareness. Unfortunately, such variables were not available in the public releases of the World Values Survey dataset. The WVS does, however, have some content data that can be of use. In particular, it asks how often people specifically follow politics in the news. This is not a perfect indicator, missing any concentration on civic rather than political news, but must suffice for our purposes here. Our choice of indicators for media influence then included the following:

- % of people who have often or sometimes read a newspaper about their own country
- % of people who have often or sometimes read a newspaper about another country
- % of people who have often or sometimes listened to news broadcasts on TV
- % of people who have often or sometimes listened to news broadcasts on the radio (CIVED 1999)
- Arithmetic mean (5 point scale) of how often people specifically follow politics in the news (WVS 1999-2004)

Again, the questions we have settled are indicative rather than ideal. Preferably, new data would be gathered asking precise questions to gain information on the contribution of informal media exposure to active citizenship. We outline some examples of ideal questions in the table below, and note the future survey it would be most appropriate for placement in.

Domain 2 – Informal Education	Ideal Indicators	Question	Appropriate Future Survey
(4) Media Input	Exposure to media conducive to developing civic awareness and participation Content of media contributing to active citizenship	How often do you follow the news in the papers, TV, radio, internet? How much of this news is civic or political in content? Has watching such news improved your	ESS

		civic awareness?
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Learning from informal conversations (knowledge and attitudes)

As with the similar non-formal sub-domain, ideal measures of informal knowledge include the levels of political and civic awareness gained from informal courses and learning. This would require measuring people’s level of political and civic awareness, and then asking them to ascribe such awareness to specifically informal sources. An individual’s ability accurately to ascribe such differences could well prove unreliable. Even so, such measures are not currently available.

The CIVED again offers some good measures of informally learnt civic knowledge. Besides all the measures of civic knowledge recorded above under the non-formal sub-domain, the CIVED also asks how often students have discussions about what is happening in national politics with their peers of similar age, and with their parents and other family members. These will be used here.

The ESS and WVS also offer some potential questions pertaining to this general area. The ESS asks how often people discuss politics and current affairs. However, respondents are not asked whom they talk about politics with - e.g. friends and family, or teachers in school - so is not necessarily restricted to informal learning. The WVS offers a potentially better question, asking how often people discuss politics with their friends, so can be interpreted more definitively as an indicator of informal learning. In addition the ESS question applies to fewer countries, so the WVS question would seem a better choice. Our choice of indicators for media influence, then, included the following:

- Arithmetic mean (4 point scale) of how often people discuss national politics with their peers
- Arithmetic mean (4 point scale) of how often people discuss national politics with family/adults
- Arithmetic mean (4 point scale) of how often people discuss international politics with peers
- Arithmetic mean (4 point scale) of how often people discuss international politics with family/adults (CIVED 1999)
- Arithmetic mean (5 point scale) of how often people discuss political matters with their friends (WVS 1999-2004)

Again, the questions on which we have settled are indicative rather than ideal. Preferably, new data would be gathered asking precise questions to gain information on the contribution of informal conversation, knowledge and attitudes to active citizenship. We outline some examples of ideal questions in the table below, and note the future survey it would be most appropriate for placement in.

Domain 2 – Informal Education	Ideal Indicators	Question	Appropriate Future Survey
(5) Learning from informal conversations (knowledge/attitudes)	Levels of political and civic awareness gained from informal sources (family, friends)	Have you participated in political conversations with friends, family? Do you feel that you learnt about the following civic skills and knowledge during such conversations (eg CIVED)	ESS, ICCES, Time Use Surveys (eg HETUS)

Learning from involvement in informal social network

There are a few questions related to civic activity which do offer some potential to capture civic learning, although these too suffer the problem of overlap with the dependent variable (active citizenship itself) as opposed to the channel through which learning of citizenship is achieved. The questions in the 2004 European Values Survey (ESS) related to certain types of political action can be described as appropriate measures of non-formal education linked to civic activity. Activities such as signing a petition, joining in boycotts, and attending a lawful demonstration all denote learning in non-formal sense. Each involves a transfer of information - one normally reads a petition before signing, learns about the unscrupulous activities that justify a boycott before joining in, and hears debates and informed opinions at lawful demonstrations. Each is also non-formal, in the sense that each is a kind of formally organised activity. We thus choose as measures for this sub-domain an average of the following three measures:

- signed a petition, % of the population
- joined in a boycott, % of the population
- attended a lawful demonstration, % of the population (ESS 2004)

In addition to this – and as a more informal reflection of the membership in extra-curricular activities questions noted above – we can provide a measure of participation in voluntary organisations from the ESS and World Values Survey (WVS), measures which have long been incorporated into social capital research (Paxton 1998). The CIVED survey asks about participation in a variety of formal organisation types, and would provide useful cross-tabulated data contrasting civic awareness and activity with membership. This survey also has measures of people’s expected actions in the future, both as a student and later as an adult. However, these are not appropriate measures. In the CRELL framework, they might be counted as processes, or more likely as outputs, and would be relevant to the ‘Outlook disposition’ aspect. However, they are intentions, which are not the same as actual educational achievement, and their inclusion would be likely to bias any estimate of an index.

The ESS was the best immediate source of information for membership of voluntary associations. The WVS was an alternate source, but the ESS is generally to be preferred for its methodological rigour and focus on comparability. The downside is that the ESS does not cover as many countries as the WVS. As a consequence, measures were obtained for average number of memberships from ESS survey wherever possible, and from WVS countries where there was no ESS data available. The question used in each instance related to:

- average number of memberships in formal voluntary associations (ESS 2002, WVS 1995-2002)

Finally, there is an even more informal level of participation in informal social networks that relates to education contributing to civic activity. Ideally, we would establish how often people engage in civic activities on an informal basis with others – family, friends, colleagues – and to what degree such activities involved a learning process which helped the activity to take place. Such ideal type data, however, do not currently exist.

We do, however, have access to information about levels of informal civic activity – activity that does not take place in formally organised institutions and processes. This would involve making an assumption that, to a certain degree, such informal activity constitutes education. Once again, this is not a perfect indicator, and risks considerable

overlap with the outcome measures of civic activity, but is the best available in the circumstances.

Both the WVS and ESS have relevant questions in this regard. The WVS asks whether people have tried to improve working conditions in their workplaces; this may be through the activities of a trade union or otherwise. The ESS asks a more general question about how often people try to help others, specifically *excluding* their efforts on behalf of family, work or voluntary organisations. We thus selected the following questions:

- % of the population who report that they tried to improve condition in their workplace (WVS 1999-2004)
- arithmetic mean (5 point scale) of how often people try to help others, *not* counting their efforts on behalf of family, work or voluntary organisations (ESS 2002)

In the next section, we discuss methodological and scaling issues relevant to combining these various questions into a composite index, to enable a rank ordering of countries' level of non-formal and informal civic education can be obtained.

Finally, again, the questions on which we have settled are indicative rather than ideal. Preferably, new data would be gathered asking precise questions to gain information on the contribution of informal social network learning to active citizenship. We outline some examples of ideal questions in the table below, and note the future survey it would be most appropriate for placement in.

Domain 2 – Informal Education	Ideal Indicators	Question	Appropriate Future Survey
(6) Learning from involvement within informal social network	<p>Levels of political and civic awareness gained from civic activities (demonstrations, petitions, etc)</p> <p>Membership within formal voluntary or political organisations</p> <p>Participation in civic-type activities with groups and informal peers (friends, family, etc.)</p>	<p>Have you participated in any civic political activity (eg ESS/WVS)? How about joined associations?</p> <p>Do you feel that you learnt about the following civic skills and knowledge during such activity (eg CIVED)</p>	ESS, ICCES

Methodological considerations for producing a composite index

Indexing and Weighting

Now that we have selected a set of indicators to measure non-formal and informal civic education, we come to the issue of how best to use them as indicators of the relative levels in different countries of the extent of non-formal and informal civic education. This requires a method of combining or reducing the data into a single measure, from which country ranks could be obtained.

The most straightforward way to combine the data is to sum all the relevant indicators together into an index of non-formal and informal civic education contributions. However, since each of the indicators is in a different metric - frequencies, averaged frequencies, means – combining them in this manner would result in some dimensions contributing greater weight to the overall score as a result of arbitrary differences in units of measurement..

It is, therefore, necessary to *standardise* each of the scores, by subtracting each country score from the overall mean, and then dividing it by the sample standard deviation. Standardised scores lose some information but provide a conversion of disparate scores into a common metric – the number of standard deviations the score lies away from the mean. Standardised scores are thus comparable, and therefore, cumulative. Where there were missing values for countries for a particular indicator, the mean score for the remainder of countries was imputed. The raw and standardised scores for each variable and country can be seen in Tables 2 and 3 below.

Once we had calculated standardised versions of each variable, we were able to sum each of the standardised scores to form an overall index and rank the countries. This can be seen in Table 4 below.

Factor Analysis

Although standardisation addresses the problem of differential metrics, it still assumes that each indicator contributes an equal weight to the overall score. In reality, it is likely

that some indicators are more important than others and we would like to incorporate this into the construction of the overall index via differential weights. Another assumption that we make when computing a simple summed index is that the indicators form a single dimension. In practice, it may prove that the different indicators measure different sub-dimensions of the concept of interest.

To get a handle on these two issues, we factor-analysed the indicators, using countries as units of analysis. Factor analysis identifies latent variables of which observed measures are considered to be indicators. The obtained factor solution provides information about the appropriate number of dimensions underlying the observed indicators and the relative weight that each indicator contributes to each identified dimension. Once a satisfactory factor solution is obtained, individual scores are generated for each dimension. These can then be used as alternative composite measures.

Owing to the small sample, we declined to use a maximum likelihood estimation method, and instead undertook a principal components analysis. Analysis seemed to suggest that one factor was the most appropriate solution, and so we constrained the analysis to load all components onto one factor. Results are shown in Table 4 below.

Criterion Variable for Validity Test

Finally, there was a need to test whether the obtained index and factor scores were actually measuring non-formal and informal civic education, as they were supposed to be. For this, it was necessary to devise a separate criterion variable, a rough indicative measure of the level of non-formal and informal civic education within individuals against which the index and factors can be compared and with which they should be positively associated .

As a criterion variable, we came up with the idea of taking a sub-sample from the ESS of those who had completed very little schooling at all and testing their civic attitudes. The fact that this group had low levels of schooling meant it was rather likely that they would have missed any formal citizenship education provided. Any observed civic awareness would therefore stem from non-formal or informal sources. We would not be able to distinguish between non-formal or informal effects, but this is not needed for comparison against our aggregated index and factors. It should be noted that such a

measure is not a reliable measure of non-formal or informal civic education in itself. However, the measures and rankings obtained should be useful indicators for correlation with the index and factor scores. A positive correlation between the index and factors and the criterion variables should reinforce the validity of the selected items as true measures of non-formal and informal civic education.

The ESS lists several qualities in association with good citizenship (E22-27), and asks respondents to say how important each one is on a ten-point scale. By adding up such responses, we obtain a criterion index for each respondent, and by taking the sub-sample of low educated people from this, we get our criterion variable. The variable can thus formally be defined as:

- the mean score amongst lower educated people (those who had completed up to lower secondary education or less) for an index combining six 10 point questions on the importance of: supporting people worse off; voting in elections; always obeying laws and regulations; forming own opinions; being active in voluntary associations; and being active in politics (ESS 2002)

Comparing the effects of this criterion variable should give us some indication as to whether our index is an appropriate construction or not. In the next section, we now look at the results for the various types of analysis suggested in measuring non-formal and informal civic education.

Selected Indicators and Results

Non-formal education

The results for non-formal indicators can be seen in Table 2 below. As can be seen, there is a concentration of higher scores (high z's) in the Scandinavian countries, and lower scores in the Eastern European countries. Full interpretation requires examining such scores in a weighted index however (see Table 5 below).

Table 2 – Non-formal Indicators

Country	Adult Education		Extra-curricular activities	
	% Involved in Adult Education	Z-Score	Number of groups membership	Z-Score
Austria	13.8	0.3	1.4	0.0
Belgium	10.0	-0.1	1.6	0.5
Bulgaria	1.1	-1.1	0.6	-1.6
Croatia	2.3	-0.9	1.4	0.0
Czech Republic	5.9	-0.5	1.2	-0.3
Cyprus	5.6	-0.6	2.4	2.0
Denmark	27.6	1.9	1.4	0.0
Estonia	5.9	-0.5	1.0	-0.8
Finland	24.8	1.5	1.2	-0.4
France	7.6	-0.4	1.4	0.0
Germany	8.2	-0.3	1.2	-0.3
Greece	1.8	-1.0	2.7	2.6
Hungary	4.2	-0.7	1.7	0.6
Iceland	26.6	1.7	1.4	0.0
Ireland	8.0	-0.3	1.4	0.0
Italy	6.2	-0.5	0.7	-1.3
Latvia	7.6	-0.4	0.7	-1.3
Liechtenstein	10.8*	0.0	1.4	0.0
Lithuania	6.3	-0.5	1.0	-0.9
Luxembourg	8.5	-0.3	1.4	0.0
Malta	5.8	-0.6	1.4	0.0
Netherlands	16.6	0.6	1.4	0.0
Norway	19.4	0.9	2.2	1.8
Poland	5.0	-0.6	0.8	-1.2
Portugal	4.6	-0.7	1.6	0.5
Romania	1.6	-1.0	1.2	-0.4
Slovakia	5.0	-0.6	0.4	-1.9
Slovenia	17.8	0.8	1.6	0.4
Spain	12.1	0.1	1.4	0.0
Sweden	34.7	2.6	1.9	1.1
Turkey	2.0	-1.0	1.4	0.0
United Kingdom	29.1	2.0	2.0	1.3

* No information was available in the surveys for these countries. Scores were added by calculating the mean of all existing scores, and assigning this value to each missing country. It was necessary to add these scores to retain all countries and to calculate standardised z-scores.

Informal education

The results for informal indicators can be seen in Table 3 below. This time, we find that there is no discernable pattern to the concentration of countries by indicators. As noted though, full interpretation requires examining such scores in a weighted index however (see Table 5 below).

Table 3 – Informal Indicators

Country	Media Input									
	% read paper own country news		% read paper other country news		% TV follow news		% radio follow news		Mean follow politic in news ₁	
		Z		Z		Z		Z		Z
Austria	68.7	0.0	67.3	0.0	87.1	0.1	55.3	0.0	1.8	0.4
Belgium	60.1	-1.7	62.3	-0.8	80.9	-1.4	56.0	0.1	2.3	-1.0
Bulgaria	71.9	0.6	68.2	0.2	73.1	-3.2	47.1	-1.2	2.2	-1.1
Croatia	68.7	0.0	67.3	0.0	87.1	0.1	55.3	0.0	1.9	0.3
Czech Republic	68.9	0.1	66.2	-0.2	93.7	1.7	60.3	0.8	1.7	1.2
Cyprus	68.4	0.0	65.6	-0.3	89.4	0.6	54.6	-0.1	2.1*	0.1
Denmark	65.2	-0.7	62.9	-0.7	83.4	-0.8	47.5	-1.1	1.8	-0.2
Estonia	75.4	1.3	76.5	1.5	83.7	-0.7	70.2	2.2	2.0	1.1
Finland	73.5	1.0	72.0	0.8	89.1	0.6	45.0	-1.5	2.4	-0.6
France	68.7	0.0	67.3	0.0	87.1	0.1	55.3	0.0	2.0	0.2
Germany	68.3	-0.1	67.4	0.0	82.5	-1.0	65.5	1.5	1.6	1.0
Greece	57.0	-2.3	52.0	-2.5	88.6	0.4	42.1	-1.9	1.8	-0.7
Hungary	60.8	-1.5	59.3	-1.3	90.4	0.9	58.8	0.6	2.2	-0.1
Iceland	68.7	0.0	67.3	0.0	87.1	0.1	55.3	0.0	2.1	0.0
Ireland	68.7	0.0	67.3	0.0	87.1	0.1	55.3	0.0	2.7	-0.9
Italy	62.4	-1.2	58.2	-1.5	90.0	0.8	41.3	-2.0	2.2	-1.0
Latvia	68.8	0.0	73.2	1.0	89.0	0.5	62.2	1.1	1.7	1.2
Liechten-stein	68.7	0.0	67.3	0.0	87.1	0.1	55.3	0.0	2.1*	0.0
Lithuania	71.2	0.5	71.1	0.6	84.0	-0.6	52.1	-0.4	1.6	0.7
Luxem-bourg	68.7	0.0	67.3	0.0	87.1	0.1	55.3	0.0	2.3	-0.4
Malta	68.7	0.0	67.3	0.0	87.1	0.1	55.3	0.0	2.5	-0.6
Netherlands	68.7	0.0	67.3	0.0	87.1	0.1	55.3	0.0	2.0	0.1
Norway	81.6	2.6	82.0	2.4	90.2	0.8	46.5	-1.2	2.1*	0.5
Poland	73.1	0.9	74.2	1.2	91.1	1.0	70.7	2.3	1.9	1.5
Portugal	69.2	0.1	60.9	-1.1	93.5	1.6	54.7	0.0	2.5	-0.3
Romania	60.0	-1.7	56.3	-1.8	86.3	-0.1	62.1	1.0	2.3	-0.4
Slovakia	70.7	0.4	71.3	0.7	91.7	1.2	57.8	0.4	2.0	0.6
Slovenia	64.7	-0.8	66.1	-0.2	84.0	-0.6	55.5	0.1	2.2	-0.4
Spain	68.7	0.0	67.3	0.0	87.1	0.1	55.3	0.0	2.3	-0.3
Sweden	78.8	2.0	75.7	1.4	84.0	-0.6	47.3	-1.1	1.5	0.9
Turkey	68.7	0.0	67.3	0.0	87.1	0.1	55.3	0.0	2.2	-0.2
United Kingdom	69.9	0.3	71.9	0.8	77.7	-2.1	54.7	0.0	2.9	-1.6

* No information was available in the surveys for these countries. Scores were added by calculating the mean of all existing scores, and assigning this value to each missing country. It was necessary to add these scores to retain all countries and to calculate standardised z-scores.

1 – These variables were all reverse coded, so that high scores indicated low informal contributions. To calculate standardised scores for each sub-domain with multiple indicators, standardised scores were obtained for each item, and

the scores for reverse coded items were multiplied by -1. Resultant scores were then averaged, to give a standardised score for each subdomain.

Table 3 – Informal Indicators (Continued)

Country	Learning from informal conversations									
	Discuss national politics peers	Z	Discuss national politics family	Z	Discuss inter-national politics peers	Z	Discuss inter-national politics family	Z	Mean discuss politics friends ₁	Z
Austria	0.0	-1.3	2.6	0.1	2.1	0.1	2.5	0.1	2.1	0.5
Belgium	1.7	0.3	2.5	-0.6	1.6	-2.1	2.3	-0.8	2.2	-0.7
Bulgaria	2.1	0.6	2.5	-0.3	2.0	0.0	2.4	-0.2	2.1	0.2
Croatia	0.0	-1.3	2.6	0.1	2.1	0.1	2.5	0.1	2.0	0.7
Czech Republic	2.0	0.6	2.4	-1.0	1.9	-0.6	2.3	-0.7	1.9	1.4
Cyprus	2.7	1.3	3.0	2.3	2.6	2.8	2.9	2.4	2.1*	0.0
Denmark	1.9	0.5	2.5	-0.6	1.9	-0.9	2.4	-0.5	2.0	1.2
Estonia	2.3	0.8	2.7	0.4	2.1	0.4	2.5	0.2	2.0	0.6
Finland	1.9	0.4	2.2	-2.1	1.8	-1.0	2.1	-2.0	2.2	-0.4
France	0.0	-1.3	2.6	0.1	2.1	0.1	2.5	0.1	2.2	-0.7
Germany	2.3	0.9	2.7	0.8	2.2	0.7	2.5	0.4	1.9	1.3
Greece	2.3	0.9	3.0	2.3	2.3	1.2	2.9	2.5	2.0	0.9
Hungary	2.1	0.6	2.6	0.1	1.9	-0.5	2.5	0.1	2.4	-1.5
Iceland	0.0	-1.3	2.6	0.1	2.1	0.1	2.5	0.1	2.1	0.3
Ireland	0.0	-1.3	2.6	0.1	2.1	0.1	2.5	0.1	2.3	-1.0
Italy	1.9	0.5	2.8	1.2	1.9	-0.6	2.7	1.5	2.2	-0.4
Latvia	2.3	0.8	2.7	0.7	2.1	0.5	2.5	0.3	2.0	0.6
Liechtenstein	0.0	-1.3	2.6	0.1	2.1	0.1	2.5	0.1	2.1*	0.0
Lithuania	2.0	0.6	2.4	-1.1	1.9	-0.9	2.3	-1.0	2.0	1.2
Luxembourg	0.0	-1.3	2.6	0.1	2.1	0.1	2.5	0.1	2.1	-0.1
Malta	0.0	-1.3	2.6	0.1	2.1	0.1	2.5	0.1	2.3	-1.0
Netherlands	0.0	-1.3	2.6	0.1	2.1	0.1	2.5	0.1	2.0	0.6
Norway	2.1	0.7	2.5	-0.6	2.1	0.2	2.4	-0.5	1.9	1.3
Poland	2.2	0.8	2.6	0.3	2.2	0.8	2.6	0.7	2.0	0.7
Portugal	2.2	0.7	2.6	-0.1	2.1	0.4	2.6	0.5	2.4	-1.6
Romania	2.3	0.9	2.7	0.7	2.1	0.5	2.5	0.4	2.3	-0.9
Slovakia	2.7	1.2	2.8	1.3	2.3	1.7	2.6	0.4	1.9	1.3
Slovenia	2.0	0.6	2.5	-0.8	2.0	0.0	2.4	-0.4	2.2	-0.5
Spain	0.0	-1.3	2.6	0.1	2.1	0.1	2.5	0.1	2.4	-1.5
Sweden	1.8	0.4	2.3	-1.8	1.7	-1.5	2.1	-2.0	2.0	0.8
Turkey	0.0	-1.3	2.6	0.1	2.1	0.1	2.5	0.1	2.3	-1.4
United Kingdom	1.7	0.3	2.3	-1.9	1.6	-2.5	2.1	-2.3	2.4	-1.9

Table 3 – Informal Indicators (Continued)

Country	Learning from involvement within informal social network											
	% Signed petition	Z	% part of dem	Z	% Boy- cott prod	Z	Mean no of mem- ships	Z	Tried imp work cond	Z	Mean infor help others ₁	Z
Austria	24.7	0.2	6.6	-0.1	19.5	0.5	1.8	1.0	25.2	0.0	3.5	1.3
Belgium	22.0	-0.1	6.5	-0.1	9.9	0.6	1.4	0.5	24.6	0.0	4.0	0.5
Bulgaria	22.8	0.0	7.3	0.0	15.2	0.0	0.3	-1.0	24.8*	0.0	4.4*	0.0
Croatia	22.8	0.0	7.3	0.0	15.2	0.0	0.7	-0.6	24.8*	0.0	4.4*	0.0
Czech Republic	13.6	-0.8	3.4	-0.7	6.9	1.0	1.0	-0.1	21.7	-0.4	5.1	-1.1
Cyprus	22.8	0.0	7.3	0.0	15.2	0.0	1.1*	0.0	24.8*	0.0	4.4*	0.0
Denmark	29.0	0.6	5.4	-0.3	28.3	1.5	2.3	1.7	41.2	2.0	4.2	1.3
Estonia	4.1	-1.7	2.0	-0.9	4.2	1.3	0.5	-0.8	24.8*	0.0	4.4*	0.0
Finland	25.6	0.2	2.0	-0.9	29.3	1.6	1.5	0.6	34.2	1.2	4.8	0.1
France	31.9	0.8	12.9	0.9	30.0	1.7	0.9	-0.3	30.0	0.6	4.9	-0.4
Germany	32.4	0.9	8.5	0.2	21.9	0.8	1.5	0.6	19.0	-0.7	3.7	0.7
Greece	3.0	-1.8	4.9	-0.4	5.1	1.2	0.4	-1.0	8.6	-2.0	4.8	-1.6
Hungary	6.3	-1.5	1.6	-1.0	5.2	1.2	0.4	-0.9	14.5	-1.3	4.4	-0.6
Iceland	48.8	2.3	15.4	1.4	28.2	1.5	2.7	2.3	24.8*	0.0	4.4*	0.0
Ireland	22.9	0.0	5.9	-0.2	10.9	0.5	1.5	0.6	21.9	-0.4	4.5	-0.2
Italy	22.8	0.0	7.3	0.0	15.2	0.0	0.6	-0.6	16.3	-1.1	4.9	-1.1
Latvia	22.8	0.0	7.3	0.0	15.2	0.0	0.4	-0.9	24.8*	0.0	4.4*	0.0
Liechten- stein	22.8	0.0	7.3	0.0	15.2	0.0	1.1*	0.0	24.8*	0.0	4.4*	0.0
Lithuania	22.8	0.0	7.3	0.0	15.2	0.0	0.2	-1.2	24.8*	0.0	4.4*	0.0
Luxem- bourg	20.8	-0.2	14.8	1.3	14.1	0.1	1.7	0.9	20.7	-0.5	4.5	-0.3
Malta	22.8	0.0	7.3	0.0	15.2	0.0	0.6	-0.6	24.8*	0.0	4.4*	0.0
Netherland s	23.5	0.1	4.4	-0.5	8.3	0.8	2.0	1.3	28.5	0.5	3.8	1.1
Norway	38.7	1.4	10.6	0.5	23.5	1.0	2.1	1.5	45.7	2.6	4.4	1.3
Poland	9.3	-1.2	1.6	-1.0	5.0	1.2	0.3	-1.1	12.2	-1.6	4.9	-1.4
Portugal	4.6	-1.6	3.5	-0.6	2.1	1.5	0.4	-0.9	12.6	-1.5	4.6	-1.0
Romania	22.8	0.0	7.3	0.0	15.2	0.0	0.3	-1.1	24.8*	0.0	4.4*	0.0
Slovakia	25.4	0.2	3.7	-0.6	11.5	0.4	1.1	0.1	24.8*	0.0	4.4*	0.0
Slovenia	5.7	-1.5	1.6	-1.0	2.2	1.5	0.9	-0.3	28.8	0.5	4.0	0.9
Spain	24.7	0.2	34.0	4.5	14.0	0.2	0.7	-0.6	17.5	-0.9	5.0	-1.2
Sweden	48.7	2.3	7.5	0.0	34.8	2.3	2.3	1.7	41.5	2.1	4.3	1.3
Turkey	22.8	0.0	7.3	0.0	15.2	0.0	0.1	-1.3	24.8*	0.0	4.4*	0.0
United Kingdom	35.5	1.1	3.7	-0.6	20.6	0.6	1.5	0.5	31.6	0.8	4.4	0.5

Index, Factor Analysis and Criterion Variable

The results for the calculation of the index, factor analysis, and correlation with the criterion variable can be seen in Tables 4 to 6 below.

Looking firstly at the issue of whether the indicators are appropriate, we examine the results of the factor analysis in Table 4 below. The initial run of the factor solution produced a six factor solution, but much of the variance was explained by the first initial factor, and was confirmed by analysis of a scree-plot of the results. We constrained the factor analysis then to produce one factor solution.

Most factors loaded positively and strongly onto the one factor solution. Extra curricula membership showed a low loading, suggesting it could possibly be excluded from the model. In addition, some of the informal questions - media participation and discussion with friends and family – seemed to load negatively, possibly suggesting that two factors might be more appropriate for the non-formal and informal domains given better questions from which to gather data.

Would a two component solution suggest that the summed index is inappropriate? Not necessarily, as any breakdown into components does not exclude any of the items selected, and in fact tends to sort them according to the theoretical divide between non-formal and informal indicators. Whichever component they fall into, they still would seem to be associated with either informal or non-formal education – and thus are appropriate for combination into a single index meant to capture both these qualities.

Table 4 – Single Factor Components Matrix

Variable	Component
Adult Education	0.86
Extra Curricula Membership	0.08
Read Paper about own country	0.59
Read Paper about other country	0.60
Follow news in TV broadcast	-0.39
Follow news in radio broadcast	-0.28
Follow politics in news (negative coded)	-0.04
Discuss national politics peers	-0.18
Discuss national politics family	-0.77
Discuss international politics peers	-0.60

Variable	Component
Discuss international politics family	-0.81
Discuss politics with friends (negative coded)	-0.16
Signed petition last 12 months	0.79
Taken part in lawful public demonstration last 12 months	0.12
Boycotted certain products last 12 months	0.77
Association Membership	0.73
Try to improve conditions at work	0.85
Informally help others (negative coded)	-0.28

We move on now to examine the index itself in Table 5 below. As was observed for the separate indicators in Table 2, the ranked index shows a pattern of non-formal and informal contributions to civic education. Social democratic Scandinavian countries are clustered at the stop of the distribution, followed largely by developed countries, and then by transition and Eastern European countries.

These findings are indicative of a distribution of non-formal and informal resources, which are helping certain countries and hindering others to develop citizenship in a hitherto unexplored fashion.

Table 5 – Index, Factors and Criterion Variables

Country	Index of standardised score	Factor Component	Criterion Variable
Sweden	2.4	2.66	42.1
Norway	2.1	1.71	44.3
Cyprus	1.3	-1.08	40.8
Iceland	1.3	1.08	40.8
Denmark	1.1	1.30	43.6
United Kingdom	1.1	1.70	39.0
Greece	0.5	-2.15	45.0
Netherlands	0.4	0.31	39.6
Austria	0.4	0.40	40.2
Finland	0.3	1.46	42.8
Germany	0.3	0.02	38.4
Slovenia	0.2	-0.15	42.6
Spain	0.0	-0.21	37.4
Liechtenstein	-0.1	0.00	40.8
France	-0.1	0.28	38.6
Luxembourg	-0.2	-0.03	43.7
Belgium	-0.3	0.21	37.4
Latvia	-0.4	-0.35	40.8
Ireland	-0.5	-0.15	41.1
Croatia	-0.5	-0.18	40.8
Estonia	-0.5	-0.49	40.8

Country	Index of standardised score	Factor Component	Criterion Variable
Czech Republic	-0.5	-0.33	34.8
Portugal	-0.5	-1.25	42.5
Malta	-0.5	-0.20	40.8
Hungary	-0.6	-1.19	39.4
Lithuania	-0.7	0.34	40.8
Turkey	-0.8	-0.35	40.8
Slovakia	-0.8	-0.53	40.8
Poland	-0.8	-1.05	43.0
Romania	-0.9	-0.93	40.8
Italy	-1.2	-0.93	41.3
Bulgaria	-1.6	0.08	40.8

* No information was available in the surveys for these countries. Criterion scores were added by calculating the mean of all existing scores, and assigning this value to each missing country.

Finally, we test the validity of our index and factors through correlation. We use a Spearman's Rho correlation for ranked data due to the small n of the sample. The results are presented in Table 6 below.

It can be seen that the index and the factor component score correlate well together. This correlations is highly significant and in the expected direction. The positive correlation between the index and the factor component suggests that the index incorporates fairly consistent measures of the aspects theoretically capturing informal and non-formal education, and is to this extent an appropriate index to use.

However, when we examine the correlation of our composite measures with criterion variables, we are unable to reject the null hypothesis of zero correlation. The criterion variable – the civic awareness scores amongst those with low education – is not correlated with the index or the factor score variables.

This may suggest that the composite measure is not be a valid measure of informal and non-formal civic education. However, a stronger possibility is that the criterion variable itself is problematic: as noted above, it is a highly imperfect measure of levels of informal and non-formal education within the population, as it limits itself to a sub-section only. In addition, we found in further testing that there was very little difference between civic awareness scores amongst the population as a whole and those who professed to have completed little education. It is likely that the criterion for defining 'low education' was too crude, in including lower secondary education, and that perhaps only those who had

completed a maximum of primary education should be included. However, sample sizes were too small to explore alternative cut-off criteria.

Table 6 – Correlations between Index, Factors and Criterion Variables

	Index of standardised score	Factor Component	Criterion Variable
Index of standardised score	1	0.56	0.10
Sig	.	0.00	0.57
Factor Component	--	1	-0.05
Sig		.	0.79

Connecting education indicators to active citizenship indicators

The problem of separating education from activity

As noted above, the biggest difficulty in measuring informal and non-formal civic education is separating out its components from measures of citizenship itself. We have attempted to select components that are fairly clearly educational, but we may have fallen victim to choosing indicators that count both as active citizenship and as formal and informal education measures (e.g. signing petitions and joining in demonstrations).

To the extent that this is so, it is largely due to the paucity of available data which explicitly measure informal and non-formal education. The composite indices presented in this report should, therefore, be seen as illustrative of the sorts of measures that might be put together and the issues involved in obtaining and combining them, as opposed to being appropriate for use as it stands.

The most appropriate way of resolving this problem is to collect new data more exactly relevant to measuring informal and non-formal education. We have suggested in various places throughout the section on ‘Ideal Indicators’ above several new questions that might be appropriate for new surveys.

Here we compile those questions into a table (Table 7) of sample questions that could serve as ideal measures in future surveys for the kind of information necessary to measure the concepts of informal and non-formal education more appropriately. In general, some form of matrix questionnaire might be appropriate, asking whether one

has attended or participated in learning or activity, and then the extent of civic component of such activity (see, e.g., WVS/ ESS questions on membership of voluntary associations):

Table 7 – Table of Ideal measures

Domain (Sub-domains)	Ideal Indicators	Question	Appropriate Future Survey
Domain 1 – Non-formal education			
(1) Courses/Training	Attendance in non-formal courses contributing to active citizenship	Have you attended any adult education courses? or non-formal learning? Do you feel that you learnt about the following civic skills and knowledge during your course (eg CIVED)	OECD - PIAAC (using reference to adult education courses) IEA - ICCES (using the reference to non-formal training courses)
	Structure/content of non-formal courses contributing to active citizenship	Did your course involve components to teach you any of the following civic skills and knowledge (eg CIVED)	ICCES or PIAAC
(2) Learning from non-formal conversations (knowledge/attitudes)	Levels of political and civic awareness gained from non-formal courses	What are your opinions about the following questions (CIVED): democracy (Q A), adult citizenship (B), government responsibilities (C), trust in institutions (D), the nation and its opportunities (E-H), immigration (H), and politics (I). To what extent did you form these opinions and knowledge in adult education? Or non-formal education?	OECD - PIAAC (using reference to adult education courses) IEA - ICCES (using the reference to non-formal training courses)
(3) Learning from educational extra-curricular activities	Membership in school and extra-curricula based organisations and activities conducive to civic education	Have you participated in any extra-curricular activity (eg CIVED) Do you feel that you learnt about the following civic skills and knowledge during your course (eg CIVED)	ICCES, ESS
Domain 2 – Informal			

Education			
(4) Media Input	<p>Exposure to media conducive to developing civic awareness and participation</p> <p>Content of media contributing to active citizenship</p>	<p>How often do you follow the news in the papers, TV, radio, internet?</p> <p>How much of this news is civic or political in content?</p> <p>Has watching such news improved your civic awareness?</p>	ESS
(5) Learning from informal conversations (knowledge/attitudes)	Levels of political and civic awareness gained from informal sources (family, friends)	<p>Have you participated in political conversations with friends, family?</p> <p>Do you feel that you learnt about the following civic skills and knowledge during such conversations (eg CIVED)</p>	ESS, ICCES, Time Use Surveys (eg HETUS)
(6) Learning from involvement within informal social network	<p>Levels of political and civic awareness gained from civic activities (demonstrations, petitions, etc)</p> <p>Membership within formal voluntary or political organisations</p> <p>Participation in civic-type activities with groups and informal peers (friends, family, etc.)</p>	<p>Have you participated in any civic political activity (eg ESS/WVS)? How about joined associations?</p> <p>Do you feel that you learnt about the following civic skills and knowledge during such activity (eg CIVED)</p>	ESS, ICCES

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